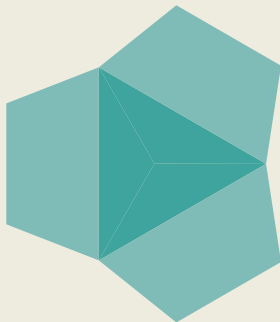
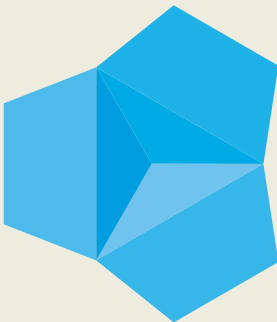
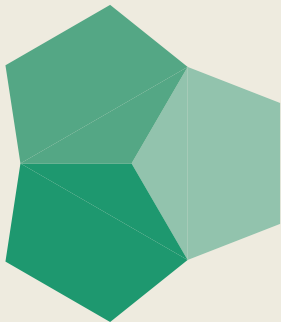
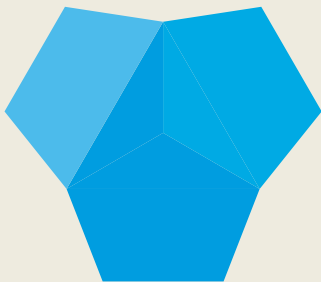
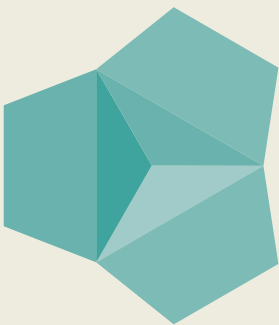
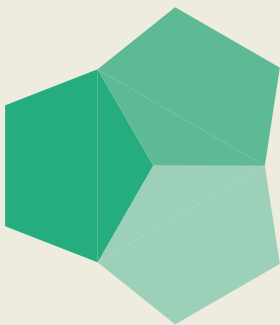


Media Innovations

A Multidisciplinary Study of Change

Edited by Tanja Storsul & Arne H. Krumsvik

NORDICOM



NORDICOM's activities are based on broad and extensive network of contacts and collaboration with members of the research community, media companies, politicians, regulators, teachers, librarians, and so forth, around the world. The activities at Nordicom are characterized by three main working areas.

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In yearbooks, newsletters and survey articles the Clearinghouse has an ambition to broaden and contextualize knowledge about children, young people and media literacy. The Clearinghouse seeks to bring together and make available insights concerning children's and young people's relations with mass media from a variety of perspectives.

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Foreword

This volume marks the start of something very important and interesting – it is the first book published in the emerging field of interdisciplinary media innovation studies. The book illustrates that in order to understand and explain current developments in the media landscape, using the lens of innovation and innovation theory adds value to media research.

The chapters are based on the best papers presented at the 1st International Symposium on Media Innovations at the University of Oslo in April 2012, hosted by the Centre of Research on Media Innovations (CeRMI) at the Department of Media and Communication. One hundred and forty scholars, editors, producers and executives from 26 countries were invited to the Norwegian capital to discuss how changing technologies, and changing modes of usage and engagement with media, bring about media innovation and the transformation of the media sector.

We are proud to launch this book at the 2nd International Symposium on Media Innovations at the Center for Studies on Media Information and Telecommunication (iMinds-SMIT) of the Vrije Universiteit Brussel. We are also pleased to note that international scholars will continue the dialogue about the current trends and challenges in print, publishing, television, film, radio, advertising, gaming and social media at the 3rd symposium on Media Innovations at the University of Oslo in the spring of 2014.

Acknowledgements

We would like to thank the fine scholars of this emerging field for choosing to publish their work in this volume, and for taking the time to develop their papers to fit the format of this book. We also thank our publisher, Ulla Carlsson at Nordicom, for believing in the project. Important parts of our academic support systems have been our research assistants Maren Hyvang Blaaid and Line Blokhuis, and our proofreader Melinda Hill. Special thanks go to our col-

FOREWORD

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Oslo, April 2013

Tanja Storsul & Arne H. Krumsvik

An Introduction

Innovation, Technology and Organisational Change

Legacy Media's Big Challenges

Lucy Küng

Innovation is a fact of life for the media industry, and it was ever thus. Historically viewed, media organisations have always needed to innovate – as indeed have organisations in all other industrial sectors. In recent decades, however, the requirement for innovation in the media industry has become both more urgent and more challenging as the pace and scope of technological advance have increased.

Innovation and technological advance are inextricably linked. Innovation is the motor of technological advance, and organisations must innovate in order to respond to this advance. In large part, media firms' current pressing imperative to innovate stems from the unceasing technological advance that has become a permanent element of their strategic environment. As a result, technology and innovation have leap-frogged up the strategic agenda in media organisations – creating in the process strategic challenges that are not always perfectly mastered.

Imperfect mastery stems from a number of factors. Firstly, although the media industry reflexively defines itself by its content-creation activities, it is as much a technology industry as a content-creating one. Yet the technologies necessary to create media process were for many years broadly stable, with change happening in bursts that were challenging to navigate but that on the whole represented surmountable obstacles.

Technology has traditionally been separate from, and subservient to, content creation. Technology has been an enabler of, not a contributor to, the generation of content. Technology was important, but the focus of attention has been fostering and applying creative skills and capabilities.

However, in recent years the barriers between content creation and technology have broken down and the fields have started to merge. Technology has become intertwined with content, and technologists with editorial processes, to a point where the two are symbiotically linked. The technical staff and engineers who were once a support function are now at the heart of creative

processes. Media firms have become technology firms, and technological skills and innovative capabilities are fast becoming as strategically significant as content capabilities – a development that executive boards need to recognise.

Traditionally, the bulk of innovation inside media organisations has been associated with content creation, and to a certain extent this will always be the case. Researchers from outside the sector are sometimes puzzled by the absence of R&D or innovation departments, not appreciating that creative activity is a fundamental part of every-day content-creation activities.

The public's appetite for arresting television drama, for captivating novels, for clarity and for informed insight about unfolding news events will not diminish. These are universal needs. But the unceasing march of technology into the heart of the media industry means that the scope of innovation has now expanded. Innovation must be applied in many more areas.

Increasingly the innovation that is critical to success in media markets involves combining content and technology. Pixar's box office success with digital animation movies was an early indicator of what can be achieved when storytelling is combined with digital technology. BuzzFeed shows what can result when viral content is combined with editorial selection algorithms.

Innovation is required in the realms of business models too. Here the challenge is perhaps more innovative recombination than pure innovation. Truly 'new to the world products and services' are rare creatures. The majority of successful business model innovations are actually combinations or re-combinations of existing elements. Thus, the media's innovative energies are perhaps best devoted to finding ways to extend existing competencies and assets in new fields, and to redeploy people, processes or products in new ways or for new markets, than to creating new into the world media concepts.

In an ideal world, innovation should bring growth. And digital technologies have brought growth. They have created new ways to reach, connect with and engage with audiences. Those audiences are engaging enthusiastically, and investing heavily in gadgets and infrastructure that allow this to take place. The established media industry has, however, found it difficult to profit from this boom.

The first challenge for incumbents is to diagnose the nature of any technological change correctly – a challenge for theoreticians as much as for practitioners. Not all technological change is the same and, critically, different changes require different organisational responses.

Incremental innovations, for example, as the name suggests, are improvements to existing processes and systems, and usually require existing capabilities to be expanded or adapted. Think of the next version of a smartphone software, or even the shift from manual to electric typewriters. Here, disruption is manageable.

Architectural innovations often involve relatively modest technological advances, but cause a cascade of fundamental shifts. Think of the impact of catch-up and on-demand television services on scheduling, on audience behaviour and on advertising revenues. Here the technological change involved is relatively easy to grasp, but its potential ramifications are far more complex.

Discontinuous innovations present the biggest challenge because they involve a break with the existing systems, processes, skills and products. They bring new factors – be they knowledge, expertise, systems or competencies – into the game, and unfortunately they can destroy existing competencies and turn strategic assets into liabilities. The recorded music industry in recent decades has experienced a series of discontinuous innovations as records were replaced by cassette tapes, then by CDs and then again by MP3 files.

Disruptive innovations are a subset of discontinuous innovations: they disrupt market structures rather than technologies. They often involve relatively simple technological advances, but they disrupt because they create new product categories that incumbents disregard because they underperform established products on the market. They fail to perceive the potential appeal of the initial products or services that are inferior to their current product offerings. However, established markets emerge from crude beginnings. New players move upmarket and grow into serious challengers. Incumbents must make late and expensive entries into the new markets. AOL was a classic disruptive innovation. When AOL for DOS was launched in 1991, it is highly unlikely that the board of Time Magazine would have been able to predict how its chat rooms and bulletin boards would eventually evolve, or foresee that in less than a decade AOL would actually merge with Time Warner. This scenario encapsulates the challenge that disruptive innovations pose. Which of the myriad developments on the horizon at any one point should we react to?

The need for innovation in the media, therefore, is pervasive. A synonym for innovation is change, and a pervasive need for innovation brings with it an inescapable, equally pervasive need for organisational change.

However, the pattern by which established organisations perceive the need to change but fail to achieve this is unfortunately also pervasive. When industries are faced with the level of discontinuous and disruptive change that the media industry has encountered in recent years, even the largest, best-resourced and best-managed firms are seldom able to avoid decline.

This results from a fundamental paradox: doing the right thing for existing markets and products can cause organisations to fail in new ones. The structures, routines, systems and processes that ensure survival and growth in stable environments, coupled with the self-identity and self-confidence that successful firms develop, can stifle the ability to change when the environment changes. Equally paradoxically, the need to optimise current operations and boost productivity often militates against being innovative and adaptive.

In the words of J.M. Keynes, the difficulty is not so much developing new ideas as escaping the old ones. With this observation, Keynes is highlighting the role of cognitive blocks in hindering change. The media industry is rife with examples of how cognition can erect hurdles to innovation – indeed part of the challenge of disruptive innovation is the challenge of perceiving how an imperfect or primitive product can become a potential threat in future years.

Organisation culture erects hurdles too. A belief that quality journalism requires excellence of expression grounded in extensive analysis might lead journalists to miss the possible contribution of social media in the field of news. And then there are the less tangible blocks – the capital investment approval processes, strategic control processes, performance metrics and so on that are part of good management but conspire to limit the ability to innovate.

Archaeologist Joseph Tainter argues that advanced societies fail exactly because they are so advanced, and that complexity is a constraint that is largely unrecognised in economic analysis. Legacy media have an opportunity to grow, but this requires innovation, which in turn requires organisational change. So far, in many cases they have been constrained by their complexity. The research described in this volume provides a multi-disciplinary overview of the range of innovation taking place, the processes by which it is being implemented, and the impact it is having. As such, it will be a welcome resource for legacy media as they approach the challenges of innovation, technology and organisational change.

Chapter 1

What is Media Innovation?

Tanja Storsul & Arne H. Krumsvik

Abstract

In order to understand and explain current developments in the media landscape, using the lens of innovation and innovation theory adds value to media research. This chapter gives a theoretical introduction to the concept of innovation. It argues that media innovations may be related to product innovation, process innovation, position innovation, paradigmatic innovation and social innovation, and that innovation may involve different degrees of novelty. The chapter also highlights key influences on innovation in the media: (1) technology, (2) market opportunities and user behaviour, (3) behaviour of competitors, (4) regulation, (5) industry norms, (6) company strategy, (7) leadership and vision, (8) organisational structure, (9) capacity and resources, and (10) culture and creativity.

Introduction

Innovation is about change.¹ Media products and services are changing. The processes of production and distribution of media are changing. The ownership and financing of media are changing. The roles of users are changing. And our ideas of media are changing. This book introduces media innovation as a field of research beyond the question of how to manage technological change.

Media researchers have always been concerned with media change – with new media, new genres and new ways of using media. Researching new media developments, their political, cultural and economic contexts, new formats and new forms of user involvement are important issues in media research. This concern with new media has, however, to a large extent not been grounded in explicit theoretical considerations about innovation.

This book argues that in order to understand and explain current developments in the media landscape, using the lens of innovation and innovation theory adds value to media research. The following chapters provide insights

from selected studies that together illustrate how a more explicit focus on innovation and innovation theory can provide new insights into and greater knowledge about how media innovations develop, the sociocultural conditions of the innovations, the role of technology, and power relations in media developments.

This may provide media researchers with better tools – not to see completely new things but to investigate aspects of new media that would otherwise not be so accessible. Marcel Proust observed that: “The real voyage of discovery consists not in seeking new landscapes but in having new eyes”. The contributions in this book show that innovation theories provide fruitful and relevant perspectives to media research.

In this chapter we will first introduce the concept of ‘innovation’. After this, we will look at two dimensions of change particularly relevant to media innovation before highlighting important influences on innovation. Finally, we outline the contributions in this book.

Innovation

Innovation is a concept with multiple meanings. In everyday language, innovation is often used as a synonym of invention, and characters like Disney’s Gyro Gearloose are the typical innovators.

In innovation literature, however, innovation and invention are typically separated as different concepts (Godø 2008; Fagerberg 2005). An invention is a new idea or a new theoretical model, while an innovation is the implementation of this invention in a market or a social setting. There is often a long time-span between an invention and an innovation. Although Leonardo da Vinci invented and made drawings of the helicopter in the 1400s, it was not until almost 500 years later that this invention was implemented into a helicopter that actually flew with people inside (Godø 2008).

Thus, as underlined by several of the contributions to this book, innovation implies introducing *something new* into the socioeconomic system. Furthermore, what is new is not necessarily an invention but more typically *new combinations* of existing ideas, competences and resources (Schumpeter 1934:43; Shtern *et al.* Chapter 15). An innovation can be based on existing technologies and off-the-shelf products. A key to understanding innovation is that existing knowledge is implemented in new contexts and that this opens up new possibilities. In Jan Fagerberg’s words:

New combinations of existing knowledge and resources, open up possibilities for new business opportunities and future innovations, and in this way set the stage for continuing change. (Fagerberg 2005:18)

One of the first major contributors of theoretical insight into innovation was Joseph Schumpeter. Inspired by Karl Marx, Schumpeter was concerned about explaining what caused long-term economic change. He contradicted established theory of the early 1900s and argued that the key driver to economic change was not primarily competition between companies in a market but innovation and new technologies that enabled new forms of competition, and thereby caused more fundamental changes in the economy (Godø 2008; Fagerberg 2005):

[I]n capitalist reality as distinguished from its textbook picture, it is not that kind of competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organization (the largest-scale unit of control for instance) – competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives (Schumpeter 1943: p.74).

Schumpeter maintained that the economy developed in cycles, since competition from innovations like new commodities, technologies or types of organisation would annihilate established companies and destroy the old established economic order. This process of creativity and innovation leading to destruction of the established order he called *creative destruction*.

Schumpeter was concerned with the impact that innovations had on the socioeconomic system. A research tradition inspired by this is the *sociocultural models*, focusing on the relation between innovations and their historic and cultural preconditions (Godø 2008). These models typically try to explain both what facilitates innovations and what impact innovations have on society and culture. Theories about the information society (Webster 1995) and the network society (Castells 1996) are linked to this tradition.

Another important approach to innovation is the economic. *Economic innovation models* are concerned with who gains from innovation, what interests are involved, how are they organised and who succeeds and who fails in the market (Godø 2008). The role of disruptive innovations (Christensen 1997) in redefining media markets and business models, and the role of user collaboration in driving innovation (Hippel 2005; Tapscot and Williams 2006), are important contributions for scholars who seek to understand and explain new developments in the media markets.

Constructivist models emphasise the innovation process itself. Focus is then shifted towards investigating what happens in the innovation processes, what is the role of technology and what are the power relations between established and new actors (Godø 2008). A leading approach among these, the actor network theory (Latour and Wolgar 1979; Callon 1986), has been used in studies of innovation in the newsroom (Domingo *et al.* 2012) and of service developments (Ihlebaek *et al.* 2012).

All these approaches to innovation are relevant in studying media-related change. But what is media innovation?

What is Media Innovation?

In order to identify important characteristics of media innovation, we will emphasise two dimensions of change also addressed in Chapter 8 (Lindmark *et al.*) and 15 (Shtern *et al.*).² The first dimension is what is changing – what aspect of media is being innovated? The second dimension is the degree of novelty – how limited or far-reaching is the innovation, and what effects does it have?

What is Changing

Media innovation can include change in several aspects of the media landscape – from the development of new media platforms, to new business models, to new ways of producing media texts.

There are many ways of conceptualising what kinds of change media innovation involve. As our starting point, we apply Francis and Bessant's (2005) four Ps of innovation. The four types of innovation identified by Francis and Bessant are: product, process, position and paradigmatic innovation (see also Shtern *et al.*, Chapter 15).

Product innovation relates to changes in the products/services offered by an organisation. In a media context, product innovation may imply the innovation of new media platforms, such as the iPad or the smartphone, or of new media services, such as web tv, Wikipedia or media apps for tablets (Krumsvik *et al.*, Chapter 6). Furthermore, it could also imply the innovation of genres and communication patterns (Liestøl, Chapter 4; Müller, Chapter 16.).

Process innovation refers to changes in the ways in which products/services are created and delivered. This includes innovation in media organisations and how they organise their activities (Bauman, Chapter 5), and also processes outside established institutions in which, for example, users are increasingly active in driving innovation (cf. Hippel 2005; Tapscot and Williams 2006).

Position innovation involves changes in how products/services are positioned or framed within particular contexts. Central features of innovative product positioning are the “management of identities, through advertising, marketing, media, packaging and the manipulation of various signals” (Francis and Bessant 2005). Media companies who reposition their brand, product or services are engaging in position innovation. Typical examples would be a magazine repositioning itself for a new target audience, or how the BBC in the 1990s repositioned itself as a global media corporation (Francis and Bessant 2005).

Paradigmatic innovation includes changes in an organisation's mindset, values and business models. When the music industry shifted from CD sales to streaming services, this represented a paradigmatic innovation. The newspaper industry is in a similar process, where focus is no longer primarily on print but increasingly on online services. Media companies are ever more committed in their search for sustainable business models for online services.

The four Ps are developed for understanding innovation in economic entities. However, they can also be used to understand innovation for non-economic purposes. Collaborative initiatives, such as Linux or Wikipedia, are examples of product innovations developed through collaborative processes (process innovation) that involve changes in mindset as to how services can be developed (paradigmatic innovation).

Nevertheless, the four Ps are not sufficient for describing all kinds of media innovation. The innovative use of media and communication services for social purposes does not necessarily imply new product or services, but could also concern using existing services or products creatively to promote social objectives. We therefore add *social innovation* as a fifth type of innovation in order to conceptualise media innovation. Social innovation is innovation that meets social needs and improves people's lives (Mulgan *et al.* 2007). This includes new ways of using media services for social ends (Ní Bhroins, Chapter 14).

Thus, media innovation includes four Ps and one S: Product innovation, Process innovation, Position innovation, Paradigmatic innovation and Social innovation.

Degree of Novelty

One issue of debate is how new something must be in order to be an innovation. What is simply product development or reorganisation, and what should be characterised as an innovation? This is discussed by Dogruel (Chapter 2) who proposes that a useful starting point would be to say that an innovation is more than a new film or another magazine. It must have some kind of additional impact, economically or socially, to be called an innovation.

These innovations can be gradual improvements or they can be more fundamental. Many terms have been used to describe this dimension. In the Schumpeterian tradition, incremental versus radical innovation is often presented as a main dichotomy. Incremental innovation refers to gradual improvements where one innovation builds on another. Radical innovation, on the other hand, includes innovations with far-reaching consequences that may change the economy through creative destruction (Schumpeter 1943). Similarly, but with a different emphasis, Clayton Christensen (1997) has coined the concepts "sustaining and disruptive innovations" in which disruptive innovation is one particular kind of radical innovation. He argues that "Products based on dis-

ruptive technologies are typically cheaper, simpler, smaller, and, frequently, more convenient to use” (Christensen 1997:xv). Even if disruptive technologies initially underperform compared to established products in the mainstream market, they may end up actually becoming the mainstream market (Krumsvik *et al.*, Chapter 6).

In the media, as in other settings, most innovations are incremental or sustaining. They involve small changes of products or processes that do not challenge the economy or the logic of the media market. Some innovations, however, have more far-reaching consequences. The Internet, and ways in which the Internet has been used, are good examples of disruptive or potentially disruptive innovations. Music streaming has changed music markets. Google and Facebook challenge advertising income in the news industry. Television is increasingly moving in the direction of niche products and on demand. This is an important part of the setting, where the existing media industry knows that the rules of the game are changing, and in order to survive they must innovate their products, processes, positions or even their paradigms.

Influences on Media Innovations

Shtern *et al.* (Chapter 15) discuss the risk of downplaying the dynamisms of, and among, the cognitive, cultural, organisational, political and social factors characterising processes of change. They highlight that “any effort at understanding innovation in digital media services must be sensitive to the abilities of individuals to alter the trajectories of these technologies, whether by design or default, given that decisions about systems architecture are both technical and sociopolitical.”

Thus, we need to investigate key influences on innovations in the media. Internal and exogenous influences of such innovations are many and include: (1) technology, (2) market opportunities and user behaviour, (3) behaviour of competitors, (4) regulation, (5) industry norms, (6) company strategy, (7) leadership and vision, (8) organisational structure, (9) capacity and resources, and (10) culture and creativity.³ Even if these influences are traditionally discussed within a commercial setting on how innovation takes place in companies, they are also relevant for innovation in non-commercial settings such as social innovation.

Technology and innovation are inextricably linked. In the preface to this book, Lucy Küng points out how innovation is the motor of technological advancement and draws attention to the need for media organisations to innovate in order to respond to technological advancement. In Chapter 2, Dogruel identifies a research stream within media management, viewing technological influence factors as first and foremost threatening for existing media structures. Technological change opens new opportunities in the media industry and leads

to new products and services. At the same time, it also takes away business models disrupted by new technology, and it gives opportunities for users to engage in media production and sharing outside established media companies.

Market opportunities and user behaviour enabled by technological advance have a tendency to be resisted or ignored by the traditional media industry, resulting in disruptive innovations from outsiders. The development of CNN and MTV are commonly used as examples of how newcomers exploited the potential of new technology, while the incumbent television industry was unable to develop new business based on satellite and cable technology. The outsiders were able to frame change as a business opportunity rather than in terms of potential damage to existing businesses. Küng (2008) also notes that Apple, not as a start-up company but rather as an outsider, was the first organisation to find a commercially successful answer to the digital downloading of music.

The behaviour of competitors may induce media organisations to innovate both products and services, and the way these are produced and distributed. The rapid development of online newspapers in 1995 represents a case where “fear, uncertainty and doubt”, according to Caruso (1997), were the most important driving forces for the news businesses when they plunged into the online adventure without established business models to refer to. The change of format from paper editions is another example of contagious innovations (Bakker, Chapter 10).

Regulation of the media industries includes subsidies, ownership limitations, licensing and direct state involvement in the form of public service broadcasting ownership. In Europe, newspapers receive indirect state support through reduced or zero value added tax (VAT) on subscriptions, while the full rate is added to the sale of digital media. This legal framework constitutes a major barrier for innovation of paper/digital bundled revenue models (Krumsvik 2012). Doyle (Chapter 7) asks whether the policy environment in broadcasting industries is fully attuned to facilitating the innovative use of digital infrastructures. However, one example of the positive impact of policy on new media development could be the South Korean government giving computer-game programmers military service exemption.

Industry norms may define the scope of innovations in the media industries. Journalistic norms imply a church and state separation between commerce and journalism, with implications for the influence of commercial considerations in operations as well as in the development of new products and services. This form of organisational wall may also define the competences of personnel involved in innovation processes, as editorial departments tend to lead product development. To safeguard the norms of journalism, the ownership of media companies is sometimes organised as trusts. Research has found these kinds of media organisations, with their defensive measures against market influence, to be less innovative than conventional media companies (Brink Lund, 2002).

Company strategy reflects the media organisations' approach towards innovation. Miles and Snow (2003[1978]) identified four types of adaptation to change: *Defenders* devote primary attention to improving the efficiency of their existing operations. *Prospectors* continually search for market opportunities, and experiment with potential responses to emerging trends. *Analysers* operate in two types of markets: one relatively stable, the other changing. In their stable areas, these organisations operate routinely and efficiently through the use of formalised structures and processes. In their more turbulent areas, they watch their competitors closely for new ideas and then rapidly adapt those which appear to be most promising. *Reactors* perceive change and uncertainty occurring in their organisational environments but are not able to respond effectively.

Leadership and vision involves the strength of the top executive and his or her vision for the company, which may extend beyond the official strategy approved by the board. According to agency theory, the executive may have goals and desire for the development of the corporation "that provide personal rewards, not merely benefits to the company and its owners" (Picard 2005). The late Apple CEO Steve Jobs could be an example of the visionary innovating number one. On the other hand, Krumsvik *et al.* (Chapter 6) identify a strong correlation between executive attitude and type of ownership. Outside the established industry there are networks of collaborators – for example, Linus Thorvalds was a principal force for developing the Linux kernel. Similarly, Jimmy Wales and Larry Sanger co-founded Wikipedia, a free collaborative online encyclopaedia with more than 100,000 contributors.⁴

Organisational structure relates to how the media company is organised, and whether it operates as an integrated company or with separate independent business units. Christensen (1997) argues that incumbents will in most cases fail when attempting to capitalise on a disruptive technology unless the new initiative is granted autonomy. This can be done in three ways: (1) spinning off an independent company – a model used by major newspapers; (2) creating a new organisational structure with teams physically located together and with personal responsibility for the success of the new project – an option used by BBC Online; or (3) acquiring an organisation that meets the requirements of the new task. Gilbert (2002), studying US newspapers choosing the first option, found that the prime benefit of online autonomy was framing, viewing the Internet as an opportunity and avoiding the *threat rigidity syndrome*. Domingo *et al.* (2012), Boczkowski (2004) and several other researchers have found similar effects of autonomy in new media development. A key issue is to avoid internal pressures created by social *inertia*, the resistance to change usually due to habit. Similarly, the networked structure of initiatives such as Wikipedia and Linux, and of social innovation processes, facilitates both collaborative and autonomous innovation by users (Niamh Ní Bhroin, Chapter 14).

The capacity and resources of the editorial, production and distribution competences of a media organisation affect its ability for innovation. Historically, many newspapers were developed by book publishers with excess printing capacity. In latter years, the digital distribution of television has enabled the development of product portfolios in the broadcasting industry and the disruptive change of rolling news (Konow, Lund and Puijk 2012).

Culture and creativity represent a change-oriented perspective in media production studies, inspired by the idea of the duality of structure (Nygren 2008). Studies of major broadcasting organisations, i.e. CNN, BBC and NRK (the Norwegian Broadcasting Corporation), demonstrated how company culture plays an important role, as their core products and competitive strengths are deeply rooted in the inner beliefs common to those working there (Küng 2000; Krumsvik 2009). A Swedish study of three regional newspaper newsrooms identified both a common news culture and specific local cultures affecting the production of journalism (Löfgren Nilsson 1999). The shared unconscious assumptions of members of an organisation can result in inertia and can represent a hindrance to change, at the same time as the culture of a company or network can also facilitate creativity and innovation.

Organisation of this Book

This book is organised into three sections: I. Concepts, II. Structure and Management, and III. Services and Users.

I. Concepts

In the first section, we investigate the basic concepts in research on media innovation. Media research has paid little attention to innovation and innovation theory, and we need to develop theoretical understandings of key concepts relevant to media innovation. This chapter gives an overview of some important dimensions and traditions. The following chapters will provide more in-depth explorations of important key concepts in studying media innovation.

In the first chapter of this section, *Dogruel* addresses the lack of a shared understanding of the concept of media innovation. She discusses prevalent concepts of media innovation in research on media economics, media management and media change. Using this as her analytical starting point, she develops a framework for an integrative understanding of the concept which emphasises the interactions between technological, economic and social dimensions.

Steensen is more concerned with developing concepts that enable an enhanced understanding of how innovation occurs. He argues that the complexity of media

development is best understood if the perspective embedded in the discourse of innovation and change is balanced with two counter-discursive perspectives: a *transformation* perspective and a *practice* perspective. The transformation perspective draws attention to historical developments and points to the importance of genres and thus the social function of media texts to media development. The practice perspective stresses the importance of micro-sociological relations, such as journalists' performance in the newsroom, to media development.

Liestøl explores methodological strategies and tactics for conducting humanities-informed innovation in digital media design, by means of both practical development and theoretical reflection. These investigations are based on experiments with "sensory media": smartphones and tablets that integrate hardware sensors for positioning, orientation and movement. Modern interpretations and perspectives on classical rhetoric as an architectonic productive art serve as places (topoi) to find a framework for methodological invention. This is offered as part of an emergent and developmental design-centred approach for building a digital humanities that is a mix of code and culture, text and interpretation, that is nonetheless mediational in means and innovative in articulation.

II. *Structure and Management*

The second section of the book concerns structural aspects of media innovation. It involves issues of media management and ownership, and also addresses how policy provides a structural framework for innovation.

In the first chapter in this section, *Baumann* addresses challenges in management and organisational design. She argues that the ability for continuous innovation regarding products and services as well as adequate organisational design are becoming strategic denominators and competitive advantages. Although there is no generally strategically optimal organisational design, a number of necessary developments can be observed: smaller and more flexible organisation architectures, modularisation, decentralisation, partly autonomous units and market orientation.

One aspect of organisational design and management is ownership. *Krumsvik*, *Skogerbo* and *Storsul* analyse the relationship between size and ownership of newspapers and their approaches to tablets. They find ownership to be an important indicator of a newspaper's approach towards service innovation. In fact, only newspapers owned by media groups have plans for iPad apps. These newspapers are in general more active and optimistic towards new media development. The authors explain these differences by referring to two types of resources provided by media groups: analytical capabilities and capabilities to enhance joint product development.

Other structural conditions for media innovations are policy and regulations. Building on an analysis of innovation in multiplatform scheduling strategies

in television broadcasting, *Gillian Doyle* reflects on the general role of public policies in promoting innovation in and across media industries. She puts special emphasis on copyright protection, and discusses to what degree copyright protection may impose a restriction on creativity.

Lindmark, Ranaivoson, Donders and *Ballon* also focus on policy. Their chapter assesses the impact of innovation policies in the media sector. Focusing on innovation in Flemish broadcasting, the chapter combines insights from generic studies on the assessment of innovation policy with a conceptualisation of innovation in the media industries. Their research confirms that there is an underlying conflict between the short-term profit-maximising interests of the stakeholders of the media industry and what should be the longer-term interests of policy-makers.

In the last chapter of this section, *Lomborg* and *Helles* examine how regulatory practice affects the scope for digital business innovation with an emphasis on the storage and use of personal data. They analyse how the regulatory practice concerning personal data has developed over the past decade and observe that the archiving of personal data for commercial purposes has not given rise to new regulatory action and innovation.

III. Services and Users

The third section of the book concerns the services developed and the new roles of users. The first three chapters investigate product and service innovations, their success, how they challenge the management of media companies, and how new media products are repositioned to attract advertisers.

Looking at the established newspaper industry, *Bakker* maps innovations in newspaper products and services over the past 15 years. He investigates e-editions, format changes, flexible subscription models and new print products, and assesses the degree to which they have had a positive impact on circulation or revenue. Bakker's findings underline that there is not 'one solution' in newspaper innovation – developing various models at the same time seems to be preferable.

Davis is concerned with new kinds of media products and investigates the innovation of 'transmedia' products. This, he argues, is becoming an increasingly important management challenge to media companies, requiring not only new storytelling conventions and aesthetics but also complementary innovation in business models, production processes, tactics to induce audience engagement and retention, market feedback mechanisms and analytics, and audience literacy.

Jennes and *Pierson* look at the role of advertising in the television sector and explore the possibilities and challenges digital television offers advertisers. They find that the strengths associated with television advertising are mainly related more to analogue viewing models, while the weaknesses are linked to

the transition to digital television. Television is still an important advertising medium, but since audiences are increasingly using different media, advertisers must increase the possibility of reaching the consumer.

The next three chapters concern various aspects of user-driven innovation. We will see how users change media services, what motivates users to participate in innovation, and the role of the historic context.

Nicey examines a participatory news agency. He shows how the agency changes journalistic routines and reactivates fundamental journalistic principles. Nicey argues that participatory news agencies do not position themselves as competitors but as innovators. Consequently, the practices of digital news actors are an opportunity to traditional modes of journalism.

Ní Bhroin examines socially innovative practices of individual minority language users in social media. She argues that collaboration – whether to achieve an articulated shared goal or to create shared products or services – is not central to these practices. This category of innovation is therefore referred to as ‘autonomous social innovation’. She analyses the motivations driving such practices by building on understandings of motivations as outlined in self-determination theories and theories of collaborative innovation.

Sbthern, Pare, Ross and Dick argue that the role of history may matter more than current models of innovations allow for. They therefore coin the concept historiographic innovation. Through an analysis of the Federated Social Web initiative, the authors argue that historiographic innovation draws attention to both technological progress, and the process in which innovators make choices about the specific, collected, historically-rooted knowledges and histories they draw upon.

In the last paper of the book, *Müller* presents a model for working with and researching media and genres and technology. He argues that digital media are often black-boxed in media studies. Müller aims to combine a model of digital media – a technological platform – with modern genre theory in order to facilitate analyses of how genre change and how the emergence of new genres relate to underlying technological change and innovation.

A Fruitful Lens

The field of media studies has been dominated by the overarching traditions of political economy and cultural studies, and this has created heated debate as to whether “the economic determinants at work” or “the cultural discourses at play” should be given the explanatory emphasis (Cottle 2003; Ytreberg 1999).

The contributions in this book offer a broader perspective, and provide new insights into and greater knowledge about what characterises media innova-

tion, how media innovation develops and under what structural conditions, and what the current trends in service development and user involvement are.

The lens of innovation theory is a valuable tool for understanding current developments in the media landscape, the sociocultural conditions of the innovations, the role of technology, and power relations in media development.

Notes

1. Latin *innovare*: to change.
2. Lindmark *et al.* (Chapter 8) also propose temporal aspects as an additional dimension. This dimension involves the maturity of the innovation and how close the innovation is to the market.
3. This section of the discussion is in part inspired by factors influencing the type of product portfolios established by media companies, identified by Picard (2005).
4. <http://en.wikipedia.org/wiki/Wikipedia>.

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I. Concepts

Chapter 2

Opening the Black Box

The Conceptualising of Media Innovation

Leyla Dogruel

Abstract

In recent years, the analysis of media innovation has gained considerable attention from media management and media economics scholars. This chapter gives an overview of the current understandings of media innovation in the field of media management and media economics. This literature review highlights a diverse and inconsistent way of describing media innovation. As a consequence, the chapter proposes a new framework on how to approach media innovation as an object of research. By referring to economics as well as to sociological innovation literature and studies from a creative industry perspective, a multi-dimensional concept of media innovation is derived that characterises media innovation based on interactions between technological, economic and social dimensions.

Introduction

In recent years, media innovation research has received increasing attention. Media economics scholars have started to explore related areas, and studies on media innovation have developed into “one of the most critical areas of research for the field of media management and economics” (Mierzejewska and Hollifield 2006:48; similarly Mierzejewska 2011:19). Scholars interested in studying change processes in the media sector in general increasingly refer to the innovation concept (cf. Sylvie and Weiss 2012). Despite the growing attribution of relevance to innovation research within the media industry, scholars have been slow in approaching this research object. Even though over the last few years empirical research on media innovation has become more popular, recent publications still describe media innovation research as an academic gap (cf. Fröhlich 2010:23; Küng 2008:11). This might be due to the fact that theoretical reflections on media innovation as an object of media management and media change research remain marginal in contrast to empirical investigations

of media innovation. However, this may become a problem in interlinking different approaches towards studying media innovation. Therefore, this chapter concentrates on the conceptualisation of media innovation since no shared understanding of media innovation has yet been established.

Taking a theoretical perspective, this chapter discusses the prevalent concepts of media innovation in media economics and media management as well as media change related contributions, and proposes a new framework for an integrative understanding of the object. Taking a three-fold approach, the chapter combines approaches from media management research with innovation theory. Firstly, it discusses the various understandings of media innovation in the field of media economics and studies that address media change aspects, and derives a classification of existing perspectives. Secondly, it extends this referential frame by providing an elaboration of related approaches from creative-industry literature and economics as well as from sociological innovation theory. Thirdly, it combines the specifics of media innovation with approaches from innovation studies and derives a new framework of how to approach media innovation, which emphasises the interactions between technological, economic and social dimensions.

Addressing Media Innovation in Media Management and Media Change Related Research

Media innovation is mainly dealt with from two distinct perspectives: One research tradition addresses media innovation as new communication technologies (especially ICT) that “challenge” existing structures within the media sector and “force” media organisations to make use of their potential (cf. Küng 2008:8; 2007:26). In this context media innovation is characterised as external influence factors that trigger changes in business models or organisational structures (Albarran 2010:62, 85ff.). Küng describes the adaptation to changing technology as a core challenge for the media industry, and emphasises change processes as a crucial facet of organisational life (Küng 2011:44, 53). The Internet, interactive devices and mobile communication serve as examples of technological innovations that unfold a “disruptive” potential to transform existing structures of the media industry (see Mierzewska 2011). The music or publishing industry may illustrate this process (e.g. Dolata 2011, 2009; Handke 2008; Leyshon *et al.* 2005) but the influence of Internet-related innovations on journalism serves as an example as well (e.g. Gade and Raviola 2009). The second approach uses media innovation as a term to describe new media products. This research mainly focuses on new media content such as new media titles (new films, books) or formats (new magazines, TV formats) (cf. Habann 2008; Lobigs and Siegert 2008). Only a few publications apply a process

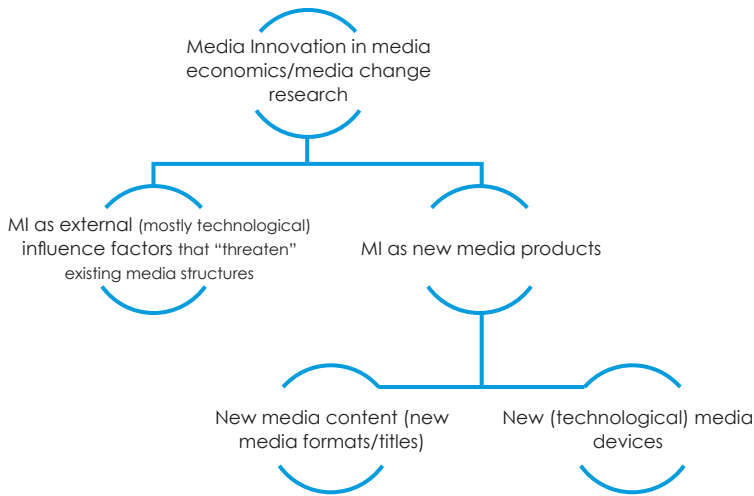
perspective to media innovation, treating it as a process of transforming new ideas into widely used practice (Dal Zotto and Kranenburg 2008). However, this dualistic understanding of new technologies and new media content as media innovation lacks a clear distinction of the factors which constitute new media phenomena as innovation.

Only a few attempts to categorise media products as innovations can be identified. Rimscha (2007) analyses PVRs (personal video recorders) as a disruptive innovation for both advertisers and media consumers. While the PVR constitutes a process innovation for advertisers because it allows a personalisation of commercials, it represents a product innovation to the consumer market. The disruptive potential of the PVR results from the required activity during media reception; it changes established viewing routines. A similar approach with a more abstract outline on ICT innovations in general is carried out by Latzer (2009). Based on the concepts of disruptive and radical innovation, the author aims to assess the impact of different ICT innovations. In his elaboration of the concepts, he concludes that their applicability is rather limited for innovations in the telecommunication and information technology sector. Furthermore, studies that focus on the analysis of new technological media products as innovation mainly build on diffusion and adoption theory. A study by Clement (2000), for example, refers to acceptance and diffusion theory to explain and predict the use of interactive television. Interactive television can be characterised as a network-effects good and thus, he concludes, it represents a risky media innovation concerning adoption and acceptance among potential consumers.

In contrast to the approaches that focus on media technology as innovation, studies that address media content discuss different aspects. A basic classification of media products distinguishes between new media content in continuous-creation products that demand an ongoing production of changing content (e.g. a new television format, a new magazine) and single-creation products based on a unique creation (e.g. a new book, film, video game) (Dal Zotto and Kranenburg 2008). Referring to continuous media innovations, Lobigs and Siegert (2008) discuss media formats as important innovation strategies for mass media markets because they potentially lower the economic risks of media production. They further highlight the relevance of intellectual property rights (IPR) to protect first-mover advantages as important innovation stimuli in media markets. Habann (2009, 2008) also focuses on media products as media innovation. He defines periodic media innovation as “a new media product that is introduced as a new brand in the user and advertising market and is published or broadcasted with renewed content in regular intervals” (Habann 2009:6). Theoretically, his work refers to new product development (NPD) theory and success factors for innovations. His results indicate that the acceptance of advertising clients and an integration of potential media consumers in the development process are crucial for the success of periodic media products.

A strong project leader and an ongoing experimentation phase following the market launch are highlighted as organisational influence factors. However, these studies lack a convincing discussion on what constitutes a media innovation in contrast to minor changes in media products.

Figure 1. Media Innovation in Media Economics and Management Research Traditions



In summary, three differing concepts of media innovation were found (see Figure 1): One approach discusses media innovation as an “external”, mainly technical product or process innovation that “demands” change in media organisations – applying a more or less implicit techno-deterministic position. A second field of study analyses new technological devices as new media consumer products, predominantly focusing on adoption and diffusion theory. Here, media economics scholars focus on media technologies (cf. interactive television, Internet, smartphones) but also on new media standards such as DVD (Sedman 1998) or broadband (Rao 2001). In line with the literature on creative/cultural industries (see below), a third set of research considers new media content (media formats, single media titles) as media innovation – often related to marketing-oriented approaches. Given this lack of a shared understanding of media innovation (research), possible benefits resulting from an integration of the different approaches and their results remain unexplored.

Elaborating on a Framework of How to Define Media Innovation

The following section elaborates on the shortcomings identified above by discussing related research perspectives which offer useful approaches to addressing the specifics of media innovation. With respect to the extensive literature on innovation theory in general (for an overview see Hall and Rosenberg 2010; Fagerberg *et al.* 2005; Shavinina 2003), it is necessary to select approaches according to the several deficits noted. As a first step, related concepts towards approaching media as innovation are discussed. In order to overcome the partly technocentric understanding of media innovation, research on creative and cultural industries provides some insights into how to shift the focus from technological innovation. However, these approaches do not appropriately address the characteristics of media innovation. Given the need for more interdisciplinary research perspectives in media economics and management (Albarran 2010:178), sociological and economic frameworks to study innovation phenomena offer promising approaches to examine the duality of media innovation in the light of their economic and societal implications. Thus, economic approaches to innovation as well as social-innovation and techno-sociological approaches are seen as worthwhile extensions.

Approaching Innovation from a Creative/Cultural Industries Perspective

For economic perspectives on innovation, critical discussions refer to a bias concerning the dominance of SET- (science, engineering and technology) or TPP- (technological product and process innovation) based research (cf. Stoneman 2010; Jaaniste 2009; Müller *et al.* 2009; Handke 2008; Throsby 2001; Caves 2000). In contrast to technological product and process innovations, contributions that focus on creative and cultural industries apply competing innovation concepts. They draw attention to the necessity of establishing alternative innovation measures to represent the innovative performance of players in creative sectors. While R&D expenditure and patents are common measures for the innovation activity in manufacturing industries, applying these parameters to creative or service industries leads to deflating results as these measures privilege a narrow “technological” concept of innovation. Given that cultural/creative products primarily serve aesthetic as well as educational and entertainment purposes rather than featuring a “technical function”, they are largely overlooked by such an objective quantitative innovation measurement (Throsby 2001:4f.). Abreu *et al.* (2010) introduce the notion of “hidden innovation” for innovation activities that are not recognised because of inadequate measurements. Based on an analysis of service innovations, it was demonstrated that innovation activities are underestimated when metrics based on R&D and

patents are applied. As the media industry is part of the creative sector (Bilton 2011; Deuze and Steward 2011; Stoneman 2010) this problem also applies to the innovation activities of media organisations. These innovation activities focus predominantly on creative work which is not organised in traditional R&D departments. Furthermore, new media products mainly fall in the intellectual-property category, which implies the protection of these products and services by copyrights, design rights or trademarks (see Stoneman 2010). Other than the TPP innovation concept, recent works on creative/cultural industries introduced alternative innovation concepts in order to improve the measurement of “hidden innovations” – Jaaniste (2009) proposes the term CPP (cultural product and process) innovation while Stoneman (2010) introduces the notion of “soft innovation” to cover all “innovation in goods and services that primarily impacts upon aesthetic or intellectual appeal rather than functional performance” (Stoneman 2010:22; similarly Throsby 2001:4). Schweizer (2003) emphasises the aesthetic aspects of innovation, using the term “stylistic innovation”. With the application of an alternative understanding of innovation for cultural and creative industries, authors show that creative industries are among the most innovative sectors in a given economy (cf. Müller *et al.* 2009).

Even though these concepts suggest alternatives to the “traditional” type of innovations, the “creative” innovation concept comes with new limitations by exclusively studying intellectual property as innovation. Broadening its application towards new content as innovation would mainly classify new media titles as innovation. For Stoneman (2010) all new media products (books, music, film titles and video games) represent innovations. However, this perspective overlooks two central characteristics of the media industry: Firstly, the production of media is *per se* characterised by a continuous need for newness (Turow 1992:184). Due to the fact that media products are time elastic, the majority of media products are characterised by a very short product life-cycle (Vogel 2003). While this is obvious for information goods, it holds also true for entertainment products such as films, music and books. For the formulation of a media innovation concept, this poses the problem of how to define innovativeness for media products, as Caves (2000:202) illustrates: “[t]he nature of innovation in creative activities is [...] blurred by the fact that any creative product that does not just replicate can be defined as an innovation”. Media products are subject to a constant process of de- and re-evaluation that makes it impossible to build an innovation concept exclusively upon media content. As a consequence, media innovations have thus to be distinguished from routinely produced media products.

Secondly, focusing on content would be insufficient for media innovation as media are characterised by a close link between intangible parts (mostly media content but also organisational aspects) and technology. Caves (2000) points out that innovation in cultural industries consists of creative parts and

“humdrum” inputs that cover the (traditional) technical, organisational and administrative aspects of innovation. The synthesis of creative, technical and organisational parts can thus be identified as a central characteristic of media innovations. With regard to the record industry, Handke (2005:7) states: “In this way, it [the record industry] stands with one leg in a high-tech manufacturing industry and with another in a most peculiar sub-set of the service sector, the cultural industries”. This holds particularly true for convergence processes (cf. Wirth 2006; Killebrew 2005) that lead to blurring lines between media sectors, content and platforms.

Applying the innovation concept from approaches designed for the cultural/creative industry would thus neglect the specific characteristics of media innovation and enable an analysis only of certain parts of the innovative activity in the media industry. However, broadening this media innovation concept towards an understanding of media as an interaction of “creative and humdrum parts” requires a revision of the definition of the core object in media economics research. Until now, media economics handbooks congruently refer to media content as media goods (for example, Albarran 2010:3; Doyle 2006:52; Mierzejewska and Hollifield 2006:40).

Analyzing Innovation from Economic and Sociological Perspectives

It could be argued that taking a closer look at “classic” economic innovation literature may reveal a sound understanding of innovation. Indeed, when referring to innovation scholars, rather broad, non-techno deterministic concepts are derived. Schumpeter’s (1934) definition of innovation as a new combination of production factors (invention) including their economic exploitation (innovation) serves as a starting point. Subsequent scholars have elaborated on his rather broad definition of innovation but turned away from the production-factor focus. Nelson and Winter (1982:130), for example, describe innovations as new combinations of existing routines (seen as dominant patterns of action), while Edquist (1997:1) refers to innovations as “new creations of economic significance of either a tangible or intangible nature”. These definitions avoid applying the term “innovation” to mainly technological objects. They extend the focus towards an integration of both product and process and the perception of tangible (artifact) and intangible phenomena as innovation. However, a too broad innovation concept does not help to develop a concept for the special case of media innovation.

Upon closer examination of innovation definitions, core aspects of innovation can be identified. The definitions cited above all define “newness” as an essential characteristic of innovation. In recent literature there is also a consensus that newness is a core element in defining innovation phenomena (cf. OECD

2005, Johanessen *et al.* 2001, Cobbenhagen 2000). However, one should note that “newness” is a relational attribute that demands clarification (cf. new to whom).¹ A second attribute of innovation is related to the classification of innovation as an object of economic relevance: “An innovation in the economic sense is accomplished only with the first commercial transaction involving the new product, process system or device” (Freeman and Soete 1997:6; similarly Fagerberg 2005:4; Brown and Ulijn 2004:2).² Schumpeter (1934) emphasised the economic exploitation of the “new” as an important distinction from inventions as simply “new ideas”. Recent innovation concepts also build on this criterion.

A third attribute of innovation is its process character: “Innovation is a process of turning opportunity into new ideas and of putting these into widely used practice” (Tidd *et al.* 2005:66). Innovation thus encompasses both the process of exploring (developing) as well as the (economic) exploitation of ideas. The process tradition has meanwhile moved away from early linear concepts (such as the technology-push and demand-pull model) to interactive models (cf. Marinova and Phillimore 2003). Introducing their chain-linked model of innovation, Kline and Rosenberg (1986) state that:

[...] it is a serious mistake to treat an innovation as if it were a well-defined, homogenous thing that could be identified as entering the economy at a precise date – or becoming available at a precise point in time. [...]. The fact is that most important innovations go through rather drastic changes over their lifetimes – changes that may, and often do, totally transform their economic significance. The subsequent improvements in an invention after its first introduction may be vastly more important, economically, than the initial availability of the invention in its original form (Kline/Rosenberg 1986:283).

For this reason their model includes “feedback loops” to represent the dynamic character of innovation and to consider that new knowledge can spread throughout the whole innovation process. Based on these authors, three significant aspects of innovation processes can be accentuated: innovation is not a sequential process but (1) includes interaction and feedback (2) should be studied as an on-going process of problem solving (learning), and (3) is not limited to the domain of R&D (*ibid.*: 302ff; similarly Unger 2005:25). In close connection to the classification of innovation as a complex, cyclic process, the need to understand innovation processes apart from organisational boundaries as a collective process that incorporates different (also external) actors becomes obvious (Ulijn and Brown 2004:3).³

These three attributes of innovation extracted from economic innovation theory – namely newness, economic exploitation and the process character of innovation – offer a first basis for deriving a concept of media innovation. However, the specific features of media innovation with both its economic and its societal implications, and the close link between tangible and intangible ele-

ments at a product level, remain unconsidered. Related sociological approaches towards innovation may help to approach these aspects.

Innovation in Sociological Innovation Theory

Recently, the concept of social innovation as an alternative to the dominating technical and economic notions has received growing attention (Roth 2009; Murray *et al.* 2008; Gillwald 2000). In contrast to early concepts of social innovation such as the cultural-lag hypothesis by Ogburn (1957) that implicitly promoted techno-determinism, recent approaches stress the close connection between technical and social innovation (cf. Tuomi 2002:215).

Without examining the varying understandings of social innovations, they are similarly characterised by a notion of “newness” and their reference to a degree of “social impact”. Murray *et al.* (2010:3), for example, define social innovation as “new ideas (products, services and models) that simultaneously meet social needs and create new relationships or collaborations. In other words, they are innovations that are both good for society and enhance society’s capacity to act.” Apart from normative references, the reconfiguration of social practices is a key aspect of social innovation concepts (Mumford and Moertl 2003:261). In the same way as economists see “exploitation” as a criterion for innovation, Gillwald (2000:1) adds the notions of “constancy” and “societal consequences” as decisive attributes to social innovation. The consequences of social innovation can be assigned to different rationalities such as cultural, political and social as well as to economic impacts (efficiency). Literature on social innovation points out that innovation can thus be differentiated according to the different societal references it affects. This systematisation provides a promising approach towards covering both media innovation’s economic and societal consequences.

In line with recent criticism (cf. Moldaschl 2010), this chapter does not promote a strict dichotomy between “social”, “technical” or “economic” innovation. Instead, it aims to combine elements from all three perspectives to describe media innovation appropriately. Combining the different characteristics of innovation from economic and sociological approaches, media innovation is characterised by four constitutive attributes: *Newness* (1) is a relational characteristic that needs to be defined further with respect to the specific context (e.g. new to the firm, the market, the single consumer). *Economic or societal exploitation* (2) characterises media innovation as economic objects and involves the implementation of an innovation into the market (product innovation) or organisation (process innovation). With respect to product innovations, this implies that related business models have to be developed, and it includes economic effects on both the innovating firm and the market (cf. stronger competition) that contribute to the transformative potential of media innovations.

Furthermore, with regard to the classification of media as both an economic and a social innovation, a societal exploitation can also be distinguished in some media innovation (e.g. Wikipedia, and Twitter in its beginnings). Sociological studies add that media innovation also impacts on society's communicative capacity. For this reason, their impact cannot be limited to economic values but has to alter to different societal rationalities. In the case of media innovations, their impact should be bound to *communicative implications* (3) meaning that media innovation impacts on how individual (micro), organisational (meso) and/or societal communications processes are performed. Furthermore, the necessity to treat innovation as a *complex social process* (4) that includes the development, implementation and resulting impacts of an innovation is outlined.

Discussion

With respect to the growing relevance ascribed to innovation by both the media industry and media management scholars and researchers addressing media change processes, this chapter analysed existing theoretical concepts of media innovation. As a result, a multiplicative but inconsistent strategy to study innovation was identified. The prevalent dualistic concept of studying either technological media products or intangible media content (new media titles, new formats) as innovation was assigned as a deficient approach. A second research tradition is oriented towards studying (technological) media innovation as process innovations that lead to transformation processes in the media industry but follow an (at least) implicit techno-deterministic perspective. These competing understandings of media innovation limit the possible benefits of integrating innovation studies in media management and media economics.

By elaborating on these shortcomings, a new framework for conceptualising media innovation was derived. At first, innovation concepts developed in related fields, namely cultural-industry and creative-industry literature, were discussed. However, these innovation concepts cannot entirely address the specifics of media innovation with its (media content-sided) continuous quest for newness and the close interaction of creative and "traditional" parts of media innovation such as technological, organisational and administrative aspects. Referring to innovation theory, rather broad understandings of innovation were found. However, the challenge to find a concept for the special case of media innovation requires not building upon a "theory of everything" (Moldaschl 2010). Promoting a too-broad concept of innovation would lead to analysing every variation as innovation. Instead, a media innovation concept has to consider the specifics of media and allow media innovation to be separated from other (technical, social) types of innovation. Given this premise, four characteristics of media innovation were derived.

“Innovation isn’t a single event like the light bulb going off above a cartoon character’s head” (Bessant and Tidd 2007:28).

Referring to economic and sociological innovation research, newness (1), economic or societal exploitation (2), communicative implications (3) and a complex social process (4) were identified as constituting characteristics of media innovation. This broad but media-specific understanding of innovation resolves current dichotomies in understanding both product and process innovation as well as tangible (technological) and intangible (content, organisational) elements that comprise economic or societal implications as media innovations. This framework furthermore provides a basis for distinguishing media as a specific type of innovation in contrast to simply viewing it as either a technical or an economic innovation. The criterion of *communicative implications* in particular serves as an indicator to classify those new (technological) products as media innovations that are relevant objects of research from a media scholar’s perspective. Furthermore, this assessment of media innovation’s implications expands media innovation’s role towards constituting an indicator of change rather than only being a catalyst for transformation processes in media businesses. Also, the notion of characterising media innovation as a process is promising from an analytical point of view. Media innovation is thus seen as a dynamic and complex social process that exceeds the control of single actors and is embedded in a wider context of societal actors and institutions that shape the innovation’s development, diffusion and implementation as well as its consequences. This understanding seeks to overcome the overemphasis on media innovation as “ready” products that are introduced in the market and adopted by consumers. Instead, media innovation is a process that involves continuous development and implementation, while respecting interactions between these phases (such as new-use patterns that influence the development and final design of media innovations).

In summary, the aim of this chapter is therefore to stimulate further empirical and conceptual research into media innovation to gain deeper insight into its complex process. This includes an encouragement for scholars interested in studying change and transformation processes in the field of media to reflect more thoroughly on which research objects can be labeled as media innovation. A shared understanding of the definitional concept of media innovation suggested here is seen as a crucial step towards establishing a more or less distinct field of media innovation research.

Notes

1. This refers to a subjective understanding of newness, as Rogers (2003) highlights: "An innovation is an idea, practice or object that is perceived as new by an individual or other unit of adoption. It matters little, so far as human behavior is concerned, whether or not an idea is 'objectively' new [...]. It is the perceived or subjective newness of the idea for the individual that determines his reaction to it" (Rogers 2003:12).
2. The Oslo Manual also states that innovation comprises "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (OECD 2005:46).
3. The open-innovation concept (Hippel 2005, Chesborough 2003) elaborates on this idea, arguing for a radical opening of innovation processes placing "external ideas and external paths to market on the same level of importance as that reserved for internal ideas and paths to market during the Closed Innovation era" (Chesborough 2003:43).

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Chapter 3

Balancing the Bias

The Need for Counter-Discursive Perspectives in Media Innovation Research

Steen Steensen

Abstract

This chapter takes a critical look at the innovation discourse and argues that media innovation research should be balanced with two counter-discourses – the discourses of transformation and of practice. The chapter argues that a transformation discourse balances the emphasis on newness in innovation discourse by highlighting the importance of genre conventions and old media legacy. A practice discourse balances the importance of structural factors such as economy and technology in innovation discourse, and highlights the role of agency in the process of innovation. Developments in new media should be understood as an interplay between these three different discourses of innovation, transformation and practice. The chapter uses examples from the development of journalism in new media to support the arguments.

Introduction

Innovation research tends to emphasise newness. Whether it is a new idea, a new technology, a new commodity or a new combination of existing ideas, technologies or commodities, it is the newness and its consequences that are under scrutiny. This emphasis on newness is part of what can be called the innovation discourse. Innovation as a discourse implies that research, and other fields related to innovation, is dominated by a certain perspective. An emphasis on newness is central to this perspective, as is an emphasis on structural factors such as technology and economy as drivers of change. A pertinent question is, however, whether this discourse of innovation makes researchers, practitioners and anyone else interested in media and technology jump to conclusions concerning the generative mechanisms that drive media developments. Mosco (2004), for one, argues that the discourse of innovation and change related to media developments has historically been based on myths as much as on real

change. When carrying out research into media innovation, there is therefore a need to balance the bias which the discourse of innovation promotes. In this chapter, two such balancing acts are discussed: balancing the innovation perspective with both a transformation perspective and a practice perspective.

A transformation perspective balances the emphasis on newness in innovation discourse by highlighting the importance of legacy on media developments. A practice perspective balances the emphasis on structural factors such as economy and technology in innovation discourse, and highlights the role of agency. In this chapter, I will argue that the complexity of media development is best understood if the perspective embedded in the discourse of innovation is balanced with these two counter-discursive perspectives. Such a multiple perspective framework relates media innovation to two classical dichotomies: change/continuity and structure/agency. The three perspectives – innovation, transformation and practice – bridge these dichotomies and outline relations between them, very much in line with, for example, Bijker's (1995) theory of technological development. However, a specific offering of this chapter is the implementation of genre theory and how such theories, when related to innovation and practice perspectives, shed light on media developments. Furthermore, implementing a practice perspective implies a thorough examination of the relationship between structure and agency in social systems related to new media. A core argument of this chapter is that there are some crucial characteristics to this relationship that have consequences for how the change/continuity dichotomy should be interpreted when it comes to new media developments.

Throughout this paper I will use one specific field of media research to exemplify my arguments – the research related to journalism in new media in general, and my own research on the development of online feature journalism in particular.

A Constructivist Approach towards Innovation

In this chapter innovation is understood as involving both *actions* and *processes* that are affected by structural factors in society at large and in institutions in particular. This makes innovation a socio-economic process, which distinguishes it from the more technical process of *inventing* something. Schumpeter (1939) is commonly referred to as the person who first made this distinction between innovation and invention. Stöber (2004:484-485) argues that this separation implies that innovation is the "social institutionalising" of an (technical) invention. This distinction between invention and innovation may therefore be seen as a first step towards what has become known as the constructivist approach towards innovation theory. This approach is commonly divided into three lines of work: the systems approach, the social construction – or shaping – of

technology approach, and the actor-network approach (Bijker 1995:6).

Apart from the latter, these approaches tend to focus on the macro level of developments, making it hard “to build a comprehensive lens for the dynamics of micro-social settings”, as argued by Weiss and Domingo (2010:1159). Rasmussen contends that the dynamics of micro-social processes – or “everyday mundane processes” (2000:8) – give innovations new, structural qualities as they are exposed to technology-mediated actions. Micro-sociological perspectives are therefore important when studying processes of innovation. As argued in the section on the practice perspective below, it is in the micro-social settings of, for example, newsrooms that innovations are often negotiated and thus shaped without being determined by macro-social structures. It is therefore sound to apply a theoretical framework to the study of innovation processes that allows for such micro-sociological perspectives. One such approach may be the diffusion of innovation theory (Rogers 2003), while another may be the actor/network theory (ANT) (Latour 2005). Both these theories have been used to study the processes of innovation in newsrooms (for ANT research, see Plesner 2009, Weiss and Domingo 2010; for diffusion research, see Garrison 2001, Singer 2004). They have also been discussed, criticised and modified in order to make them better fit the study of new media practices such as online journalism (Boczkowski 2004; Lund 2008). However, these discussions and modifications rarely take into account a thorough examination of the implications of counter-discursive perspectives such as the transformation and practice perspectives. The aim of this chapter is therefore to discuss in depth what these implications are.

The Transformation Perspective

Constructivist innovation theory provides valuable insights into how new technology (such as the Internet), new media (like online newspapers), and new ideas (such as new genres) diffuse in social systems. A transformation perspective gives insight into how these ideas and innovations relate to old ideas and innovations. Here I will suggest that a transformation perspective related to media innovation and change should include theories of media transformation and genre development.

The Transformation of Media

Studying the relationship between old and new media is a dominant activity in media studies. Theories of media normally claim to explain the mechanisms that drive media development. Some researchers, for example McLuhan (1964) and Luhmann (2000), take a macro theory approach and explain media development as processes of evolution. Others take a more grounded perspective and

relate their theories of media development to empirical investigations. Here I will relate the concept of transformation to these middle-range theories of media in order to better bridge the gap between theory and practice. However, there are not many such theories that aim at explaining new, digital media. Bolter and Grusin's (1999) theory of remediation to some extent is one, as is Fagerjord's (2003) theory of rhetorical convergence.

Bolter and Grusin (1999) and later Bolter (2001, 2007) argue that throughout history all new media have developed through the process of *remediation*. This process of remediation follows one of two apparently opposite logics: *transparency*¹ or *hypermediacy* (Bolter 2001:25). According to Bolter (2001:25-26), the logic of *transparency* implies an attempt at making the medium disappear and thus leaving the user "in contact with the unmediated world". *Hypermediacy* incorporates the opposite logic. Where the logic of transparency seeks to erase the medium, the logic of hypermediacy seeks to enhance the medium through exploring the possibilities of new technology brought on by new media, thereby drawing attention to the medium and to the process of mediation. Bolter and Grusin argue that it is this very dual existence of hypermediacy and transparency that constitutes *remediation*. They claim that the double logic of remediation has worked on the introduction of each new medium throughout history. A new medium arises in order to improve older media's ability to achieve *immediacy*, which is the ultimate goal of all media (Bolter 2001) – and old media are remediated by new media.

The theory of remediation has been criticised for being, among other things, too preoccupied with technology as a driving force for change and media transformation, and thus neglecting, for example, the importance of human agency. Furthermore, Fagerjord (2003:131) argues that the concept of remediation entails neglecting the fact that media communicate *meaning*. He suggests using the term *rhetorical convergence* instead of remediation in order to implement both the meaning that is communicated via the medium and the different rhetorical conventions and practices that converge in media. He defines rhetorical convergence as "the coexistence in one text of means of expression that we are used to regard as belonging to different media" (2003:1). He further argues that only some, and not all, conventions and practices (or *forms* as he elsewhere labels them) of old media will converge in new media – some forms may be combined with ease, others with difficulty; some may be merged, others are mutually exclusive. Furthermore, new technology creates new conventions and practices of communication that have not been seen in old media.

The Transformation of Genres in New Media

Just as new media remediate old media, according to Todorov (1990) new genres are always transformations of old genres. Fagerjord's axes of rhetorical

convergence are insightful and useful as a tool for analysing such genre transformations. However, one problem with his model is that it departs from the analysis of texts that are experimental and atypical of what is most commonly communicated in new media in general and online news sites in particular – plain, written text. Fagerjord's analysis is therefore framed and thus restrained by the discourse of innovation and change. Consequently, it lacks considerations of how the *social function* of a genre is transformed.

For example, embedded in the construction of an online news site is the fact that it relates its text production to genres of journalism. In order for a text in an online news site to be recognised as belonging to a journalistic genre, it must simulate the social actions and functions of journalism. This kind of genre transformation is a well-known feature of all new communities relying on communication. As Orlikowski and Yates argue, the initial set of genres in new communities “is often based on members’ communicative experiences and genre knowledge gained in other communities” (1994:570). There are some features of new digital media that make this affiliation with old and known genres even stronger. Digital communication is characterised by what Manovich labels “variability” (2001:30) and what Yates and Summer label a “loss of fixity”, implying that there is “no longer any reliability of a text not to change over time or space” (1997:3). Online journalism, as it has been researched, is marked by such a loss of fixity since it represents a kind of text production and consumption where the textual object may be constantly revised and updated with new information, new hyperlinks and perhaps user-generated content. In a printed newspaper, hard news stories, feature stories, opinion pieces and other genres are made instantly recognisable through well-established conventions of layout and typography. In online newspapers, the texts themselves must to a greater extent carry the genre affiliation, in both their production and their consumption, since the text must fit a variety of interfaces. This leads to what Yates and Summer call a “democratisation of genre production” (1997:3). Consumers are made more responsible for how genres are produced in digital media.

This implies that the discourse community within which a media text operates – e.g. the producers and consumers of an online newspaper – must to a greater extent be able to affiliate the text to genres of journalism by how the text is produced and consumed, and how it is presented online. The implication of this is that the remediation of news online leans towards the logic of transparency. A news story must be recognised as a news story in order to maintain the social function of news in an online newspaper. Such a respectfully remediated genre is what Shepherd and Watters label an *extant* cyber genre, i.e. genres “existing in other media, such as paper or video, that have migrated to this new medium” (1998:98).

The Transformation of Journalism in New Media

Online journalism in its early stage was very much marked by extant genres and thus respected remediations of journalism (Crowston and Williams 2000; Neuberger, Tonnemacher, Biebl and Duck 1998). Such a strategy towards the transformation of a practice such as journalism to new media made sense if the main aim of the publishers was to have the users occupied with the meaning and not the processes of mediation. Only by such a strategy could online news texts be interpreted as fulfilling the social function of news.

In Steensen (2009a) I offer different viewpoints as to how the transformation perspective shaped the remediation of *feature* journalism in the Norwegian online newspaper *dagbladet.no*. The very adoption of the term “feature journalism” is, of course, a remediation in itself. Even though the editorial staffers were not certain as to what kind of journalism they were to produce in the online feature journalism section, they adopted this term both in how they talked about the section and in how it was presented. The online feature journalists negotiated their role perception and performance in close encounter with how the role of journalists in general, and of feature journalists and online journalists in particular, was perceived and performed. Their role was a transformed role, implying that it embedded a fusion of functions and norms found in both the traditional role of feature journalists and the newer role of online journalists. However, this process of role transformation did not imply a mere reproduction of role functions – it implied *change*. The fusion and transformation of roles constituted a *new* role: the role of an online feature journalist, which in some respects was performed in opposition to the old roles of journalists.

The feature section of *dagbladet.no* represented a respectful and transparent remediation since its design borrowed legitimacy from the print counterpart (Steensen 2009a, 2009b). It was also a rhetorical convergence of different styles and genres of journalism. The texts which the online feature journalists produced were influenced by the rhetoric of both print feature journalism (long, narrative texts with multiple visual illustrations) and online journalism (copy-paste, hypertext, immediacy and interactivity). However, the texts were more than just a convergence of these rhetorical practices: the transformation of these other media forms constituted a new form with specific characteristics.

This illustrates that genres may transform to new genres in online journalism. As the discourse community becomes familiar with new media, genres are likely to change, allowing genre variants or even new genres to emerge. Orlikowski and Yates (1994) argue that it is impossible to define an exact point at which genres change. However, they state that:

[...] a new genre can be said to have emerged when a new conjunction of form and purpose becomes recognised by its community as different from

the old. Such recognition may be explicitly articulated within the community or be implicit in members' practices. (1994:545)

Such a broad recognition of new genres of journalism is, however, hard to achieve today. I have argued (Steensen 2011) that the increasing diversity and complexity of feature journalism may imply some degree of communicative collapse in journalism, in the sense that journalistic texts may be interpreted and contextualised differently by producers and readers. Since, as argued above, digital media texts must to a greater extent embed genre affiliations, and since users therefore are more responsible for the genre production in online texts, online journalism may be particularly vulnerable to such communicative collapses.

Respectful remediations of old forms of journalism and thus cautious transformations of traditional journalistic genres may therefore be a sound strategy for producers of online journalism. Hypermediated journalism may lead to severe differences in the intentions and perceptions of what the texts communicate. The lack of a fixed context that could guide the expectations and thus interpretations of a text in an online newspaper therefore promotes transparent and respectful remediations of old media journalism – and may as a consequence hinder innovation.

The transformation perspective opens up an array of questions for research on new media practices concerning their relationship with old media styles, forms and practices. The perspective may reveal gaps between the intentions and expectations of what new media practices are, depending on which forms and styles are remediated and converged and which genres are transformed. Including such a perspective in the research is vital when trying to interpret the developments of online journalism, since it counters the assumptions established by the discourse of innovation and change.

However, transformation perspectives in general tend to view developments in new media from the outside. Such perspectives therefore risk neglecting the influence of the actions of journalists within the structures of the newsroom and the news industry. The perspective integrated in the discourses of innovation and change take such influences into account, but the actions of media practitioners and the structures of media organisations are also important in relation to how innovations are diffused.

The Practice Perspective

The media industry is considered part of what is commonly known as the creative industries – a type of cultural production industry that, according to O'Connor (2007), has set a new economic discourse in which small businesses, networks, risk-taking, creativity and constant innovation are trademarks. This

new economic discourse is therefore dominated by the practice of creative individuals. Such an empowering of media workers (and the audience) is also related to the proliferation and diversification of communication technologies. Rasmussen argues that communication technologies in general are “embedded in agency” (2000:6). The diffusion of communication technologies in society such as the telephone and the Internet has been shaped by the way people have adopted and used them. Thus, “traditional authority has lost much of its power over individual practices” (Rasmussen 2000:8-9). Social practices that to a great extent rely on communication technologies, like the production of news, have therefore increasingly shaped new structures rather than having been shaped by predefined structures.

There are therefore many reasons as to why the study of modern day media production, and particularly online news production, should entail a greater emphasis on the agency of media practitioners than previous media production studies have argued. Cottle argues that a conceptual change from routine to practice is needed in news production studies, because journalists are “more consciously, knowingly and purposefully productive of news texts and output than they have been theoretically given credit for in the past” (2007:10). Weiss and Domingo argue that a practice perspective “can help to explain the relationship between journalists and technology, particularly with the innovation processes implemented in the newsroom” (2010:1157).

However, questions remain: what does this focus on practice *mean*? How should research into new media practices be designed to emphasise practice, and what theoretical considerations of the relationship between structure and agency is best suited to frame such research? This section will address these questions, firstly by a theoretical discussion on what a practice perspective may be, and secondly by relating it to the innovation and transformation perspectives and to the developing role of journalists in new media.

Structure, Agency and the Practice Perspective

A shift towards a greater emphasis on practice does not imply that structures are considered unimportant for media practices. It only implies that agency is not viewed as simply the outcome of the structure of a social system. It also implies that agency and structure are not treated like dichotomies but rather as dualities – in line with Giddens’ theory of structuration.

Giddens argues that structures “are both medium and outcome of the practices they recursively organise” (1984:25). This implies that structures both shape *and* are shaped by agency. Giddens distinguishes structure from social system, and to him structure does not include factors that are external to the human mind, such as material, technological and economic factors – these factors are part of the social system at large. Structure to Giddens is something virtual. It

is rules and resources that are embedded in individuals: “Structure is not ‘external’ to individuals: as memory traces, and as instantiated in social practices, it is in a certain sense more ‘internal’ than exterior to their activities” (1984:25). Furthermore, structures are not only constraints of human action; according to Giddens, structures also enable agency. It is by knowledge of structures that people are able to act. Giddens argues that agency is thus linked to power.

Giddens’ theory of structuration is a macro theory and has therefore been criticised for lacking guidelines for empirical research and thus for having no direct relevance for empirical work (Gregson 1989). Stones (2005) attempts to bridge the gap between structuration theory and empirical research by outlining a more detailed account of the processes of structuration. In line with Sewell (1992), he argues that external factors should be incorporated in the concept of structure. Sewell defines structures as “schemas and resources” (1992:19), which I understand as being equivalent to Stones’ notion of external and internal structure. Sewell proposes a dynamic view of structure, entailing that schemas and resources (internal and external structure) are transposable and applicable across situations and social systems. This allows him to conclude that the duality of structure implies that change and transformation can occur from *within* the operations of structure:

[...] the same resourceful agency that sustains the reproduction of structures also makes possible their transformation – by means of transpositions of schemas and remobilisations of resources that make the new structures recognisable as transformations of the old. (1992:27)

The importance and relevance of this conclusion becomes clear when we consider it in relation to media production. In Sewell’s notion of the term, the structure of news production is two-fold: Firstly, there are the schemas (internal structure) – typically the standards, routines and professional norms of, for example, journalism that journalists have knowledge of, both as belonging to a profession and as members of a specific media organisation. Secondly, there are the resources (external structure), being both the non-human resources – typically the material, economic and technological resources available to the media organisation in question – and the human resources – typically the number of staff members, freelancers, stringers, editors etc. and the skills and knowledge they possess and make available. These constitute the structure, which allows the news workers to perform agency, both individually and as a collective.

Furthermore, media workers reproduce the structure by the way they act. The structure of a media organisation exists only because there are humans present who act based on knowledge of the structure. And, most importantly, the agency of the members of media organisations can transform the structure, because the schemas the agents possess can be transposed to new situations and circumstances and because the resources can be remobilised. This implies

that change in the structure of a media organisation is not necessarily evoked because of influence from outside the organisation (such as the availability of new technology, economic fluctuations in society at large, new legislation etc.) but can be evoked through agency from within the organisation.

This is the core of what I understand as the practice perspective. By practice I mean *arrays or clusters of human activity, which are shaped by and also reshape and potentially transform structures*. Agency is thus embedded in practice. Such a practice perspective is in line with what Schatzki *et al.* (2001) and Whittington (2003) have labelled the “practice turn” in organisational and social theory. Orlikowski and Yates argue that the practice of interpersonal communication (which is so vital in media production) within organisations is an “essential element in the ongoing organising process through which social structures are produced, reproduced, and changed” (1994:541). In other words, structural change is not (necessarily) the result of influences from outside the social system – it may derive from such a banal activity as interpersonal communication among the members of the social system.

Implications of the Practice Perspective

The practice perspective outlined above implies a view of structure as: (1) internal and external, (2) highly dynamic, and (3) transformable by agency from within the social system. It therefore follows that the activities of media workers can cause changes in and transformations of media products – with or without influence from the outside world. Furthermore, the perspective implies that practice not only embeds the agency of media workers (and other staffers), but the agency of the participants in the discursive practice at large – including the audience. This is particularly important in online journalism, where the audience potentially gains access to the news production process. As Rasmussen (2000), Rosen (2006) and others have pointed out, new communication technologies have turned users into agents, and when news production involves communication with the users, as is (potentially) the case with online journalism, the agency of the users therefore also shapes, reshapes and potentially transforms the structure of news work.

Furthermore, the (relatively speaking) novelty of online newsrooms, changes in how journalists affiliate with news organisations and processes of convergence create institutions where the structure is weak. Deuze and Fortunati (2010) label such modern news organisations as “zombie” or “shell” institutions where news production at large tends to be increasingly outsourced to freelancers, stringers and others with a loose affiliation to the news organisation. This implies that journalists “construct their own professional identity in the context of rapidly changing and often overlapping work contexts” (Deuze 2008:111). The professional identity of journalists therefore increasingly becomes a matter

of individual agency. Close scrutiny of those who actually produce the news, e.g. what background and training they have, what loyalties they have, and how they relate to and act in reliance with traditional journalistic norms and values, should therefore guide the research into how the role of journalists is transformed. A practice perspective on role development implies that role as a structure may be changed through role performance from *within*, and not only through the influence of something external such as new technology. The everyday practice of role performance among online journalists may in itself cause changes in what the role of an online journalist is. For example, analysing changes as to which role sectors are the most important for online journalists' role performance may therefore be of great significance.

The Practice Perspective as Modifier

To conclude this discussion, I will argue that an important characteristic of the relationship between innovation, transformation and practice is that the practice perspective serves as a modifier of the other two perspectives. Research on innovation in media organisations should pay particular attention to how the agency of media workers (and other staffers) transforms structure (both internal and external) within the social system (the organisation) in order to diffuse an innovation. This implies that an innovation may not only be *transformed* by practice, it may be *derived* from practice within the organisation without influence from outside the social system.

The importance of practice on innovation studies has been demonstrated in journalism research (Steensen 2009c; Weiss and Domingo 2010) as well as in other fields. In a review of innovation research, Rossi (2008:11) cites a study by David and Arthur who found that individual adoption choices on the diffusion patterns of competing technologies are decisive as to why markets tend to be dominated by a technology which is not necessarily the best one. In other words, the agency of consumers may lead to an unsuccessful diffusion of the technology that, in a strictly rational sense, is the most promising. Rossi further concludes in a manner that illustrates the importance of the practice perspective to innovation studies at large: "innovation is a matter of differential behaviour and differential behaviour is the basis for structural change" (2008:12).

Likewise, research on media developments as transformations should be complemented by the practice perspective. As mentioned above, Bolter and Grusin's theory of remediation has been criticised for not taking into account human agency as significant for how media transform. Without consideration of human agency, it is difficult to explain why media tend to transform in different manners than the striving for immediacy would suggest. People use media and technology for different reasons, and their preferences do not always coincide

with what would best boost immediacy. People's preferences are constructed based on previous actions, which have become part of the internal structure that thus restrains further actions. They are not based on a supposed objective truth about which technology or medium is the most immediate. Bolter later recognised this critique and stated that:

We were not trying to suggest that media are autonomous agents that act on each other or on other aspects of our mediated culture. Remediation is a process that is realised in and through the creative practices of individual producers, designers, and artists. (2007:26)

The logic of hypermediacy and transparency may be seen as the (more or less conscious) needs and wants of both producers and users of new media. It is the users and the media professionals not the medium itself who form a discursive community that strive for immediacy in communication. This points to the importance of discursive practice in understanding how genres develop in new media. Orlikowski and Yates (1994) argue that the composition of what they label a "genre repertoire" (i.e. the set of genres that are routinely used by the members of a social system) in an organisation is constantly negotiated and changed, both with and without intent, by the actions of individuals. Based on examinations of the emergence of new digital genres such as the personal weblog and cam-phone self-portraits, Lüders *et al.* (2010) demonstrate how social practice influences the emergence of new genres. They therefore argue that research on mediated genres should imply investigation of not only media use but also of acts of communicative practices.

Conclusion

In this chapter I have argued that the discourse of innovation and change that today dominates the media field needs to be complemented with partly counter-discursive perspectives of transformation and practice in order to best understand how and why new media and new media practices develop. This is not a new argument, but the discussion offered in this chapter draws attention to what the implications of such counter-discursive perspectives are for empirical media research. The transformation perspective complements innovation research by drawing attention to historical developments, and by pointing to the importance of genres and thus of the social function of media texts on media development. The practice perspective complements both transformation and innovation research by stressing the importance of micro-sociological relations to media development, and by pointing out that the media institutions of today allow for a different kind of interplay between structure and agency, where agency may pave, or block, the way for innovation diffusion unbound

by external macro-societal factors. While innovation theory traditionally has been preoccupied with the significance of such external factors belonging to the political economy of the field, the practice perspective discussed in this chapter acknowledges the importance of individual agency on processes of innovation and thus on media development.

In this chapter I have used developments in online journalism as examples to illustrate the importance of such a multiple-perspective approach. Other examples could have been used. Since most media practices and products are dependent upon interaction with users and audiences, the role of previously established conventions for such interactions will always be important, as will the agency of those interacting. So whenever interaction is involved in media innovation, the transformation and practice perspective will be of great importance in understanding the developments that take place. This implies that such a multiple perspective approach is suited for understanding the emergence of, for example, new *roles* for media professionals/practitioners. It is also suited for understanding the developments of new media *products*, since media products are shaped and socialised by interaction. It is also suited for understanding how new media *practices* develop – practices such as social media interactions; digital music creation, distribution and listening; web-TV production, distribution and consumption; ebook publishing, distribution and reading; and digital gaming, to name just a few. The development of such new media practices is highly influenced by previously established conventions and by the agency of individuals. The discourse of innovation, with its emphasis on newness and structural factors, would therefore account for only parts of such developments if the suggested counter-discourses are not taken into account.

Note

1. Bolter and Grusin (1999) use the term *immediacy*, which Bolter (2001) renames *transparency*. Furthermore, what Bolter and Grusin (1999) label *transparent immediacy*, Bolter (2001) labels *immediacy*.

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Chapter 4

Topics of Innovation

Towards a Method of Invention and Innovation in Digital Media Design

Gunnar Liestøl

Abstract

As digitalisation expands, it is important that media innovation is given more attention from a humanities point of view. This chapter aims to explore some methodological strategies and tactics for conducting humanities-informed innovation in digital media design. This is effected by combining practical development with theoretical reflection. Modern interpretations of classical rhetoric as an architectonic productive art is used as a starting point in order to build a new method for innovative digital media design. Based on the actual design and development of a publication platform known as ‘situated simulation’, the rhetorical framework is used to identify and extract a methodological pattern and a tentative topic list for consultation when exploring the new expressive potentials in emerging digital media.

Introduction – Humanities and Innovation

Convergence is continual. Recently, there has been a dramatic change in digitalisation. A decade ago, the performance that was considered to belong to desktop workstations is now found in a neat device in most Norwegians’ pockets. Such ongoing transformations are primarily explained by miniaturisation and confluence of hardware sensors. Smartphones and tablets are not only powerful mobile computers of multimodal communication, they also register where they are, how they are moved, in which direction they are pointed and how they are touched. This change signifies nothing less than a new epoch in media history. The consequences for communication and exchange in culture and society may be profound and challenging to comprehend. They will change the way we communicate and discourse in both learning and leisure, including schooling, higher education and research. It is important that these changes are seen not only in technological terms, but also from within the human sciences. How is this precarious and transformational situation relevant and related to the humanities?

To answer this question it becomes imperative that we examine and investigate the relationship between the humanities and innovation. While it is evident that innovation takes place at several levels in humanistic disciplines, the humanities seem to be absent from research that, both in theory and practice, explicitly targets innovation. *The Oxford Handbook of Innovation* (Fagerberg *et al.* 2006) contains no chapters that treat innovation in art, literature, language or media, or even in history. This is not a critique of the handbook, which aims to provide a “comprehensive and holistic understanding of the phenomenon of innovation”; rather it can be seen as an indication that the humanities have seriously isolated themselves, in effect, by withdrawing from key arenas of interdisciplinary interaction and enquiry that incorporate the communication technologies of the 21st century.

Currently there is a common perception in both academia and society that the humanities are facing a crisis. Core disciplines in the humanities increasingly experience a severe lack of resources, resulting in the dismantling and closure of some long-established departments. However, as the use of digital technology spreads far beyond the original domains of computer science, traditional objects of humanities research and study are increasingly being penetrated and refurbished by digitalisation. This paradoxical situation now offers us a novel and significant opportunity (and responsibility) to revitalise the humanities. Within this, it is extremely important to renew their relevance to current developments in media and communication. These are themselves interdisciplinary domains that offer considerable resources and sites for the further building of knowledge and expression, articulation and critique. They are resources that already sit within the humanities but also cross over into social and technical domains that are in need of the very insights and inputs that may be uniquely humanistic in character. Recently, we have seen an increase in academic attention directed towards these intersections (Fuller 2008; Morrison *et al.* 2010; Gold 2012; Burdick *et al.* 2012; Berry 2012).

Given these circumstances, how might the humanities find adequate ways to innovate by reinventing and redefining their cultural positions and practices? Can they move from the role of analytical observation in hindsight and instead become proactively participant in furthering the processes of innovation by means of both digital media design and textual interpretations, i.e. by combining synthesis and analysis in critical construction of new digital artefacts?

The aim of this chapter is to explore some methodological strategies and tactics for conducting humanities-informed innovation in digital media design, by means of both practical development and theoretical reflection. These investigations are based on experiments with the general hardware platform we have earlier designated as “sensory media” (Liestøl *et al.* 2012). By sensory media we mean current smartphones and tablets that integrate hardware sensors for *positioning* (GPS, WiFi- and GSM-triangulation), *orientation* (magnetometer/

digital compass) and *movement* (accelerometer and gyroscope), as well as more customary sensors for the input of sound, light and touch. With digital media design we specifically target the expressive (textual) level in new media, the messages and meanings that are rendered possible and communicated by means of complex interactions taking place in the diverse relationships between hardware, software, users and producers. We have elsewhere described this domain of digital media as “meaningware” – the strata of genres, individual texts and expressive conventions – thus extrapolating the dichotomy of hardware and software into a triple-levelled dependent hierarchy (Liestøl 2004, 2010; Rasmussen 2004).

In this chapter, some modern interpretations and perspectives on classical rhetoric as an architectonic productive art in various kinds of making are briefly presented. These will serve as places to find a framework for methodological invention. Next some stages are described in the actual design of the “sitsim” publication platform as materialised in a series of cases and productions. Finally, this description is then used to extract a methodological pattern, which is again compared to the rhetorical framework.

Rhetoric as an Architectonic Productive Technique

Classical rhetoric can be considered a design theory and method working with verbal matter. Historically, rhetoric, as a general system of communicational construction and production, has informed other design practices beyond the linguistic. In Mediaeval and Renaissance Europe, rhetoric experienced a continual reinvention, extending beyond its classical territories of the verbal. Investigations into the changing theory and practice of rhetoric in the Middle Ages point to the fact that rhetoric as a significant and also general method of invention and discovery triggered innovations in disciplines such as logic, philosophy and theology (McKeon 1987; Buchanan 2001).

This process continued in the Renaissance when humanists went further than the limitations of ancient ideas and practices by applying the categories and processes of rhetoric to the genesis of a critical discourse on the multiple modalities of visual and acoustic arts. This was possible because “... rhetoric offered the only complete and integrated communication system” (Vickers 1997:341). McKeon also discusses the changing role of rhetoric and its potential as a general method for invention and innovation in our technological age. He presents the notion of rhetoric as an *architectonic productive art*: “The new architectonic productive art should become a universal art, an art of producing things and arts, and not merely one of producing words and arguments...” (McKeon 1987:12).

Central to McKeon’s operation of invention is the topics (*ars topica*). Cicero defines topics as “seats in which arguments are stored” (Divisions of Oratory,

ii. 5). Accordingly, Cicero lists a series of general topoi: definition, opposition, contradiction, etymology, analogy, division and consequence, as well as specific ones, or those topoi directly relevant to the case in question. Topics are traditionally contexts in which the rhetorician metaphorically places his case in order to generate new perspectives and new arguments, i.e. elements for the presentation to be constructed (Gabrielsen and Juul Christensen 2010). When operated in rhetoric as an architectonic productive technique, this procedure may be extended to also include the investigation and invention of new meanings and perspectives in practices and domains that extend further than the limitations of verbal presentation and an individual message.

It is this conception of a generalised and extended rhetoric that lies at the base of the methodological ambitions in the research and development reported in this chapter. My hypothesis is that it should be possible to develop experimental methods and techniques based in rhetoric that aim to generate innovative forms of expression that may be exemplified in (genre) prototypes. Through adopting the notion of ‘genre design’, I refer to a rhetorically-based design method where genre theory and genre knowledge are used heuristically to direct the design process. This approach is also inspired by Gregory Ulmer’s work on heuristics in hypermedia (Ulmer 1994).

Traditionally, and informed by idealistic aesthetics on the status of the beautiful, innovation tends to be conceived of as intuitive and counter-methodological. Governed by a regularity without discrete rules, the creation of the new and original is considered an *ingenium* rather than a practice that can be taught and learned. In the case of aesthetic ideas and the beautiful (Kant), this could plausibly be the case. However, as Poe has pointed out, the *modus operandi* of the poet may also be strictly systematic: “It is my design to render it manifest that no one point in its composition is preferable either to accident or intuition – that the work [composition of ‘The Raven’] proceeded, step by step, to its completion with the precision and rigid consequence of a mathematical problem” (Poe 1904:6). Although I am not aiming here at the precision of mathematics, what I am advancing is a technique for a systemic probing of the expressive potential in emerging media.

The following is an attempt to firstly describe and then partly explain portions of the confused and complex territory between intuition and a more systematic conduct in an iterative digital design process, where not only the product but also the procedure itself is the topic of attention.

Inventing a Platform for Innovative Genre Design

How do innovative ideas *de facto* emerge, transform and materialise into actual products, services and activities? There is no simple answer to this question.

However, the prescriptions and recipes are many, which can easily be confirmed by the many publications on creativity. Let us briefly consider and characterise the research and development activity we have conducted over the past five years. The following account is two-fold.

Firstly, I present an excursion into the design and development process based on a description of my subjective experience in constructive experiments. This tale probably belongs to the genre for which Ulmer (1989:41) has coined the term *mystory*, a discourse constituted by the “contribution of personal anecdotes to problem-solving in a field of specialised knowledge”. Secondly, and based on the first account, I try to present the pattern that connects the various parts in the process, to see the extent to which there are any principled structures that can be abstracted from the operations.

The aim here is to ascertain whether a regularity can be put into place that has the potential to form the first steps in a move towards a more systematic conduct. It could then form part of a wider and hopefully more robust method or technique (*techne/art*) for conducting innovation in digital media design that is primarily informed by the humanities.

First Version: Assembly and Objectification

In the autumn of 2008, we had the first prototype of what at that time we already called a “situated simulation” or “sitsim” for short. It was running on the second generation iPhone and contained a reconstruction of the Oseberg Viking Ship positioned at the location where it was buried in 843 CE and excavated in 1904. The Oseberg sitsim included a set of basic features for navigation and information access. In parallel we developed a sitsim with the same feature-set reconstructing the original Mission Dolores of 1791 in San Francisco. Following the arguments above, several questions come to the fore: How did the design result come into being? How and why was it amalgamated in this particular way? For this initial reflection in hindsight, a number of the main premises may be broadly summarised.

The hardware platform was chosen as a given available device, so-called smartphones, which at that time were increasingly equipped with sensors for positioning and movement. Early on in the design and development processes of the simulations, it was decided that off-the-shelf hardware should be used: this meant that there would be no proprietary combination of hardware elements so that only all-in-one terminals would be employed. Apple launched the iPhone SDK (Software Development Kit) in March 2008 and at the same time the Danish game design platform Unity3D followed up and announced support for export to native iPhone applications for games developed in their environment. Taken together, this allowed us to pursue a software platform that presented itself as an obvious choice. Xcode represented an advanced

and efficient environment for Objective-C programming, and Unity provided a flexible 3D engine with numerous additional ready made features, including Javascript for adding behaviours.

These constituted the chosen hardware and software, but the question then posed was for what productive purpose we should employ them, other than exploring the expressive potential of new media in general (as has been my underlying goal for the past two decades of research). Beginning a few years earlier, as part of the INVENTIO project, I had been speculating on new ways to exploit the smartphone as a sensory media device. One idea was that with the necessary sensors available, it should be possible to control a virtual camera in a graphics environment by moving and repositioning the phone (and its user). Related solutions had been developed over time in the augmented reality tradition, a phenomenon I personally had encountered for the first time back in 1993 when I read with great interest William Gibson's novel *Virtual Light*.

So far, however, only mixed-screen solutions had been experimented with on smartphones and I wanted a full screen for display of the graphical environment. The idea was to create 3D graphics representations, which could serve as parallel environments relative to the actual and physical location of the user. The main focus of the work was on historical reconstructions. Theoretically, my orientation to this historical content and sitsim design was informed by Bateson's concept of double descriptions (Bateson 1988). Double description refers to a synthetic result, when a subject who is provided with information from two different sources sees the emergence of an incremental value. Bateson's prime example is how stereoscopic vision is caused by combining the different perspectives from our two individual eyes – two different sources of visual information that together create an emerging quality: depth, which cannot be reduced to the underlying sources. With simulations of historical environments, we argued that it should be possible not only to inform the user of historical interpretations and facts, but also to do so in a way that could create a new form of experience and learning – one that would emerge in the continual oscillation between the two perspectives and, importantly, their differences and similarities.

With the platform's basic dynamics in place, we needed to find ways of providing the user with additional information once they had embarked on the experience of utilising a situated simulation in a specific environment, in addition to moving around observing (watching as well as listening) and contemplating the relationships between the two dimensions. For information access, the link convention – well established in the hypertext tradition – was the obvious choice. Interestingly, the metaphor of 'spatial hypertext' has been a valuable notion in hypertext theory and design (Marshall and Shipman 1995). With situated simulations, this metaphor became more real since it was implemented in an environment where the user actually needed to move physically

in order to approach and activate a link (see Figure 1). The fact that the link is also spatially placed, attached to a specific object or certain position in the environment, turned the sitsim into a different form of spatial hypertext experience. We should also mention another convention loan, borrowed from film editing – namely the cut to close-up. In our early simulations, processing power was extremely limited and it was not possible to show both the geometry (polygons) of the reconstructed environment and high resolution models of 3D scanned artefacts, which we have called ‘detail view’. Thus, we needed an ellipsis, i.e. a spatial discontinuity between the general graphics environment and the display (and touch manipulation) of the 3D scanned detail.

Figure 1.



A spatial hypertext link on the Via Sacra in the *Roman Forum* sitsim in use (v. 1.0, 2012). Only the link anchor 'Cloaca Maxima' is visible, while its destination node, the simulated ancient sewer (as well as the real sewer), is hidden several feet underneath the paved street. The reconstructed Cloaca Maxima, as the destination node, is accessed by changing the altitude of the virtual camera. Sensors for orientation, positioning and diverse movements remain operative; thus, if the link is activated, as the user walks down the real Via Sacra the camera displays a simulated walk in the reconstructed sewer below.

As mentioned, in this primary stage of design and development, an off-the-shelf smartphone (iPhone) was chosen as the primary hardware platform together with a specific combination of software tools and programming environments (iOS, Xcode and Unity3D). For the meaningware layer, the choice was somewhat different: we saw a combination of ideas, borrowed conventions and the practical perspectives. In hindsight, the contexts and places where these elements belong can obviously be described as topoi, but we did not use them as such

in the sense of rhetorical invention. However, these topics or domains – science fiction, hypertext conventions, film editing techniques and communication theory – are all potential topoi for a more systematically-conducted search for possible elements to fabricate new forms of digital communication. We need to bear these in mind as we proceed to the next phase in the design process.

With the first sitsims created, tested and evaluated (including positive feedback from a variety of users), our subject matter had been transformed from abstract ideas and immaterial notions into an object, something we could face analytically *post factum*, after its first synthesis.

Second Version: Negation and Supplement

Once one starts to examine and analyse the provided object, which may just have been synthesised, absent qualities suddenly become present. One discovers the neglected features, the attributes omitted, the qualities not selected – all that was thus negated but still remains potentially relevant. The first sitsims mentioned above were characterised by an uneventful environment, i.e. a world where nothing changed. Apart from the subjective movement of the user and the corresponding repositioning of the virtual camera and activation of links, there was no significant movement, no alteration and no change, but only loops of repetitions such as simulated torch fire and animal sounds. This was a changeless and timeless *static* environment. When one encounters the environment as static, one also becomes aware of its *negation*, its opposite – the *non*-static, i.e. the *dynamic*. This then raises different potentials and restrictions for the design.

What if we redesigned the environment and made it dynamic? This would mean making not just a substitute for the static-only mode of the current environment, but shaping it as a supplement – one composed of a combined condition of both static and dynamic ingredients. Creating a static–dynamic environment would be possible as a combination if parts of the environment would remain static and unchanged, while other elements could change – for example, by appearance, movement and/or disappearance. Instead of generating a timeless space, it would be possible to create an alternate and eventful environment. Change over time makes events and actions possible. With sequences of the two, we have the means to display and perform dramatic narratives and even to tell stories.

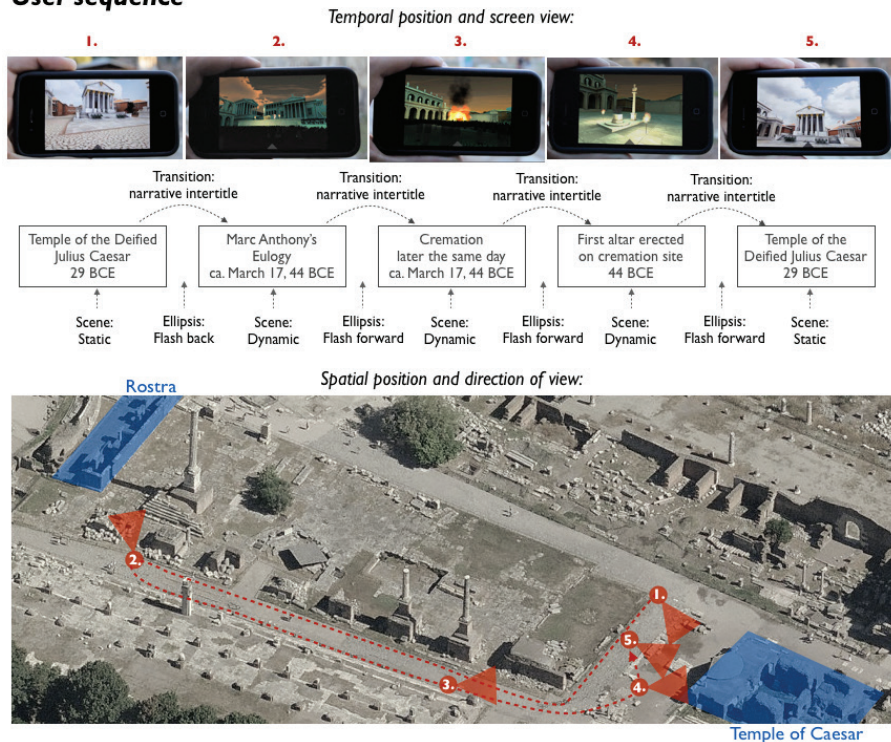
These analytical reflections on the object that had been made pointed towards a new design and a new sitsim. A sequence including a simple simulation of events was developed in a rudimentary sitsim prototype, incorporating a reconstructed street corner in San Francisco dating back to the early 20th century, and it showed how the city block was affected by the 1906 earthquake. This particular sitsim was not followed up since the tall building environment

interfered with the assisted GPS-positioning. Instead, the further potential of sequences of actions and events was explored in a sitsim from the Forum in Rome. A prototype was developed, tested and evaluated in 2010 (later, in 2012, this simulation was redesigned and published in Apple's app store). The simulation included a reconstruction of the Roman Forum in both 29 BC and 44 BC, and employed four distinct dates in time (see Figure 2 for description) in addition to a series of new features: an internal web browser, user-generated links with a comment function, and hardware and software improvements.

Feedback from the first prototype was positive and constructive (Liestøl *et al.* 2011) and held suggestions for new features: maps for tracking user movements and the ability to access background information from within the narrative sequence so that the user could better understand the historical and political context – both recommendations that could serve as valuable extensions to the sitsim.

Figure 2.

User sequence



A user sequence in the *Roman Forum* sitsim. Temporal and spatial movement and orientation (perspective) unfold as the sequence is displayed and followed. The temporal flashback/flashforward loop is repeated in parallel as the user moves and orients the device in the space (and place) of the Roman Forum of today.

The narrative sequence in the *Roman Forum* sitsim suggested an innovative form of narrative technique. This was the temporal flashback loop common in literary and filmic storytelling. In the context of a sitsim, the temporal flashback loop is mirrored in the spatial movement and orientation of the user (and the device). How can we account for this tempo-spatial parallelism in narratological terms? Gerard Genette's analytical categories are relevant in considering this aspect (Genette 1980). In his analysis of Proust's major novel *Remembrance of Things Past*, Genette investigated the relationship between the story (story told) and the discourse (telling of the story) in the context of order, duration and frequency.

In terms of *order*, as noted, our sequence is asynchronous. It starts with (1) 29 BC at the time of Octavian's (later Augustus) completion of the Temple of Caesar; it moves back to (2) Mark Anthony's eulogy on the Rostra just after the Ides of March fifteen years earlier; it then proceeds forward to (3) the cremation later the same day. It then moves to (4) the building of an altar on the same site some time later; and finally it moves forward (or 'back') to the finished Temple in 29 BC. An interesting aspect of this application is that in Genette's vocabulary there is no account for the tempo-spatial parallelism in movement and orientation. We will elaborate on this in future discussions of narrative patterns in sitsims. For the purpose of the current argument, I now go on to examine which of Genette's categories are applicable to the sitsim sequence.

When it comes to *duration* Genette operates with five modes: ellipsis, summary, scene, stretch and pause. In the case of *ellipsis*, story time is not represented at the level of discourse. We have already mentioned the four elliptic intersections in our user sequence. In the *Roman Forum* sitsim these ellipses are of two kinds: they open up for and make possible either movement backwards in time or movement forwards in time. Thus, the three forward-moving transitions in the sequence, seen together, may be characterised as a *summary* of how the cult of the deified Julius Caesar was established. However, the most interesting possibility is a kind of summary that is *not* implemented, but which presents itself as we place the sitsim in the context of Genette's category. This is a timeline controlled by the user – moving back and forth in the various historical stages showing the different architectural shapes of the Forum – and it would be an excellent design example of a summary in Genette's terms.

In the *scenic* mode, there is temporal identity between story level and discourse level – the time it takes to display (tell) the story equals the time that passes at the story level. Scene is the dominant mode between the ellipses in the funeral sequence described above. However, the scene comes in two fashions: static and dynamic. The 29 BC version of the Forum environment is a static scene. Except for visual loops (birds flying and human figures in conversation) and audio loops (sounds of ravens, talk in Latin), this environment contains no events or actions. In contrast, the three phases played out in the

44 BC environment (funeral, cremation, altar/column) are dynamic scenes. They contain actions and events in a progressive sequence composed of verbal information and animated 3D objects.

In the context of this chapter, I will pass over the *stretch* category. That it has design potential has been demonstrated by Ted Nelson and his notion of *Stretchtext* as a form of hypertext and later elaborations of this phenomenon in other media (Fagerjord 2005). What is fruitful to focus on here is the category of *pause*.

Pause is the opposite of ellipsis. In this mode, discourse time has no extension at the story level. In film, a freeze-frame and the use of simultaneous photography (the Matrix effect) are obvious examples. In composing the user sequence above, there has so far been no room, or need, for the pause mode – it was not present until we obtained user feedback from students testing and evaluating the simulation on location. As mentioned above, these students wanted access to contextual information about the background for the events: Why was Mark Anthony in charge of the funeral ceremony? What had happened to Brutus and Cassius? Why was Caesar assassinated? What related written sources are there?

A design challenge arises in attempting to provide answers to these questions: How do we access information from a database in the middle of a dynamic narrative sequence? Pause is an obvious answer. By placing the dynamics of the narrative sequence on hold at any time in the three scenes, the user will be able to activate the link layer and access the desired information via the positioned links edited for the purpose, or to enable the internal browser and search for information on the Internet. Meanwhile Mark Anthony and the whole scene – static or dynamic – remain frozen. There is no passing of time along the temporal axis at the story level in the narrative dichotomy, while discourse time elapses as long as the user needs to acquire contextual information before returning to and reactivating the scenic sequence. This ‘pause for access’ feature is still to be implemented and will, together with other additions and extensions, be part of the third version of the *Roman Forum* sitsim.

Towards a Method of Invention and Innovation in Digital Media Design

I have now provided a subjective account of some stages in the design of the sitsim platform, exemplified by a selection of a few specific productions and how they have evolved over time. What is actually taking place in this process? Earlier I postulated that rhetoric as an architectonic productive art had relevance for this form of invention. Traditionally, it offers resources for finding the elements (arguments) of a specific presentation composed/designed within

the constraints of an existing genre, be it a verbal or visual discourse. As an architectonic productive art, however, the aim would be more general, and at another level it would not be concerned with the individual message but with the *form* of representation. This leads us on and into further conceptual innovation and textual construction of a potential genre, made possible by an emerging platform of new hardware and software constraints and conditions. This is an innovation that succeeds because of its humanities inflections, combinations and convergences.

In rhetorical invention, the lists of topoi play an important role, from Aristotle to Cicero and beyond (Rubinelli 2009). However, what are the topoi in our procedure? More importantly, can they be generalised and used in other contexts, with other places and other technologies, including future developments of the relevant hardware and software combinations?

In the design considerations leading up to the first implementation, several sources or means were selected and served a purpose in the design: *theory* (Bateson's concept of double descriptions); *media* (hypertext metaphor and conventions of 'spatial' hypertext, film editing conventions and technological projections in science fiction). In addition, via *computation* we had the given hardware platform of sensory media as well as a package of software. In our analysis of the first design, a new topic (topos) presented itself: *negation*.

According to Hegel, negation (including negation of the negation) is a driving force at all levels in human existence. It fuels the progression and development of philosophical consciousness in his *Phänomenologie des Geistes* (*Phenomenology of the Mind*) as well as in history, society and nature. It is not my purpose here to discuss the universal power of negativity. My thesis is that it may play an important role in design. This is not a matter of negativity – in the sense of the 'Devil's advocate', according to the IDEO's design dogma (Kelly 2001, 2005) – but is rather an operation and a mediation that points to a means to (uncover) alternatives. That the house is not red does not mean that it is without colour, but that it could be another colour. Negation points to an alternative sub-topos along the syntagmatic–paradigmatic axis. It reconsiders the selection from the position of the combination and shows us possible alternatives – and access to relevant alternatives is an important design resource.

Taking the negation of the static seriously gave us the opportunity to design a dynamic environment with sequences of actions and events. The following narratological analysis of its implementation and structure again showed the presence and potency of negation and made a new design suggestion possible: the 'pause for access' feature *in medias res*.

From this we can learn that when analytically applying a theory (borrowed from a neighbouring discipline, in this case literary theory) to the object made – and some categories cannot be identified as relevant (having any applicability) – it may be the case that the corresponding object or feature has not yet

been designed. In such a case, a concept (category) makes a *turn* from an analytical to a synthetical mode of operation. This is a case of what I have earlier called “an inversion of theoretical concepts” (Liestøl 2004). Instead of applying a theoretical concept for analysis of constructed objects *post factum*, after the event, the given concept is used as a rule for construction, i.e. a topos for invention and innovation.

Throughout the sitsim design process, testing and evaluation with real users on location has been an important ingredient and quality insurance. In the context of topical invention, *evaluation* also serves as a topos. Last but not least, a final topos must be mentioned here – the topos which is intrinsic to the actual case, i.e. the place of the case. In sensory and locative media the place, the location itself, plays a founding role. This is a topos with a particular position in the context of the other topoi – it serves as a master topos. That *place* is already gaining interest as an important topos in digital invention, and a design can be seen in the discussion of place-specific computing (Messeter 2009).

Finally, we can now suggest a list of topoi based on the considerations and examinations above: negation, theory, media, evaluation and place. Each of these topoi has sub-topoi which need to be examined in each particular case and context. It is this dynamic, or a double description of both making and interpretation, synthesis and analysis, that offers us unique perspectives generated from within the humanities and makes new forms of critical construction possible.

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II. Structure and Management

Chapter 5

Adapting to the Brave New World

Innovative Organisational Strategies for Media Companies

Sabine Baumann

Abstract

Media companies currently face competitive market environments characterised by immense structural transformations that challenge them to develop innovative organisational strategies. As innovative organisational strategies have not yet received extensive coverage in media management research, this chapter closes this gap by analysing and contrasting the innovative organisational configurations of media companies regarding their potential to balance the capabilities for continuous product and service innovation (exploration) with the need for integration to achieve efficiency (exploitation). Although there is no generally strategically-optimal organisational design, a number of necessary developments can already be observed: smaller and more flexible organisational architectures including modularisation, decentralisation, partly autonomous units and market orientation. Media organisations have increasingly become multi-dimensional with overlapping layers of primary and secondary, and sometimes even tertiary, structures, driven through transient project-based settings and the dynamics on both the product and the market sides through customers demanding innovative and individualised media experiences.

Introduction

Media companies currently face competitive market environments characterised by immense structural changes. Convergence brings new competitors from the telecommunication and information technology sectors, while audiences increasingly select personalised new media settings over traditional channels. These transformations challenge media companies to develop innovative organisational strategies to adapt to these dynamics of their product and market environments. However, innovative organisational strategies have not yet received extensive coverage in media management research. Strategy develop-

ment with respect to continuous innovation as well as resulting organisational configurations are discussed in organisational science, but the application for media companies is missing. This chapter closes this gap by investigating the emergence of new organisational forms in media companies to leverage product and service innovation.

The research objective of this chapter is to address organisational design challenges of innovation from a strategic perspective. Innovative organisational configurations for media companies are being contrasted regarding their potential to balance the capabilities for continuous product and service innovation (exploration) and the need for integration to achieve efficiency (exploitation). Strengths and weaknesses of organisational designs are evaluated regarding the specifically dynamic and dualistic application environments of media companies.

The chapter first introduces the specifics of media organisations with respect to their products, services and markets as well as inherent dualities in their structure. It then describes the relationship between innovation, strategy development and organisational design, and raises strategic issues to be considered when evaluating organisational forms. The main section discusses innovative organisational forms proposed in organisational literature with regard to their relevance and strategic implications for media organisations, in particular their potential to cope with the need for continuous innovation to adapt to changes in their environment while still keeping enough stability to manage processes efficiently. The chapter concludes with summarising remarks and a brief examination of research requirements.

Specifics of Media Organisations

Products, Services and Markets

Media companies differ from conventional product-producing organisations in a number of ways. Besides fulfilling the economic premise of being cost-efficient and/or generating profits, media products and services also bear a considerable cultural dimension in that they have to respond to the value objectives of society (Chan-Olmsted 2006:2-3). Furthermore, the media industry consists of a very heterogeneous array of products and services ranging from print, audio-visual and electronic media to the so-called new or digital media. All these segments bear very specific characteristics both in their value creation as well as in their market environment (Bode 2010:9-10).

The competitive market environment of media companies is currently undergoing considerable structural changes driven by new technology, globalisation and changing audience behaviour (Chan-Olmsted 2006:8-9). Globalisation and convergence have added new competitors from the telecommunication and information technology sectors while simultaneously creating additional

business opportunities on newly-emerging platforms and markets (Dahlgren 2010:27; Wirtz 2011:48-54). Audiences increasingly expect media to be adapted to their lifestyles and to provide desired information and entertainment at their preferred time and place (Dahlgren 2010:26-29). Thus, media organisations must continuously innovate to offer the required individualised experiences.

Media companies compete on three different but interdependent markets: recipient, advertising and content. Their products are a combination of a service package of information and entertainment (content), transmitting or storage medium, and advertising (Bode 2010:23-24). Media products are sold to recipients whereas advertising space is marketed to advertising customers seeking target groups for their output. Payment is not merely in direct monetary flows but also through the attention of recipients (Chan-Olmsted 2006:70). Content that draws a large audience thus receives high revenues on all three markets as it is also attractive for companies interested in buying content (Bode 2010:13-15; Wirtz 2011:28-30).

Media products also bear a very specific cost structure that makes the successful distribution to a great number of audiences so important. Whereas the costs for producing a first copy of content are very high, it is relatively inexpensive to reproduce additional copies. Thus, comprehensive economies of scale can be realised because the average costs rapidly decrease with increasing output (Bode 2010:95-96). Furthermore, media products are associated with network economies where a growing number of audience members increases the value of a media product for each recipient. Thus, an intended spiral effect occurs, attracting even larger audiences (Chan-Olmsted 2006:3; Wirtz 2011:41-42).

In summary, it can be noted that media companies operate in complex and highly dynamic environments where processes of continuous innovation must contribute the flexibility to provide individual customer experiences while still exploiting network settings to achieve the necessary economies of scale and scope.

Inherent Dualities

Although media organisations share many similarities with other organisations, they bear structural-functional as well as product-induced differences (Aris and Bughin 2009:374). Formations set up to foster creative processes exist alongside bottom-line oriented management functions, e.g. publishers typically have an editor in chief and a managing director who are both responsible for the overall economic result. In this situation the clash of creative ideals and economic reality is often inevitable, so media organisations are designed with built-in conflict (Redmond 2006:127-128).

High-risk industries such as media require a large degree of flexibility to react to unexpected events. As a result, the structures in and with which media companies operate are temporary, constantly evolving and often have unclear

boundaries (Achtenhagen and Norbäck 2010:57). Depending on the internal and external environment, these configurations can greatly vary for different media companies (Wirtz 2011:105).

Work in media organisations is typically organised around projects with workers coming together on a task-by-task basis to achieve a pre-defined goal using pre-assigned resources within a limited timeframe (Blum 2010:303; Dawson 1996:117; Staber 2004:38). Projects allow for the short-term concentration of activities and measures to handle new and time-limited issues, in particular in cross-sectional and/or cross-media areas (Achtenhagen and Norbäck 2010:52; Staber 2004:39; Wirtz 2011:111). The setting is predictably complex, requiring high degrees of expertise, creativity and problem-solving skills (Vahs 2012:97-99). The temporary project networks overlap the traditional hierarchical organisational structures of the permanent media entity (Vahs 2012:122-123; Wirtz 2011:111).

Even the more process-oriented media products such as newspapers or magazines are transient organisations because a lot of their input is provided from outside sources and many of their staff are employed on a freelance basis. Again, the positions of the crossing processes have to be organised into the primary structure, which leads to high coordination and regulation requirements. Dysfunctionalities and intransparencies can occur if the resorts of the primary structure supersede process decisions and establish “operative islands” (Vahs 2012:225–232).

The three-tier market structure for media products and services poses additional challenges, as typically at least two, if not all three, of these markets need to be addressed simultaneously. Furthermore, as media companies own major communication platforms, their business is both content- and communication-driven. In this context, organisational structures have to reflect the multi-tier environment (Redmond 2006:132).

In summary, it can be said that the number of dualities inherent in media organisations makes innovations particularly challenging. The organisational set-up should reflect such dualities as distinct elements, accepting their thoroughgoing interdependence (Achtenhagen and Norbäck 2010:61). Dualities typically occur in bundles and create tensions between mutually exclusive goals while increasing both the complexity and the uncertainty of innovative contexts (Sánchez-Runde and Pettigrew 2003:245).

Innovation, Strategy and Organisational Structure

Innovation, strategy development and organisational design are closely related, as innovation is the essential strategic component for organisations to gain sustainable competitive advantages. However, as these exploitation capabili-

ties contrast with the efficiency objectives of routine processes, organisational structures that balance innovation and exploitation motives are desirable. This section introduces the relevant terms and concepts from innovation, strategy and organisational structure as well as their interrelationships.

Innovation is an extensively debated term among scholars regarding its meaning and scope. Although there is consensus that it relates to a novelty, the question of “what is new, how new, and new to whom” (Johannessen *et al.* 2001:20) is an open dispute (Fraunhofer-Institut für System- und Innovationsforschung and Armbruster 2007:13; Lam 2004:3-4).¹ Furthermore, different types of innovations in a business or organisational context are being differentiated such as newness relating to ideas, products, services, processes of manufacturing or service delivery, markets and market opportunities, sources, customer-related business processes, or organisational forms (Fraunhofer-Institut für System- und Innovationsforschung and Armbruster 2007:14; Johannessen *et al.* 2001:21; Steiber 2012:1,5). Other authors focus on aspects of the innovative process such as creativity, the search for novelties, experiments or discovery, or merely the characteristic of change (Fraunhofer-Institut für System- und Innovationsforschung and Armbruster 2007:13-14; Lam 2004:4). Of particular interest for organisational questions are the features and structures of organisations that provide them with the ability to innovate, regardless of the business area and the related capabilities to handle the necessary changes (Fraunhofer-Institut für System- und Innovationsforschung and Armbruster 2007:8-9), also in conjunction with potential collaboration with geographically dispersed units or clusters of units outside the company boundaries (Aune and Gressevold 2011:122; Jörgensen and Goduscheit 2011:145-146; Ozman 2009:53).

A strategy defines the long-term fundamental patterns of resource allocation and the interaction between an organisation and its defined relevant market(s) (Frese *et al.* 2012:324). Strategy development distinguishes between corporate and business strategy. The corporate strategy delimits the scope of organisational activities through product-market combinations, i.e. business areas. For each area, business strategies specify how the company intends to achieve sustainable competitive advantages relative to other market participants (customers, competitors, suppliers). Innovations are the principal strategic driver for differentiation, especially in highly dynamic market environments. Organisational requirements derive from both corporate and business strategies, in particular how different businesses with varied competitive strategies are to be coordinated within corporate strategy. This involves solving the central problem of balancing the gains and costs of synchronising the activities of fully or partially autonomous organisational units in a situation of complexity and uncertainty (Frese *et al.* 2012:324-326). This problem is also known as the balancing of exploitation and exploration capabilities (Boer *et al.* 2006:2; Volberda 1996:359). The higher the complexity of tasks and the higher the uncertainty, the higher

are the coordination costs. Complexity limits finding an optimal solution because not all units can be considered simultaneously. Uncertainty reduces the available actions over time as decisions have to be taken as the need occurs. In situations of high uncertainty, the costs of horizontal coordination increase over-proportionally due to information or methodological requirements which make autonomous decisions at lower levels of the organisation more feasible (Frese *et al.* 2012:324-326). Contrary to this, autonomy costs are opportunity costs due to missed innovation potentials of markets, resources and processes, as corporate efficiency would mean exploiting these potentials simultaneously. However, exploitation and exploration potentials are not independent; weak process efficiency, for example, also damages market potentials. Growing uncertainty increases the problem as coordination becomes more costly. Therefore, from a strategic perspective, critical processes as well as the most relevant market segments or critical resources need to be identified and preferably addressed in organisational design (Frese *et al.* 2012:327-332).

Product features and market definition are two important aspects in the development of competitive strategies for business areas. Standardised products have a low complexity both at process level and at market level, while individualised products incur higher complexity. Uncertainty also increases with reduced product standardisation, while general changes in the environment, e.g. new technologies, bring additional challenges. Customer demands for innovative, individualised, fair-priced but high quality products are currently regarded as the most demanding strategic organisational challenge as they require organisations to strive simultaneously for operational effectiveness and continuous innovation, bringing advanced coordination requirements at all levels of the organisation (Frese *et al.* 2012:332-337).

An organisation achieves operational effectiveness by fulfilling the needs of current customers regarding function, price, time, quantity and place. It is based on exploitation capabilities through tightly controlled processes and strong task interdependencies that enable high efficiency and exploitative improvement. Contrary to this, a long-term strategic flexibility for providing innovative products and services refers to an organisation's exploration capabilities to develop new configurations of products, market approaches, processes, technologies, competencies, organisation and management systems that enable the satisfaction of future customers (Boer *et al.* 2006:2). Westerman notes: "As a result, highly efficient producers tend to be less innovative, and vice versa. The changing nature of strategic contingencies over an innovation's life cycle further complicates organization design. Formations that are fit for variation and uncertainty early in the life cycle will be unfit for the efficiency required later, and vice versa. Although organisations can change design over time, this can be very difficult, especially when it requires moving to a new configuration of strategy, structure, and controls" (Westerman *et al.* 2006:230).

Besides the exploitation-exploration challenge, so-called complementarities can add an extra level of complexity to both strategy development and organisational design. If two (groups of) activities reinforce each other, so that doing more of one increases the returns of doing more of the other, these (groups of) activities are complementary (Milgrom and Roberts 1995:181). Considering complementarities is especially relevant in more flexible forms of organisation where the traditional notions of scale and scope are limited in their explanatory power. Complementarity theory extends the idea of efficient multidimensional configurations of internal organisational elements such as strategy, structure, culture and technology suitable for particular contexts by adding a focus on competitive advantage (Whittington and Melin 2003:41-42). The benefit of an efficiently working system of complementary elements is that due to the inherent complexity of organisations it will be hard to comprehend and thus imitate, providing a sustainable competitive advantage. However, the downside of the interdependencies implies that minor changes could potentially damage large sections of the system. For organisations with highly dynamic environments, complementarities are constantly threatened as the organisation adjusts to approaching contingencies. Beyond that, successful change requires a strong central direction because local amendments of elements are highly unlikely to complement the rest of the organisation. This is reinforced because organisational decentralisation could result in suboptimal strategies, if organisational units cannot achieve their full potential since increased performance would require either of two complementary units to make changes for which neither has the incentive to be first, and potentially sole, mover (Whittington and Melin 2003:41-42).

In the relevant literature, three models are distinguished which use 'time' as a separator to explain how organisations can react to complementarities and, in particular, to the exploration-exploitation challenge. The ambidextrous organisation behaves exploratively when the situation requires the initiation of new ideas and innovation, and in an exploiting way to implement and use the results. The punctuated equilibrium model proposes that long periods of small, incremental change (i.e. product and/or process innovations) are interjected by short periods of discontinuous, radical change. Finally, in the innovation process model, radical systemic change is followed by long periods of maintenance and incremental improvement (Boer *et al.* 2006:4-5; Fraunhofer-Institut für System- und Innovationsforschung and Armbruster 2007:16-18; Steiber 2012:11). All three approaches have been criticised for lacking a clear organisational design as to whether explorative and exploiting activities are to be differentiated into separate organisational units or integrated within the same unit. Ambidexterity could be a manifestation of the capabilities of individual actors rather than of organisational design, and thus not achievable by merely establishing formal structures or lateral coordination mechanisms, but rather

by enabling ambidexterity at the individual level. From a dynamic perspective, all approaches may be employed depending on changes in the internal and external environment (Sánchez-Runde *et al.* 2003:257-258), organisations thus becoming ambidextrous by adopting certain configurations for contingent situations (Raisch *et al.* 2009:685-686). An organisation that frequently explores will establish general structures bridging innovation and operations to increase the flexibility of production. A rare radical innovation is much more difficult to handle than high frequency incremental innovations (Fraunhofer-Institut für System- und Innovationsforschung and Armbruster 2007:15). Furthermore, there may be differences in organisational design depending on whether product, process or market innovations are considered, while product innovations could be relatively incremental in a nature-related process and organisational innovations could be more radical in their effects (Boer *et al.* 2006:5,10-11). Finally, ambidexterity is not just a question of internal capabilities but can be acquired by employing external knowledge processes, in particular for exploration purposes (Raisch *et al.* 2009:685-686).

Innovative Organisational Strategies for Media Companies

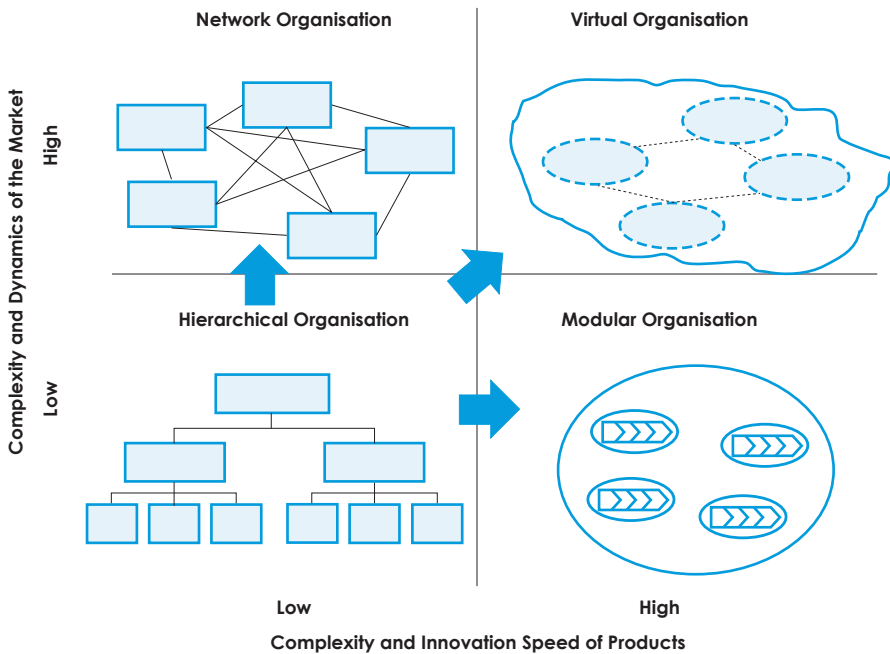
The evolution of organisational forms for media companies reflects the current expectation of continuous innovation as customers increasingly prefer product and service customisation over standardised offerings (Miles *et al.* 1997:7; Anand and Daft 2007:329-333; Schilling and Steensma 2001:1149). The media industries display clear evidence of changes in their organisational structures, which become more decentralised and more delayed and include a higher degree of project forms (Pettigrew 2000:1). This section discusses extended organisational forms with respect to their relevance and strategic implications for media organisations, and in particular their potential to cope with the need for continuous innovation to adapt to changes in their environment while still keeping enough stability to manage processes efficiently.

The following classification of extended organisational forms uses two categories: the complexity and dynamics of the market, and the complexity and innovation speed of products. A rise in these categories reflects the strategic challenges of an increased demand for exploration capabilities. Depending on whether either of these two categories is low or high, four categories can be distinguished (see Figure 1).

The bottom left-hand corner is characterised by low market dynamics and low complexity and innovation speed of products. In this situation, traditional hierarchical organisation structures such as functional, divisional or matrix forms provide adequate organisational settings. Processes are typically repetitive and thus standardised; re-organisation occurs only with major changes in

the product and service portfolio. This setting is not one that illustrates modern media organisations and their challenges, with the possible exception of small businesses. As outlined above, media organisations have experienced a growing speed of essential product innovations. Many media products are already unique in that they have to be produced new every day (e.g. news media) or are the result of single projects (e.g. a movie) often entailing high risk and huge first-copy costs. Even if formats are considered rather than content, an imminent decrease in the time span of product lifecycles is apparent.

Figure 1. Extended Organisational Forms (based on Vahs 2012:585)



Until recently, large media organisations concentrated on managing their complex product range with its many product variants while consequently gearing their processes at their three-tier external market. They started to develop the traditional into modular organisational forms (also known as process-oriented or cellular organisations) by decentralising operating tasks and assigning competencies and responsibilities to modules which have high autonomy over their processes and resource allocation (Anand and Daft 2007:336-337; Dess *et al.* 1995:8-9). The modular organisational form (depicted in the bottom right hand corner of Figure 1) draws on the idea of cells in living, adaptive, higher-order organisms. Cells, e.g. self-managing teams or autonomous business units, can operate both independently or interact with other cells within a more potent

and competent business mechanism. The modular organisational form is an extension of the divisional profit centre approach that is particularly popular with larger and diversified media organisations. The major difference is that the modules have a continuous process management through removing horizontal and vertical barriers while pursuing an integral orientation (Klimmer 2009:170-172; Schilling and Steensma 2001:1151). The resulting organisational structure is a system of highly autonomous subsystems extensively linked through product and service transactions with their internal and external suppliers and customers (Vahs 2012:586). Each cell must be able to continually reorganise in order to make its expected contribution to the overall organisation, in particular to develop the technical skills needed to perform its function, the collaborative skills necessary to make appropriate linkages with other organisational units and external partner firms, and the governance skills required to manage its own activities. Application of this modular principle requires the removal of bureaucracy and the development of jointly defined protocols (Miles *et al.* 1997:12). Cells within a modular organisation must be entrepreneurially responsible to the larger organisation's objectives to fully exploit the growing knowledge base. However, the balance between interdependence and independency of modules must reflect the dynamics of the product environment: more dynamic product development requirements demand more independence, while less dynamic environments allow a stronger focus on standardisation and formalised structures between divisions (Galunic and Eisenhardt 2001:1243-1245). The combination of independence and interdependence supports the cellular organisational form to generate and share the know-how needed for continuous innovation (Miles *et al.* 1997:12). The modular form provides particular competitive advantages in markets with a high demand for innovative products, where individual firms cannot keep up with the speed on their own and thus seek alternative work arrangements by enlisting contractors, agencies and partners (Jørgensen and Goduscheit 2011:148; Ketchen *et al.* 2002:168).

With the increasing complexity and volatility of their market environment due to the changes through glocalisation, convergence or altered customer preferences outlined above, media organisations also started to explore network forms of organisation (depicted in the top left hand corner of Figure 1). This organisational form connects self-sufficient units (persons, groups, organisations) which have stable relationships among each other and share common values and norms in order to gain competitive advantages (Klimmer 2009:175-178). In the network formation traditional organisational boundaries blur, but the participating organisations all remain economically independent (Zieger 2009:116-119).

Malnight (2001:1202-1203) identifies three types of network structures in organisational design. Knowledge-sharing networks focus on accessing and distributing scattered expertise to enhance innovation, while simultaneously

leveraging scale in growing technology investments, reducing uncertainties, and supporting services for effective exploitation. Data-sharing networks generate and distribute data in order to enhance speed and flexibility by aligning and integrating dispersed and duplicated operations. While these two types of networks are interrelated, knowledge-sharing focuses on exploration and data-sharing on exploitation. The third type of network refers to sharing facilities, where the focus lies on utilising scale in specialised facilities or exploiting complementarities to meet common objectives. If some network members are specialised in certain activities or facilities, they can leverage their core competencies within the network (Ozman 2009:44-48; Vahs 2012:585). Thus, the combined network can realise economies of scale and scope otherwise unavailable to individual members, while minimising the risks of the highly volatile market environment (Ozman 2009:44-48; Podolny and Page 1998:59).

However, regardless of the type of network, no predetermined network structures evolve because the overall value of networks depends on the architecture as well as on the relative positioning of network constituents. As participants or units are often motivated by self-interest rather than group interest, the structures that are efficient are not necessarily stable, nor are stable structures automatically efficient. This is also highlighted by the systematic variations in firm-level characteristics and in their mix across process-level structures. The complexity of firm-level structural challenges requires an internal development and integration of multiple types of networks, drawing on common resources and operations across the functional, geographic and product dimensions of its operations, rather than implementing a single network structure. This coincides with a need to investigate the complexities of organisational subsystems as opposed to averaging characteristics over a firm's subunits (Malnight 2001:1202-1203). The analysis also entails small world phenomena (i.e. dense clusters within otherwise loosely clustered networks) and dynamic components (i.e. the evolution of networks through time) as well as conditions in the external environment (Ozman 2009:54-56). Ultimately, complex and dynamic network organisations thus require an integration of the network partners and a smooth functioning of communication including concise rules for conflict solving (Vahs 2012:587). Other challenges involve the costs for managing the network, limited/partial control of the network structures, loss of competencies and increasing interdependencies (Achtenhagen and Norbäck 2010:53-56; Arenas *et al.* 2010:90).

Virtual organisations (shown in the top right-hand corner of Figure 1) are regarded as the most advanced extended form of organisation, addressing the challenges posed by the dynamism and ensuing complexity on both market and product sides, creating a highly volatile, high-risk environment. This situation especially characterises media organisations active in new media environments, either as a separate business or as an extension to traditional

models. In a virtual organisation, task-specific and translocal cooperations are set up for a limited time period to solve a new and complex problem (Klimmer 2009:178-181; Vahs 2012:589). The steps of the value creation chain are spatially and temporally detached and realised through optimised business processes allowing for high flexibility and fast order fulfilment. The organisational formation combines the advantages of modularisation and network organisations, and is therefore also called a hybrid model (Vahs 2012:590) or a virtual enterprise network (Georgantzias 2001:171). The legally and economically independent partners concentrate on their core competencies and link them to each other (Frese *et al.* 2012:632; Weigle 2007:28). Other constituting characteristics proposed in the relevant literature include a low degree of formalisation, in particular regarding the institution of central management functions (Borchardt 2006:16-17) among the involved partners, who share a common goal combined with high transparency and a flexible, open, dynamic configuration. From an outside perspective the virtual organisations seem to be one logical unit (Dess *et al.* 1995:10-13; Weigle 2007:22-28). Virtual organisations typically share a project orientation including time limitations, with the partners bringing in their complementary resources (Weigle 2007:28). Outputs of successfully completed projects are shared between the partners (Borchardt 2006:16-17).

An effective and efficient integration requires not only highly qualified staff (Jarvenpaa and Ives 1994:40-41) with an extraordinary level of trust between the partners (Elmore 2006:8; Georgantzias 2001:171; Johnson-Cramer *et al.* 2007:103-104), but also powerful information and communication technology (Frese *et al.* 2012:632; Jarvenpaa and Ives 1994:25-26; Klimmer 2009:180; Weigle 2007:28). The highly dynamic environment on both the market and the product sides brings a high level of uncertainty with reduced opportunities for standardisation. Therefore, the number of transactions among the partners in a virtual network is high as networks form anew on a project-by-project basis with varying market and/or product requirements. Although the network might benefit through complementarities of inputs from different partners, a high-uncertainty transaction situation incurs considerable coordination problems as the behavioural scope of partners increases and thus the potential for principal-agent problems. As a result, extensive control and regulation measures are required with the resulting transaction costs and time losses (Borchardt 2006:82-84). Furthermore, if one of the partners holds a monopoly on his input, this can create a potential lock-in effect, and thus costs for the other network partners, as well as potentially opportunistic behaviour from that particular contributor (Borchardt 2006:80).

From a strategic media management perspective, the variety of extended organisational designs needs to be captured and condensed into a more unified conception. For media organisations, the selection of an appropriate organi-

sational design is not an either/or decision but rather a continuous evaluation and implementation process, while facing conflicting contingencies and the need for a fitting congruence between innovation, strategy, structure and processes. The combining element of modular, network and virtual organisation is the inherent network structure of media organisations, which advanced approaches in the strategic management literature use as a reference point to evaluate the potential for competitive advantage through additional value creation. In a so-called value-adding web, single actors create not only value but also the extent and quality of the cooperation between the various actors. Brown *et al.* define a value-adding web as “a connection of horizontal, vertical and lateral value adding activities contributed by different actors in proximity to one another which all act in relation to a specific industry. Together the actors are building a value adding web which defines the boundaries of the cluster. Direct and indirect interactions take place between these actors which may be reflected in strong, medium or weak links” (Brown *et al.* 2007:7). The levels of connectivity between actors in value-adding webs include companies producing the same product (horizontal), suppliers or buyers (vertical) and relevant universities, research institutes or public authorities supporting knowledge creation or providing financial resources (lateral) (Brown *et al.* 2007:7-8). Consequently, competitiveness not only derives from organisation-specific resources and competencies but also from the organisation’s position in the web as well as from the competitiveness of the entire web relative to that of other webs (Brown *et al.* 2007:8-10).

The structures of media organisations’ value-adding webs can be observed in practice. Complex ownership structures for larger conglomerates often display multitudes of smaller units, which are linked but partially or fully independent. Internally, these units could have any of the structures explained above, e.g. a traditional structure such as functional, while being an element in a larger hybrid setting. Although the control of fully- or partially-owned subsidiaries is at the level of the parent company, horizontal, vertical and lateral links among the subsidiaries may form and/or with companies inside or outside the corporate structure, including actors at a context level. The result is an array of multi-layer web-like structures where boundaries are often difficult to determine, even for “insiders”.

In summary, it can be said that the notion of value-adding webs provides a powerful concept for investigating structures of media organisations from a strategic perspective as they use observable network structures for horizontal, vertical and lateral actors as a reference point and draw attention to the variety of innovation potentials at the organisation, network and context levels. Simultaneously, they address the potential drawbacks identified by approaches in organisational theory such as transaction costs and principal-agent problems.

Concluding Remarks

Media organisations currently face growing challenges of conflicting contingencies in their product and market environment and thus an increasing need for a fitting congruence between innovation, strategy, structure and processes. With increasing systems complexity, the ability for continuous innovation regarding product and service portfolio and an adequate organisational design become strategic denominators preparing sustainable, and thus difficult to imitate, competitive advantages. Although generally there is no strategically optimal organisational design, a number of necessary developments can already be observed: smaller and more flexible organisation architectures, modularisation, decentralisation, partly autonomous units and market orientation. Media organisations have increasingly become multi-dimensional, with overlapping layers of primary, secondary and even tertiary structures, especially driven through transient project-based settings and the dynamics on the product and market sides through customers demanding innovative and individualised media experiences.

The concept of value-adding webs combines central aspects of modern organisational forms discussed in management literature. It captures these multi-layer configurations by incorporating network structures among horizontal, vertical and lateral actors at different levels as well as the challenges of an adequate appropriation for network stability. Nevertheless, additional research is needed through investigation of the strategic evaluation, formation, development and control of value-adding webs for media organisations.

Note

1. See Fraunhofer-Institut für System- und Innovationsforschung and Armbruster (2007:8-14) and Lam (2004:3-4) for an extensive overview of the discussion on the definition of innovation.

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Chapter 6

Size, Ownership and Innovation in Newspapers

Arne H. Krumsvik, Eli Skogerbø & Tanja Storsul

Abstract

This chapter analyses the relationship between the size and ownership of newspapers and their approaches to the challenges from the tablet market, e.g. the iPad. Which newspapers were inclined to innovate by launching iPad apps? The hypotheses tested are that: (1) the size of newspapers and (2) having corporate owners, i.e. being owned by a media group, have positive effects on the strategies of the individual newspapers. The empirical analysis supports the hypotheses. Only newspapers owned by corporate owners, i.e. media groups, had plans for iPad apps. Newspapers owned by media groups were also more positive towards new media developments. These differences are explained by reference to two types of resources provided by media groups: *analytical* capabilities and capabilities to enhance joint *product development*.

Introduction

In March 2010 Apple released its first iPad, thereby challenging media companies around the world to innovate their products to comply with the iPad's interface and functionalities. The iPad is a tablet computer for web and audio-visual content and for a growing number of diverse applications. It was met with high expectations in the newspaper industry. It was celebrated both as a media platform that could facilitate service innovation and the innovation of new genres and new business models, and as a new distribution channel that could enable the reinvention of established genres and business models (i.e. subscription of pdf versions of paper newspapers).

The iPad can be characterised as an *architectural innovation*, following the typology of Abernathy and Clark (1985). They classified technological change according to its proximity to the current technological course and to the existing market segment. The iPad and similar tablets, viewed as larger versions

of smart phones, are simple technological innovations with the potential to transform products or entire businesses._

For newspapers, the tablet technology represents both a new platform that facilitates innovation in terms of the distribution of existing products and services, and a publishing platform that enables innovations in journalism and user interaction. Some newspapers focus primarily on the aspect of distribution, while others explore alternative potentials in the new publishing platform. The introduction of tablets is a development that opens up for studies that may add to the knowledge about how new publishing tools impact on and change journalistic products (Boczkowski 2004; Boczkowski and Santos 2007; Mitchelstein and Boczkowski 2009; Barland 2012). Furthermore, studies of the development and implementation of iPad strategies may shed light on how organisations in general and news organisations in particular respond to technological change (Lawless and Anderson 1996; Boczkowski 2004; Boczkowski and Ferris 2005; Barland 2012). This chapter focuses on external factors (Pfeffer and Salancik 2003) and investigates how two structural and contextual factors concerning size and ownership influence newspapers' iPad strategies. The findings provide indications of how the newspaper industry may approach opportunities enabled by similar technological innovations in the future.

Newspapers have traditionally been single-purpose organisations, focusing on continuous improvement in the production of the newspaper. In the past, a number of different innovation processes have changed the production of the newspaper product. The change from manual to electronic typewriters was an example of adapting *incremental innovations* as part of this process. The digitisation of newspapers in the 1980s was part of an effort to make the production process more efficient. The implementation of digital production systems made the competencies of setting hot metal linotypes and composing text obsolete. This was a *discontinuous innovation* that represented a break with existing system and processes (Küng 2008). The introduction of the iPad brought about potential opportunities for innovating the product as well as the form of distribution, representing possibilities for both incremental and discontinuous innovation. The perception of the kind of innovation that the iPad facilitates may accordingly influence the approaches that newspaper companies take towards the platform.

The study was conducted in Norway, a Scandinavian country typical of the "democratic-corporatist media system" as described by Hallin and Mancini (2004) in the sense that both newspapers and digital media have strong market positions. Compared to the USA and most other countries in the developed world (except Japan and Switzerland), newspapers are strong in Scandinavia. However, the Norwegian newspaper industry has recently faced transformations similar to or resembling those taking place in most other countries in the past decade.

Norwegian newspapers houses have dominated online innovations in the domestic market, yet most of them have not been able to make their online ventures profitable and have eventually compensated for decreasing circulation figures of the print edition. The emergence of new reading devices was met with great expectations by the newspaper industry. The newspaper industry has for years been struggling to develop new and viable business models, and tablets have been regarded by the actors as having the potential to create a large and more profitable market for the digital consumption of traditional media products. Thus, the introduction of the iPad as a proven concept for user payment for digital content was attractive to news organisations (Krumsvik 2006; Krumsvik forthcoming; Krumsvik and Westlund forthcoming; Ottosen and Krumsvik 2010).

Nevertheless, the responses of Norwegian newspapers to the iPad challenge varied. Some launched iPad versions – apps – well before the iPad was offered to Norwegian customers in December 2010. Some planned to adjust their online editions to tablets. Other newspapers still had no plans for launching any kind of specific services for tablets one year after the introduction of the iPad. Through an analysis of how media companies approached the tablet as a new media platform, this chapter aims to gain a better understanding of the factors that influence the different innovation strategies taken by newspapers. It focuses on two structural conditions that can be presumed to influence media companies' decisions to develop services for tablets: the *size* of the newspapers and the structure of *ownership*. These are measurable conditions that can be operationalised by reference to circulation figures and type of ownership – independent or group-owned. The values indicate whether certain resources, such as capital and opportunities for joint development, are present.

Size and ownership are interesting because in the past decades the Norwegian media market has changed significantly in these two dimensions. Alongside the digitisation of the newspaper business, further achievements in efficiency have been realised through advantages of scale and scope in the forming of newspaper chains. While the development towards larger units has been driven by claims for larger markets and profits, regulators have worried about diversity and introduced ownership regulations (Baker 2007; Doyle 2002; Roppen 2004). However, as publishing technologies, platforms and business model and media product portfolio development became more complex, it was relevant to investigate more closely the relationship between size, ownership and innovation in media firms. The assumption that concentration makes media companies more cost-effective and innovative is often quoted in favour of relaxing ownership restrictions without there being substantial evidence (Doyle 2002:13). This article investigates newspapers' approaches towards iPad strategies as indications of innovation, with a specific perspective on whether size and ownership matter.

Innovation, Size and Ownership

Innovation can be defined as an idea, practice or material artifact perceived to be new by the relevant unit of adoption (Zaltman, Duncan and Holbek 1973). It is here understood as new combinations of existing knowledge and resources (Schumpeter 1934:65) and is typically referred to as technological innovation and innovation of business models, but also as innovation of genres.

According to these definitions, the iPad and the other tablets are innovations. However, when a media firm seeks to expand and provide specific services for tablets, it also needs to innovate. The firm must technologically adapt its production, and consider genres and business models that may be attractive and sustainable on a new platform. Consequently, expanding services and products specifically for tablets requires innovation. Innovation may take place by developing a specific app version of the newspaper or by adjusting the online edition for tablets. On the other hand, if a media firm considers its current web publications to be sufficient for the tablet markets, it does not require innovation. Our analysis will not assess the soundness of different strategies, but will be restrained to what may explain tablet strategies.

The relationship between *innovation and company size* has given rise to much dispute in innovation literature. Fariborz Damanpour (1992) mapped and created a typology of studies concerned with size and innovation, finding that the way size is measured was of importance for the study of innovation effects. In our study, size refers to the newspapers' circulation and their positions in the local and national newspaper markets. In Damanpour's terms this would be a contextual definition of size. The type of organisation also had different effects. In Damanpour's study, being a large company implied resources for innovation, but the impact of size varied between the manufacturing and service industries. Another explanation was that large firms have more complex and diverse facilities and more professional and skilled workers. In times of change, large corporations have the economic strength to invest in innovation and to develop new services, and can afford the risk of allocating resources to new areas. They have the power to influence market developments and to take advantage of economies of scale and scope (Damanpour 1992). Thus, being big implies having competitive benefits in the market (Porter 2008). This suggests that large newspapers are better positioned for innovation on new technological platforms, and leads to the following hypothesis:

H1 *The size of the newspaper positively affects tablet strategies.*

Being big is not only an advantage: it involves challenges for making innovative choices, especially if the innovation has a disruptive character. Clayton Christensen (1997) has argued that in times of change, large established companies often fail as they may be too concerned with developing services for the

mainstream market and not dynamic enough to grasp the new opportunities before it is too late. The reasoning is that large companies may do everything right. They do market research and forecasting, and focus on improving their products for their best customers; however, this strategy is exactly why they may end up getting it all wrong. The customer orientation may make management ignore what Christensen terms *disruptive technologies*. “Products based on disruptive technologies are typically cheaper, simpler, smaller, and, frequently, more convenient to use” (Christensen 1997:xv). Even if disruptive technologies initially underperform compared to established products in the mainstream market, they may end up becoming the mainstream market.

Adapting online newspapers to tablet versions is not necessarily indicative of disruptive change. The tablet format may primarily represent a continuation of ongoing developments of online and print newspapers, and innovation within media companies may be quite conservative. But it is possible that such shifts are disruptive and that small companies will be more innovative, identifying new opportunities that the larger ones do not see.

Experience from the development of the Internet market does not give rise to clear-cut predictions about the impact of company size on innovation in the newspaper industry. The Internet has been a disruptive technology and posed substantial challenges for established media products (especially newspapers), genres and business models in the media industry. Nor does the size of companies explain who the first movers in the Internet market were or which newspapers developed online services: both the large newspapers and most of the small ones are online.

Another, and related, structural dimension likely to influence the willingness of newspapers to innovate is ownership, i.e. the type of organisation behind the company. Corporate ownership, typically newspaper chains or media groups, implies concentrated ownership. Several studies have found that concentrated ownership positively affects innovation as it reduces agency costs and disciplines managers’ behaviour (Hill and Snell 1988; Holmstrom 1989; Baysinger *et al.* 1989; Francis and Smith 1995), and favours financial commitments and organisational integration (Lacetera 2001). In addition, corporate ownership may provide both the economic and intellectual resources necessary for innovation to the individual companies – or it may prescribe the same medicine to all and bar local innovation. Corporate ownership has benefits of scale and scope, and this capacity may be exploited to develop products for the whole organisation. There are many examples where corporations have developed joint designs and technological platforms for online media as well as joint solutions for user payment and customer communication. When developing services for tablets, joint designs and technological solutions provided by the corporation may be the key to enabling individual newspapers to expand to the new platform.

On the other hand, joint strategies may also imply a “one size fits all” approach that makes local innovation difficult. Orega-Argilés *et al.* (2005) found that dispersed, as opposed to corporate, ownership positively affected innovation because it favoured flexible and specialised managers. The same factors – flexibility and specialisation – may be exactly what make companies over-emphasise their mainstream markets. As argued above, in times of disruptive change reliance on mainstream markets may cause great companies to fail. It is possible that a corporate owner benefits from being more distant from the mainstream market and the immediate concerns about core customers. Corporate owners may therefore be better positioned to make strategic decisions as they can look beyond the mainstream market for new opportunities. Demers (1996) showed that specialisation in large corporations implies increased emphasis on factors other than short-term profits. Consequently, corporations may not only have sufficient economic resources but also a better strategic capacity for innovation.

Following these arguments, it is likely that media group ownership will enable more newspapers to develop strategies for tablets. Accordingly, our hypothesis is as follows:

H2 *Media group ownership positively affects tablet strategies.*

At the same time, the innovative power in terms of the services and business models developed may be limited because of “one size fits all” approaches. However, this is outside the scope of this chapter, which focuses on what may explain innovation strategies rather than their innovative power.

In media studies, discussions about the size and ownership of media companies are often centred on whether a concentration of ownership implies a concentration of power and limitation of journalistic diversity (e.g. Bagdikian 2004; Trappel *et al.* 2011). By focusing on the implications of both company size and ownership, the main contribution of this chapter is to demonstrate the effects of size and ownership on strategies and innovation within individual media companies. This leads to the overarching question for discussion:

RQ1 *What is the relationship between size and ownership in driving innovation?*

Data and Methods

A survey of Norwegian media executives provides the data for testing the hypotheses and answering the research question. The survey was conducted in April 2011 in cooperation with the National Association of Local Newspapers (LLA) and the Norwegian Media Businesses’ Association (MBL). A total of 229

executives (editors, managing directors and publishers) in Norwegian print papers responded to 28 questions in an email/web-based questionnaire. The respondents were not sampled as all registered newspapers were included, and non-response can be interpreted as a kind of negative self-selection. The response rate was 59 per cent after three rounds of email reminders. There were no indications that the non-responses followed a pattern and created systematic biases in the material.

The data were analysed and the hypotheses tested by means of the SPSS statistical package, applying cross-table analysis (Tables 1, 3 and 5), mean differences (Tables 2 and 4) and linear regression (Tables 6 and 7). Each table contains notes on the figures included, levels of significance etc.

Size of Newspapers and Innovations

In order to examine whether company size positively (H1) affected tablet strategies, the executives were asked if they had already launched a specific app version for the iPad, if they planned to do so, if they made adjustments to the existing online version or if they considered that the online edition would work well on tablets without innovations. In the analysis the executives' responses have been grouped according to the size of the company they represent in order to test the first hypothesis: whether the size of a company affects its tablet strategies. The company's size was measured by the circulation of its print edition, grouped in accordance with a standard developed by the Norwegian Media Businesses' Association (MBL).

Table 1. Main Approach Towards Tablets among Media Executives in 2011 by Size of Newspaper (%)

Approach	Circulation				Total
	Below 5,000	5-10,000	10-40,000	Above 40,000	
Online edition works well on tablets	54	29	7	0	26
Adjusted version of online edition	18	22	19	15	19
Planning app version	29	45	59	39	45
Have launched app version	0	4	15	46	10
Total	101	100	100	100	100

Notes: The relation between these variables was significant, χ^2 (9, N=193) = 64.058, $p < .001$. Survey question: Approach: what is your main approach towards tablets in 2011 (i.e. iPad and similar)? The company's size was measured by the circulation of its paper edition, grouped in accordance with a standard developed by the Norwegian Media Businesses' Association (MBL). N=193.

Table 1 shows that there was a significant correlation between newspaper size and the main approach towards tablets in 2011, supporting H1. Among execu-

tives in the largest newspapers (with a circulation above 40,000), almost half (46 per cent) reported having launched an app version and 39 per cent planned to do so. None of these executives assumed that the existing online version would suffice on tablets. Among respondents from the smallest newspapers, the picture was opposite. More than half of these (54 per cent) assumed that the existing online version would work well on tablets, and only 29 per cent planned to develop a specific app version. None of the executives from the smallest newspapers reported having launched an app version at the time of the study.

In order to gain a better understanding of the executives' general approaches towards innovation, they were asked to rate a set of questions concerning their Internet and tablet strategies on a scale from 1 to 6. These questions are summarised in Table 2.

Table 2. Innovation Indicators and Newspaper Size

	Circulation									
	Below 5,000 (1)		5-10,000		10-40,000		Above 40,000		F	η^2
Innovation indicators	N	Mean	N	Mean	N	Mean	N	Mean		
The use of Internet represents an opportunity for the newspaper I am working for. (N=213)	72	4.43 ^{ab} (1.22)	55	4.78 (1.30)	73	5.30 ^a (.811)	13	5.46 ^b (.66)	9.05***	10.81
It is important for us to be present on all new media platforms (online, mobile, iPad etc.). (N=214)	72	3.79 ^{abc} (1.45)	55	4.45 ^{cd} (1.33)	74	5.14 ^{bd} (1.24)	13	5.23 ^c (1.09)	13.72***	24.33
The iPad has changed my views on the opportunity to charge readers for digital content (N=211)	68	3.65 (1.39)	55	3.91 (1.46)	73	3.90 (1.46)	12	4.00 (1.28)	.56	1.15
The centralised development of apps in the media group or by trade organisations will be important for my newspaper (N=208)	68	3.44 ^a (1.58)	55	4.09 (1.49)	73	4.36 ^a (1.45)	12	4.75 ^a (1.14)	5.67***	12.56

Note: 6=totally agree/very important, 1=totally disagree/not important. *** = $p \leq .001$. Standard deviations appear in parentheses below means. Means rows are significantly different at the $p < .05$ based on Bonferroni post-hoc comparisons. The company's size was measured by the circulation of its paper edition, grouped in accordance with a standard developed by the Norwegian Media Businesses' Association (MBL).

In order to investigate the newspapers' assessment of new platforms in general, questions were asked about their attitudes towards the Internet and new platforms, assuming that their general attitude towards the Internet influenced their strategies in the tablet/iPad market. Accordingly, the responses have been interpreted as *indicators of innovation*. Table 2 shows that the larger the newspaper, the more positive were the executives' attitudes towards the Internet and the greater the tendency to consider it important to be present on all new media platforms.

As mentioned above, the iPad was regarded by the industry as a platform that would enable user payment for digital services. In order to investigate the executives' assessment of tablets, they were asked about how they assessed the iPad and the opportunities to charge readers. However, the answers showed no statistically significant difference, indicating that the assessment of the iPad did not depend on newspaper size.

Finally, we examined whether iPad strategies depended on resources outside the individual companies in terms of joint product development by asking about centralised development in the media group or trade organisation. Again, a significant correlation was found, indicating that the larger the newspaper the more important it finds a centralised app development.

Thus, Table 2 shows significant correlations between newspaper size and innovation indicators such as evaluation of Internet opportunities and the need to be on all platforms. Together, these findings and those shown in Table 1, i.e. that newspaper size correlates with the main approach towards tablets, support our hypothesis (H1) that the size of the newspaper positively affects its tablet strategies; in other words, large newspapers are most likely to launch separate tablet versions.

The last variable, the importance of a centralised development of apps, indicates that resources outside the individual company are assessed as significant by the newspapers. Executives in larger newspapers viewed this as more important than executives in smaller ones. Nevertheless, the mean score among all was 4 (out of 6), pointing towards the other dimension in our analysis – the role of media group ownership.

Ownership and Innovations

In order to investigate the role of ownership on newspapers' tablet strategies, a distinction was made between executives representing newspapers that were owned by media groups and those representing independent newspapers. Ownership by media groups was measured according to those who responded that their newspaper was owned by one of the five largest media groups in Norway (Schibsted, Edda, A-pressen, Polaris, and NHST). In 2010 these media groups controlled 67 per cent of the total Norwegian newspaper circulation.¹ Independent newspapers were considered as being those not owned by the five large groups. A few small media groups were included as owners among the independent newspapers, but none of these had the corporate strength, organisationally or financially, to equal that of the five large ones.

Table 3. Main Approach towards Tablets among Media Executives in 2011, by Ownership of Newspaper (%)

Approach	Total	Owner	
		Media Group	Other
Online edition works well on tablets	26	17	41
Adjusted version of online edition	19	13	30
Planning app version	45	55	30
Have launched app version	10	16	0
Total	100	101	101

Note: The relation between these variables was significant, $X^2(3, N=193) = 34.987, p < .001$. Survey questions: Approach: what are your main approach towards tablets in 2011 (i.e. iPad and similar)? Owner: who is the main owner of the newspaper? 1. Norwegian Media Group (i.e. A-pressen, Edda, NHST, Polaris, Schibsted); 0. Others. The percentages are rounded off to whole numbers and therefore sometimes add up to more than 100%. N=193.

Table 3 shows that there was a strong correlation between newspaper ownership and the main approach towards tablets in 2011, supporting our hypothesis H2, that ownership by media groups positively affected tablet strategies.

While 16 per cent of executives in newspapers owned by media groups reported having launched app versions, none of the respondents from independent papers had done so. Fifty-five per cent of the executives of newspapers owned by media groups were planning app versions, and 13 per cent were going to make an adjusted version of their online edition. In total, 84 per cent of respondents from newspapers owned by media groups had launched or planned to launch app versions or would adjust their online edition to the tablet market. In contrast, 70 per cent of the executives of independent newspapers had no plans for launching app versions. These would either use the online version (40 per cent) or an adjusted version of their online version (30 per cent) for tablets. Thus, ownership by media groups made it more likely that newspapers have launched or plan to launch app versions, whereas independent ownership makes it more likely that newspapers will make do with the online version.

There was also a strong correlation between ownership and the executives' general approaches towards innovation.

Table 4 shows that there was a significant mean difference on all aspects between executives of newspapers owned by media groups and those of other newspapers. The media group executives consistently took a more active and optimistic approach towards new media developments. They were more positive towards the Internet, they believed it more important to be present on new media platforms, and they were more optimistic regarding opportunities for charging readers on the iPad platform than executives from independent newspapers. Furthermore, the media group executives assessed joint product development as being more important than the other group. This indicated that the centralised development of apps in the media group played an important role.

Table 4. Innovation Indicators and Ownership. Mean score

Innovation indicators	N	Mean	Ownership					
			Media group		Other		F	η^2
			N	Mean	N	Mean		
The use of Internet represents an opportunity for the newspaper I am working for	213	4.88 (1.15)	121	5.10 (1.02)	92	4.60 (1.26)	10.31 **	13.14
It is important for us to be present on all new media platforms (online, mobile, iPad etc.)	214	4.51 (1.45)	122	4.98 (1.17)	92	3.89 (1.54)	34.65 ***	62.58
The iPad has changed my view on the opportunity to charge readers for digital content	211	3.82 (1.42)	120	4.07 (1.35)	91	3.51 (1.46)	8.39 **	16.30
The centralised development of apps in the media group or by trade organisations will be important for my newspaper	208	4.01 (1.54)	120	4.56 (1.19)	88	3.26 (1.64)	43.48 ***	85.40

Note: 6=totally agree/very important, 1=totally disagree/not important. ** = $p \leq .01$, *** = $p \leq .001$. Standard deviations appear in parentheses below means. Means rows are significantly different at the $p < .05$ based on Bonferroni post-hoc comparisons. Survey question on ownership: who is the main owner of the newspaper? 1. Norwegian Media Group (i.e. A-pressen, Edda, NHST, Polaris, Schibsted); 0. * = the mean difference is significant at the 0.05 level (Anova analysis).

Thus, taken together, these findings provide strong support to the hypothesis (H2) that newspapers owned by media groups are more likely to develop strategies for the iPad and similar devices than independent newspapers.

The Relationship Between Size and Ownership

The similar pattern in correlations between size and innovation on the one hand and ownership and innovation on the other places more emphasis on the final research question: what is the relationship between size and ownership in driving innovation in newspapers? (RQ1)

In order to investigate the relationship between size and ownership, the statistical correlation between the two variables was first studied. After this the most important predictor for the tablet strategies and innovation indicators earlier discussed was investigated.

Table 5. Size and Ownership (%)

Circulation	Owner		Total
	Media Group	Other	
Below 5,000	26 (41)	47 (60)	35 (101)
5-10,000	27 (61)	22 (39)	25 (100)
10-40,000	40 (63)	28 (36)	34 (99)
Above 40,000	7 (69)	4 (31)	6 (100)
Total	100 (55)	101 (45)	100 (100)

Note: The relation between these variables was significant, χ^2 (3, N=225) = 10.832, $p < .05$. Survey question on ownership: who is the main owner of the Newspaper? 1. Norwegian Media Group (i.e. A-pressen, Edda, NHST, Polaris, Schibsted); 0. The percentages are rounded off to whole numbers and therefore sometimes add up to more than 100 per cent.

As Table 5 shows, there was a positive relationship between size and ownership. This finding reflects the rather strong concentration of ownership that has characterised the Norwegian newspaper industry for many years. Fifty-five per cent of the newspapers in our study were owned by one of the largest media groups. The larger the newspaper, the more likely it was to be owned by a corporation. This also indicated that the data should be examined more closely in order to determine whether the effect was mainly caused by size or by ownership.

Table 6. Main Approach towards Tablets among Media Executives in 2011, by Size and Ownership. Linear Regression

Approach	B	SE B	β
Online edition works well on tablets ^a			
Below 5,000	.446	.067	.462
5-10,000	.231	.068	.232
Ownership	-.181	.057	-.201
Adjusted version of online edition ^b			
Ownership	-.171	.057	-.212
Planning app version ^c			
Ownership	.231	.071	.226
10-40,000	.202	.071	.197
Have launched app version ^d			
Above 40,000	.426	.079	.358
Ownership	.140	.040	.229
10-40,000	.118	.041	.192

Notes: ^a $R^2=.251$ ($p<.001$); ^b $R^2=.045$ ($p<.01$); ^c $R^2=.098$ ($p<.001$); ^d $R^2=.203$ ($p<.001$). Linear regression. Ownership and size recoded into six bivariate independent variables were included in the analysis: (1) media group ownership or independent, and size measured by the circulation of the paper edition, (2) below 5,000, (3) 5-10,000, (4) 10-40,000 and (6) above 40,000.

Table 6 shows that size and ownership structures largely predicted the choice of tablet strategy. Being a small and independent newspaper suggested no launching of specific iPad versions whereas being large and owned by media

groups did. Media group ownership was important both for choosing to develop specific iPad apps and for adjusting the online version.

Table 7. Innovation Indicators, Size and Ownership. Linear Regression

Approach	B	SE B	β
The use of Internet represents an opportunity for the newspaper I am working for ^a			
Below 5,000	-.806	.176	-.331
5-10,000	.528	.186	-.201
Ownership	.361	.153	-.155
It is important for us to be present on all new media platforms (online, mobile, iPad etc.) ^b			
Ownership	.886	.179	.304
Below 5,000	-1.136	.206	-.372
5-10,000	.652	.217	-.197
The iPad has changed my view on the opportunity to charge readers for digital content ^c			
Ownership	.561	.194	.196
The centralised development of apps in the media group or by trade organisations will be important for my newspaper ^d			
Ownership	1.187	.197	.382
Below 5,000	-.605	.207	-.185

Note: ^a $R^2=.137$ ($p<.001$); ^b $R^2=.251$ ($p<.001$); ^c $R^2=.039$ ($p<.01$); ^d $R^2=.207$ ($p<.001$). Linear regression, significant at the 0.05 level. Ownership and size recoded into six bivariate independent variables were included in the analysis: (1) media group ownership or independent, and size measured by the circulation of the paper edition, (2) below 5,000, (3) 5-10,000, (4) 10-40,000 and (6) above 40,000.

Table 6 shows that ownership was the most important predictor for tablet strategies. A centralised development of apps within the media groups seems to be an important explanation for choosing innovative iPad strategies (Table 7). The findings in Table 7 also indicate that being owned by a media group leads to more optimism concerning the opportunities of the Internet platform in general. In line with this, corporate ownership went together with an expressed need to “be on all platforms”, with increased hopes that a business model for charging for digital content would be found, and with the belief that centralised development was important. Concerning size, being small seemed to explain less optimism, less expressed need to exploit all potential platforms and less importance of centralised development.

Discussion

The findings indicate that both size and corporate ownership of the newspapers were important in explaining why some newspapers chose innovative

strategies in the tablet market. Our analysis thereby supports Porter's (2008) and Damanpour's (1992) theorising that size provides competitive benefits, which in this case clearly outweigh the flexibility of being small. Concerning the relationship between ownership and innovative strategies, our findings are in line with earlier studies suggesting that concentrated ownership facilitates innovation (Hill and Snell 1988; Holmstrom 1989; Baysinger *et al.* 1989; Francis and Smith 1995). Corporate ownership is a resource that provides newspapers with analytical capabilities and the economic, strategic and technical support structures necessary for venturing into innovative product development.

In this study, ownership is more important than size, for which two interrelated reasons are highlighted. Firstly, ownership is a variant of size in the newspaper industry, as a newspaper owned by a media group is part of a larger entity and may benefit from the resources and economies of scale and scope of the media group. Corporations may provide necessary resources for facilitating expansion and innovation, may provide financial resources for investment in new services, and may take risks that a smaller newspaper cannot afford. Corporations often invest in joint product developments which all newspapers owned by the group benefit from, as indicated by the app developments in the media groups.

Secondly, the structure of corporate ownership, rather than just being a large company, may provide a better environment for innovation. The corporation may control knowledge and intellectual resources that support innovation in the individual companies. Corporations may be well positioned to analyse current trends in technology, markets and user behaviour. They may be more aware of challenges in a changing media market and may identify new opportunities. As a corporation typically has an arm's-length distance from customers, they may also be better situated for avoiding the "innovator's dilemma" and relying on their mainstream markets (Christensen 1997). Corporate owners may be able to make strategic decisions as they are sufficiently distant from the core customers, and may look beyond the mainstream market for new opportunities. In other words, not only do corporate owners control economic resources but also a strategic capacity for innovation. This is likely to be the case in the Norwegian newspaper industry, as the largest media groups have introduced services and products in digital markets outside their core activities.

The analysis carried out above provides insights into some aspects of innovation processes in Norwegian newspapers at one particular point of time, and it is restricted to one specific issue – namely whether newspapers had a tablet strategy that involved innovation. This is, however, not a unique observation. On the contrary, it is one example of what happens when new media platforms challenge media companies. Since the digitisation of newspaper production processes in the 1980s, established patterns of production, service provision and distribution have been challenged by new media platforms that may or may not disrupt established markets and business models. The World

Wide Web, smartphones and tablets are all examples of such new platforms, and every time a new platform is introduced, media companies make strategic decisions. Such decisions include whether or not to innovate for the new platform. The tablet case investigated here shows that in a situation in which the newspaper industry had high expectations towards tablets as a platform that would provide new opportunities to charge readers (mean 3.8 on a 1-6 scale),² media group ownership was a clear indicator of who actually innovated for the new platform. Thus, it seems clear that newspapers owned by media groups were more able to adapt an innovative strategy in such a situation.

Conclusions

Our analysis shows that type of ownership is an important indicator of a newspaper's approach towards innovation. Ownership was more important than company size in explaining tablet strategy. In fact, only newspapers owned by media groups had plans for iPad apps. In addition, newspapers owned by media groups were systematically more active and optimistic towards new media development.

In a situation where media companies faced the “innovator's dilemma” (Christensen 1997), i.e. the choice between reinforcing their existing products or innovating, there was a significant difference between companies with different types of owners. Media groups may not only provide financial resources and joint product development, but may also be sufficiently distant from the immediate concerns about core customers and more able to look beyond the mainstream market for new opportunities. In other words, it is assumed that as well as having sufficient economic resources, they also have a better strategic capacity for innovation. The findings suggest that these characteristics make newspapers more inclined to take risks and thereby be more innovative. This is an important factor that should be taken into account when ownership concentration is assessed.

Nevertheless, although our findings were quite clear on the relationship between the structural variables of size, ownership and innovative tablet strategies, they do not show which companies were also innovative in other dimensions and which of the adopted models were successful.

Notes

1. http://www.medietilsynet.no/Documents/Oppslag/Medieregisteret/Storste_eiere_dag-spresse_06-10.pdf
2. Newspapers owned by media groups were more enthusiastic than independent newspapers, but there was a positive assessment of the new platforms in both groups. See Table 4.

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Chapter 7

Innovation in the Use of Digital Infrastructures

TV Scheduling Strategies and Reflections on Public Policy

Gillian Doyle

Abstract

This chapter examines some of the ways that media suppliers, in particular television broadcasters, are innovating and adapting in response to technological change, and it also asks whether public policy is broadly supporting or stifling innovation. Drawing on the example of MTV UK, an analysis is provided of how, as more and more content delivery takes place across digital infrastructures, television programme schedulers are innovating in their use of techniques for audience data-gathering and for building and harnessing audience flow. In addition, this chapter offers some general reflections on the role that public policies play in promoting innovation in and across media industries. It argues that the exceptional and complex nature of media provision militates against a policy environment that is fully attuned to facilitating an innovative use of digital infrastructures.

Introduction

This chapter examines some of the ways in which media suppliers, in particular television broadcasters, are innovating and adapting in response to technological change. The capacity for interactivity is one of the more radical advances associated with digital technology. It considers how, as more and more content delivery takes place across digital infrastructures, television programme schedulers seek benefit from the innovative use of new means of engagement with audiences and of new streams of information captured by the return path about audience habits and preferences.

The central focus here is on how changing technology has provided television programmers with new techniques for building and harnessing audience flow. Drawing on the example of MTV UK in exploring how digitisation is transforming approaches on the part of media suppliers towards connecting with and providing content to audiences, this chapter argues that the migration

of broadcasters towards a multi-platform approach has enabled and encouraged the use of multiple distribution platforms including social media to construct audiences and sustain engagement with particular content brands over longer periods. Because of the youthful profile of MTV's target audience, its management is highly attuned to the need to adjust operational strategies to changing patterns of audience behaviour, and thus this particular television company provides a useful focus for examining changing programming and audience flow management techniques.

Stepping back from changes in programming and scheduling strategies as such, this chapter also offers some reflections on the general role of public policies in promoting innovation in and across media industries. Strength in innovation is widely recognised as an important source of competitive advantage (Teece 2009). For media companies, at a time of immense and far-reaching technological change, innovation represents a lifeline to survival and prosperity. Against this background, the need for a public policy environment that is conducive to innovation in the media seems compelling. Even so, as is argued below, the exceptional and complex nature of media provision militates against a policy environment that is fully attuned to facilitating the innovative use of digital infrastructures.

Multi-platform – A New Approach to Supplying Content

A common response amongst media organisations to convergence and to the growth of the Internet has been to migrate towards a multi-platform approach to the production and distribution of content (Bennett 2011; Doyle 2010). Many have adopted a multi-platform outlook and, in the television industry for example, this has been characterised both by the introduction of '360-degree commissioning' (Parker 2007; Strange 2011) and by the development of websites and other digital offerings capitalising on popular content brands. A 360-degree approach means that new ideas for content are considered in the context of a wide range of distribution possibilities and not just linear TV. At a time of concern about how incumbent media firms can adjust successfully to advancing technology, and of debate about how communications policies ought to change for a converged environment, this chapter considers the implications of that migration – particularly in terms of the use by television programme schedulers of multi-platform approaches towards engaging with, and better understanding and responding to, the preferences of their audiences.

The ways in which media organisations struggle to adapt to new technologies and their responses to digitisation and the Internet have provided a focus in many earlier studies (Bennett 2008; Chan-Olmsted and Ha 2003; Dennis, Warley and Sheridan 2006; Doyle 2010; Fagerjord, Maasø, Storsul and Syvertsen

2010; Jenkins 2006; Küng, Picard and Towse 2008; Meikle and Young 2008). In this chapter, the main focus is confined to one aspect of operational strategies which has received relatively limited attention thus far: the techniques used to build and sustain audiences for television content, and how these are evolving in response to digitisation.

Managing Audience Flow

For many years, broadcasters have relied on a set of scheduling techniques to compete against rivals in attracting and manoeuvring the attention of audiences across their daily menus of output (Webster 2006). However, as multichannel television has multiplied the choice of linear content offerings available to audiences at any given time of the day or week, the task of devising suitable scheduling strategies to counter rivals has become more complex. In addition, digitisation has brought new ways for viewers to connect with television content. Growth in web-enabled connectivity, bringing extended access and searchability, has effectively reconstituted the relationship between audiences and television content suppliers (Doyle 2010). These developments raise the question of what methods, in the digital era, will best enable television broadcasters to manage flows of audiences.

The general concept of audience flow management is not new. In broadcasting, 'flow' relates to how channels attract and retain audiences through the careful sequencing of the transmissions of programmes that make up their linear schedule. The term 'audience flow' was coined by one of the pioneers of television studies, Raymond Williams, to describe the techniques and tactics used by schedulers in broadcasting to build up and hold onto their audiences (Williams 1974). For many years, these techniques have been central to maximising and sustaining audience attention and, in turn, revenues for competing broadcasters. Furthermore, a number of economists working in the area of television have modelled and analysed competitive scheduling techniques under differing market circumstances (Bourreau 2003).

Weighing up the range of considerations and uncertainties involved makes scheduling and audience flow management an inherently complicated task, even in a market context where the number of competitors is limited. In a digitally converged environment, where linear competition is plentiful and the whole ecology of media provision has become richer and more multi-faceted and multi-layered, the execution of an effective strategy for building audience flow is much more challenging. Part of the challenge stems from the fact that television channels are competing not just with each other but also with a vast array of non-linear alternatives from DVDs, content stored on PVRs, catch-up services such as Hulu in the USA or the BBC iPlayer in the UK, and numerous

other online suppliers of video content such as YouTube, to a range of aggregators, SNSs and search engines, all offering convenient ways for audiences to connect with television content of their choice. Thus, the status of television has changed from once having being an *event* laid on by a scheduler to “merely a[nother] form of audiovisual content – to be watched whenever and wherever users demand, on whatever device they choose” (Bennett 2011:1). The increasingly wide availability of Internet-based audiovisual content services such as Hulu and Netflix has, in some cases, given rise to the phenomenon of ‘cord cutting’, where television viewers abandon their traditional pay-TV subscriptions in favour of online video services which are cheaper or free (Garraghan 2010). Thus, an increase in the number of competitors vying for viewers’ attention is one issue facing the scheduler.

Some of scheduling techniques which made sense in the linear television era and at a time of few channels are, in the current competitive environment, less effective. David Booth,¹ Senior Vice-President of Content and Programming at MTV/Viacom International Media Networks, concedes that multi-channelling has made, for example, counter-scheduling – where, rather than competing ‘head to head’ for that very same audience, the broadcaster puts on a programme designed to appeal to a different niche (Pringle and Starr 2006:125) – much more difficult. Booth nonetheless indicates that when it comes to devising scheduling strategies, most broadcasters are still very heavily focused on the behaviour of the mainstream primary channels which capture the largest audiences and on the common junction points which provide a moment of opportunity when at least some viewers may be poached.

Given that, despite the transition to a digital environment, most television consumption continues to be of linear broadcasts and with viewers in ‘coach potato’ mode – non-linear accounts for some 17 per cent of total audiovisual viewing on average in the UK (Ofcom 2010:106) – it is worth noting that the old traditional scheduling techniques that rely on passivity and habit formation still continue to thrive for a sizeable proportion of audiences. However, the growing popularity of catch-up and other non-linear services has naturally eroded the ability of schedulers to rely on audience passivity.

Adjustments in viewing habits are particularly evident amongst younger audiences, who are much more adept at media multi-tasking than their elders and who tend to spend more time watching DVDs and on-demand or downloaded content on PCs and mobile devices (Ofcom 2010:107). At MTV, where the audience profile is very youthful, managers are acutely aware of the need to adjust content and scheduling strategies accordingly. As Philip O’Ferrall, now Senior Vice-President of Viacom International Media Networks, explains:

When we think about the business, we think about where the audience is at. Furthermore our audience – 16-24 year olds primarily – are multi-tasking.

They use instant messenger and texting, and they've got their laptop open whilst they're watching TV. They watch TV, they chat, they social network, they do all those things and they do it all at the same time. So if we were to continue to grow our business there's no point saying 'Let's make a great TV show and then put a bit of content online' – it just doesn't work. (O'Ferrall, Viacom International, 2009)²

Booth concurs with the view that, where younger audiences are concerned, appetites for television content are now expressed in terms of demand for engagement with specific shows, content brands and characters across an array of platforms and, preferably, offering opportunities for interactivity. For younger audiences, watching television – the linear transmission – is part of the experience, but by no means all, and therefore content needs to be portable:

For young audiences, *portability* is everything. Yes, they will watch stuff on linear, but at the same time they will be watching it on iPad, Sky+, Video on Demand. It's about the programme brand. If they love something ... and have that emotional connection, they will find it when they want it and they will come to it wherever they want it. That is the thing that is really dictating how we place our content. We don't see ourselves now as a traditional broadcaster – we see ourselves as a brand and our content is a part of a brand experience and our brand is on different platforms. And it [flow] is just dictated by the audience and how they are consuming via whatever the new technology is – and we have to go with that flow ... portability of programming is key. (Booth, Viacom International, 2011)

Thus, an emerging challenge for schedulers is that the expectations of audiences – especially younger audiences – with regard to what sort of experience they can have with television content have changed and become more demanding. Younger viewers are increasingly attuned to expecting some sort of integrated multi-platform experience. Furthermore, since the sort of content that works in a multi-platform context may require differing forms of production and multiple narratives, satisfying these emergent appetites can be costly. Even so, the experience of UK-based broadcasters suggests that many are keen to embark on multi-platform strategies for distributing and promoting content, partly because doing so opens up new opportunities in relation to the management and maximisation of audience flow (Doyle 2010).

Some broadcasters are very active in using digital platforms to manage their audience flow more effectively – delivery to audiences that are web-connected provides additional ways of building and maximising the overall level of attention that a show may command (Ihlebaek, Syvertsen and Ytreberg 2012). Digitisation provides additional platforms and interfaces through which broadcasters can guide viewers towards engaging with television content and

content brands via whatever form of expression of that content delivers the best return. Typically, it is the conventional television transmission which delivers the highest advertising return per viewer.

Schedulers at MTV have found that through the use of online 'teasers and tasters' ahead of the conventional linear transmission of a television show, it is possible to generate considerable advance interest on the part of audiences. Furthermore, the provision of tie-ins to that television show via the Internet and mobiles and through social networking sites helps to keep up audience attention in between linear transmissions. The successful management of audience flow requires the use of multiple distribution platforms, including social media, to construct audiences and to sustain engagement with particular shows and content brands across platforms over longer periods. As Philip O'Ferrall (2009) explains:

[W]e *create* an audience and build it prior to a linear broadcast. Any of our shows start online, on mobile, on social networking sites and we build an audience. They migrate to television and when they're not watching on television they can continue to have a relationship with that media property on any platform...

Booth explains that the construction of an audience for a new show involves 'seeding' content online probably two months in advance of the linear transmission to try and stimulate interest or 'chatter' about the forthcoming programme. When a show is due for launch, one of the early steps is to distribute promotional trailers on MTV websites and other popular online platforms. Interest is generated through, for example, a publicised cast launch that showcases the lead characters and provides sound bites which may trigger a response on social media. Trailers are placed on rival television channels and fragments of content are posted online to try and ignite discussion that spreads in a self-sustaining way via online social media, for example through the forwarding of 30-second trails amongst friends.

Recognition of the importance of digital platforms in building audiences in advance for a show and in sustaining engagement is increasingly widespread (Bettridge 2011). Multi-platform engagement can be an important contributor to success, as evidenced by, for example, the Fox production *Glee*, which has benefited from building strong relationships with a devoted fanbase, especially in the US, of so-called Gleeks. The extent to which a television programme becomes a topic of conversation on Twitter or Facebook and the tenor of the online chatter surrounding it are perceived as indicators of success and so, to some extent at least, these factors are now capable of influencing commissioning decisions. According to Simon Nelson, former controller of BBC Vision:

The influence of the twittersphere can disproportionately impact on a show, so if there is a torrent of abuse, or the other way around, a torrent of love,

that shines a spotlight that is definitely a factor in commissioning meetings.
(Nelson, cited in Bulkley, 2011)

The growth of social media has provided new ways for content suppliers to engage their audiences. High-profile television programmes such as *The X Factor* and *The Apprentice* employ a social media editor to ‘curate’ conversations taking place on Twitter and Facebook by, for example, re-posting tweets or adding clips or images or other useful fragments of content (Bulkley 2011). According to Robert Marsh, head of production company Talkback Thames Digital, the effective curation of social media conversations creates ‘stickiness’ to television programmes and a closer sense of involvement with the production (Marsh, cited in Bulkley, 2011). Linear transmissions can stimulate enormous volumes of chatter amongst communities of viewers. The desire to stimulate a response on social media can shape scripting and production decisions, for example through the insertion of a co-called ‘Twitter bomb’ in the opening minutes of a programme. James Kirkham, MD of advertising agency Holler, explains the concept as follows:

The idea is that they broadcast content intentionally polemic or incendiary which will cause an explosive effect among the Twittering classes. Such an impact will cause a ripple effect, and the intention from the show’s creators will be that a whole host of potential audience members will see others talking about the show or referring to it, and subsequently jump on board themselves. (Kirkham, cited in Bettridge, 2011)

The use of social media to cultivate online communities of interest in television shows offers clear advantages in terms of constructing and sustaining the engagement with television content properties and brands. The use of ‘talent’ is an increasingly common aspect of such strategies. The extent to which, for example, cast members, script-writers or directors are willing to participate actively in social media – and many celebrities are enthusiastic and prolific participants – greatly enriches the scope to build forums through which audiences can engage and connect with the wider community experience that a television property is able to offer. As Booth (2011) explains:

When we do dramas etc., it’s about having an online presence whereby you could then, off the back of the show, navigate from the linear TX [transmission] with a promotional trail saying ‘You can now speak to the lead character to discuss the episode or the storyline etc., or speak to the writer etc. about the show’ and converse online ... Anything we have got, it’s about realising that it goes beyond the linear experience ... [to create an] emotional connection with the audience.

Thus, the development of discussion or ‘buzz’ around particular television shows is by no means an organic or accidental process but rather is likely to

reflect a carefully orchestrated campaign on the part of media suppliers, implemented through processes of curation of online social media conversations, aimed firstly at engaging and subsequently at corralling and steering flows of audience attention. Social networks are “the water coolers of the 21st century” providing an instant means of assessing the appeal and success of any television shows (Bettridge 2011). According to Booth (2011):

Any savvy broadcaster will see that [chatter on online and social media] is more than just a marketing opportunity. It is more powerful than a 30-second commercial spot or a 30-second promotional trail targeted at an audience. You are going beyond that. You are *in* their sphere and they are forwarding things onto their friends and mushrooming etc.

The growth of digital delivery platforms has enabled broadcasters to adjust and improve the approaches and techniques used for management of audience flow in various ways. One important change relates to the role of audience data in content selection and scheduling decisions. The use of audience information has, of course, always featured in audience flow management but online delivery yields unprecedented depth and detail about the preferences and behaviours of audience members at aggregate and individual levels. A more interactive media environment has provided suppliers with rich new streams of data about audience “consumption habits, content preferences, degrees of engagement and levels of anticipation for and appreciation of the content they consume” (Napoli 2011:88).

Broadcasters now have numerous means of monitoring tastes and fads, and the market intelligence gathered via online interfaces can feed directly into content selection decisions which, accordingly, become more closely attuned to audience tastes. As one senior BBC executive put it, broadcasters in the web 2.0 world have much to gain from “[h]arnessing ‘the wisdom of crowds’ or social software, from buddy recommendations to most downloaded” (Highfield 2006:50). Thus, while conventional one-to-many television broadcasting provides large audiences, the use of digital delivery platforms provides an alternative advantage – market intelligence. As explained by Anmar Kawash (2009),³ Chief Operating Officer at Scottish Television plc:

The difference with online is it ... [provides] ... better tools to understand the audience profile and there is a constant feedback loop.

Data about downloads, VOD requests, website traffic and so on provide programmers with valuable new sorts of information about television audience preferences which are immediate and often very comprehensive. While programmers’ interest in the use of audience feedback is obviously not new, it is notable that the use of digital platforms for this purpose enables data gathering on a large scale at relatively low cost and, usually, unobtrusively.

In addition to providing data captured through the return path about historic consumption behaviours and preferences, the Internet also provides an excellent platform for investigating audience responses to new programmes, both in the context of testing possible ideas about formats or stories and casting, and in terms of gauging responses to finished pilots. Booth (2011) explains how at MTV the Internet plays a key role in deploying one of the more traditional methods of surveying audience responses, the focus group:

All our decisions are based on how shows trend with our audience. In the States, we focus test all [finished] pilots and get audience feedback, right down to how the show resonates ... the characters, the storyline, re-casting. The Internet gives instant access. You could have a panel of thousands of people literally ... We put a pilot up, casting decision etc., even just a subject [or programme idea]. We do that all the time and we get that feedback ... through canvassing them etc. and figuring out ... the values and what is important for a millennial audience today. The only way you can do that is by being *in* their space in some shape or form, online or in a focus group.

Thus, programmers can now use many forms of digital interaction to collect feedback and gauge responses to content ideas under development. Such intelligence can feed into more effective upstream content and scheduling decisions. For example, a broadcaster may decide, in the light of positive online ‘chatter’, to elevate a show to a more prominent time slot (Ross, cited in Napoli, 2011:94). Information collected via digital forums about how a new show or an idea for a new show is trending may well shape production decision (Bulkley 2011). More effective use of systems of feedback enable broadcasters to, in the words of Philip O’Ferrall of MTV, “totally understand what the audience wants”. He explains:

Before we say ‘Yes, we’re going to go with that talent or that idea’, one of the big checks we do is to analyse the Google trends. What’s the online audience looking for at the minute? ... A key part of our job is trend-forecasting and search engine work. It is really important. (O’Ferrall, Viacom International, 2009)

Awareness of the value of data gathered through the return path on digital platforms is growing. Online content delivery enables the service provider to use the audience data collected to adjust, modify and improve content offerings, even down to the level of individual users. Internet-based media suppliers can deploy audience feedback to modify the interface to their content offerings at an individual level – say, the homepage of a media website – giving greater prominence to whatever sort of material is likely to appeal to that particular consumer. Yahoo, for example, currently serves 13 million variations of its homepage in order “to optimise the experience for each individual consumer”

(Levinsohn, cited in Edgecliffe-Johnson, 2011). Thus, through the use of data mining, content services are personalised, and at the same time the individualised targeting of consumers for the purposes of marketing and advertising is made possible. By using interactive digital platforms in this way, Yahoo has been able to construct aggregate audiences for its television offerings that are of a large enough size to be of significant appeal to major advertisers (*ibid*).

Innovation and Public Policy

The knowledge and skills needed to innovate and to harness the advantages of two-way interconnectedness appear increasingly vital to the survival and prosperity of media businesses. Furthermore, and more than ever in the past, the importance of innovation and of creativity in contributing to wider economic growth tends to predominate in the political discourse surrounding cultural industries (Hesmondhalgh and Pratt 2005; Schlesinger 2007). The need for a public policy environment that is conducive to innovation appears to be clearly understood (Hutton *et al.* 2007). However, looking at recent examples of key policy initiatives that bear upon innovation in the media and broadcasting industries, it is highly questionable whether the policy environment that exists is, in fact, fully attuned to facilitating the innovative use of digital infrastructures.

Copyright provides a case in point – the primary role of copyright protection being to reward and incentivise creativity and inventiveness. While copyright mitigates a potential problem in relation to incentives to produce information goods, it also involves costs. As suggested by Landes and Posner (1989), copyright involves a trade-off. The existence of copyright protection ensures incentives for creators, but at the same time it means that artists who want to build on or integrate earlier work within a newly created and original piece of output are obliged first of all to trace and secure permissions from relevant owners of copyright. This process can be very time-consuming and complex. Thus, copyright imposes transaction costs on later creators (Towse 2010).

Can excessive copyright protection itself impose a restriction on creativity? Since copyright stops authors from producing works that follow up on or derive too closely from earlier works, it has been argued that copyright in a sense stifles innovation and creativity as well as encouraging it. Copyright is supposed to strike a fair balance “between the rights of the creators to be rewarded for their artistic endeavour and the needs of a flourishing cultural and democratic society to have access to and be able to build upon existing creative works” (Withers 2006:16). It is intended to balance the advantages to society of encouraging extra works to be created against the significant disadvantages and costs of reducing public access to creative works. However, striking that balance is not easy, as evidenced by the strength of opposing

viewpoints amongst differing interest groups in relation to whether protections for copyright need to be strengthened or liberalised and whether protection periods ought to be lengthened or reduced.

The potentially stifling effect that copyright can have on follow-up creations has long been recognised as a drawback of the system and a cost for society at large (Landes and Posner 1989). Boldrin and Levine suggest that copyright and patents are ‘intellectual monopolies’ that hinder the operations of the free market needed to deliver innovations and, as such, are detrimental rather than helpful to economic development (Boldrin and Levine 2008). Given that the digital era has brought a greater emphasis on the mixing together and integration of existing copyright material within new creative works, the prevailing approach towards copyright can be said to tilt the balance of interests too far in favour of ‘first generation’ creators at the expense of new artists and forms of creative expression (Lilley 2006:6). Most notably, Lawrence Lessig has argued that in the wake of digitisation, copyright laws are out of date and need to be liberalised to accommodate rather than criminalise the ‘remix’ creativity (Lessig 2009).

Another example of how public policy may be criticised for impeding rather than encouraging innovation relates to the massive levels of public support received by a small number of preferred suppliers of broadcast services across Europe, such as the BBC or NRK. In the 1990s, the Competition Directorate was faced with a very large number of complaints and actions from commercial broadcasters across Europe, who argued that the sizeable funding received every year by Europe’s PSBs (Public service broadcasters) amounted to ‘state aid’ – i.e. especially favourable treatment to particular businesses operating within their own national territories – and therefore was in infringement of competition rules. After some debate, these complaints resulted in a formal recognition of the special nature of broadcasting via the so-called ‘Amsterdam Protocol’ and the subsequent Communication on PSBs and State Aid in 2001 (CEC 2001), which confirmed an exclusion for PSBs from normal EU controls over state aid.

However, the rapid pace of recent technological change in the media sector has called back into question the Commission’s general approach on this issue. The growth of the Internet and the spread of digital technology has resulted in many PSBs across Europe successfully extending the scope of their activities across new platforms, fixed and mobile (Enli 2008; Doyle 2010). The migration of public broadcasters towards a more multi-platform approach has given rise to new concerns about market dominance and unfair competition, this time being voiced not just by rival broadcasters but also by newspaper publishing groups and other media content suppliers. The concern is that PSBs use their public funding to invest not only in broadcasting (which is exempt from state aid rules) but also in new digital services (which are not exempt). The involvement

of well-funded PSB players in new media services has a ‘crowding out’ effect on commercial rivals, thus holding back the competitiveness of the European commercial audiovisual sector in a wider global context.

The Commission’s response was to bring forward a revised Communication on State Aid (CEC 2009) which introduced a requirement for an evaluation to be carried out prior to the launch of any new service by a PSB to check whether that new service was really justified in terms of public benefits and also to consider what impact it may have on the market. The new test was intended to strengthen the accountability of PSBs and help to avoid ‘mission creep’ on the part of PSBs, with expansion taking place on the basis of vague and over-ambitious digitisation plans (Donders and Pauwels 2008). While the revised Communication helped to stave off some criticisms about the continued exemption of PSBs from normal competition rules, several voices in the industry have continued to express concern about the expansion of well-resourced PSB entities and have argued that the public value test lacks clarity and is not rigorous enough. From the point of view of newspaper publishers for example, the fact that PSBs are prolific suppliers of high quality news content that is available free of charge online has made it much more difficult to erect paywalls around their own offerings. In short, public policies of protecting and supporting PSBs, while justified in sociocultural terms, do not necessarily sit well with the industrial objective of maximising the incentives available to commercial players to innovate in news content provision.

At the 2011 Television Festival in Edinburgh, the keynote MacTaggart lecture was given by Google’s chief executive Eric Schmidt, who argued that UK industry is being stifled and prevented from innovating and reaching its potential by overweening regulation. His view is that the starting point for policy makers ought to be not “how do we regulate?” but rather “how do we protect the space for innovation?” (Schmidt 2011). Schmidt referred to the example of UK regulators blocking project Kangaroo on grounds of competition (or, in his words, “in case it might be too successful”) as “absurd”, when the ensuing delay in developing an indigenous UK web-connected television service can only serve to help larger rivals from overseas such as Hulu (Kiss 2011:3). According to this viewpoint, the problem is that while some sectors of the media are still regulated as cultural entities, what they really need in the digital age is a looser regulatory environment that supports innovation and allows the development of large companies that can become successful global players.

Conclusions

The capacity for interactivity is perhaps the most transformative advance associated with digital technology. This chapter has highlighted how the innovative

use of interactivity is enabling broadcasters to reap economic benefits in the context of television scheduling and programming strategies. Fragmentation of the media environment has created challenges in terms of devising strategies that ensure that content is exposed to significant-sized audiences and is exploited in such a way as to maximise revenues. At the same time, as explained in Section 3 above, changing technology has brought opportunity by facilitating new techniques for harnessing audience flow, for example using the Twittersphere etc. The construction of closer or more intense relationships establishes a means through which particular audience segments or constituencies of interest can be encouraged to seek out preferred content brands across differing platforms and delivery formats. At a time when many companies are struggling to find solutions to the 'free content' ethos of the Internet (Li 2009:22), the ability to guide audiences towards additional opportunities to interface with popular brands and content properties and to direct them towards those distributive outlets where attention can be converted into revenue offers clear commercial and strategic advantages.

The knowledge and skills needed to innovate and to harness the advantages of two-way interconnectedness appear increasingly vital to the survival and prosperity of media businesses. Furthermore, and more than ever in the past, the importance of innovation and creativity in driving wider economic growth is acknowledged in public discourse surrounding cultural and creative industries, including the media (Higgs, Cunningham and Bakhshi 2008). However, as is argued in Section 4 above, looking at recent examples of key policy initiatives that bear upon innovation in the media and broadcasting industries in the UK and Europe, it is very debatable whether the policy environment that exists is, in fact, calibrated towards the objective of facilitating the innovative use of digital infrastructures. Despite an awareness of the need for a public policy environment that is conducive to innovation, the exceptional and complex nature of media provision appears to militate against such an outcome.

Notes

1. Interviewed by the author in Glasgow in 2011.
2. Interviewed by the author in London in 2009.
3. Interviewed by the author in Glasgow in 2009.

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Chapter 8

Innovation in Small Regions' Media Sectors

Assessing the Impact of Policy in Flanders

Sven Lindmark, Heritiana Ranaivoson,
Karen Donders & Pieter Ballon

Abstract

This chapter evaluates innovation policy in the specific context of a relatively small media sector – the Flemish broadcasting sector. One of the difficulties in doing so concerns idiosyncratic and incompatible views on what innovation in the media sector actually entails. Therefore, this chapter provides a novel conceptualisation of innovation in the media industries, which, combined with insights from previous research on impact assessment and innovation policy, provides a framework that could help in analysing policy problems, setting targets, facilitating debates and reaching consensus among stakeholders. This framework is applied to an ex-ante assessment of various set-ups for innovation policy in the Flemish media sector. Finally, some conclusions and recommendations for policy makers are sketched out.

Introduction

Policy-makers increasingly recognise the importance of innovation for growth and development. In Europe national innovation policies for broadcasting have traditionally centred on public broadcasting organisations, in the sense that they received public money and included innovation as one of their stated missions. Private media companies criticise this innovation policy focus on public service broadcasting, arguing ever more fiercely against an extensive role of public broadcasters as innovators in new media markets and claiming government support for their own benefit (Donders *et al.* 2010). Governments in most Western European countries remain undecided on the issue. The debate about whom to entrust with substantial innovation tasks is indeed difficult to settle due to idiosyncratic and incompatible views on what innovation in the media sector entails, who should engage in it and what would be the impact of different ways of organising it. The situation is further complicated by con-

vergence because innovation policy in the broadcasting sector will in any form affect other media as well. In addition, some may even question the necessity of public support for innovation in the broadcasting sector, with ICT industries most often setting the scene in terms of technological innovation. In light of the above, adapted analytical tools and novel approaches to analyse the impact of innovation policy are needed in order to answer in an evidence-based manner if and how governments should continue their support for innovation in and by the broadcasting sector.

The chapter focuses on how to assess the impact of innovation policy in the media sector. The proposed approach is applied to the specific context of the relatively small Flemish broadcasting sector (serving 6 million consumers). It is based on a study on innovation in the Flemish broadcasting sector conducted prior to the renewal of the management contract between the Flemish government and the public broadcaster VRT.¹ This contract is concluded for a period of five years and was revised in 2011, and entered into force in January 2012. The contract also contains the VRT's commitments with regard to innovation. Setting out from the results of the impact assessment, the study identified options for the government to deal with innovation in the media sector.

The main contribution of the chapter is a framework to assess the impact of innovation policies in the media sector. It combines the numerous, generic studies on impact assessment and innovation policy with a conceptualisation of innovation in the media industries. The framework is applied to an ex-ante assessment of various set-ups for innovation policy in the Flemish media sector.

The impact assessment draws on a number of inputs including a literature review, a document analysis, stakeholder interviews, an analysis of practices abroad and a policy analysis. It draws on the 'intervention logic' (or 'logic model' or 'program theory', see e.g. W.K. Kellogg Foundation (2004) often used for analysing impacts of innovation policy – PRO INNO Europe 2009). When possible, it includes quantitative assessments of the short- to long-term effects (all data in Donders *et al.* 2010).

The chapter is structured as follows. It starts by providing a conceptualisation and definition of innovation, taking into account the specificities of the media sector. Secondly, a framework for an impact assessment of innovation policies in the media sectors is developed, drawing on state-of-the-art impact assessment practice as well as generic innovation and innovation systems literature. Thirdly, there is a brief discussion on the rationale of innovation policies in the Flemish broadcasting sector and the traditional form of innovation policy therein. Based on this, five possible options for organisation innovation in the Flemish media sector are outlined. Consequently, these options are critically evaluated, according to the outlined impact assessment criteria. Finally, some conclusions and recommendations for policy-makers are sketched out.

Innovation in the Media Sector²

A Typology of Media Innovation

Innovation has received wide scholarly attention, notably in economic and management studies, and is a very broad concept both in theoretical terms and in actual policy practice. In general, scholars agree that innovation concerns the introduction of something new with an element of valorisation (or utilisation) within it (Schumpeter 1942; OECD 2005). In other words, innovation involves putting an invention into practical use.

Although conceptually simple, there are several theoretical discussions regarding this definition of innovation. Firstly, there is the dimension of novelty. What is genuinely new and what is in fact a modification of something that already exists in, for example, another format? The issue of novelty may in general relate to how radical the change is compared to existing practices (e.g. Freeman and Soete 1997), i.e. one may distinguish between discontinuous (or radical) and continuous (or marginal) innovation. Another distinction is between innovators (who for the first time introduce the innovation) and imitators (who introduce the same innovation in a different context). In the media field, distinctions have been made between real innovations, quasi-new products and me-too products (Köhler 2005), and whether newness applies to (1) all other organisations at a global level, (2) all other organisations at a local level, or (3) the organisation itself (Castañer and Campos 2002).

Moreover, there is discussion on what the novelty concerns (e.g. a new product, service, process, business model, content or format). This is the aspect most specific to media innovation in particular as compared to other types of innovation. While traditional innovation definitions (such as OECD 2005) do not include new content (a new film, news item, song etc.), it can be argued that traditional definitions (and measurements) overlook creative activities that lead to aesthetic, educational and entertainment renewal, which in turn may have substantial socio-economic impacts. Such innovative activities have been referred to as “cultural product and process innovation” (Jaaniste 2009), “soft innovation” (Stoneman 2010), “stylistic innovation” (Schweizer 2003) or “creative innovation” (as opposed to humdrum innovation, Handke 2010 drawing on Caves 2000). See also Dogruel (this volume) for an overview. Thus, there is a case for broadening the concept of innovation to include also content-related novelties.

However, applying too broad a definition of innovation in media is also problematic. Any creative product (apart from pure duplication) could be defined as an innovation (e.g. any new film, any newspaper article, song, video game etc.). This is largely because media products are ‘time elastic’ in the sense that their information and/or entertainment value decreases over time – some quickly (news), some more slowly (books, films, music) – which is not the

case for traditional product innovations. For this reason, media production is characterised by a need for ‘newness’, and media innovation needs to be distinguished from routinely produced media products (Dogruel, this book)

Where to draw the line between media innovation and routine media production is not obvious. In our view, some factors that should be taken into consideration for such a distinction are: (1) the impact of different kind of activities, (2) the possibilities for measuring and monitoring activities, and (3) the actors involved in the activities. It is beyond the scope of the chapter, however, to propose where to draw this line. Instead, for impact assessment purposes, we propose a typology of different kinds of media innovations.

These considerations need to be complemented with a process perspective. For R&D-based innovation, and making a distinction between successive phases of innovation – some of which are more fundamental in nature and necessitate more government support than others – this process can be divided into three phases. In a first phase, a broad, multi-faceted topic is under scrutiny. This phase corresponds to long-term R&D. In a second phase, research begins to be transposed into development. In a third phase, concrete and replicable new processes, products or business models are developed. These can still be modified to the needs of specific companies in a final valorisation phase.

Applying this viewpoint is not to say that a linear view of innovation has to be adhered to – some innovations come to the fore without having to go through all these phases (Kline and Rosenberg 1986). However, the early phases are crucial in order to open up innovative opportunities (Holmén *et al.* 2007) and to sustain long-term innovation dynamics, and these phases are known to be more subject to private sector underinvestment and may therefore warrant public intervention. This is notably the case for broadcasting (Cunningham 2009; Murdock 2007).

Innovation scholars have traditionally distinguished product and process innovation (e.g. Schmookler 1966; Cave and Frinking 2007), but their distinction can be difficult in the case of media. In this case, it could be said that product innovation relates to all innovation concerning content (with a possible distinction between the core, i.e. the theme or the message, and the inner form, i.e. the style) and the way it is accessed by customers (Schweizer 2003). Process innovation includes all innovations in the production process of media content from creation (e.g. a new camera) to consumption (e.g. the option to choose which camera is followed during a sporting event). It also includes business model innovations. The specificity for media is that at the level of consumption it is difficult to disentangle what relates to product innovation and what relates to process innovation. Thus, the emergence of video on demand (VOD) raises issues as to which format to use, how to share revenues between VOD services and rights-holders etc. Furthermore, it is also an important change in how consumers can access audiovisual content, notably in terms of flexibility (Ranaivoson 2012).

In conclusion, we propose a typology of media sector innovation along two dimensions:

1. Type of innovation: (1) a content innovation that can either be in the core (a new theme or message) or in the form (a new stylistic feature); (2) a consumption/medium innovation (a new way of consuming content); (3) a production and distribution innovation (a new means of creating, producing, reproducing, distributing or exhibiting content); and (4) a business model innovation (a new business model, including a new organisation of an industry).
2. Temporal aspect (maturity of innovation, closeness to market): long-term, medium-term and short-term.

Arguments for Government Intervention in Innovation in the Media Sector

In general, companies can be expected to innovate when their cost of doing so is lower than the added value that they can expect to appropriate. Typically, value is created either when innovating companies can reduce costs through the increase of efficiency in corporate processes and/or when they can affect the behaviour of users through the creation of new markets or the enlargement of existing ones (Cave and Frinking 2007; Donders *et al.* 2011) leading to increased revenues.

Sometimes, however, innovation generates positive externalities, i.e. benefits that are not accounted for by market mechanisms. When it comes to R&D and innovation, these externalities often take the form of technological or knowledge spillovers. By definition, externalities are difficult for companies to appropriate, which may lead to underinvestment in innovation (from a societal perspective). In such cases, when markets fail to generate an efficient allocation of resources (e.g. investment in innovation), economists speak of market failures. The concept of market failures has been applied to technology and knowledge markets, and has become mainstream in innovation policy (Hauknes and Nordgren 1999). In addition to externalities, innovation-related market failures stem, for example, from the public goods and appropriability character of knowledge and content, from imperfect and asymmetric information and from market dominance (Poel and Kool 2009). Public financing of R&D and other innovation policy measures may reduce such market failures either through the direct outcomes of the public funding or indirectly by stimulating private R&D investments, which otherwise would not have been made – the input additionality (e.g. Buisseret *et al.* 1995).

In recent years, the System of Innovation approach (e.g. Edquist 1997) has grown increasingly legitimate among policy-makers, and has given way to the identification of new types of rationales for government intervention. In this

approach, innovation is considered as an interactive, non-linear process in which actors (e.g. companies, research institutes, customers, authorities and financial organisations) interact. They do so in complex processes, characterised by reciprocity and feedback mechanisms, which determine the success of innovation. On the one hand they are influenced by and interact with institutions (both hard e.g. law, IPR, regulations, and soft e.g. culture, values), which among other things reduce uncertainty; and, on the other hand, they are influenced by and interact with evolutionary processes.

The System of Innovation approach helps to uncover actors and mechanisms that were left untouched by the market failures approach, in particular system failures. Examples of systems failures are: infrastructural failures, transitional failures, institutional failures, interaction failures and capabilities failures (Poel and Kool 2009; Klein Woolthuis *et al.* 2003). Interaction failure, for example, can refer to insufficient interaction among complementary actors in the system. One of the drawbacks is the complexity of innovation systems, which makes them difficult to analyse, and therefore clear-cut policy recommendations are difficult to distil. The role of policy-makers is therefore often suggested as setting the framework conditions in which innovation systems can better self-organise and be adaptive rather than optimising, and to make policy learning an integrated part of the process (Metcalf 2005).

Beyond the general approach in terms of market or systems failures, public intervention may be even more important in the media sector, which has particular characteristics contributing to cultural diversity and pluralism. Given the public good characteristics of media, governments may consider public support necessary and legitimate, subsidising not only the production of content but also innovation. Indeed, as innovation keeps industries competitive, supporting innovation with domestic players may strengthen them in facing competition from media conglomerates.

Impact Assessment Framework

The General Impact Assessment Framework

Impact assessment is part of the growing evaluation culture in the public sector. Publicly funded R&D and innovation support is no exception and must be shown to be beneficial and justified (Georgiou 1998). It can be regarded as a special type of policy evaluation that looks specifically to what extent objectives have been (or can be expected to be) reached. As mentioned above, clarifying the 'intervention logic' is key (PRO INNO Europe 2009), i.e. the arguments that justify the intervention, and the expected logic that connects immediate short-term effects with indirect longer-term effects and with objectives and the underlying policy needs.

There are six elements in the assessment framework (written below in italics) (PRO INNO Europe 2009). Firstly, public intervention is required because markets and other non-public processes cannot solve existing *problems*. Then, *objectives* which aim at solving the problems must be specified. *Inputs* (financial, human and material resources) are then mobilised for the implementation of an intervention. The direct results of this implementation are *outputs*, e.g. in the case of an R&D project research results, publications, patents, prototypes, standards and consortia agreements. *Outcomes* are changes that arise from this implementation, and should relate to the objectives of this intervention. Finally, *impacts* are the long-term and broader social, economic and ecological consequences only observable after a certain period following the implementation of the intervention.

A number of generic evaluation issues can then be discerned, including relevance (do the objectives of an intervention correspond to the problems?), effectiveness (do the outcomes meet the objectives?), efficiency (are the inputs of the activity capably used to generate outputs?), utility (do the impacts correspond to the problems?) and sustainability (will the impacts continue once the intervention has ended?) (PRO INNO Europe 2009).

Application of the Framework to Innovation in the Flemish Broadcasting Sector

We made an ex-ante impact assessment (IA) of the government support to innovation in the broadcasting part of the media sector in Flanders. Following the framework described above, it started with identifying the *problems*. Key questions included: What is the need for public intervention in media innovation? What is wrong with the current situation? Are there underlying market or systemic failures? Related to this was the analysis of the *objectives* of the intervention: Are there specified objectives? If so, are they relevant and SMART (i.e. specific, measurable, achievable, realistic and time-dependent)?

Next we outlined five options for innovation policy based on interviews with relevant stakeholders in the Flemish broadcasting sector. We disentangled every option, pointing at their distinguishing characteristics and their likely consequences for innovation in the Flemish media sector. The pros and cons of the scenarios were compared, also with a baseline 'no-change' scenario.

The IA was mainly qualitative, with a few quantitative elements (using a Likert scale, based on expert opinion) due to the limited availability of data and the difficulties of ex-ante assessments. The IA drew on a number of inputs, including a literature study (mainly in the fields of innovation studies and media economics); document analysis (including press releases, management contracts between government and public institutions etc.); stakeholder interviews (20 interviews conducted between January and March

2011, including the public broadcaster VRT, private broadcasters, publishers, universities and public innovation institutes); analysis of practices abroad (seven innovation projects that have had mixed results in terms of success); and a policy analysis.

We first analysed the *inputs* through the level of funding for each option – how it was split and what the key distinguishing features of the options were. Our IA assumes a similar level of public funding across the options, equalling the amount that VRT-medialab (see below) received in 2009 (€4.3M). This assumption allowed a semi-quantitative assessment of the way the whole public media innovation would be organised in every scenario, compared to the current situation.

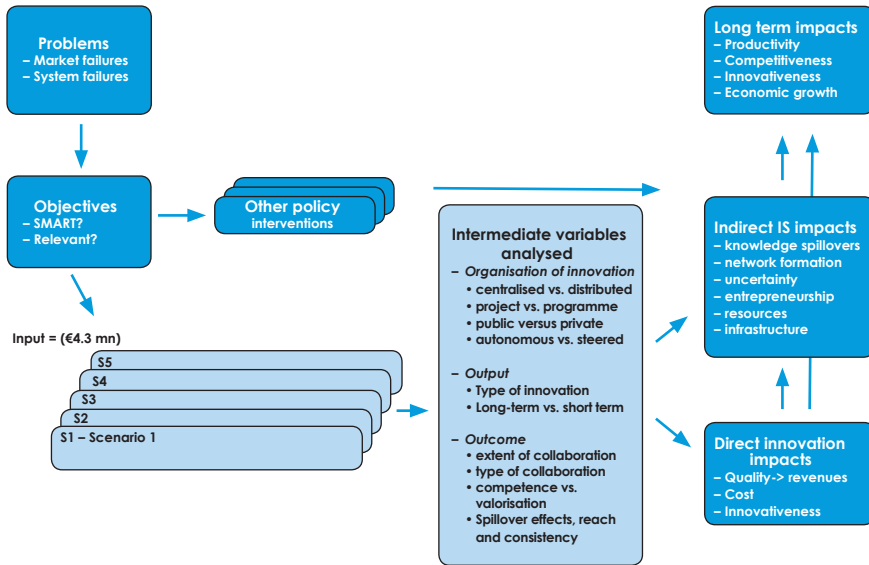
More precisely, four features of the organisation of innovation were distinguished. Firstly, based on a previous analysis (Ballon *et al.* 2010), we distinguished between the options according to whether they led to more centralised or distributed innovation or whether they were more project- or programme-driven. A third feature that directly derives from the literature consists of opposing public and private funding. Finally, we assessed if innovation would be more autonomous or more steered. We also analysed the *outputs* in terms of the type of innovation (see page 129).

Outcomes were analysed in terms of spillover effects, and the effects of every scenario on collaboration (i.e. does the scenario lead towards more intra- or inter-sectoral collaboration?) and on valorisation vs. competence building. In terms of spillover effects, five effects were considered:

- Theoretical Triggering effect – the additional private spending generated.³
- Substitution effect – the spending on R&D and innovation that private players would have made anyway.
- Total effect – (triggering minus the substitution effect).
- Reach – the number and the type of companies that could benefit from the innovation generated by each scenario.
- Consistency – the extent to which each scenario allows for a better alignment of the existing schemes and organisations.

The reason for dwelling on these outcomes is that one of the perceived problems of current initiatives (mainly VRT-medialab) was that they were not triggering enough collaboration and not leading to enough spillovers, thus not stimulating the functioning of the Flanders media innovation ecosystem sufficiently. These underlying mechanisms are illustrated in Figure 1, which shows how the outcomes can then be seen to: (1) impact on participating companies directly, (2) impact on the innovation system, and (3) ultimately have long-term economic impacts.

Figure 1. Combined Innovations Systems and Intervention Logic Impact Assessment Approach



Finally, we qualitatively analysed the opportunities (enhancing factors) and risks (inhibiting factors) associated with each scenario. Although it is actually possible to prefer one scenario to another, all the scenarios described can only happen if a viable trajectory is taken in realising them. Transitions will thus depend on every scenario's enhancing and inhibiting factors, and thus on the ability of policy-makers to respectively profit from, and overcome, these factors.

Innovation in the Flemish Broadcasting Industry – Initial Problem Analysis

This section sets the stage for the following impact assessment. It first briefly describes innovation policy in the Flemish broadcasting sector, and then focuses on the problems encountered related to the definition of the policy aims.

The Role of the Public Broadcaster VRT⁴

In Belgium, there are two separate broadcasting markets – the Flemish and the Walloon ones. They align with the two major language communities, which are competent in the field of culture, media and also innovation (Ranaivoson *et al.* 2011). The Flemish broadcasting market is 'traditional' in the sense that it is catered for through a dual, public-private system, which emerged in the

1980s, as in most European broadcasting markets (Michalis 2007). The Flemish public broadcaster VRT accounts for 40 per cent of the market and is thus still very powerful. Its position has provoked criticism on many occasions. Private competitors have criticised it for being too dominant and market distortive. In particular, the public broadcaster's activities on the Internet and mobile platforms are of concern to these private actors (Van den Bulck and Moe 2010), as is the case in other EU countries.

The organisation and development of broadcasting in Flanders had a large impact on the ways in which innovation in the sector has been conceived. Until 2000, innovation policy was seen as technological policy. After this, a more horizontal conception of innovation policy emerged. Innovation became stimulated across policy domains like media, as well as more wide-ranging, focusing on cooperation between knowledge centres, companies and government funding institutions.

The Flemish government has relied on a number of mechanisms to promote innovation in the media sector, notably the funding of media-related projects in IBBT (approximately €4 million was allocated to the Interdisciplinary Institute for Broadband Technology for media-related projects in 2009) and through IWT (approximately €18 million was allocated to the government agency for Innovation by Science and Technology in 2009). Until 2011, VRT-medialab, an innovation unit inside the public broadcaster, was focused on the development of new technologies, standards and backbone processes with a budget of approximately €4 million. However, it was criticised by private media companies for being overly focused on technological inventions and for spending money on the renewal of the public broadcaster's own technological infrastructure instead of investing in 'genuine' innovation to the benefit of the entire sector (Donders *et al.* 2010). The scenarios discussed in section 5 assume that the VRT-medialab's budget gets allocated to existing or new mechanisms.

Policy Assessment

The media innovation policy is part of the broader and explicit ambition to make Flanders one of the most innovative and competitive regions in Europe. Innovation policy in Flanders has five main characteristics (Ballon *et al.* 2010). Firstly, innovation policies have gradually become a regional competence. Secondly, increasing importance has been attached in political discourse to innovation. Thirdly, consecutive Flemish governments have set ambitious goals with regard to innovation. Fourthly, these ambitious goals are not always matched by the actual means invested. Fifthly, the latter seems to be aggravated by the fragmentation of means.

The latter two problems are primarily due to a public underinvestment in innovation: Flanders' total R&D expenditure is approximately two per cent

of GDP, well below the Barcelona target of three per cent set out by the EU. The government performs worse than the rest of Europe and is also performing – relatively speaking – worse than the private sector. Secondly, initiatives are generally too fragmented, not networked or collaborative enough, and too technologically- (or input-) oriented. It also remains unclear what exactly the Flemish government wants out of innovation in general and for media in particular.

However, it is clear that the reliance on VRT-medialab for media innovation is no longer an accepted practice in the sector. The perception is that it neither generates enough innovation nor leads to spillovers to other actors. In addition, current initiatives (including IBBT and IWT) are perceived as too inflexible and as not allowing for innovation initiatives that are tied to the specific needs of the industry. The R&D processes in these programmes, often organised through large consortia, lead to problems of organisation and timing. Sometimes the results of projects and programmes are too expensive to implement for SMEs, and thus they do not generate the positive economic impacts envisaged.

Further to this brief diagnosis, there is no clear problem statement in Flanders, either in general or for media innovation. This in itself is a weakness of the current policy, and leads to there being no clear objectives of innovation policy at this stage.

Impact Assessment of Five Policy Options

This section introduces and assesses the impact of five options (here described as scenarios) for innovation policy in the Flemish broadcasting sector. It highlights key features of media innovation policies, i.e. academic research (as carried out in the inter-university IBBT research institute), innovation within a public entity (in VRT), and project-related funding (through IWT). It shows how different combinations of such features, sometimes with the inclusion of new entities but always with a constant budget, can lead to very different impacts.

In Scenario 1 (**Flemish Innovation Lab – FL IL**), collaborative innovation would be delegated to one independent but government-subsidised institution. All projects would revolve around a commonly defined innovation programme. In the second and third scenarios, IBBT plays a key role. In Scenario 2 (**IBBT**) it would receive more funding. The IBBT research groups would then need to attract additional funding on a project basis and team up with external partners to engage in collaborative R&D efforts aimed at market-oriented solutions for jointly defined problems. In Scenario 3 (**IBBT-Innovation Lab – IBBT IL**), the accumulated knowledge and competencies of VRT-medialab would be consolidated and integrated into a fully-fledged research group focused on media innovation within the IBBT. Scenario 4 (**IWT**) would consist of strengthening the

existing media R&D funding within the IWT. Finally, Scenario 5 (**IBBT-IWT-IL**) would be a mix of some of the other scenarios. It assumes a strengthening of the budget devoted to media projects within the IBBT as well for IWT. It also assumes some increase in the innovation funding of the public broadcaster VRT so that it could strengthen its innovation architecture and take a more active part in the IBBT and IWT projects. Finally, a new entity is created, which would work with mediating and facilitating partners to engage in media innovation.

Subsequently, these scenarios are assessed according to the method proposed in Section 3. The main features and impacts of each scenario are summarised and discussed in Table 1. A few pertinent crosscutting observations are mentioned here. In terms of the organisation of innovation, all scenarios except Scenario 1 tend to depart strongly from the current situation, in particular Scenario 4 (IWT). All scenarios would also rely on more private funding.

In terms of innovation type, Scenarios 2 and 3, due to the university connections of the IBBT research centres, would be likely to generate more long-term research. Scenarios 4 and 5 would, in line with current IWT schemes, favour projects that are closer to commercialisation. None of the scenarios would aim at producing content innovation to any significant extent, although all scenarios would aim at promoting 'production and distribution' as well as 'consumption/media' innovations. A substantial increase in business model innovation would also be most unlikely. Most scenarios shift the balance towards more intersectoral collaboration, in particular Scenario 2. All scenarios favour valorisation rather than knowledge build-up, in particular Scenario 4.

In terms of *spillover effects*, Scenario 3 (IBBT-IL) is likely to induce the highest additional spending by private partners. Scenario 2 (IBBT) and Scenario 4 (IWT) perform worse for guaranteeing diversity of companies (reach) and aligning organisation (consistency). In contrast, Scenario 3 (IBBT-IL) and most of all Scenario 5 (IBBT-IWT-IL) perform better: the creation of an entity would foster reach and consistency.

The analysis also brought forward a number of salient *enhancing and inhibiting factors* across all scenarios (Table 2).

The final step in this assessment is to weigh the benefits against the drawbacks of each scenario. Although not presented systematically here, it became clear that the drawbacks of Scenarios 1, 2 and 4 rendered them less attractive. In particular, the sector opposition to Scenario 1 (FL IL) was assessed to be too high. Scenarios 2 (IBBT) and 4 (IWT) would, although yielding high triggering effects, score very low on consistency, strategic orientation and maintenance of VRT-medialab competence. In addition Scenario 2 (IBBT) risks decreased and fluctuating funding, while the current IWT schemes of Scenario 4 are too slow for being market-driven.

Table 1. Summary of Scenario Features and Impacts (as compared to VRT-medialab)

Features	Subfeatures	Scenario 1 (FL IL)	Scenario 2 (IBBT)	Scenario 3 (IBBT-IL)	Scenario 4 (IWT)	Scenario 5 (IBBT-IWT-IL)
Features	Input (transfer of €4.3M)	To new entity	To IBBT	To new entity within IBBT	To IWT funding schemes	To IWT, IBBT and VRT
	New organisation	New management contract	Relies on current IBBT structure	New group within IBBT	Relies on ad hoc short-term schemes	New entity created within IBBT
Organisation of innovation	Private vs. public funding	Slightly more private funding	Slightly more private funding	More private funding	More private funding	Slightly more private funding
	More project-driven?	No	More project-driven	More project-driven	More project-driven	Slightly more project-driven
	Distributed vs. centralised	No change	More distributed	Slightly more distributed	Much more distributed	More distributed
Innovation type	More steered?		Slightly more steered		More steered	Slightly more steered
	Term	Medium-term	Long-term and medium-term	Long-term and medium-term	Medium- and short-term	Medium- and short-term
	Type	'Production and Distribution' and 'Consumption/Media' Innovations: no content or business model innovation is fostered				
Spill-over effects	Inter- vs. intra-sectoral collaboration	Slightly more intersectoral collaboration	More intersectoral collaboration	Slightly more intersectoral collaboration	No change	Slightly more intersectoral collaboration
	More valorisation?	Slightly more	Slightly more	More	More	Slightly more
	Triggering (ITE) vs. substitution (SE) effects	Rather low TE (€1.1M) and SE => low Total effect	Rather high TE (€2.8M) and rather low SE => rather high Total effect	High TE (€4.3M) and rather low SE => high Total effect	High TE (€4.3M) but high SE => low Total effect	Rather high TE (€2.9M) and average SE => rather high Total effect
Reach		High	Average	Average to high	Average	High
	Consistency	Average	Low	Average to high	Low	High

Note: Every feature of every scenario was assessed based on a literature review (notably for the building of categories, from input to outcome to inhibiting and enhancing factors), on stakeholder interviews and on expert opinion (to assess every element for every scenario).

Table 2. Summary of Scenario Enhancing and Inhibiting Factors

Features	Scenario 1 (FL IL)	Scenario 2 (IBBT)	Scenario 3 (IBBT-IL)	Scenario 4 (IWT)	Scenario 5 (IBBT-IWT-IL)
Enhancing factors	VRT-medialab knowledge retained Strategic orientation	Strengthening of media competencies within IBBT Strengthening of the media company networks around IBBT Framework already in place	Some knowledge from VRT-medialab retained Strengthening of the media company networks around IBBT Synergies within IBBT	Framework already in place Less competition from other sectors if schemes are earmarked for media	Mediating structure may remedy some of the weaknesses of Scenarios 3 and 4 Economies of scale of innovation through VRT
Inhibiting factors	Lack of trust and legitimacy Time to implement changes	Knowledge from VRT-medialab dispersed No earmarked media funding => risk of fluctuating funding Sector opposition to research orientation No strategic orientation	Time to implement the new group No earmarked media funding => risk of fluctuating funding Sector opposition to research orientation No strategic orientation	Knowledge from VRT-medialab dispersed No strategic orientation Funding and forming consortia processes often too slow for being market-driven	Sector opposition to increased VRT budget No strategic orientation for IBBT and IWT funds Fluctuations of IBBT funds

Given the strong effects and alignment favoured by Scenarios 3 (IBBT-IL) and 5 (IBBT-IWT-IL), but the fact that a number of serious issues remained, the study recommended a combination of both scenarios, decreasing the focus on research of Scenario 3 (IBBT-IL) and increasing the focus on coordination and competency-building of Scenario 5 (IBBT-IWT-IL).

Conclusions

It is both necessary and difficult to evaluate innovation policy in the broadcasting sector and by extension in the media industries. One of the difficulties is related to idiosyncratic and incompatible views on what innovation in the media sector entails and who should engage in what kind of innovation. This chapter provides a novel conceptualisation of innovation in the media industries, which could help with analysing policy problems, setting targets, facilitating debates and reaching consensus among stakeholders. However, this conceptualisation would need further validation and refinement.

Building on the innovation conceptualisation and state-of-the-art impact assessment practice, a framework for an ex-ante impact was outlined and applied to compare different options for the Flemish government funding of innovation in the broadcasting sector. We applied our impact assessment framework to analyse five such options or scenarios. From this analysis, it appeared that the scenarios that entailed the creation of a new entity within IBBT achieve the best balance between the different impacts. The recommendation was therefore a

'light-weight' valorisation entity in IBBT (now iMinds) that would coordinate the private media companies, research groups and VRT, and facilitate their funding through IBBT and IWT. The recommended scenario is thus a combination of some of the scenarios above, attempting on the one hand to ensure an alignment between different phases in the innovation process and on the other hand to promote flexible means to accommodate the sector's interest in more valorisation-oriented projects.

While this research includes a number of circumstances specific to the Flemish media market, there are also some general features which we believe are also applicable to other markets. These include the ambiguity of what constitutes media innovation, the lack of policy problem statements, the detachment of innovation policy and media industries, and the underlying conflict between companies' short-term profit maximising and (what should be) the longer-term interest of policy. Concerning the latter, our research confirmed that there is such an underlying conflict which needs to be solved, considering that the two modes of innovation are complementary.

In addition, one of our findings is that there is no clear problem statement concerning innovation policy in Flanders, either in general or for media. A thorough analysis of the Flemish media innovation system would therefore be warranted, identifying its strength and weakness, and taking the special characteristics of media innovation into consideration.

Furthermore, it needs to be borne in mind that the different policy options all result from a narrowly defined policy problem, i.e. the questionable functioning of VRT-medialab. A thorough and broader policy analysis and benchmark would likely have resulted in a different diagnosis and have shown that other measures were needed. For example, several potential system failures in the media innovation system are largely unaffected in all of the scenarios, e.g. concerning the financing of innovation, notably for SMEs. Therefore, it is important to also stimulate the Flemish media innovation system with other means and instruments, and to follow up on the performance of innovation systems as a whole, using suitable indicators.

From a methodological point of view, our Impact Assessment framework tries to accommodate quantitative and qualitative approaches. Quantitative assessment provides a basis for comparison, especially for policy-makers choosing among several options. However, qualitative assessment tools, when consistently adapted, are also very useful. They are more embedded in actual policy-making and are oriented at identifying the best scenario in terms of all likely outcomes and necessary conditions, including diverse stakeholders' preferences. This is particularly important in small media markets, where politicians seek to please the most important players. Such an assessment is highly human-resources intensive, and necessitates further research to be conducted in order to formulate a framework applicable to all media industries.

Finally, it could be noted that although this research took a few steps towards providing a typology of media innovation, we had difficulties in assessing ex-ante differences in the impact of different scenarios on types of innovation. More research is warranted, conceptually as well as empirically, to measure and monitor media innovation. The lack of understanding of media innovation, and insufficient analysis of media innovation policy, are general issues that extend far beyond Flanders.

Abbreviations

IBBT – Interdisciplinary Institute for Broadband Technology. Observe that in 2012 IBBT changed its name to iMinds.

IWT – Agentschap voor Innovatie door Wetenschap en Technologie (Agency for Innovation by Science and Technology)

VRT – Vlaamse Radio- en Televisieomroeporganisatie (Flemish Radio and Television Network Organization)

Notes

1. The study was commissioned by VRT-medialab.
2. For a more extensive review of the literature on media innovation, see Donders *et al.* (2011).
3. It is important to note that only direct cofinancing triggers were taken into account, and no estimation was made of any potential additional triggering effects. Additional effects may be certainly expected but could not be reliably estimated at the time. As an example, if one assumes a scenario where private expenditure should represent $1/3$, hence public expenditure = total expenditure – private expenditure = $1 - 1/3 = 2/3 = 2 \times$ private expenditure $\Leftrightarrow$ private expenditure = public expenditure / 2 = triggering effect. Since the newly allocated funding = €4.3M, the triggering effect = $4.3/2 = €2.15\text{M}$.
4. This section draws on Donders *et al.* (2011).

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Chapter 9

Privacy in Practice

The Regulation of Personal Data in Denmark and Its Implications for New Media Innovation

Stine Lomborg & Rasmus Helles

Abstract

With the advent of digital media, technologies for harvesting, storing and analysing logs of user data have changed dramatically. In digital media, the logging and preservation of individual user behaviour can be carried out almost completely automatically. This development may give rise to a new type of archive, one that includes various types of personal data and communication patterns of users in digital systems. Digital archives may enable a range of developments in both the public and the private sectors, including innovations in the media industry.

This chapter presents an empirical study of the changes in the topics decided upon by the Danish Data Protection Agency from 2000 to 2011. Against this background, an examination is made of how Danish regulatory practice concerning personal data enables and constrains digital business innovation, and how regulation has responded to changes in the technological landscape over the past decade.

Introduction

During the past decades, technologies for storing and analysing logs of individual behaviour have changed dramatically, and the harvesting, analysis and use of so-called ‘big data’ (typically logs of user behaviour in digital systems) have gradually become central resources in contemporary business intelligence (McKinsey 2011). This increase in the production and use of big data is partly a consequence of the ongoing shift in business-to-consumer communication to digital platforms (e.g. Internet banking, online sales and the communication between public authorities and citizens). In digital media, the collection and preservation of data can be done almost completely automatically, which makes it much cheaper to construct and update this type of archive compared to traditional archives. Thus, digital media may arguably give rise to a new type

of archive, collecting detailed information about user behaviour, communication patterns and so on. Digital archives may enable a range of organisational and product developments in both the public and the private sector, including innovations in the media industry.

In this chapter, we examine how regulatory practice and innovation affect the scope for digital business innovation, with an emphasis on the storage and use of personal data. We do this by analysing how the regulatory practice concerning personal data has changed over the past decade, through an empirical study of the changes in the topics decided upon by the Danish Data Protection Agency from 2000 to 2011.

The study of regulatory innovation is guided by three research questions:

1. What characterises the practice of regulation of personal data in Denmark?
2. What are the key shifts in regulatory practice during the period (2000-2011)?
3. (How) do these shifts follow technological developments?

The empirical analysis serves as a baseline for discussing how privacy, here mainly understood in connection with the use of digital archives of personal data, is regulated in Denmark. Against this backdrop, we can begin to assess the current legal possibilities for using digital archives to enhance media innovation.

We understand media innovation to encompass not only the activities of legacy media on digital platforms, but also the activities of new media businesses that have developed online, such as online games and social media. Common to both forms of media businesses is that they face a new range of opportunities for innovation that spring from the online environment, such as the ability to collect detailed archives on customer characteristics and behaviour. The focus of media studies' discussions of innovation, understood broadly as the development of new practices, tools or products that add to the value-chain of an organisation (e.g. Weiss and Domingo 2012:1158), has traditionally been on how digital media facilitate innovations in media production and distribution (e.g. Henten and Tadayoni 2008). Surprisingly little attention is given in media innovations literature to digital media as collectors of valuable information for data mining in the media business value-chain. Thus, we know very little about the opportunities and constraints of digital archives for value creation. In this chapter we begin addressing this gap in the literature from the point of view of regulatory innovation: in a Danish context, private businesses have traditionally developed products and services in close interplay with public regulation, for instance through the development of standards for technologies and best practices. Therefore, regulatory frameworks and innovations are key to beginning to assess the scope for media innovation.

The Regulation of Personal Data in Denmark

The Danish Data Protection Agency (henceforth called the Agency) is an independent supervisory authority under the Danish Ministry of Justice, responsible for regulating the collection and use of personal data in Denmark and for ensuring that citizens, companies and public organisations handle personal data archives in compliance with the law. Thus, the Agency inspects public authorities and private companies to ensure proper conduct in these organisations' use, storage and processing of personal data. Personal data is defined by law as information about an identified or identifiable physical person (the Act of Processing of Personal Data, chapter 2, section 3).

To understand the role and importance of the Agency and its regulatory innovations with reference to innovation in the media sector and in the digital sector in general, it is necessary to view the practice of the Agency in its historical and structural context.

In terms of privacy and regulation, Danish society is fundamentally characterised by the historical development of the welfare state system, which means that the state is involved in the lives of citizens in a very direct way and at many different levels. A direct consequence of this has been the development of a strong public sector that employs approximately 35 per cent of the workforce.¹ The many roles and services of the public sector vis-à-vis the daily life of citizens include areas that involve sensitive personal information, such as a people's medical histories, financial details (e.g. tax information), legal history (criminal records) etc.

In a comparative perspective, the strong involvement of the welfare state in the lives of its citizens means that the dividing line between what is considered private information and information that the state and companies should know and store about an individual is different in Scandinavian countries compared to most other countries. The basic functioning of the welfare state necessarily requires public agencies to store large amounts of information and, given the kinds of activities the public sector is involved in, much of this information is of a personal nature.²

A case in point is the Personal Identification Number (PIN) system, which is completely integrated in Scandinavian countries, where it serves as a unified identification code for citizens across the entire public system. Since its introduction in the late 1960s, this system has grown to be considered completely natural and harmless, indeed even to be seen as a prerequisite for public sector efficiency. Debates about introducing similar schemes in the UK, however, have been met with strong objections, owing in part to the potential for the easy consolidation of information between diverse public registers (Bygrave 2004).

In welfare societies, the high involvement of the state in citizens' lives is matched by high levels of trust in the state (Kumlin 2004). The development

of the culture of public management of the Danish public sector has a long historical trajectory, going back at least to the absolutist monarchy (Hansen and Jørgensen 2009), and is to a large extent responsible for the high levels of trust in the state: the model has evolved as part and parcel of the welfare state, and has developed from a fundamentally corporatist practice of governance. Coupled with the exceptionally low levels of corruption characteristic of the welfare states (Transparency International 2010), this has meant that the detailed registration of citizens by diverse public authorities is generally accepted without protest, since cases of abuse of registers are rare and the default expectation is that information is handled in a safe and confidential way. For example, a recent controversy during the national election, in which parts of a case file relating to the opposition leader's personal tax affairs were leaked to the press, sparked widespread condemnation and is widely considered to be one of the most controversial public scandals from the last decades.

The high level of registration and the obvious potential for the consolidation of registers in the Danish public sector is part of the background for the development of the regulatory framework that governs personal data in Denmark.

The regulation of privacy concerns is often – like other kinds of regulatory activity – portrayed as an obstacle to innovation that contributes little other than deeming prospective technologies as illegal or demanding that they are implemented in limited versions. In Scandinavia, the state is involved at all levels of societal development and, as Castells and Himanen (2002) point out, this does not automatically prevent innovation. Rather, it creates a different environment for innovation in which the state plays a central and often active part. In the case of Denmark, the state has played a significant role in the development of the IT sector, both by procuring large IT systems and by making an active effort to secure a high level of digital competence in the population, effectively creating a market capable of demanding advanced digital services from private and public institutions alike (Finnemann 2005:227ff.).

When taken together with the corporatist culture of governance described above, it becomes clear that viewing the role of the Agency as simply one of curtailing the worst privacy effects of digital capitalism is too limited. The Agency not only acts as regulator, but also to some extent has a pro-active, dialogic role aimed at facilitating the process whereby companies and public bodies work out how to develop their business and services in ways that match the basic expectations and values concerning privacy in society (see also Bygrave 2004).

The rapid development of digitisation, including the possibilities of data mining that have emerged during the past decade, has put the role of the Agency under pressure, in part due to the global nature of many providers of information and communication infrastructure (e.g. Google and Facebook), but also due to the proliferation of topics and technologies that are relevant to the jurisdiction of the Agency. Although the management of personal in-

formation by international companies such as Facebook is clearly important to the understanding of the challenges that privacy legislators face today, it is important to note that not all digital businesses are global in scope and that small, national companies also play a part in service innovation in the digital sector in Denmark. These services include online communication platforms developed in Denmark and aimed at a Danish audience (e.g. online games, dating services, aggregator sites etc.).

Method

We present an historical analysis of all cases and decisions published online by the Agency from 2000 to 2011. The basis for the analysis is a content analysis (Krippendorff 2004; Krippendorff and Bock 2009) of the cases brought before the Agency in the past decade, based on a sample of decisions published by the Agency on its website (2000-2011, N=246). The cases are published in the form of case summaries, specifying the identity of the person/entity that brought the case before the Agency, whom it was about, the specific subject matter, the considerations of the Agency and the ruling. Cases are selected for online publication by the Agency either because they involve new subject matter (as when, for example, biometric identification devices began to become more common) or changes to established regulatory practice (because of new regulations etc.). In this sense, the website can be considered a publication channel of its own, intended to communicate important aspects of the evolution of regulatory practice to specific stakeholders and (perhaps more importantly) to the wider public.

Sampling

From an empirical point of view, the cases published represent a valuable resource in so far as they index key changes and developments in the regulatory domain: cases selected by the Agency for publication are precisely those that involve new technologies or regulatory changes. The number of cases published online represents only a small fraction of the entire caseload handled by the Agency: in 2010, 12 cases were published online but the Agency handled a total of 5,665 cases. The difference between the two numbers stems in no small part from the fact that the Agency, as a regulatory entity, handles not only complaints about violations of regulation but also a large number of routine registrations, e.g. the establishment of common types of registers or queries about common practices concerning personal data.

An important limitation in connection with the sampling strategy used is that the reliability of the sampling depends on the consistency of the publication practice by the Agency. We have no means of estimating this in any precise

way, and so the results and tendencies documented below should be read with this limitation in mind.

All cases have been coded according to a coding scheme with the following types of variables: the date and time of the case being opened and concluded; the type of actors involved (e.g. public administration, private business, individual citizen); the occasion for addressing the Agency (e.g. complaint, request, notification); the type of media and data archive concerned (e.g. standard archive, email, Internet-based archive); the content of the case (e.g. secure data storage, encryption, marketing, personally sensitive data, cross-referencing of databases); and the ruling of the Agency, the applied sanctions, the legal paragraphs referred to, and the tags used by the Agency.

This coding allows us to track what kinds of questions have been deemed sufficiently important to be published on the Agency website and what kinds of questions have been controversial and/or have involved changes to the regulatory practice at different points in time.

Firstly, we analysed the total distribution of variables. Secondly, we performed a temporal analysis to trace developments in the regulatory domain regarding the types of media in question and the specific forms of content that is subject to regulations. The resulting data set allows for a mapping of changes in the regulatory domain and for an assessment of the relative prominence of privacy issues.

Findings: Privacy in Danish Regulatory Practice

In this section we present our preliminary findings from the content analysis of the regulatory practices of the Agency. The analysis follows two trajectories: Firstly, we present a breakdown of key variables, namely the actors, the media and the subject matters involved in the sampled cases. Secondly, we zoom in on historical developments of the regulatory practice with regard to the relative prominence of various types of actors, media and content in an analysis of how the practices of privacy regulation in Denmark are adapted to changes in the technological environment.

Descriptive Analysis: The Actors Involved

To begin to understand what the key actors and sectors involved in the cases brought before the Agency actually are, we examined the relative prominence of private and public organisations in the sample. Table 1 (below) shows that public entities give rise to the majority of cases in the sample, both as referrers (typically asking questions about the legality of intended or existing practices) and as the legal subject of cases being raised.

Table 1. Actor Types (per cent)

	Referring entity	Concerned entity
Public*	28.5	46.7
Private businesses	19.9	39.4
Citizens	19.1	1.2
Agency	26.0	6.9
NGOs	4.5	4.5
N/A	2.0	1.2

* Municipalities and state agencies.

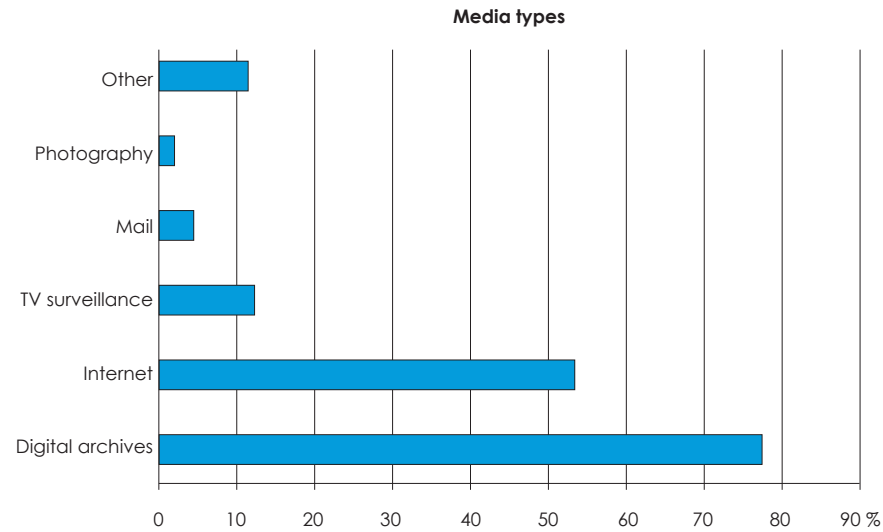
However, if we consider the totality of cases brought before the Agency,³ a little less than 40 per cent of all cases concern the public sector, whereas the private sector accounts for almost 60 per cent of the cases on average for the period under study. Moreover, the total share of cases concerning the public sector declined steadily throughout the period, whereas the private sector's share increased. Thus, when comparing the sample to the total number of cases brought before the Agency, it becomes evident that the public sector is overrepresented in our sample of principal cases. This indicates that cases stemming from the public sector, despite being overall a minor share of the cases, are of a more principal nature and therefore have greater significance in terms of defining regulatory practice concerning the Act of Processing of Personal Data in Denmark and thus for driving the Agency's interpretation of privacy. One possible explanation for this is that it is a result of focused attempts at digitising the Danish public sector, and that as an ever-larger portion of public files and archives are being put into a digital form, they give rise to questions and concerns within the jurisdiction of the Agency. Due to the size of the public administration, and the multiple forms of registrations of citizens' personal information, the digitisation of personal information has different consequences in the public domain compared to the private.

One important corollary of this is that the regulation of the public sector is the main source of practices that spark regulatory innovation, compared to the private sector.

Descriptive Analysis: Media

The sampled cases were also coded according to the types of media involved.⁴ A basic breakdown of the case distribution according to media shows that *digital archiving* and the *Internet* are the two predominant media involved in defining the Agency's legal interpretation and regulatory practices of privacy. As Figure 1 shows, almost 80 per cent of the cases concern digital archives, and more than 50 per cent involve Internet matters.

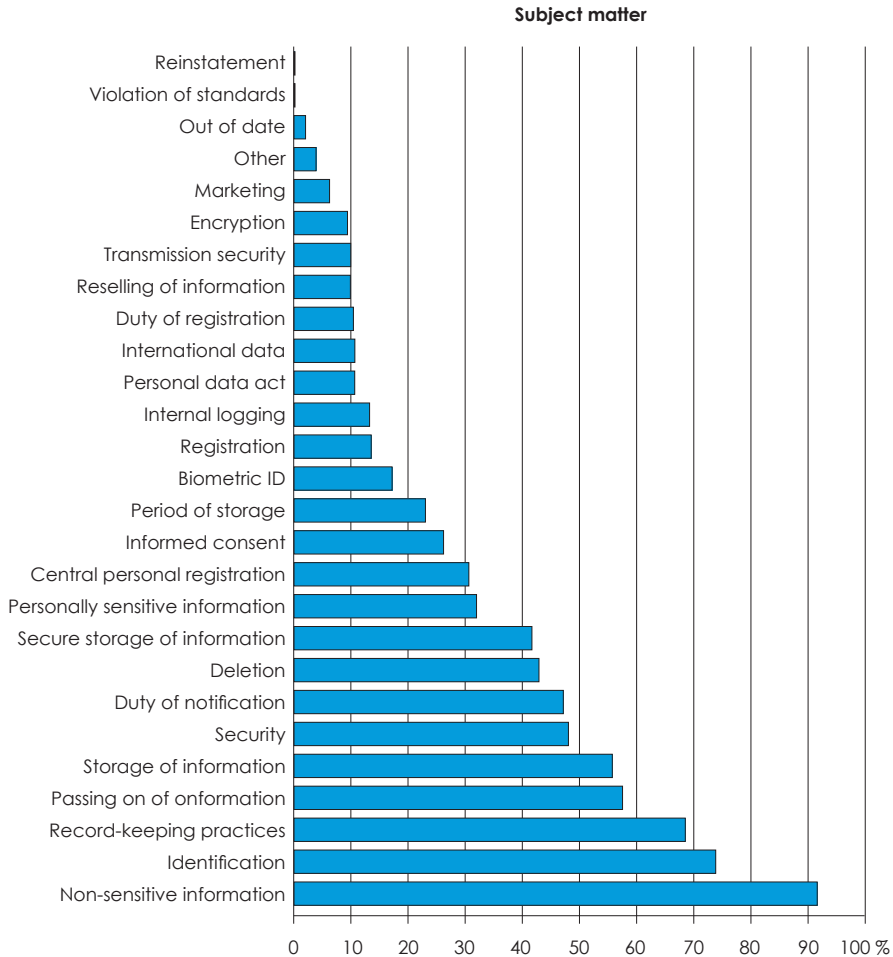
Figure 1. Media Types



Moreover, between the first and second half of the period under study there is a statistically significant ($\chi^2(1, N=246)=5.998, p=0.014$) increase in the number of cases involving digital archival practices, indicating that digital archives play an increasingly important role in defining the regulatory domain of privacy in Denmark. There is a similarly significant increase in the number of cases involving the Internet as a medium ($\chi^2(1, N=246)=3.417, p=0.0323$), documenting how rulings considered to represent regulatory innovation follow larger technological trends. Also important in this respect is that the growing prevalence of the Internet shows how the regulatory practice of the Agency is potentially becoming more important as a source of regulation of mediated communication. Although Danish law makes a series of exemptions from the Data Act with respect to journalistic media activity⁵ due to the overarching concern for the democratic importance of freedom of expression and free media (Helles, Søndergaard and Toft 2011:8ff), many new online services put the distinction between journalistic media and other media types under pressure. This includes discussion forums of various kinds, which sometimes serve obvious public purposes yet do not enjoy the extended protection of established media (Jørgensen 2011:41ff).

Descriptive Analysis: Subject Matter

With regard to the specific subject matter dealt with in the sampled cases, the coding shows a remarkable breadth in the data. Figure 2 displays a breakdown of the relative share of the various case domains of the cases in the studied period (2000-2010).

Figure 2. Subject Matter


The most predominant subject matter is non-sensitive information. According to the Agency, non-sensitive personal information includes any kind of personal data that do not regard health, abuse, ethnicity, political or religious conviction, sexuality, criminal record and the like (the Danish Data Protection Agency 2000:13). Other subject matters appearing frequently in the data are record-keeping practices, identification (e.g. cases that involve the possible identification of individuals through processing data), duty of notification (e.g. a company's obligation to inform the Agency about their procedures for archiving and processing personal data), storage of information, security and sensitive personal information. However, perhaps most importantly, Figure 2 documents an enormous breadth in the subject matters regulated by the Agency – privacy concerns are multifarious.

Regarding innovations in personal data use as related to data mining, one development in the subject matters of the sample over time appears very significant. Between the first and second half of the decade there is a remarkable drop in the number of cases concerning marketing: while 14 per cent of cases in the first half involve marketing, only 2 per cent of cases in the second concern marketing (the finding is obviously significant, with $p < 0.0004$). The drop in marketing is remarkable and important for several reasons. Firstly, the field of marketing involving different forms of personal information is very unlikely to have dropped during the measurement period; on the contrary, marketers have gained a number of computer-based tools for storing, using and analysing customer information, and many of the practices associated with such forms of data mining fall under the remit of the Agency. These uses do show up occasionally in the sample but, as the statistics show, they make up an increasingly smaller share of cases in the sample. One possible explanation for this is that the exercise of many of the new types of marketing is difficult to detect: while large amounts of data may be handled in order to target information at individuals (e.g. by sending direct mail), the process of identification of marketing targets is invisible to the recipient of the letter. Another possible contributing factor may be that many of the companies involved in new, so-called intelligence-based marketing are located in other countries and thus fall outside the jurisdiction of the Agency, as is the case with Facebook and Google.

Discussion: Privacy in Practice

The discussions of privacy in digital media in terms of personal targeting and merging of data from various services (e.g. Google's recent decision to merge user data from YouTube, Gmail, Picasa and their other services) that seem to be most captivating to media researchers are relatively minor in the Danish case material analysed. This points to a need to contextualise media studies-centric debates of privacy in a broader policy and social science framework. Below, we discuss key points from the empirical analysis of privacy regulation in Denmark with a view to possible implications of the use of personal data and digital archives, taking the specific characteristics of the local regulatory environment into consideration.

Key Dynamics and Drivers of Regulatory Innovation in Denmark

Despite possible near-future challenges for the Danish regulatory practices, such as the regulation of global media companies like Google and Facebook, the analysis documents that privacy regulation is under development, and clearly follows technological innovations in a national context. The Danish

public sector is a key driver of this development, meaning that certain types of issues become more salient in defining the regulatory agenda. The lack of prominence of questions and practices related to marketing in the Danish domain of privacy regulation probably reflects this (marketing is not as important an activity in the public sector as it is in the private sector).

The defining role of the public sector in clarifying and redefining what privacy means in Danish practice is historically rooted in the public sector's commitment to administering state archives and registering citizens, and in the sector's track record for administering these archives in abidance of the law.

One possible explanation of the public sector's increasingly prominent role in the sample is that, given that the public sector to a greater extent than the private sector handles sensitive personal information, the public sector more often encounters controversial issues in its record-keeping practices and processing of personal data. For instance, national directives such as the digitisation of services and communication between public agencies (e.g. municipalities) and citizens and the associated implementation of NemID and e-boks⁶ have raised a number of privacy issues.

The Relative Importance of Internet and Digital Archiving in Defining the Regulatory Domain

As documented above, practices involving digital archives and the Internet have grown more prominent in the sampled cases between the first and second half of the decade. In addition to documenting how regulatory practice is adapting to changes in the technological landscape and to changes to the handling of personal information that follow from this, the predominance of the Internet and digital archives suggests certain challenges and future directions in terms of regulatory practice and privacy protection in Denmark.

A new type of archive may be on the rise, namely communication archives based on log data from digital media. These log data archives may contain detailed information – not only of basic personal information, but also of behavioural data including a person's clicks, communications and relationships with fellow users in the digital environment in question. Such archives are likely to be particularly important business for the media, communications and public relations industries.

Considering the rise of digital archives and the Internet in the sampled cases, it is very remarkable – and completely inconsistent with the increasing technological opportunities for data mining with the purpose of product development, personally targeted advertisements and so on – that the subject matter of marketing is decreasing significantly in importance. Apart from suggesting that private companies might not work very actively to direct the Agency's attention towards the possible (commercial) uses of digital communication archives, our

analysis suggests that the archiving of personal data for commercial purposes has yet to become actively regulated by the Agency – many of these types of archives are most likely covered by the legal and regulatory framework of the Agency but, as our analysis documents, they do not appear to give rise to regulatory action and innovation.

To take examples from the new media industry, the data aggregated into log files of game play and the use of social network sites, news portals and so forth are often quite ‘mundane’ as they capture the everyday interactions and ordinary activities of users on these sites. While the personal information revealed in these digital traces might not be sensitive and thus critically private in nature, data logs present a very detailed tracking of personal trajectories and patterns of communication. The Agency has yet to establish a firm regulatory practice for such communication data archives, although there are a few examples in the sample of principal cases concerning logging of communication by Internet-based companies from 2009 onwards.

In the current regulatory practice, the collection of digital archives of user behaviour need not be in conflict with legal requirements and may allow companies to accumulate detailed knowledge of target groups, patterns of consumption and so on, which in turn may help to improve products and services. Generally, archiving appears to be legal as long as it is relevant to a company’s business and as long as the collected information is not associated with specific private individuals. Means to ensure the privacy protection of individuals in data mining are under development under the heading of ‘privacy-preserving data mining’ (Berendt 2012). This points to a possibility for developing innovative analytical practices that could enable companies to capitalise on big data in compliance with the demands implicit in Danish privacy law – a process the Agency could well play a part in.

Conclusion

In this chapter we have presented an analysis of privacy regulation in a Danish context, focusing on regulatory innovation during the past decade. One of the key issues for further analysis concerns the implications of digital archives, including the probably increasing prevalence and use of communication archives logged by Internet-based services. While such archives in the communicative domain, and the associated possibilities for data mining, do not play a prominent role in defining regulatory practice at present, these may be expected to increase in prevalence and thus to prompt a more active privacy regulation by the Agency in the future. There are indications in our material that such an adjustment of regulatory practice in light of communication archives is already underway in Denmark. For instance, the material from

2009 onwards includes a case concerning the Danish social network site Arto's logging and monitoring of personal messages, and another one concerning the online game developer Watagame's logging and storage of users' private messages in the game community GoSupermodel. Such cases may raise the Agency's awareness of new demands for privacy regulation and may contribute to broadening the regulatory domain, and may perhaps initiate a discussion of possible measures of regulation that address domestic Internet businesses in Denmark as well as international actors (e.g. the gaming and social media industries) and their possible transactions of data across national borders. The growing attention paid to cases concerning the logging and storage of users' interpersonal communications in digital systems may further prompt the Agency's awareness of the types of value creation that such personal data archives may be used for. Therefore, the Agency might begin to consider how to regulate and possibly limit the data mining of personal data in the future. As noted above, a key element in business innovation in Denmark is the close interplay with public regulators as part of the total process of innovation. Our analysis suggests that in the area of personal data, this interplay has yet to develop and mature.

Notes

1. Source: Statistics Denmark, <http://www.Statistikbanken.dk/RASA1>, (last accessed 26.02.2012).
2. There are, of course, also differences between the Scandinavian countries, for example in relation to tax affairs, which is strictly private in Denmark but not in Norway.
3. Based on the annual reports from the years 2000 to 2010.
4. The categories are not mutually exclusive, as cases may involve several media types.
5. For example, journalists are allowed to build databases of information about named sources.
6. NemID is a secure unified login system for citizens to access their own personal information in public databases and information systems. E-boks is a secure email system providing each citizen with a personal mailbox for the receipt of public documents and communication, e.g. their yearly tax statement.

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III. Services and Users

Chapter 10

Measuring Innovation

Successes and Failures in a Newspaper Market

Piet Bakker

Abstract

Since the introduction of the Internet, Dutch newspaper publishers have introduced more than 30 different sorts of innovations to try to reverse the decline in revenue due to the circulation drop faced by most newspapers. The aim of this chapter is to map innovation and to assess the success or failure of some specific innovations: E-editions (digital replicas), flexible subscriptions, format changes, and new paid and free newspaper titles. Results show that many innovations actually failed. Sunday papers, a sports daily and four free dailies were ended prematurely, although format changes were sometimes successful in the short term. However, marketing campaigns (to support format changes), flexible subscription systems and digital editions have proved to be fairly successful for most of the papers that employed them.

Introduction

Starting a conversation about newspaper innovation with digital natives usually results in sarcastic remarks and pitying glances. ‘Dead trees’ are not popular in these circles, and the idea that this industry is able to successfully innovate itself is viewed as extremely improbable. At the same time, the number of changes that newspapers have gone through in recent years has been impressive; it will be difficult to maintain that nothing has changed or been tried in the last decades.

Since the introduction of the Internet, more than 30 different sorts of innovations have been introduced by Dutch newspaper publishers. Some of these innovations were digital (websites, mobile services, niche websites, community sites, PDF newspapers and iPhone and iPad apps). Others concerned the introduction of new free and paid titles and magazines, while publishers also launched radio and television stations. Marketing has moved into a new area,

with expensive welcome gifts for new subscribers, and books, CDs and DVDs for existing readers. The product itself underwent formula and format changes (to tabloid or Berliner size papers), while new sections, weekend magazines, regional editions and Sunday papers were also introduced. Newspapers tried to convert non-daily readers into subscribers via flexible subscriptions. Publishing organisations have also changed via mergers and acquisitions and through collaboration models between existing titles. New owners have replaced editors, and integrated traditional newsrooms have taken the place of online operations.

The aim of this chapter is firstly to map the innovations that newspapers have introduced in the last 15 years, and secondly to assess the success or failure of some of these innovations. Success in this case is defined as having a positive impact on circulation or revenue. Data on circulation are derived from official audits as well as from trade journals, books and journal articles. In a subsequent phase of the research, the results will be presented to publishers, directors and editors of Dutch newspapers to see how they value the innovations that have been introduced in recent years.

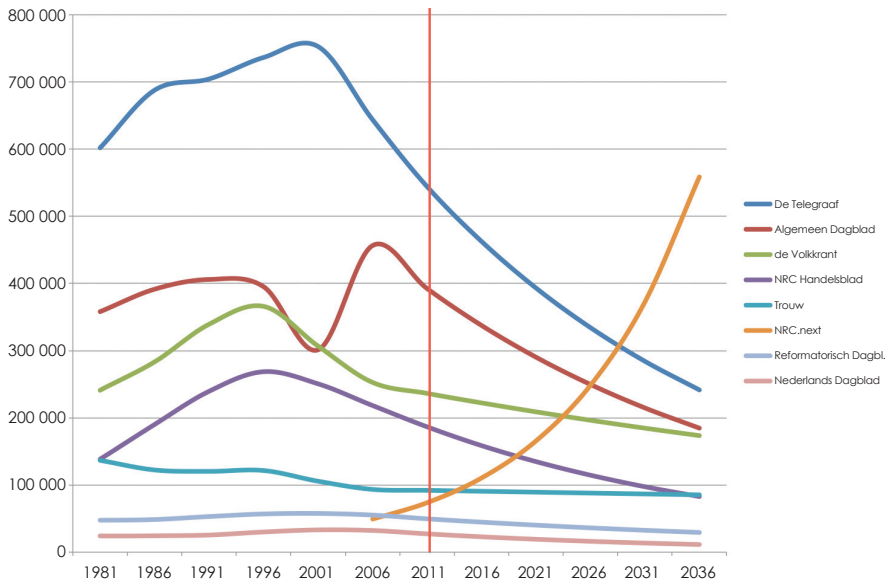
Background – The Development of Newspapers

It is no secret that newspapers have serious problems concerning their business model. In recent years, Dutch newspapers have seen their advertising income and readership drop. The circulation development of most paid national newspapers showed a rise until the end of the 20th century, while after the mid-1990s, a decline set in. The graph below shows the circulation up to 2011 and the estimated development if the decline of the last five years continues (Figure 1). From 2006 to 2011, the four leading titles lost between six and 15 per cent of their circulation – and a continuation of this trend will lead to substantial losses in the near future. Only *nrc.next* – launched in 2006 – has shown growth over the last five years.

Theory

Innovation is defined as the introduction of new or extended products that are expected to improve the performance of existing markets or to develop new markets. Theoretically, we mainly draw upon Christensen (1997), who distinguished between sustaining and disruptive innovation, where the former aims to improve existing products and the latter aims to develop new products that can disrupt the market. A disruptive innovation is usually a new product for a new market, while a sustaining innovation mainly focuses on existing markets. Leavitt (1960) argued that companies often have a narrow focus on

Figure 1. Circulation of Dutch National Paid Newspapers up to 2011 and Projected Circulation up to 2036 (changes in 2001-2005 are the result of a merger)



their product and fail to see new possibilities that could bring in new users, focusing on improvements rather than on new products. Formula changes and new sections are examples of innovations that serve existing readers, while the introduction of a website, a free newspaper or a new paid title is focused more on developing a new market. The distinction is not absolute since many innovations are intended to be attractive to existing users as well as to bring in new users – for example, the switch to tabloid was meant to do both.

In addition, there is also a distinction between incremental and radical innovation, according to the degree of innovation. Incremental innovation is a gradual improvement while radical innovation concerns sudden changes. However, the distinction between sustaining innovation and disruptive innovation is more relevant to this chapter.

The most persuasive part of Christensen's ideas is that there is a fundamental difference between the improvement of products and the development of new products. Companies are usually very good at improvement (Dal Zotto 2007) but are at the same time reluctant to develop new products for new markets. There is often a manifest fear within companies that new products may 'cannibalise' existing products. Furthermore, successful new media products are usually 'lighter' than existing products – not only cheaper and easier to use but also 'lighter' in terms of quality – and they usually do not perform as well as existing products. Although this is precisely why they enter new markets –

unlike the improved products that are actually 'too good' for new users – the whole concept of developing a 'downgraded' new product is the exact opposite of improvement. It is therefore hard to envision how a company can do both things at the same time: improvement and downgrading. Christensen therefore argues that these new products are usually not developed by incumbents but by entrepreneurs. This observation is in line with Schumpeter's (1911) ideas about entrepreneurship and creative destruction.

A final distinction is made between process and product innovation. The emphasis in this chapter is on product innovation because these changes are expected to have a direct effect on circulation. The effects of process innovation (for example, joint delivery, other printing processes, editorial reorganisation) are generally not visible to users, and although they can lead to efficiencies and savings, they probably do not lead to a higher circulation. The effects of severe cost cutting may also stay invisible for an extended period, although Meyer (2004) argues that this will eventually also result in a loss of quality and a circulation decline.

Mapping Innovation

Publishers cut costs, invest in marketing, change the existing product, develop new print and non-print products, and also try to sell non-news products such as wine and holidays. The most obvious thing for newspapers to do – except for cost cutting, which is usually not considered to be an innovation – is to change the product itself. This is done by adding sections; hiring new staff and columnists; launching Sunday papers, weekend magazines and more regional and local editions; introducing new designs, flexible subscription models or format changes (to tabloid or Berliner size); or moving from a morning to an afternoon publication.

As stated above, process innovation is usually not visible to readers, although joint distribution, integrated newsrooms, back-office integration or even the total integration of all parts of the company are also innovations.

The new product is sold by extra marketing efforts, something fairly unheard of in Dutch newspapers. Papers now offer a three-month subscription for the price of one month or give away iPads, bikes and televisions to new subscribers. Existing subscribers receive free DVDs and CDs, usually on Saturday when the bulk of single-copy sales takes place.

Newspapers have also introduced extensions such as stand-alone magazines, books, seminars, travel and lectures, while new-print products such as free newspapers and new paid newspapers have also been introduced.

New non-print products are usually online: websites, apps, mobile sites, web-video and web-radio, pay walls, paid archives, PDF newspapers, hyperlo-

cal sites, web shops, aggregation sites, dating sites, games, and classified and verticals (see Chyi and Sylvie 1998). However, new non-web products were also introduced when papers moved into TV and radio. All the Dutch publishers introduced digital strategies (Bakker and Rovers 2010). While literature on innovation usually assumes that innovations are ‘developed’ within a media company, media companies also acquire innovations, which avoids discussions about developing ‘cannibalising’ products or devoting expensive resources to the innovation.

Selected Innovations

This section focuses on four sorts of innovations: e-editions, format changes, flexible subscription models and new print products. The success of these innovations – or the lack thereof – can be measured in terms of circulation growth or decline (Bakker and Van Duijvenbode 2007).

E-editions are digital replicas of printed papers, offered as a PDF on the website or in an electronic browser interface. In recent years, most titles have also been made available for tablets and iPads. More than half a dozen newspapers (including the largest Dutch newspaper *De Telegraaf*) now sell digital subscriptions (and single copies) but do not bother having these officially audited by the national auditing organisation HOI (www.hoi-online.nl), suggesting that the sales of the non-audited titles are modest at best.

Up to the turn of the century, only full subscriptions were possible in the Netherlands, publishers fearing that unbundling would lead to people substituting the full subscription for a cheaper weekend subscription. When the first titles offered a weekend subscription (i.e. only Saturdays), others soon followed suit. Different models developed: for example, apart from the Saturday edition, Friday-Saturday (culture) or Saturday-Monday (sports) subscriptions became possible, although these different models are still a minority.

Since 2005, all but one of the seven Dutch national papers have changed to a smaller format: six of them changed to a tabloid size, while one changed to the slightly larger Berliner format (*Nederlands Dagblad*). The exception is *De Telegraaf*, the Dutch newspaper with the highest circulation. Only one regional title is still published in broadsheet format, while one title (*Dagblad van het Noorden*) has kept its broadsheet format for the Saturday edition only. More than a dozen titles have changed to tabloid since 2005.

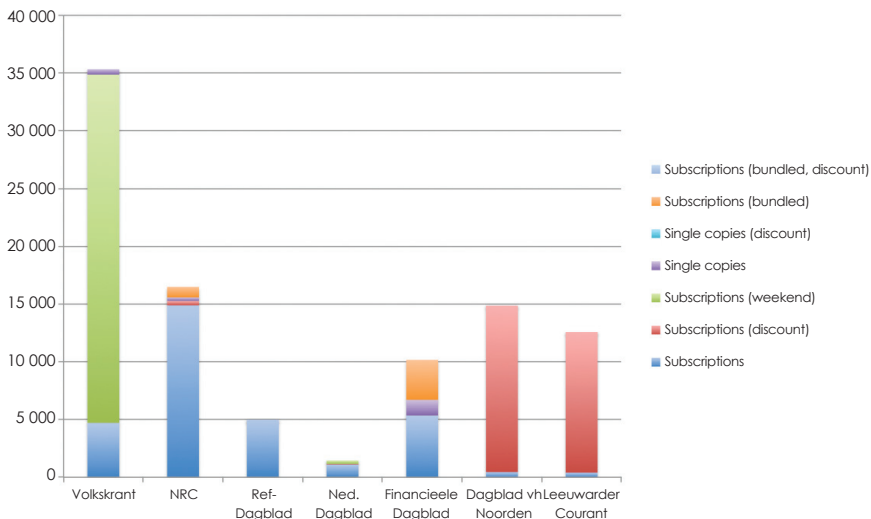
In the last 15 years, several publishers have launched new paid and free newspaper titles; these launches concern national and regional models, sports papers and Sunday papers. In contrast to ‘traditional’ newspapers, most models are only published four or five days a week.

Digital Editions

It is difficult to sell digital editions. Even after several years and since the introduction of the iPad in 2010, digital subscriptions and single-copy sales develop slowly while publishers apparently have not found the perfect strategy for selling digital editions.

Newspapers use different models when it comes to selling e-papers. All seven papers sell full-price subscriptions (at a lower price than the printed versions) but in only four cases do these represent the majority of the number of digital copies sold. *De Volkskrant* has a total of 35,000 digital subscriptions but 30,000 are sold as digital extras to the printed weekend edition, meaning that these subscriptions are included in the price of the weekend edition. *NRC Handelsblad* sells 15,000 ‘real’ digital subscriptions and almost 1,000 ‘bundled’ subscriptions that are sold in packages at a discount to companies. The two smaller Christian newspapers *Nederlands Dagblad* and *Reformatorisch Dagblad* mainly sell full-price subscriptions. Half of the subscriptions of the financial paper *Financieele Dagblad* are full-price subscriptions, while a third consists of bundled subscriptions. This paper is the only title to sell a substantial number of single copies, while the two regional papers mainly sell discounted subscriptions (Figure 2).

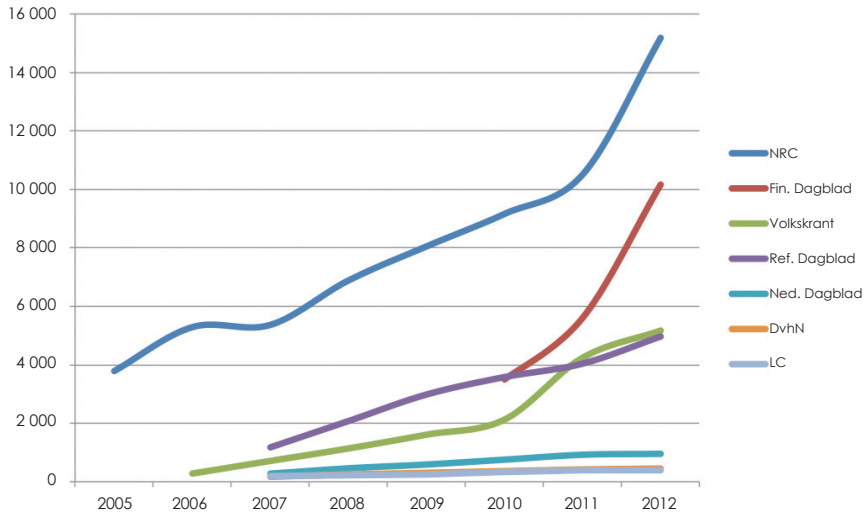
Figure 2. Sales of E-editions, Subscriptions and Single-copy Sales, Q1 2012



Not all digital copies are actually sold – some of them are included in the price of a printed subscription, while others are sold at a substantial discount. When the development of only the full-price copies (subscription and single copies) is tracked, it is clear that *NRC Handelsblad* (15,000 copies) and *Financieele*

Dagblad (10,000 copies) are leading and are also growing at a rapid pace. The increased growth of *NRC Handelsblad* in 2011 and 2012 is partly related to the iPad give-away deal they offered to new subscribers. *Financieele Dagblad* introduced a pay wall on its website, which may have persuaded readers to move to a digital version. Other newspapers report much lower numbers of ‘real’ subscribers (Figure 3).

Figure 3. Digital Sales per Title, 2005 – Q1 2012



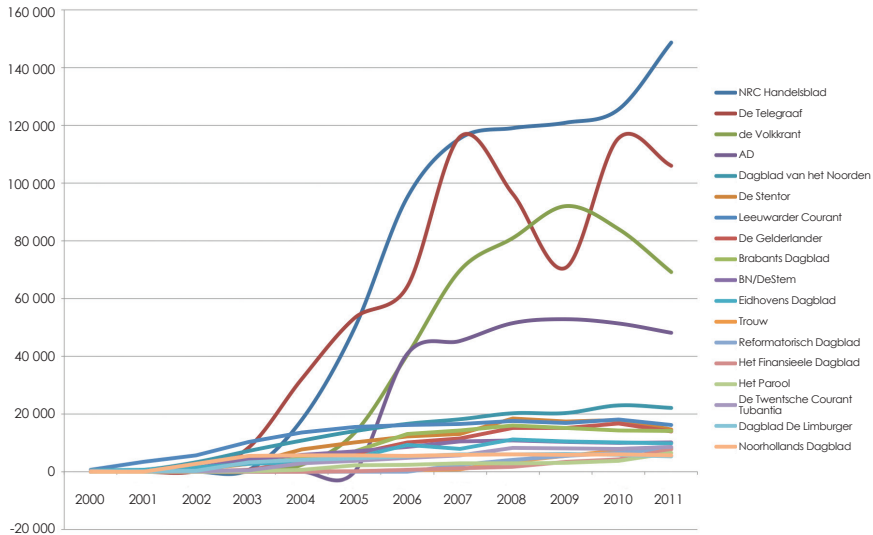
In the first quarter of 2012, 17 per cent of the paid circulation of *Financieele Dagblad* consisted of digital sales, for *Reformatorisch Dagblad* it was nine percent and for *NRC Handelsblad* it was eight per cent, while *de Volkskrant* sold two per cent of its paid circulation online.

Flexible Subscriptions

The graph demonstrating flexible subscriptions also shows upward trends, at least until 2008 when the total number of flexible subscriptions dropped slightly. Between 2009 and 2010 the number increased again, remaining stable in 2011. In most cases flexible subscriptions concern Saturday subscriptions, although other models are also sold (Saturday-Monday and Friday-Saturday). The numbers in the graph stand for copies sold – in contrast to other tables where subscriptions (five or six copies per week) are used. *NRC Handelsblad*, the absolute leader, shows a permanent rise, while the decline at *De Telegraaf* relates to the termination of the Sunday newspaper and the special subscriptions that accompanied it. *De Volkskrant* shows a decline in 2010 and 2011, which

may be attributed to the increase of 'regular' subscribers in recent years who seem to be recruited, at least in part, from the Saturday subscribers (Figure 4).

Figure 4. Flexible Subscriptions, 2000-2011

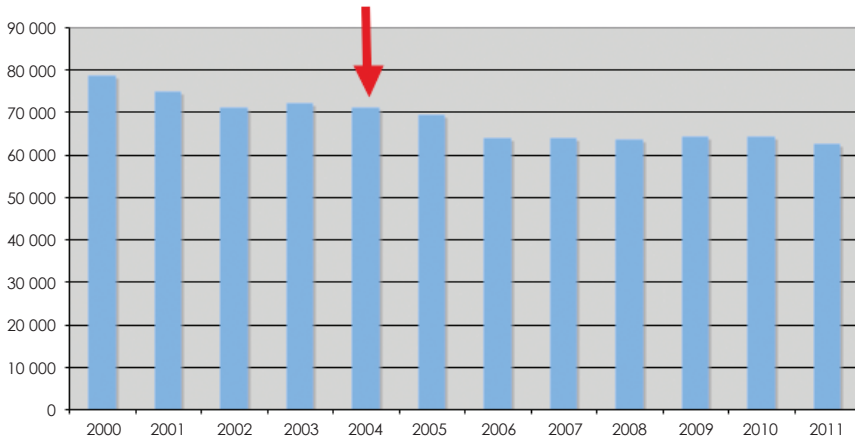


Tabloids

Why newspapers switch to tabloid is clear: it is a more convenient newspaper, more modern and more tailored to young readers, and it also holds the promise of a higher circulation. In the Netherlands *Agrarisch Dagblad* (2003), *Het Parool* (2004), *Barneveldse Krant*, *Trouw* and *AD* (2005) were the first to introduce the new smaller format. Almost all other titles followed suit, with the Wegener (Mecom) regional newspapers and *de Volkskrant*, *NRC Handelsblad* and *Friesch Dagblad* making the switch recently. Of the national papers only *De Telegraaf* is published in broadsheet, while the regional titles of the Telegraaf group (*Noordhollands Dagblad*, *Haarlems Dagblad*, *Leids Dagblad* and *Gooi- en Eemlander*) are the only regional broadsheet papers, although all of these will make the switch in 2013.

Het Parool was one of the first titles that went tabloid and, according to legend, they increased circulation on a massive scale. The figures, however, show something different. In 2004, the year of the transition, the paid circulation decreased (while in 2003 it increased). In the following year and particularly in 2006, paid circulation declined sharply. However, in the latter year, this was mainly caused by a stricter measurement method of single-copy sales. In 2007 recovery set in, but whether three years later this was a result of the change is doubtful (Figure 5).

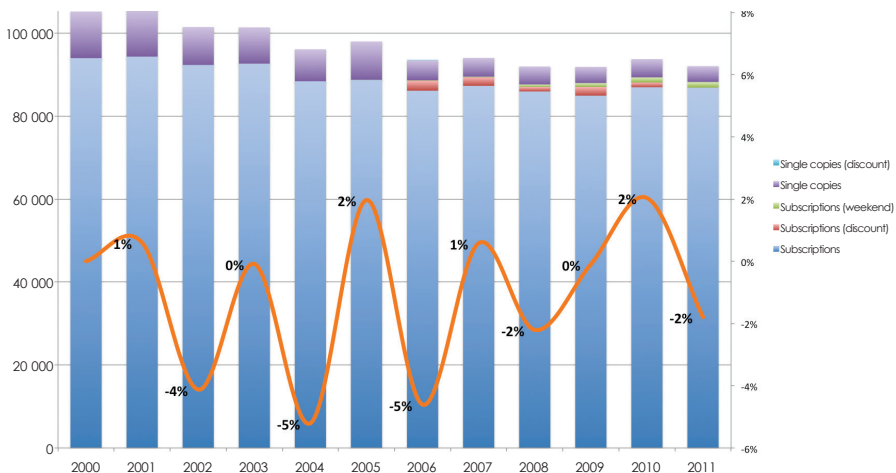
Figure 5. *Het Parool* before and after the Tabloid Switch in 2004



A decline after the transition is often demonstrated. *Dagblad voor het Noorden* (which moved to tabloid in 2010) saw a decreased circulation in the year of the change and in the following year. The national daily *Nederlands Dagblad* changed to the mid-size Berliner format in November 2010 but saw sales drop by three per cent in that year and by six per cent in 2011. The tabloid switch of *Agrarisch Dagblad* (2003) did not put an end to the circulation drop of the paper; in 2010 it introduced a paid digital model and distributed the printed paper only three times a week.

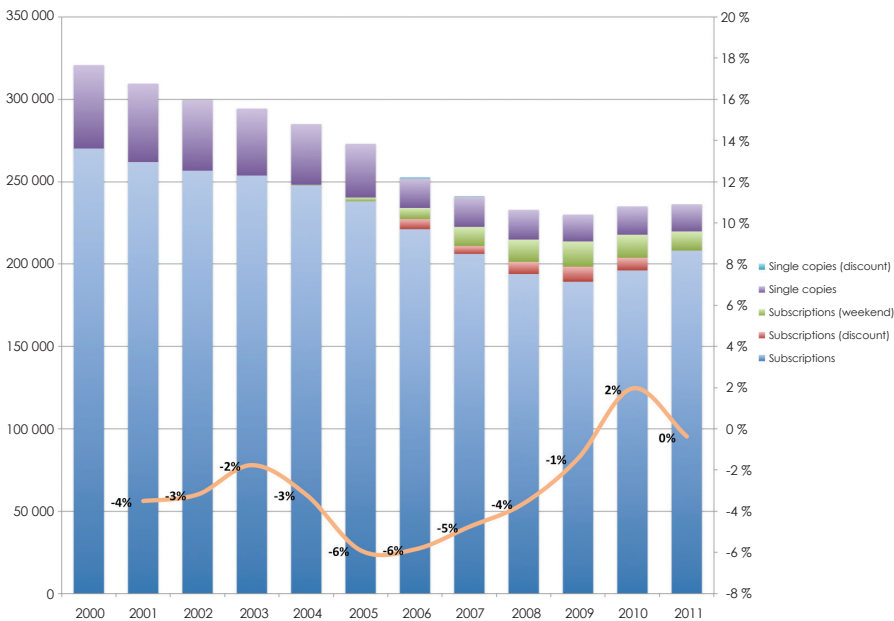
At *Trouw* circulation rose in the year of the switch (2005) but then again declined. In 2006, it dropped below the level of 2004 (Figure 6) although part of the drop can be explained by the different way of measuring single-copy sales.

Figure 6. *Trouw* before and after the Tabloid Switch in 2005 (excluding digital sales). Sold Copies (left axis) and Change in per cent (right axis)



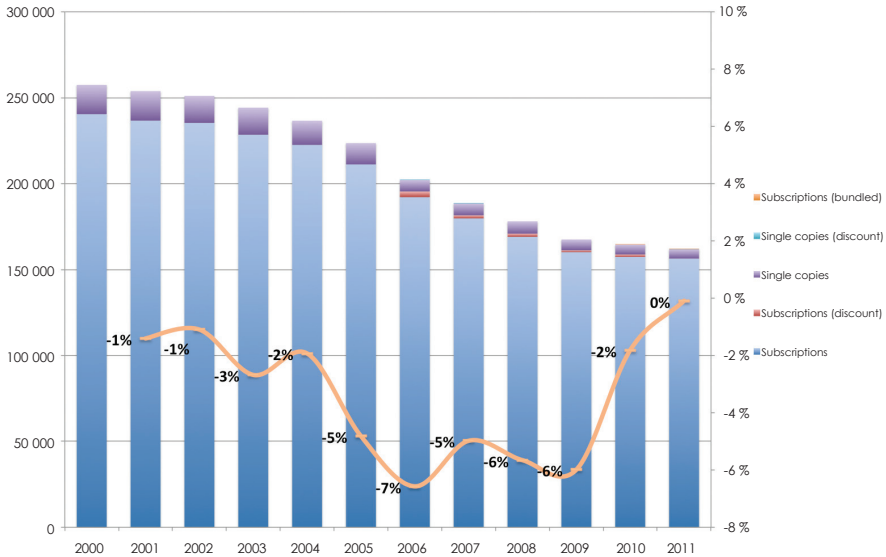
De Volkskrant showed a growth immediately after the switch in 2010. In this case heavy marketing was used, on a scale previously unknown in the Netherlands. New subscribers received three months' subscription for the price of one month, while free bikes were also used to sell subscriptions. It should be noted that in 2010 and 2011 the growth was mainly in full-price subscriptions, which is the most profitable growth for a newspaper. Temporary discounted subscriptions ended altogether in 2011. The growth, however, seems to have come partly from people who had previously held a weekend subscription (Figure 7).

Figure 7. *De Volkskrant* before and after the Tabloid Switch in 2010 (excluding digital sales). Sold Copies (left axis) and Change in per cent (right axis)



At *NRC Handelsblad* the decline slowed in 2010 (before the transition to tabloid), while in 2011 a stable circulation was realised. In 2011, however, growth mainly came from weekend subscriptions while full-price subscriptions dropped (Figure 8). As weekend subscriptions are partly sold in combination with a weekday subscription to the 'light weight' morning version *nrc.next* (see below), it is highly possible that readers had switched to a less expensive subscription. NRC also used heavy marketing, offering a free iPad with a two-year subscription.

Figure 8. *NRC Handelsblad* before and after the Tabloid Switch in 2011 (excluding digital sales). Sold Copies (left axis) and Change in per cent (right axis)

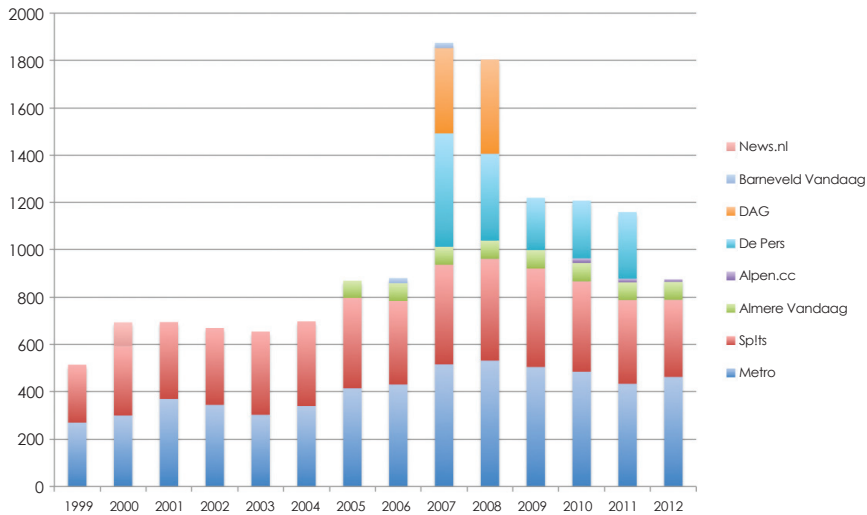


New Launches

In considering the launch of new titles, a distinction can be made between three formats: free newspapers, new paid titles and Sunday papers.

From 1999 onwards, eight free dailies have been launched in the Netherlands (Figure 9). Half of these titles have closed down, in some cases after enormous losses (*DAG* and *De Pers*). *News.nl* by the Telegraaf Media Group (TMG) lasted less than a year, while the local free daily *Barneveld Vandaag* (Wegener/Mecom) survived less than two years. The remaining local model *Alphen.cc* (TMG) reduced its circulation and abandoned plans for paid circulation. In 2007, *Almere Vandaag* – also owned by TMG – reduced from five to four days. *De Pers* was initially saved by Wegener (Mecom), which bought the distribution rights, and then immediately wrote off €3 million on the new investment and closed the paper down in early 2012. *Metro* was acquired by TMG from Metro International in September 2012, meaning that this publisher now owns all the remaining national free dailies.

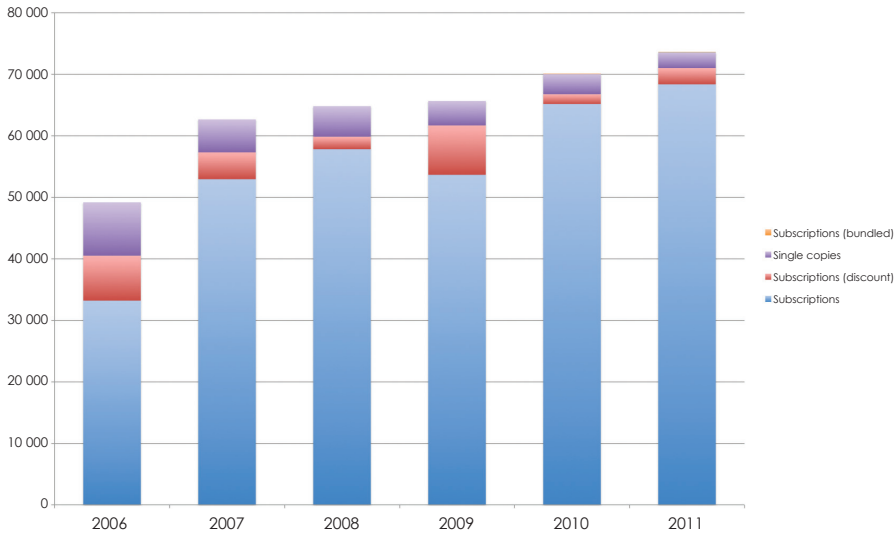
In 2005, Wegener launched the new cheap local paid paper *De Vallei*, but ended the experiment one year later. *Alphen.cc* (TMG) was meant to develop from a free to a paid model, but this plan was quickly abandoned after disappointing sales.

Figure 9. Free Dailies in the Netherlands, 1999-2012

In 2006, the evening broadsheet *NRC Handelsblad* launched the cheap morning tabloid *nrc.next*, targeting new young readers. By 2011, the paper had grown to a circulation of more than 70,000, and 95 per cent of the circulation was full price. Subscriptions to the paper were also sold in combination with the Saturday edition of *NRC Handelsblad*, so part of the growth in weekend subscriptions of that title (see Figure 10) can probably be attributed to this combination. Compared to other titles, *nrc.next* shows a different pattern, with an almost permanent growth since its launch. A combination of a low price, an even lower introduction price, the five-day schedule, aggressive marketing and a target audience of non-newspaper readers could be the explanation for the success of the newspaper. However, the data from the first part of 2012 (which is not yet included in the figure as the full 2012 data only become available in the middle of 2013) indicate that growth has stalled, suggesting that saturation may have set in.

In April 2008, the national daily *AD* started *AD SportwereldPro*, an experiment which, according to the publisher, was to last until the end of the Beijing Olympics. Success would doubtless have prolonged the life of this first Dutch sports daily, but it was closed in September of that year.

De Telegraaf and the regional paper *TC Tubantia* launched Sunday editions in 2004; these editions were closed down in 2008 and 2009 respectively.

Figure 10. Circulation of *nrc.next*, 2006-2011

Conclusion

Results of the analysis show that many innovations actually failed. The two Sunday papers, the sports daily, two of the three new paid titles and four of the eight free titles were all ended prematurely. Not all format changes had the expected result and, even if they did, the positive effect only lasted a short time. This list is in no way complete – of the innovations mentioned in the introduction of this chapter, most have actually failed. Some innovations seem to work well for some titles while showing no effect in other cases. Marketing campaigns, flexible subscription systems and digital editions, however, have proved to be fairly successful.

Although a failure rate of more than 50 per cent seems high, it could also be argued that innovations by definition do have a high probability of failure (Bakker and Picard 2010), and that the successful cases (marketing, some format switches, some new titles and digital editions) show that innovation is indeed possible for newspaper publishers. However, it should be noted that expectations are often unrealistic; massive and long-lasting circulation rises have not yet been demonstrated, and probably never will be. There is not ‘one solution’ in newspaper innovation: developing different models and introducing different innovations at the same time seem to be preferable, while ‘old-fashioned’ marketing – which is not really innovation – also seems to work. Newspaper publishers usually spend very little money on R&D (new products) and marketing since they have always been confident of selling a successful product,

and also because newspapers ‘sold themselves’. That time is definitely over, and the strategy should be changed accordingly.

Where theory is concerned, Christensen’s model is particularly useful because it zooms in on ‘lighter’ products as having the greatest chance of being successful. Free dailies, ‘lighter’ dailies, unbundling subscriptions, (temporary) cheap subscriptions and probably digital editions all belong in this category as they are easy to use, more accessible and cheaper than the original product. The tabloid switch is a clear example of an ‘improvement’. Christensen’s model, however, is not particularly useful as a predictor of success, as has been shown above.

Another lesson from the high failure rate is that the costs of innovation will play a decisive role. If more than 50 per cent, and probably more, of innovations will fail, keeping a close watch on costs is necessary. Towards the end of the 1990s, Dutch newspaper publishers were highly profitable; their strategy during those years was to allocate substantial sums to a few digital operations, where failures also led to huge losses. Spending less on more, and more diverse, innovation would be a preferable strategy. Some Dutch publishers – in particular the Telegraaf Media Group – even moved to an acquisition strategy, thereby circumventing the difficult and sometimes costly development of innovations.

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Chapter 11

Audience Value and Transmedia Products

Charles H. Davis

Abstract

‘Transmedia’ refers to a storyworld that occurs on multiple platforms where each component text makes a “distinct and valuable contribution to the whole”. In much of the practitioner discussion of transmedia storytelling, the attraction to audiences of transmedia products is taken for granted. This chapter asks: What is the respective value of a transmedia offering to the audience and to the originator? A review of diverse literature shows that while transmedia audience engagement strategies largely seek to elicit fanlike behaviour entailing psychological investment and social involvement in ‘spreading’, distributing, commenting on and creating media content, this is also true of less complex media products. It is a challenge to design transmedia products that appeal to audiences with very different propensities to engage, and although transmedia-enabled scope economies are attractive, they are more accessible to larger companies than to smaller ones.

Introduction

In the business of television, viewers matter more than fans, but the product itself matters more to fans than to other viewers (Bielby, Harrington and Bielby 1999:35).

Companies in the screen media industry face multiple challenges in creating and capturing value from product innovation. They need to decide which products to develop or acquire, and effectively attract the attention of viewers and improve the rate of conversion of casual viewers into loyal audiences. The product portfolio must contain a sufficient portion of high-performing products to compensate for the larger portion that fail to recover production costs. Revenue must be coaxed from each product over its entire life cycle: from launch, to placement in the back catalogue, to repurposing and extension of content to other products (Aris and Bughin 2009; Arrese Reca 2006; Norbäck 2005).

The challenges of successful screen media product innovation are amplified by the proliferation of distribution channels and platforms. The contemporary audience is substantially more fragmented than mass audiences (Napoli 2011; Webster 2005). At the same time, a wide range of possible new configurations of content, access points, channels, consumption contexts and value propositions is emerging. In particular, audience fragmentation and channel and platform proliferation, along with ownership concentration in the media industry, invite strategies to create economies of scope by innovating ‘convergent’ media products—families of products with related content that are distributed in various versions and formats across platforms and channels.

This chapter concerns ‘transmedia’ product innovation. As discussed below, transmedia products are considered to have certain distinguishing design characteristics and parameters and are intended to appeal in certain ways to particular audiences. While not new, transmedia product innovation is becoming an increasingly important management challenge to media companies, requiring not only new storytelling conventions and aesthetics but also complementary innovation in business models, production tools and processes, market feedback mechanisms and audience information systems, performance metrics, tactics to induce audience engagement and retention, and audience literacy.

Much of the current discursive enthusiasm about transmedia product innovation is driven by media storytellers’ strong sense of transmedia’s many novel creative affordances. But what do *audiences* value in transmedia offerings, and what is the particular value of the transmedia audience *to the media company*? In this chapter, the current scholarly and trade literature concerning the intended and perceived value of transmedia offerings is reviewed and assessed. The analysis draws on contemporary discussions and debates regarding craft norms for transmedia storytelling, and also on the emerging empirical and theoretical research literature on transmedia product innovation and transmedia audience behaviour. It shows that while fan-like consumers are almost always the implied audience for transmedia properties, practicality makes it necessary to meaningfully segment the fannish audience. Furthermore, elaborate transmedia storyworlds with commercial ambitions must be designed to appeal to, and be accessible to, casual media consumers in addition to more highly engaged audiences.

Nailing down ‘Transmedia’

The term ‘transmedia’ is one of a related group of concepts that refer to the property of *intermediality*, the myriad ways that mediated content can make intertextual references through linking, allusion, recombination, extension, association, fusion, hybridisation, adaptation, translation, or synthesis within and

across media formats or platforms, including extensions or reflections of media content in art, performing arts, physical places and commercial products or services, and vice versa. The terms branding, convergence, cross-media, cross-platform, franchising, mashing up, merchandising, multimedia, multimodality, multiplatform, remediation, repurposing, remixing, remaking and transmedia all refer to intermedial practices. This obviously covers quite a lot of territory in which to situate transmediality.

When content is simply repurposed in different formats across various platforms to increase audience reach, it is considered to be a cross-platform extension. The same story is told but in a different medium. For example, the *Lord of the Rings* or *Harry Potter* video games permit players to navigate around the narrative and experience the plotline, but no additional story value is offered although the audience's experience may be broadened through a call to action that drives the viewer to another platform, usually online or mobile, for previews, summaries, extended scenes, merchandise and so forth.

In contrast, Henry Jenkins, one of the most prominent transmedia theorists, in a definition that has gained considerable following, uses the term transmedia to refer explicitly to fictional narrative entertainment that extends a differentiated 'storyworld' across media platforms in a cumulative, composite or coherently articulated fashion:

A transmedia story unfolds across multiple media platforms, with each new text making a distinctive and valuable contribution to the whole. In the ideal form of transmedia storytelling, each medium does what it does best – so that a story might be introduced in a film, expanded through television, novels and comics....Each franchise entry needs to be self-contained so you don't need to have seen the film to enjoy the game or vice versa. (Jenkins 2006:95-96)

Well-known contemporary canonical examples of transmedia screen products include the *24*, *Lost*, *Matrix*, *Dark Knight* and *Spiderman* franchises.

Not everyone insists on narrative self-containment or narrative additionality to define a transmedia property. The Producers Guild of America (PGA) defines a transmedia property according to three criteria: the number of narrative storylines, the kinds of platforms involved in the project and the requirement for narrative novelty:

A Transmedia Narrative project or franchise must consist of three (or more) narrative storylines existing within the same fictional universe on any of the following platforms: Film, Television, Short Film, Broadband, Publishing, Comics, Animation, Mobile, Special Venues, DVD/Blu-ray/CD-ROM, Narrative Commercial and Marketing rollouts, and other technologies that may or may not currently exist. These narrative extensions are NOT the same as repurposing material from one platform to be cut or repurposed to different platforms. (PGA 2010)

The question of commercial intent is also germane to contemporary debates about the meaning of 'transmedia'. Kinder (1991), the first to use the term 'transmedia', referred to the deliberate employment of intermediality in the design of commercial storyworlds for children. Such commercial cross-media franchising, branding and merchandising practices were pioneered by Disney and have now moved into the Hollywood mainstream (Wasko 2003).

Contemporary debates seek to distinguish clearly between these commercial intermedial practices and truer or more authentic transmedia practices that create experiential immersive novelty across media and are not defined *primarily* by commercial content-extension tactics such as branding, merchandising, franchising, repackaging, repositioning, versioning or recycling of media products (Hardy 2010; Kerrigan 2010:45). Recently, some individuals in the transmedia storytelling community have taken steps to distance true transmedia storytelling from the simple commercial use of various promotional or intermedial techniques, or even to dissociate transmedia practice from commercial intent altogether. However, in 2011 when Jenkins sought to dispel various 'myths' about transmedia storytelling, he did not insist on a distinction between commercial and non-commercial tactics or objectives. Instead, he made a key distinction between creative storytelling and the numerous mundane techniques of cross-media extension. He maintained that proper transmedia practice is first and foremost about creative storytelling, not about the application of techniques of extension (novelisations, adaptations, remixing, mashing up, product placement, viral strategies, cross-platform versions and so forth), which can be employed to extend or promote any media property.

In view of the ongoing debate about the meaning of transmedia, Jenkins enunciated seven principles of transmedia storytelling, which are reproduced in Tableau 1. Jenkins emphasised that a properly designed transmedia storyworld requires a very active and participatory audience that explores multiple levels of narrative, and creates and shares content among audience members by 'spreading' it (Green and Jenkins 2011). Each member thus provides a 'performance' that contributes in some way to the storyworld. Since the implied audience member is highly engaged with the storyworld's 'text', the narrative must be coherent throughout all extensions of the franchise, taking the form of differentiated story chunks that are dispersed among platforms. Furthermore, the transmedia storyworld may deliberately incorporate multidimensional story attributes in order to permit the motivated audience member to explore the narrative through the eyes of secondary characters or third parties (Jenkins 2009).

A fair amount of controversy persists within the practitioner community concerning the core principles and practices of transmedia (Arrington 2011), raising important questions about transmedia innovation. Must transmedia be restricted to *fictional* media content? Transmedia principles and practices are also applicable to the realm of factual media products, where thriving experi-

Tableau 1. Seven Principles of Transmedia Storytelling (after Jenkins, 2009)

Spreadability vs. Drillability. The ability and degree to which content is shareable and the motivating factors for a person to share that content versus the ability for a person to explore, in-depth, a deep well of narrative extensions when they stumble upon a fiction that truly captures their attention.

Continuity vs. Multiplicity. Some transmedia franchises foster an ongoing coherence to a canon in order to ensure maximum plausibility among all extensions. Others routinely use alternate versions of characters or parallel universe versions of their stories to reward mastery over the source material.

Immersion vs. Extractability. In immersion, the consumer enters into the world of the story (e.g. theme parks), while in extractability, the fan takes aspects of the story away with them as resources they deploy in the spaces of their everyday life (e.g. items from the gift shop).

Worldbuilding. Transmedia extensions, often not central to the core narrative, that give a richer depiction of the world in which the narrative plays out. Franchises can exploit both real-world and digital experiences. These extensions often lead to fan behaviors of capturing and cataloging the many disparate elements.

Seriality. Transmedia storytelling has taken the notion of breaking up a narrative arc into multiple discrete chunks or installments within a single medium and instead has spread those disparate ideas or story chunks across multiple media systems.

Subjectivity. Transmedia extensions often explore the central narrative through new eyes, such as secondary characters or third parties. This diversity of perspective often leads fans to more greatly consider who is speaking and who they are speaking for.

Performance. The ability of transmedia extensions to lead to fan produced performances that can become part of the transmedia narrative itself. Some performances are invited by the creator while others are not; fans actively search for sites of potential performance.

Source: <http://whatconsumesme.com/2009/posts-ive-written/core-principles-of-transmedia-storytelling/>

mentation in transmedia documentaries is taking place (Documentary Network 2011). News publishers create narrative content for various media platforms and are faced with many of the cross-platform asset management, windowing, versioning, monetisation, audience literacy and workforce skilling issues familiar to entertainment media (Deuze 2007; Erdal 2009). For that matter, non-narrative interactive *games* and *music* are susceptible to transmediation, and have received much less scholarly attention than narrative fictional transmedia practices (Dena 2009; Vellar 2012).

Fans as Paradigmatic Consumers of Transmedia Products

Jenkins' principles of transmedia storytelling imply that transmedia audiences have certain attributes, behaviours, literacies and perceptions of the transmedia product's value proposition. Of all possible audience types suggested by Jenkins' seven principles, the best-fitting is that of the loyal and highly involved devotee or *fan*. The connection Jenkins makes between fannish audiences and the transmedia value proposition is not coincidental. In *Convergence Culture* (2006), Jenkins argued that fans are the vanguard of contemporary audiences, exhibiting certain kinds of motivations and characteristic individual and social behaviours that are now moving into the mainstream with the advent of the Web 2.0 culture and the spread of digital media literacy (Busse and Gray 2011; Green and Jenkins 2011, 2009).

A clear distinction may be drawn between on the one hand the fan and on the other hand the less involved media consumers: the passive television viewer, the convenience-seeking transient cross-media grazer, the media multitasker, the functionally illiterate media consumer, and the uninterested non-member of an audience.

Fans are individuals who are so deeply invested in some attraction – a celebrity, a fictional character, a sports team or an entertainment programme for example – that they develop a lifestyle to accommodate the interest, devoting time and resources to obtain pleasure, satisfaction and social recognition from highly engaged media consumption.

The rehabilitation of the fan in media studies, from antisocial and dysfunctional consumer to creative and active “produser” (Bird 2011), has taken place concurrently with the rise in the salience of fannish behaviour in marketing thought. Mere transactional audience members are neither emotionally involved in the company's brand nor engaged in significant economic exchanges with the company, and so are the least valuable of all customers. In contrast, fans are considered to be ideal customers because they travel in easily-identifiable groups, willingly expressing their interests, values and concerns, and they develop strong emotional bonds with the company's brand and products (Sashi 2012). Fans often consume a favourite media product more than once, or even many times.

Furthermore, fans are associated not just with loyalty, but also with “high relational exchange” (i.e. they spend money with the company), engaging in impulsive and compulsive consumption behaviour. The average fan is worth considerably more than the average non-fan audience member in terms of product spending, loyalty, propensity to recommend, brand affinity, media value and acquisition cost (Syncapse 2010).

However, important differences exist within the fannish audience. Busse and Gray (2011) warn that contemporary audiences' participation in media consumption, though often imbued with a fannish look and feel, differs significantly from classical fandom:

Whereas a decade ago, fans were easily identified as those more intense and invested media audiences who engaged and connected with one another, media convergence, new technologies, and transmedia marketing have all created new types of fans who exhibit many similarities and yet may not be quite the same (Busse and Gray 2011:430).

These new fans do not have deep roots in fan communities or a deep historical knowledge of a fan culture. Their fandom is less a way of life than a hobby or consumption style, induced by the media industry “actively interpellating viewers as fans” (Ibid.:431) in order to commodify fans’ texts, signs and feelings in an “affective economics” (Andrejevic 2011).

‘Engagement’ has become a key concept in scholarly and industrial research on media consumption, and an emerging literature considers how to conceptualise and measure engagement (Neale 2010; Sashi 2012; Smith, Fisher and Cole 2007).

For example, Busse and Gray (2011) suggest classifying viewers along two dimensions: psychological investment and social involvement. Highly invested and involved audience members are way-of-life fans. Invested but socially uninvolved viewers are engaged with a text but are socially isolated, and therefore are less valuable than socially involved fans because they are not influential. Highly involved but psychologically uninvested viewers are those who are influenced by peers, while viewers who are neither invested nor involved are transients, the least valuable of all audience members.

Fans and Transmedia Product Design

Ultimately, transmedia products are of interest to any company seeking to engage audiences through the organisation and amplification of intertextual meaning, thereby creating economies of scope which can be strategically and economically advantageous. By extending content from one medium to another across horizontal media markets, companies can cross-finance product lines, providing themselves with an important instrument to manage market risk (Ludwig 2000). ‘Consumer media scope’, or the ability to cater knowledgeably to media consumers’ behaviour and preferences across platforms, channels and formats, is a potential competitive advantage provided by media franchises or horizontal branded families of related products (Chan-Olmsted 2005). The elicitation of ‘product spillovers’, which occur when goods and services “increase demand for complementary goods in other sectors”, is a well known merchandising and branding strategy in the cultural economy (Chapain et al., 2010:25).

It has become very common to involve audience members in the co-creation of value, typically by employing audience labour to create content for commercial purposes (Thrift 2006). For example, fans are invited by producers to

provide useful feedback about shows, as analysed in the case of the website *TelevisionWithoutPity.com* by Andrejevic (2008), the online interactive teen drama *Reservoir Hill* by Hardy *et al.* (2011), the TV show *American Idol* (Jenkins (2006), teen fan fiction (Martens 2011), and a paradigmatic transmedia property, the *Lost* franchise (Clarke 2010a; Graves 2011; Mittell 2009; Smith 2009). Audience feedback provides valuable free information about demand for the show, allowing producers to stay ahead of the game with the storyline, and the feedback can be turned into an attraction in itself. The research literature identifies many examples of expropriation and exploitation of fanlike audience labour for purposes of commercial value creation (see Green and Jenkins 2009 for further discussion).

Fanlike audience members are used as ‘influencers’ to help to develop mainstream demand for media properties. Conventional blockbuster strategy is “based on the theory that motion picture audiences choose movies according to how heavily they are advertised, what stars are in them, and their revenues at the box-office tournament” (De Vany 2004:122). The strategy is to “herd” audiences to theatres through heavily promoted, wide releases of films in order to create market momentum. The herding strategy is intended to create a broad mainstream audience of casual viewers and families. However, advertising signals can be overpowered by word-of-mouth audience signals and amateur critics (De Vany 2004; Hennig-Thurau, Wiertz and Feldhaus 2012). It is generally considered that ‘earned’ media visibility (word-of-mouth amplified by social media) more effectively induces interest in a product than promotion via ‘owned’ or ‘paid’ media, because of the perceived greater credibility of earned media (Katona, Zubcsek and Sarvary 2011). Word-of-mouth market dynamics place fans and other influencers – such as formal and informal critics, friends in social media networks and ‘brand zealots’, – in key roles in market-making. The implication is that “marketing support does not carry the full burden of educating and attracting customers” to screen products and other experience goods (Hennig-Thurau, Houston and Heitjans 2009).

Fans can, of course, undermine product value through their active contribution of inappropriate content, as for example in the case of fan-generated pornographic renditions of popular cartoon characters, spoiler information about show outcomes, negative word-of-mouth and agitation over production decisions. Therefore, a content owner, in an attempt to ‘incorporate’ fans (Scott 2011), may impose measures designed to control audience expression to prevent behaviours that would damage the brand, challenge the authorial voice of the official storyteller or result in the dilution of intellectual property value. While audiences may perceive the franchisor’s responses to their invited interactions as ‘cool’ when the experience is highly novel, they also may perceive franchisor interaction as scripted, contrived or gimmicky (Hardy *et al.* 2011). ‘Revengeful’ fan behaviour can be triggered by overly aggressive and

manipulative tactics in narrative deployment, product integration or merchandising (Edwards 2012; Scott 2011).

Thus, the interests of fans and content owners do not necessarily coincide. Furthermore, the interests of fans and mainstream audiences are not necessarily convergent. If most of the audience members of a television-based transmedia property are mainstream viewers, this audience determines the business model's bottom line, affecting scheduling, latitude for involvement of engaged fans in the development of the storyline, and other enticements and entitlements expected by the most ardent fans. In this respect, "viewers matter more than fans" to the show owners (Bielby, Harrington and Bielby 1999:35). Leiter (2011) relates how transmedia fan audiences of the television series *Harper's Island* were disappointed with programming decisions about the show, which were based on Nielsen ratings rather than on transmedia audience engagement ratings. In this case, the transmedia audience did not gain enough market traction to affect the development of the core television property.

The problem is that only a small minority of viewers are likely to fully engage as fans (Evans 2011). Audience engagement occurs in a power law distribution of participation. The least engaged audience members only experience and interpret a media 'text', while the most highly engaged collaborate, moderate discussions and lead developments. According to one analysis, in a cross-platform Alternate Reality Game (ARG), 75 per cent of the audience members chose to passively experience 'sitback' elements of the product, 20 per cent engaged in the gaming content and five per cent contributed original content (Pratten 2010). Dena describes how ten percent of the audience of the Canadian television series *ReGenesis* visited the website of the companion 'Extended Reality Game'; ten percent of these visitors signed up to play the game, and ten percent of these players became 'hardcore' players (Dena, 2009: 241). Thus, in this case, only one out of a thousand audience members fully engaged as a fan.

The more elaborate the transmedia product's narrative, and the more entry points and pathways through the product, the more complex the product must be. This poses a challenge to author and audience alike. The transmedia author must produce a 'mastermind narrative' that keeps track of all story details to ensure coherence and consistency (Clarke 2010a). Casual viewers such as Jenkins' 'Joe Popcorn' lose interest in products that are too complex for casual consumption, and single-media fans feel excluded if the narrative requires exploration in unfamiliar or unavailable media environments. This was reported in the case of the *Matrix* sequels, which casual and single-media audiences felt were not designed for them but instead for avant-garde transmedia fans who were prepared to spend a great deal of time and energy deciphering the narrative puzzle across three films, two graphic novels, nine anime stories, a computer game and an online multiplayer game (Dena 2009; Jenkins 2006; Leiter 2011):

Regular moviegoers were not prepared for the hypertextual logic of the *Matrix* sequels. The sequels' complex narrative placed complex demands on audiences, and many were upset that transmedia exploration and collective intelligence seemed to be a requirement for comprehension. Additionally, the *Enter the Matrix* game received poor reviews with many critics and fans who were frustrated by the limited linear game play and the over-use of cut scenes (Smith 2009).

A key challenge in transmedia product design therefore must be to accommodate natural variation in the degree of audience engagement throughout the extended property. Casual viewers quickly recognise when they are not the addressee audience of a transmedia property. The feature film *Attack of the Clones* is considered to have failed as a franchise blockbuster because it appealed mainly to fan audiences not to mass audiences (Schauer 2007). The television series *Lost* and *Dr Who* are regarded as much more successful than the *Matrix* sequels in accommodating relatively casual viewers while also providing challenging transmedia experiences for highly engaged audiences (Perryman 2008; Smith 2009).

Transmedia product innovators seek to deal with the problem of mainstream audience exclusion (and therefore to increase the appeal of the property to broader audiences) through the product design principle of *tiering*, "the addressing of different audiences with different content in different media and environments" (Dena 2009:239; Scolari 2009). Tiering is commonly practised in children's literature, where properties are designed for children and their parents, and in 'tentpole' feature films, which are intended to appeal to more than one audience segment (Dena 2009). Bakioglu (2009) describes how tiering allows Alternate Reality Games "to appeal to various audiences and affords different levels of engagements and time commitments which, in turn, allows [them] to reach mass audiences" (Ibid.:148). Although tiering does not imply or require transmediality, in the case of transmedia properties tiering permits storytellers to tempt audiences who might not jump right away into the extended narrative. Such audiences "have to be teased and led like Hansel and Gretel by a trail of breadcrumbs" (Pratten 2010:18).

Conclusions

Extensive, deliberate intermediality challenges older understandings of audience activity and engagement (Bolin 2010). In everyday life, audiences are confronted with a multitude of mediated messages. Today's audiences inherently consume media across platforms, moving from venue to venue and channel to channel; newer media more frequently blend with older media than substitute for them

(Schröder 2011). Formerly discrete or relatively stable audience roles such as citizen, spectator, reader, player, customer and user now overlap and combine (Syvertsen 2004). As Livingstone observes, viewing “is converging with reading, shopping, voting, playing, researching, writing, chatting. Media are now used anyhow, anyplace, anytime” (2004:76). Contemporary audiences are organised as complex layers, networks and segments (Webster 2005; Webster and Ksiazek 2011). Consequently, content producers, in their approach to media product innovation and distribution, can no longer rely on well-established knowledge about aesthetic conventions or audience behaviours.

As argued in this paper, transmedia audience engagement strategies largely seek to elicit fanlike behaviours entailing psychological investment and social involvement in “spreading”, distributing, commenting on and creating media content. It is a challenge to innovate transmedia products that induce engagement and also appeal to audiences with different propensities to engage. Tiering may require tradeoffs between narrative-centricity and audience-centricity (Merkin 2003). A central transmedia product design challenge is to effectively reconcile business logic, audience logic and aesthetic logic in a family of offerings.

A key research issue, which cannot be explored here due to space limitations, is how to measure the effectiveness of transmedia products, campaigns and integrated marketing initiatives. A comprehensive, 360-degree view of transmedia audiences will require the development of audience information systems using multiple sources of data and deep analytical capabilities (Breur 2011; Gunzerath 2012; Napoli 2011; Taneja and Mamoria 2012; Voorveld, Neijens and Smit 2011). These next-generation audience information systems will presumably also help to provide greater insight into the value to the company of the individual audience member.

While true transmedia designs seek to elicit fanlike engagement, so do many other media product designs. Thus, a second key issue requiring further investigation is whether true transmedia products, as defined earlier, are more effective than less elaborate cross-media product configurations in inducing audience engagement in support of the desired outcome, whether it be audience loyalty, critical acclaim, volunteering, donating or voting.

A third key research issue, in light of current debates about whether fanlike media consumption behaviour has become so predominant as to render the concept of fan meaningless (Gray, Sandvoss and Harrington 2007), is how to understand various modes, degrees, kinds and dynamics of audience engagement. This chapter argues that even if current conceptualisations of audience engagement point to mainly fanlike behaviour, and fanlike behaviour in turn is presented as the epitome of audience engagement, it is necessary to find ways to effectively differentiate among different kinds and degrees of engagement. Clearly, further conceptual development and greater in-depth empirical research

on convergent audiences of all types are needed in order to understand the various ways that complex intermedial products create value for audiences, and the ways these audiences are valuable to media companies.

Notes

1. Earlier versions of this paper were presented at the Roundtable on New Media, New Audiences: the Challenge to Audience Research in Canada, Annual Conference of the Canadian Communication Association, Waterloo, June 2012, and at the International Symposium on Media Innovations, Oslo, April 2012.
2. *Audience perceived value* means the value of an offering as perceived by the audience, while *audience value* means the value of the audience to the firm. The distinction between perceived value and value to the firm is taken from the customer value literature. For more about customer value, see Sanchez-Fernandez and Iniesta-Bonillo (2007).
3. For further discussion of semantic proliferation around the concept of transmedia, see Scolari (2009).
4. Multitasking does not necessarily imply the interrelatedness of concurrently consumed media content (Bardhi, Rohm and Sultan 2010; Tokan and Mattila 2011). Recent research, however, reveals important complementarities between television as a core medium and use of second or third screens when television content stimulates searches for further information on the Internet (Zigmond and Stipp 2011).
5. Klinger (2006:chapter 4). For example, viewers of *Avatar* who reported the most intense emotional response to the film, sometimes extending to depression at the end of the film, viewed the film on average eleven times (Michelle, Davis and Vladica 2012).
6. For four-quadrant typologies of fan engagement, see Forrester (2007) and Mackellar (2009). More complex formula-based, multi-indicator measures of engagement have been proposed by companies in the web analytics industry (e.g. Peterson and Carrabis 2008).
7. Space limitations preclude a thorough discussion here of the economic and strategic implications of scope economies in media firms. See *inter alia* Doyle 2002 and 2010; Grainge 2008; Murray 2005; Ots 2005; Picard 2005; Tang, Newton and Wang 2007; Wasko 2003:chap. 4.
8. For example: Beck (2008); Brower (1992); Iyengar, Van den Bulte and Valente (2011a,b); Sweeney, Soutar and Mazzarol (2010); Webster (2010).

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Chapter 12

Innovation in TV Advertising in Flanders

Iris Jennes & Jo Pierson

Abstract

With the transition towards digital television, users are believed to have more control, which could lead to disruptive changes in the television business model. Advertisers and media planners are challenged to find new ways to reach their target audience, taking into account the possibilities that digital television offers to users, broadcasters and distributors. Digital television can thus be seen as an innovation not only for users but also for advertisers and other players within the television sector. This chapter discusses the challenges for different actors in the TV value network due to digitalisation, referring to issues of convergence, specialisation of media, differentiation of audiences and increased user control. Focus is particularly placed on the TV advertising sector and its role in the value network for commercial television. What are the main characteristics, strengths and weaknesses of advertising on digital television? These questions are answered through interviews with experts in the Flemish TV advertising sector.

Introduction

Advertisers play a crucial role in the business model for commercial television as they pay for advertising space and thus provide private broadcasters with the means necessary to create and aggregate content (Seles 2010:6). Although commercial broadcasters can gain their income from multiple sources (network providers, subscriptions, copyrights etc.), the current business model strongly relies on the commodification of audiences, i.e. television broadcasters selling audience attention to advertisers in order to be able to invest in the production or acquisition of programmes. Since digitisation, TV is becoming a networked digital technology featuring personalisation and interconnectivity. This means a shift from traditional television as a one-way mass media model to a two-way interactive model (Carlson 2006:97-98) or to media of mass-self communication

(Castells 2009:70). With digital television, users theoretically have the opportunity to increase their control, which could lead to changes in the television business model. Advertisers and media planners are now challenged to find new ways to reach their target audience in a personal way that fits the possibilities digital television offers its users, broadcasters and distributors (Griffiths 2003:119). Digital television can thus be seen as an innovation not only for users but also for advertisers and other players within the television sector who need to find a way to benefit from this new technology.

When looking at the adoption of innovations within an industry, the focus is often on technology and the importance of information to assess the benefits and risks of the adoption of innovations and the transferral of knowledge through communication and experience (Cohen and Levinthal 1990; Huang and Newell 2003; Stucki 2009). For the transferral of information and knowledge, it is also important to analyse the relationships among different actors and the power struggles within the network, as these influence the flow of information and may lead to resistance to innovation (Napoli 2008:14-17) and disturb the market equilibrium (Stiglitz 2001). The aim of this chapter is to investigate the strengths, weaknesses, opportunities and threats (SWOT) for advertising on digital television in order to assess the co-dependency of advertisers and other players. These findings will provide insights into the challenges the television industry faces for creating an innovative, sustainable and commercial model for digital television.

This research is based on interviews conducted within the Flemish television sector and explores the possibilities and challenges digital television offers advertisers in Flanders. The Flemish television market is a special case within Europe, as 81 per cent of the market share (based on audience measurement) goes to the three largest broadcasting companies: VRT (public broadcaster), VMMA (commercial broadcaster) and SBS Belgium (commercial broadcaster) (VRM 2011:156). This makes Flemish audiences less fragmented than in other EU countries and provides us with a unique situation in the television market. The research is focused on the Flemish rather than the Belgian TV sector since the broadcasting market in Belgium has been divided into separate, independent markets: a Walloon and a Flemish broadcasting market. Additionally, Cauberghe and De Pelsmacker (2006) found that Flemish advertising professionals had limited knowledge about the possibilities of iDTV and were therefore not inclined to invest in the opportunities the technology offered. We will look at the factors underlining this lack of knowledge in order to explore why the television advertising sector in Flanders has been resistant to the affordances of digital television as an advertising medium.

Methodology

In order to answer the research question in this chapter, media professionals in Flanders/Belgium were asked for their views on the strengths, weaknesses, opportunities and threats regarding the future of television advertising. The experts were selected based on their professional background, thus ensuring their expertise on the subject. However, it is important to bear in mind that the knowledge provided by our interviewees is not value-free since they are directly involved in the decision-making processes concerning TV advertising possibilities and threats. The players in the television industry are not self-interested players but form a system – or a value network – where each interacts with the other (Ballon 2007:10). These value networks consist of three basic design concepts: roles, actors and relationships. Actors are entities who are active in the marketplace and have one or more roles, i.e. an activity that adds value to the market place. Different actors or roles can then engage in interaction, i.e. form a relationship based on negotiations (Ballon 2007:10). We can expect the experts to provide only that type of information that will not jeopardise these negotiations. To provide as complete a picture as possible, which will highlight the entire network of relationships within the Flemish commercial television sector and how these affect advertisers' innovativeness,¹ we interviewed experts from different actors in the TV value network: the advertising sector, broadcasters and distributors.

The interviews were conducted face to face with two representatives of the advertising sector (BDMA),² the incumbent distributor or cable operator Telenet,³ and two representatives of the two main Flemish commercial broadcasters, VMMA⁴ and SBS Belgium.⁵ The results of these interviews enable us to analyse the strengths, weaknesses, opportunities and threats Flemish advertisers experience regarding digital innovation and television advertising. As this research set-up is exploratory, further research will be necessary and will build on the initial insights gathered through these interviews.⁶

Strengths: Branding, Reach and Impact

In this section the strengths of television as an advertising medium in Flanders are considered. These strengths are inherent to the current practices of television advertising and can be seen as benefits of the current business model for private or commercial television.

Although the literature on digital TV generally focuses on the threats and challenges TV faces as an advertising medium, TV is still a necessity for advertisers trying to position their brand successfully between other brands while reaching a broad audience (Pfeiffer and Zinnbauer 2010:47-48). In Flanders, the

seven largest broadcasters have even expanded their reach, with more people watching TV longer and more often, as both linear and non-linear viewing have increased (Jansen 2012). In its latest report, the Flemish regulator for media, or Vlaamse Regulator voor Media (VRM), indicated that 81 per cent of the market share based on audience ratings went to the three largest local broadcasters. The Flanders public broadcaster (VRT or Vlaamse Radio- en Televisie omroep) has a market share of 43 per cent based on two broadcasting channels. The commercial broadcasters VMMA (based on three broadcasting channels, VTM, Vitaya and 2Be) and SBS (VT4 and Vijf TV) respectively hold 25 per cent and 12 per cent of the market share (VRM 2011:156).

With analogue television, the VCR gave the audience the ability to record TV content and to watch it whenever they wanted. The difference now is that set-top boxes are user-friendlier as they no longer require hardware (video cassettes) as well as the personal video recorder, and they operate through the same remote control as the television set. Furthermore, set-top boxes allow broadcasters and distributors particularly to gather data on the non-linear services offered (Salaets 2012). Therefore, time-shifted viewing has led to an increase in the amount of time viewers watch television, since TV shows they would normally miss due to their schedule can now be recorded and viewed at a more convenient time (Jansen, 2012).

Video is seen as a strong and effective way to convey emotion about a brand and to tell a story (Salaets 2012). TV advertising can send out a powerful and engaging message with a measureable impact on its audience and ROI (De-kocker 2012). Napoli (2001:66-68) predicts that audience measurement (and thus ROI) will be challenged by digital possibilities that cause deviation between 'predicted audiences' (the target group as determined by the broadcaster and media planner), 'measured audiences' and 'actual audiences'.

Most of the current strengths of television advertising relate to analogue television advertising benefits. Some of these – such as reach – may alter due to digital affordances, like ad zipping, which could lead to an increase in the perception of disadvantages for advertisers and broadcasters. This could influence their decision to adopt digital advertising opportunities on television (Waarts, van Everdingen and van Hillegersberg 2002:414).

Weaknesses

The experts were also asked what they considered to be the weaknesses of the current TV value network and TV advertising. These weaknesses are internal to the television (advertising) industry and thus represent uncertainties and unresolved issues between actors in the value network who limit the ability of advertisers and their agencies to invest in and explore the possibilities of digital

television. We start by highlighting the struggles between actors in the value network and then look at the forthcoming uncertainty and lack of information and knowledge within the television advertising sector.

Power Struggles within the TV Value Network

Traditionally, the television industry and the relationships within it were based on aggregated audiences and programmes. In this situation, watching television content was only possible when the television set was on. As mentioned earlier, today's TV audiences are fragmented across media and, theoretically, have more control over their usage of TV content with access via set-top box recordings, online media, downloads, iTunes etc. Even if the audience is not that revolutionary in its viewing practices (Van den Broeck 2011:429), this means the relationships between the players in the television market are under pressure, since they are faced with their limitations, challenges and opportunities (Seles 2010:5-7). As Jenkins (2006), Küng (2008) and Ballon (2007) state, vertical integration affects cooperation between different actors in the sector. For example, vertical integration occurs when a TV distributor (cable operator) starts up a broadcasting channel (Donders and Evens 2010:31-32).

In the current situation, broadcasters are particularly challenged since they find their revenue model threatened. They depend on audience ratings (or measurement) for their advertising revenue (commercial or private broadcasters) or for legitimising their existence (public broadcasters). New technological affordances offered by digital television are not included in these ratings (see also Section 5 Threats: audience measurement). Additionally, distributors directly offer content to the viewer through the set-top box without the involvement of broadcasters. This makes broadcasters more vulnerable than other players such as distributors or providers, telecommunication industries or Internet companies. In Flanders, the distribution market is very concentrated (VRM 2011:161), which leads to diminished negotiation power for broadcasters. The main providers (Telenet and Belgacom) have adopted three different roles within the business network: network management (gatekeeper), content transmission and content aggregation. With distributors taking on different roles within the television sector, they decrease their need to cooperate with certain other actors, such as broadcasters, while strengthening their own position. The combination of their role as gatekeeper and content aggregator could lead to conflicts of interest since distributors choose which channels to transmit under which circumstances (gatekeeper), and may even lead to an abuse of power when negotiating retransmission fees and transport and distribution costs⁷ with competing broadcasters (also content aggregators) (Donders and Evens 2010:41-43).

The experts who were interviewed all stressed the difficulties in negotiations since, on the one hand, distributors increasingly aggregate content, for

example with VOD services (Salaets 2012). Currently, there is still discussion as to whether distributors are allowed to enable time-shifted viewing without consulting broadcasters, as the Flemish media decree (article 185-186)⁸ states that broadcasters own the broadcasting signal and that distributors are only allowed to transmit this signal, not to alter it. In this discussion, broadcasters are either asking for compensation by making this a service that viewers have to pay for or, if they have to, for cancellation of the ability to fast-forward commercials (Jansen 2012). Distributors argue that it is too late to change or cancel this service and ask broadcasters to focus on joint efforts instead in order to develop new forms of advertising that are more suited to the iDTV technology, such as targeted advertising. Distributors plead that they cannot invest in expanding the possibilities of iDTV without the assurance that broadcasters are interested in using them. This means that there is a sense of co-dependency, with distributors acknowledging that they need local broadcasters in order to deliver premium content (Salaets 2012). Also, since local content and broadcasters are still very popular with Flemish viewers (see Section 2 Strengths: branding, reach and impact), distributors still need them as content deliverers.

Furthermore, for the role of the broadcasters it is important to note that shared revenue models do exist, with distributors paying broadcasters in order to be able to air them (Salaets 2012). Broadcasters are also keen on maintaining the legal rights for the programmes they air, which provide them with alternative revenues (Jansen 2012).

When looking at the influence on advertisers and their adoption of digital advertising possibilities, the external environment also influences advertisers and allows them to build upon information from different resources (Waarts *et al.* 2002:418; Frambach and Schillewaert 2002:165-167), and to see the supplier of the innovative technology as an important source of communication for potential adopters, in this case TV advertisers. The power play between distributors as suppliers of digital television technology and new advertising possibilities, and broadcasters as the suppliers of more traditional advertising space on television, could augment the insecurity of advertisers when it comes to adopting digital advertising techniques on television. Closely related to these power plays and insecurity is the lack of knowledge (and forthcoming resistance to innovation), which is discussed in the following section.

Lack of Knowledge

In 2006, Cauberghe and De Pelsmacker (2006:17-19) found that Flemish advertising professionals still had limited knowledge of the opportunities of iDTV, particularly when asked about advertising possibilities. According to research, the intention to use these possibilities was low due to a lack of information and the perception that iDTV advertising was not effective. This section focuses on

this lack of knowledge as an important challenge in convincing advertisers to invest in digital television advertising opportunities.

The experts in our research declared that there is still a lack of knowledge, which forces advertisers into a more passive role (Dekocker 2012). On the one hand, this lack of knowledge could be caused by the power struggles within the television industry (see page 195). Napoli (2008:14-17) states that power dynamics may obstruct innovation and that shifts in competitive advantages for certain actors in the value network could cause resistance to innovations. TV broadcasters are not inclined to offer advertisers information on these new forms of advertising. As noted earlier, there is no consensus between broadcasters and distributors on the investments to be made in order to enable both targeted and interactive advertising.

On the other hand, a lack of communication within the advertising firms could also create a lack of knowledge about the possibilities of digital television advertising. For example, interactive advertising and the data behind it imply that TV is not only a brand-building medium but also a medium that can lead to Customer Relationship Management (CRM). CRM is described by Carlson (2006:98) as a solution for interactive advertising as it implies seeing the viewer or consumer as an individual and generating his data at an individual level. When looking at advertisers' corporate structures, there is a lack of communication between marketers and CRM departments. This is due to their focus on different goals with marketers interested in brand-building for a large audience and focused on short-term return on investment, while CRM departments are focused on a one-on-one relationship with the customer, which requires a long-term view and involves collecting and processing data about the customer (Dekocker 2012). The lack of measurement knowledge and clear knowledge about the return on investment makes the advertising sector rather conservative (Salaets 2012). However, advertisers and measurement firms, who will be interviewed in the next stage of this research (see Section 1 Methodology), would probably disagree with this.

Another important factor that could increase the level of knowledge and potentially influence the adoption of digital television advertising is experience with the 'product' or, in this case, the digital advertising techniques. Unfortunately, early experiments with interactive formats such as the red button were rather unsuccessful (Salaets 2012). This may lead to a resistance to adoption as well as experience when the innovation affects the way it is perceived and the adoption of it (Frambach and Schillewaert 2002:164).

According to the experts we interviewed, there are different powers at play that obstruct the development of successful interactive or targeted digital advertising on television.

Firstly, creating the means to gather and process data is complex and requires a large investment and changes throughout the entire ecosystem of television.

Currently, the system in place is seen as clear and straightforward for advertisers, broadcasters and measurement firms. Innovation is possible, but only when strong results and numbers can be provided (Salaets 2012). Furthermore, when investing in this structure, questions arise about the ownership of the data and the privacy of the people providing these data.

Secondly, when it comes to interactive advertising, advertisers want the interactivity to lead the viewer to their own branded platform. Broadcasters, however, are hesitant to lead their viewers away from their own content and thus their own brand, and are therefore not stimulated to offer advertisers information on targeted advertising. (Dekocker 2012; Jansen 2012). Media planners are not inclined to stimulate interactive advertising since the additional effort required is not rewarded with commission (Dekocker 2012).

Thirdly, stimulating interactivity through second-screen devices is still uncommon although tablet possession has increased rapidly (iMinds-iLab.o 2012:65) from three per cent of Flemish households in 2012 (IBBT-iLab.o 2010:58) to 27.7 per cent in 2012 (iMinds-iLab.o 2012:62). Interested advertisers thus lose the advantage of reach, which is still an important USP for TV advertising. Additionally, second-screen applications managed by broadcasters or distributors are not adopted in the standardised measurement⁹ (Decoster 2012; Jansen 2012).

Opportunities

This section looks at the possibilities of digital television that could be beneficial for TV advertisers. The emphasis is on new technological possibilities resulting in new advertising formats and new platforms for television content, media specialisation and user control, as well as on new suppliers for advertising space (distributors and international actors as content aggregators). These opportunities could indicate how and why advertisers may be inclined to invest in digital TV advertising possibilities.

Distributors as Content Aggregators

Distributors, who control the set-top boxes, have certain economic advantages and opportunities when it comes to the introduction of digital television (Donders and Evens 2010:7). Through the set-top box, they are now more than just network providers – they also deliver content to the audience. Van den Dam and Nelson (2007:237-241) state that distributors, or telecommunication/cable operators, could have a big impact on how advertising evolves. As they see it, distributors have the opportunity to add advertising to their revenue stream since advertisers are looking at ways to optimise their expenses. Distributors then have the knowledge and ability to target the advertising. According to

Van den Dam and Nelson, distributors have the advantages that (1) they have large numbers of consumers, (2) they own data and thus knowledge of the consumer, which is important for targeted advertising, (3) they have customer ownership (i.e. a direct relationship with the viewer/consumer by sending the bill), and (4) they can offer the consumer a direct and interactive response platform. Furthermore, the idea of more relevant, targeted advertising leads to the assumption that viewers will not skip the advertising as much.

As noted earlier, turning data into knowledge is an expensive and complex procedure, and distributors would need to make large investments in infrastructure and knowledge. We found that, while the possibilities are there, distributors may not be inclined to do so because of the large investments and their relationship with broadcasters as content providers. Distributors gaining advertising revenue may obstruct the relationship they have with commercial broadcasters (Salaets 2012; Dekocker 2012). Thus, for distributors, the costs and risks may seem larger than their gains.

International Actors as Content Aggregators

International players such as Google (YouTube) and Netflix are entering the television market. They offer the ability to target audiences and to contextualise their advertisements since they already have the infrastructure to do so, based on their experience with Internet advertising. This is certainly an opportunity for advertisers (Salaets 2012). What they lack, however, is the local content that is popular in Flanders. For that, they will need the contribution of broadcasters or production houses that are currently withholding. Again, due to the struggles in the television ecosystem, it seems that there is little movement, and different parties are still working on how to co-exist (Eeckman 2012).

Media Specialisation

In general, audiences now have more access to different media that all compete for audience attention. Although the Flemish TV audience is not fragmented, with 81 per cent of the market share captured by seven local broadcasting channels (VRM 2011:156), it is relevant to address media specialisation and audience fragmentation. This involves media becoming more specialised in order to be more relevant to certain target groups and to ensure audience attention. When looking at television, digitalisation has also led to more channel capacity, allowing specialised broadcasters (or narrowcasters) to appeal to specific, differentiated audience interests. This means that more content is available for the same number of viewers, which leads to a fragmentation or differentiation of the audience. This evolution can be very useful for advertisers as advertising messages can relate to specific audience interests, and it opens possibilities

for more targeted TV advertising (Barnes and Thompson 1994:77). In media literature, media specialisation is often seen as an opportunity for advertisers to target specific audiences by offering relevant content (and advertising), thus without needing the infrastructure and knowledge to gather and analyse data.

However, the question remains whether advertising on niche broadcasting channels is practical for advertisers since it requires many deals with many niche broadcasters as opposed to making one deal and also reaching the target group but with more waste (Griffiths 2003:116-117). Further research should point out whether the gained relevance and diminished waste equal the extra efforts advertisers and media planners put in to planning these kinds of campaigns.

User Control

Digital technologies theoretically enable users to control their media consumption. They can assemble their own TV schedule not only through the set-top box but also through different media platforms. According to Leavitt (2011:2-7), media audiences are valued by the ratings systems industry because of one specific behaviour (watching TV) rather than on the range of practices audiences conduct beyond viewing. Leavitt argues that watching television is thus a social activity not only in the home environment but also online, in which participating in the event with audience members all over the world is important.

Nielsen research in America (2011) has shown that TV viewers increasingly use social media to engage with their television set, with 55 per cent of male users and 45 per cent of female social media users talking about television. This social television viewing could inspire an opening up of the media ecosystem and a releasing of content online (possibly subscription based or pay-per-view) to connect content to social elements that enable viewing and sharing (Leavitt 2011:11). This provides advertisers with the opportunity of contextualising their (interactive) ads with online content. According to Seles (2010:4), the advantage here is that the behaviour of audience members is networked, instantaneous and visible. Seles (2010:19) also underlines the importance of digital interfaces and two-way communication for viewers and argues that, since viewers leave traces of their tastes using digital interfaces, the industry should work out how to create a better viewing experience using these viewer interactions. This may be perceived as an advantage by advertisers as it is assumed that ad avoidance decreases as the relevance of an advertisement increases (Van den Dam and Nelson 2007:241).

New Platforms for TV Content

The digitalisation of media technologies, economies, and products and services has enabled audiences to gain access to TV content through different media (Küng 2008:92-93), pressuring broadcasters to take control of their content on

other platforms as well as to work out what revenue model to use for which platform. Griffiths (2003:57) describes platforms as the gateway through which viewers receive electronic content. Second-screen platforms such as tablets, laptops and smartphones are seen as an opportunity to extend TV content and to interact with the viewer – more so than with the TV screen itself since TV is still a family medium whereas second-screen platforms, such as mobile phones or tablets, are more individually used (Dekocker 2012; Jansen 2012).

In Flanders, 97.5 per cent of the population own at least one television set. Of these, 25.6 per cent usually watch alone while 51.1 per cent usually watch with others and 23.3 per cent watch as often alone as with others. A total of 84.3 per cent of Flemish TV owners combine watching television with other activities. Two out of three tablet owners have watched TV content on their tablet, whereas 4.7 per cent of the population state they watch TV online (iMinds – iLab.o 2012). Today, however, not much is done with the second-screen applications since their audiences, i.e. users, have not yet been measured. As a result, broadcasters are not yet investing in advertising-supported applications allowing content extensions or live streaming (Jansen 2012).

New Advertising Formats

The following table gives an overview of new advertising formats on digital television, both in the broadcast stream and alongside it (Cauberghe and De Pelsmacker 2006:16).

Table 1. New Advertising Formats on Digital Television

In the Broadcast Stream	Alongside the Broadcast Stream
• In the commercial	Walled garden
• DAL (Mini-DAL)	• Logos/banners
• Impulse response	• Games
• Microsite	• Websites
• Contact me/bookmark	EPG/IPG
In the Content	• Logos/banners
• Product placement	Direct Mailing (email)
Sponsoring	VOD
Advertisement	• Long commercials
Interact. Prod. Placement	• Advertainment
Virtual Advertising	
• On screen banners/logos	

Source: Cauberghe and De Pelsmacker 2006:16.

In Flanders, the leading commercial broadcaster, VMMA, increased its advertising revenue by 20 per cent in 2011. This is due to the strong belief in spot advertising since most programmes are still watched live, but also to an increase in non-spot advertising such as product placement, bill boarding and shorter ad formats (Jansen 2012). New advertising formats listed in the table as ‘in the commercial’, ‘walled garden’ and ‘direct mailing’ are not yet integrated in Flanders. Their main advantage is said to be user engagement, but here too data collection and processing are key. As mentioned earlier, power struggles within the industry and the lack of knowledge and infrastructure to set up a database that enables these new advertising formats make this a difficult exercise in the current Flemish television value network.

We thus observe that the affordances listed by the industry as opportunities – from the point of view of the advertisers – come with uncertainties and risks which may be difficult to overcome given the aforementioned power struggles and lack of knowledge.

Threats: Audience Measurement

A significant part of the income of commercial television broadcasters relies on the commodification of audiences, i.e. television broadcasters selling audiences to advertisers (Smythe 1977:3). This commodification or monetisation also makes audience measurement crucial for the existence of commercial media. Through audience measurement, the watching-labour of the audience is sold to the advertisers (Bermejo 2009:136-137). Barnes and Thompson (1994:78) state that audience measurement is essential because it registers audience behaviour and the changes that may occur in this behaviour due to technological or socio-economic changes. Audience measurement is important for advertisers in order to be able to plan and buy television airtime for marketing communication. It enables broadcasters to evaluate their programming and media planners to evaluate their campaigns (Berte 2010:318-319). This means that the results coming from audience measurement must be comparable and compatible across different TV channels and programmes. It is this accuracy that decreases due to the increase in viewing platforms on the one hand and changes in audience behaviour on the other. What also changes when using different platforms is the motivation or *context* of usage (Leavitt 2011:2-7). Currently, audience measurement does not take into account these different contexts, although they could be useful in making the audience more valuable.

In Flanders, broadcasters and distributors are working with the Centre for Information on Media (CIM, which provides standardised audience measurement to broadcasters and other media) in order to broaden the scope of the current audience measurement and to include TV content viewed through

second-screen platforms or platforms other than the television screen (Jansen 2012; Salaets 2012). However, Macnamara (2010:17) states that it is unlikely that such a diversity of content, media preferences and consumer needs can be assessed with one standardised approach. It should also be said that a shift to a more active measurement could provide useful insights for advertisers. Leavitt (2011:9) pleads for the recognition of social behaviour, while Seles (2010:19) also underlines the importance of digital interfaces and two-way communication for viewers and argues that, since viewers leave traces of their taste using digital interfaces, the industry should work out how to create a better viewing experience using these viewer interactions. Napoli (2010:509-513) points out that individuals could be willing to allow media organisations to monetise on their creations because reaching an audience is often already valuable for the individual. This means that it is the 'ability to reach an audience' that is exchanged and monetised by media organisations as opposed to 'exposure to advertising'.

Broadcasters admit that advertising avoidance, and particularly time-shifted viewing, could be a problem, but with live viewing and social viewing in front of the TV in the living room still popular, they are confident that the measurement system is still accurate (Decoster 2012). Broadcasters, distributors and CIM are currently working on elaborating audience measurement techniques in order to include platforms other than the set-top box by 2013 (Jansen 2012). In Flanders, the expectation is that measurement techniques such as cost-per-click will enter television measurement. This would mean a shift from audience measurement based on opportunity to see to a more performance-based measurement and could be viewed as a threat by broadcasters (Salaets 2012).

For the television advertising sector, the threat of a more performance-based measurement model is the risk of losing one of the perceived benefits associated with successful television advertising – reach. However, audience measurement that is not accurate implies that there is a gap between the 'measured' and the 'actual' audience (Napoli 2001:66-68), which indicates a lack of efficiency in advertising spending.

Conclusion

The following table summarises the strengths, weaknesses, opportunities and threats for Flemish TV advertisers when making the transition from analogue to digital television.

Throughout this chapter it has become clear that the strengths associated with television advertising are mainly more related to analogue viewing models, while the weaknesses are linked to the transition to digital television. When we look at the opportunities, the experts indicate that there are still a lot of

Table 2. Digital television: SWOT for Flemish TV advertisers

Strengths	Weaknesses
Reach Power struggles	
Impact Lack of knowledge	
Branding	→ Resistance to innovation
Opportunities	Threats
Data gathering and targeting	Audience measurement
New advertising formats	

uncertainties, which slow down the adoption process. Advertisers do use strategies to deal with these uncertainties, strengths, weaknesses and threats. On the one hand, advertisers may be loyal to television as an advertising medium as they focus on the strengths of the medium: branding, reach and impact. On the other hand, with the television industry itself struggling internally, the resistance to innovation and a lack of knowledge from advertisers themselves, advertisers who are concerned about the accuracy of their campaigns and the return on investment may move away from television as an advertising medium. Another strategy that can be used is cross-media campaigning. Looking at audience behaviour and the convergence of media technologies and products, advertisers are inclined to spread their advertisements across a range of media (Griffiths 2003:118-123).

These findings underline the importance of information and communication within the value network in order to maximise the benefits that could be gained from digital television as an advertising medium. Furthermore, a lack of experience with the technological affordances of digital television, the disturbance in the market equilibrium with distributors gaining more power, and the power struggles between distributors and broadcasters all add to the perceived risk. Media literature suggests that the television advertising industry may benefit from an open innovation model, managing knowledge from both inside and outside the company to increase innovativeness (Stucki 2009), or from cross-functional projects that enable them to create awareness, common knowledge and consensus (Huang and Newell 2003), although they require differentiated knowledge and a common perspective across stakeholders. Further research would be necessary to find solutions for a more innovative, creative and sustainable commercial television model.

Notes

1. This chapter is based on exploratory research. Future research should include more elaborate interviews with advertisers and advertising agencies, and provide more in-depth insights on the role of advertisers and advertising agencies.
2. Belgian Direct Marketing Association, Greet Dekocker (Director) and Viviane Eeckman (Strategic Manager).
3. Benny Salaets (Vice President Content Management).
4. Ben Jansen (Commercial Director).
5. Bart Decoster (Commercial Director).
6. These interviews will involve other actors in the value network – such as production companies, governments, end-users and software developers – and more in-depth interviews with specific advertisers, advertising agencies, broadcasters and distributors.
7. Distributors pay (some) broadcasters to be allowed to air their content while (some) broadcasters pay distributors to be aired. For more in-depth analysis, see Donders and Evens 2010.
8. <http://www.vlaamseregulatormedia.be/nl/mediaregelgeving.aspx>.
9. See also Section 5 Threats: Audience measurement.

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Chapter 13

Between Reactivity and Reactivation

User-generated News Photo Agencies, New Practices and Traditional Processes

Jérémie Nicey

Abstract

In order to measure the changing production of news, this chapter highlights the case of a participative news photo agency, Citizenside, which was launched in France in 2006. Its services are business to business: the agency sells its user-generated content (UGC) to both traditional and new media entities. The producers are citizens, but the study demonstrates that their content is not 'amateur'. The article examines the various degrees of innovation implied by such a paradigm. It first shows how the construction of Citizenside itself was innovative. It also aims to scrutinise the technical certification of images. It then analyses how the agency and its equivalents are changing routines as well as refreshing fundamental journalistic principles: the author considers that Citizenside's procedures illustrate how online platforms require *reactivity*, and that they constitute a *reactivation* of classical practices, based on verification of sources. Finally, the chapter discusses the notion of a continuum hidden behind digital innovative processes.

Introduction

July 7, 2005: a date that is well known to journalists, at least for the British: professional media covered bombings in London. Among the material they used, the images provided by people *in situ* were broadcasted and printed on a huge scale. In the hours immediately after the event, the police reduced or even prevented access to the exact locations where the bombings had occurred. Therefore, most of the mainstream media chose to cover the event with user-generated content (UGC), even though it was not structured.

July 7, 2005: the idea of a website collecting user-generated news photos to be offered to professionals emerged in the mind of Matthieu Stefani, a young French entrepreneur who was then in London and who observed the bias in media practices. One year later, with the help of two friends and colleagues,

he launched the participatory news photo platform Scooplive, now called Citizenside.

What are the innovations implied by the paradigm of user-generated news photo agencies? And are the processes of this paradigm closer to open news-sharing platforms or to traditional news agencies? This chapter, based on ethnographic observations and research interviews at the photo agency Citizenside, aims to answer these questions. It first examines the innovation of Citizenside in the defining elements of the agency itself and of its model; it also aims to apprehend the technical certification of ‘amateur’ content. It then shows how the agency and its equivalents are changing routines as well as reactivating journalistic fundamental principles; finally, it discusses the notion of a continuum hidden behind digital innovative processes.

A User-generated News Photo Agency: A New Entity and a New Positioning

The reasons why Citizenside’s model seems innovative are many – not only in the construction of the agency itself, but above all in the place given to citizens who witness news events. Before analysing the tools which ensure verification of the news material provided by citizens (see the following section), we shall describe how the web-based agency positions itself towards its peers and its community – therefore, why it is innovative.

The Birth, Goals and Context of Citizenside: Innovation per se

On the day of the bombings in London, July 7, 2005, Matthieu Stefani observed the official requests from highly-reputed media such as the British Broadcasting Company (BBC) for citizen photos or videos. He had two reactions: Firstly, such a practice, which seemed unusual, struck him – although it was simply an illustration of the fact that journalists cannot be everywhere, on every street corner, in every city, in every country, i.e. journalism cannot reach total ‘ubiquity’. Secondly, he was surprised that a few hours later the BBC was broadcasting citizen images of fairly poor quality both in their technical resolution and in their method of filming. Back in Paris, he and two of his friends and colleagues (Philippe Checinski and Julien Robert) started developing the idea and decided to found a web-based agency, the innovative value of which was to *structure the offer* of user-generated images for professional media platforms of any kind.

When it was launched in June 2006, the ‘Scooplive’ agency (the first name of the company before it became ‘Citizenside’) claimed objectives and arguments which were consonant with the popular and commercial success of both mobile technology and the online circulation of images. Both domains were marked

by ‘convergence’ (Jenkins 2006): to a great extent, the idea of a participative and serious news photo site was a good one as it was particularly adapted to the emergence of the massive usage of smartphones. Therefore, the creation of Citizenside was marked by innovation *per se*: its founders intended to form a new kind of entity and to respond to a new context in the ways of producing news images. However, the concept itself was not exactly new, i.e. the innovation was shared, it was concomitant with other creations. Some similar user-generated agencies indeed appeared in the 2000s in other countries; the main ones now operate internationally. The first one – thus establishing a model and its own reputation – was OhmyNews, which was created in South Korea in 2000 but was not focused on images. Later, in 2005, in the United States, NowPublic was launched (which has an agreement with Associated Press) as well as iReport in 2006 (by CNN itself). Citizenside appeared in the same period, in 2006 in France, and among others Demotix would follow in 2008 in the United Kingdom. However, the innovation of Citizenside goes deeper than the process of its creation: it gives a new role to its audience, and transforms ‘amateur’ material into professional testimony.

Not ‘Amateurs’ any Longer

When end-users started producing information (on blogs, on social network sites etc.), they were – and sometimes still are – considered unreliable. Wherever that feeling comes from (perhaps professionals feel that they will be replaced), the message disseminated is often that they do not provide professional material, simply because they are ‘amateurs’. However, such terminology is inappropriate. Firstly, the contributors use equipment whose performance can no longer be denied. Secondly, their content is of ever-increasing value and is included in professional news circuits. In this regard, the year 2004 (more so than 2001 and September 11) can be considered as a turning point, at least in France: broadband technologies started being installed, enhancing immediacy and interactivity with end-users (Paterson and Domingo 2008). In December of that year, the tsunami was covered mainly with citizen images (Nicey 2008; Riegert *et al.* 2010). Thirdly, their practice is progressing, including the quality of their images.

Therefore, Citizenside calls its contributors ‘news witnesses’ or ‘members’, and the community aspect will be highlighted below. Apart from a few – who also happen to be the most active – these contributors are not professionals, in the sense that they do not practise photojournalism full-time. However, they constantly follow the production of news before participating in it. To explain the phenomenon, we refer to the notion of ‘prosumers’ (Toffler 1980), or more recently of ‘produsage’ (Bruns 2005). This could be one reason for the success of Citizenside’s system ‘alerts’, which will also be described be-

low (see the geolocation processes). Nowadays, user-generated content can be highly qualified and reliable; furthermore, it can be of interest, despite prejudices (Keen 2007; Carr 2005). This is even more the case when the material is structured and controlled by professionals before being published. Citizenside's newsroom is indeed composed of journalists who previously worked in recognised entities such as the BBC, Radio Canada, the French weekly magazine *Le Nouvel Observateur*, the free daily *Metro* and its French competitor *20 Minutes*. Now working for Citizenside, these journalists define their role as "transforming testimony into news information" (interviews with the author, July-September 2011). To conclude this point, the contributors, using serious modes of news production and being mediated by a newsroom, ought to be considered as 'semi-professional' and no longer as 'amateurs'. Furthermore, their images are mediated, checked and certified, which constitutes the expertise of Citizenside.

The Certification of User-generated Images: New Tools and Procedures

Check and Double-check: The Value of Metadata

Firstly, through its website, the agency requires complete and reliable profiles of its contributors, including phone numbers, so as to be able to reach them if it cannot solve a problem. Once the newsroom receives content (mainly photographs), it spends most of its time and activity checking and double-checking it. The aim is to detect fakes and plagiarism via the precise analysis of the data and metadata of the images uploaded by contributors. In the meantime, these images do not appear on the website, and in the 'back office' are categorised as 'to be validated'. Data of images include their file name, standard and extension, resolution, weight and basic dimensions. Their metadata are more interesting: technically they are called EXIFF data (EXtended Image File Format), which include the height and width, dates (of image and of post), type and model of camera, and white balance. These metadata should be provided with no operation (for example, contrast-added images and other Photoshop treatments are not allowed). Suspicion arises if any or several of the following criteria seem unusual: photos belonging to the same series but not sharing the same basic data; file names being generated through online engines; and the absence of metadata such as the model of camera, which by definition would not be detected by the platform if absent (for example, if the picture was not original but was hacked on the Internet). In such situations, the original content has to be found. Citizenside's main activity is then to track the pictures on the Internet. Through this procedure, the web-based agency guarantees the authenticity of its UGC, and therefore its expertise in the domain of news images.

As part of their investigation, the journalists working at Citizenside's newsroom visit online social networks (e.g. Facebook, Flickr, YouTube, Twitpic – the photo zone of Twitter) as well as search engines and specific photo websites (e.g. Google, Tineye, Fotolia). Over time, they have learned how to interpret dubious images and where to find their original versions; for example, they identified specific Facebook codes in certain file names. In this regard, Agence France-Presse (AFP) can learn a lot from the young company. In January 2010, a few hours after the Haiti earthquake, the well-known French international agency proposed and commercialised a picture which had been hacked on Twitpic. Considering the potential impact of the image – a woman rescued from chaos, looking like a *homo sapiens* – the AFP started selling it because the photo was presented under the label of one of its regular partners, the photo agency Getty (Palmer 2011:395-397). However, with more accurate efforts, the original source on Twitter would have been detected. Dubious images are a major – and increasing – phenomenon which newsrooms today have to deal with. A now-classic example is the use and dissemination by established newsrooms of a fake photo of Osama bin Laden's corpse on 2 May 2011 following his death. This is also why the AFP developed its own software – Tungstene – to analyse modifications within photographs. Not surprisingly, the AFP cooperates with Citizenside (see below, section 4): thanks to its work on metadata, the latter teaches the mainstream agency how to certify images. This exemplifies that innovation becomes relevant when shared.

New Practices: Geolocation and Community Management

Citizenside also massively uses geolocation. The place where the contributor connected to the site to upload the pictures must match the place where the photographs were taken (especially if a smartphone was used) or with the place where he/she usually lives. Geolocation is an efficient tool to ensure that events were witnessed for real, especially for international breaking news. Pictures coming from Egypt are, for example, dubious if they are uploaded from a computer or a smartphone geolocated in France or in a Nordic country. Other personal situations might occur: the contributor may have uploaded the images a few days after their capture and then may have travelled; he/she may have changed the material (e.g. camera, smartphone) since its previous use. Whatever the case, the newsroom would not only identify such signs but would also try to understand and interpret them.

When solving problems, the newsroom contacts the contributor. By exchanging messages (through the profile on the website or by email) or by calling on his/her mobile phone, the journalists at Citizenside try to ensure that the contributor is the real author of the photographs. This is also a way to obtain more information about an event (contextualisation, the main actors etc.).

This part of the work is referred to as community management. At Citizenside, although a member of staff is dedicated to this function (and also to animating the platform), all the journalists frequently contact the community. This proximity is useful, as demonstrated by the following two examples. Firstly, the newsroom can go further and advise contributors on how to improve their content – how to write descriptions of the event they witnessed, referring to the 5W journalistic rule, and how to enhance the quality of their images – not only the technical standard but also by varying the angles. Secondly, Citizenside is able to mobilise its community when needed: thanks to geolocation, contributors located near to a breaking news event can receive ‘alerts’, which means that user-generated images are often provided more quickly than via traditional circuits. This example illustrates the innovation of participatory news agencies and of digital news sites (also called ‘pure players’) in the reception of images: they view the citizens not as an audience who follows/watches mediated news events, but as potential producers of news content who often witness the events before the professional journalists themselves.

Limited Newness:

The Reactivation and Adaptation of Fundamental Principles

The Use and Appropriation of Principles Forgotten by Traditional Newsrooms: Investigation and Common Sense

Knowing whether there is an expertise of news production (Ross 2011) is a very interesting question. What is expected from journalism – in its golden age definition – can be summarised as: investigation and common sense. It seems that such values have somehow diminished in some traditional newsrooms. Investigation can be sustained by technology – as shown above, with the use of metadata and geolocation – but it is also deeply based on reflection. This is what the editor-in-chief of Citizenside stressed when participating in a special volume of a French academic journal:

“Is there sense or nonsense in the story? Is the image realistic? These are questions we must bear in mind. The first thing to do with images is common sense: keep your eyes open. Analysing the background of a photo or a video can, for example, help to identify where the event takes place. One also has to catch details ‘which create nonsense’, such as demonstrators presented as Iranians by France 2 – the national public service television channel. It was in December 2009. We could see them wearing t-shirts and fighting against helmeted policemen, which really did not match the weather in Tehran before Christmas. For good reason: these images had been taken in Honduras in June.” (Filio 2011:7, author’s translation).

One major feature that traditional newsrooms sometimes suffer from is

distance, in two meanings of the word: not enough distance from events, and too much distance from their audience. Regarding the first aspect, the permanent and growing time pressure (Boyd-Barrett 2010; Palmer and Nicey 2011) created a situation where there seemed to be a lack of analysis of the facts – despite the present and massive interest in ‘fact checking’. The second aspect reveals that traditional newsrooms have over time lost touch with their viewers. Contrary to this, young journalistic teams like Citizenside have based their model on community management, not only to collect their members’ product but also to stimulate them.

Checking and Verification as Fundamental and Original Principles

Are journalistic practices changing through these kinds of innovations? In some ways, they are: above it was mentioned how Agence France-Presse learns from Citizenside’s techniques to ensure the authenticity of news images. This proves that the modes of collaborative innovation and production should not be exclusive to new web-based actors (Wittke and Hanekop 2011) but can be shared with classic newsrooms. However, the latter are sometimes their own worst enemy: they were late to adapt their productions to the new trends. Moreover, their daily routines and time pressure – although these are not new (Boyd-Barrett and Palmer 1981; Palmer 2011; Palmer and Nicey 2011) – often make them cut back on their investigation and thus reduce their accuracy in verifying news content. Feeling threatened, they preferred to see the threat as coming from outside themselves. They recently focused on what they thought was at stake: the capacity to control flows and the selection of news, i.e. ‘gatekeeping’ (White 1950) on which they based their expertise and power. However, news production has entered a new phase: ‘gatewatching’ (Bruns 2005). All these trends reveal issues of image and reputation. In the previous section, the ways of structuring citizen images were described by examining the technical work of Citizenside. It could be considered therefore that these images represent competition to professional products. However, they do not, for three main reasons: (1) the contributors are where the professionals are not, they are multiple and better located than journalists, who do not have the benefit of ubiquity; (2) in most cases photojournalism is not their job, although most of them provide the agency with photos of quality; and (3) they represent a challenge to reinforce traditional journalistic practices.

Simple facts may help to understand why Citizenside does not position itself as a frontal competitor to traditional media but rather as a business partner. Most of the staff are found in the business and legal divisions, with the newsroom staff consisting of only six journalists – one editor-in-chief, one deputy editor, one community manager and three journalists (often trainees/freelance). As the newsroom controls the content before publication but does not work night

and day, Citizenside cannot operate 24/7. Therefore, one of the major weaknesses of Citizenside is that it is a small entity. Despite its reduced newsroom, the participatory agency focuses its communication on innovative aspects: its company description makes reference firstly to its technical tools and then to the *reactivity* of its online community. Citizenside includes more than 70,000 contributors (at the end of 2011). Of these, 10,000 are highly active, but it is interesting to note that no contributor intervenes as a ‘free’ witness – as with traditional newsrooms, the contributors get 65 per cent of the sale of their news products to the media and they retain their authors’ rights. Overall, Citizenside manages to present between 500 and 1,000 images per day. Meanwhile, the company description of Agence France-Presse stresses that it operates 24/7 across different international time zones – an essential criteria for foreign news – in 150 countries via its 2,260 contributors of some 80 nationalities. The major French agency can rely on its historical position and its expertise. However, it recently chose to deal with a new landscape composed of web-based wholesalers: for example, in 2007 it acquired 34 per cent of Citizenside. This shows that new media entities – based on innovative techniques but also on classical prerequisites – and ancient media actors can cooperate. To understand this trend better, the traits and degrees of innovation itself need to be discussed.

Innovation as a Continuum

Are traditional newsrooms losing power over production? Do they predict that their power, through the participation of end-users, will be transferred to these new actors? Such questions are hardly valid, although they are clearly asked by well-known critics (Bowman and Willis 2003; Gillmor 2004; Shirky 2008). Previously it was shown how traditional newsrooms are threatened by themselves and by their daily routines. Here, the aim is to discuss the following statement: despite digital and technological shifts, the recent innovations correspond to a continuum where the modes of quality news production imply a *constant* evolution and an adaptation both to societal uses and to the users themselves.

ProAm Content: New Values?

For a long time, traditional newsrooms did not include content from amateurs’ and thus professionals were not threatened. A sentence posted in Citizenside’s newsroom exemplifies this: “Professional journalism has been optimized for low participation” (Rosen 2011). Since it was launched in 2006, the French web-based photo agency works in the opposite way, giving value to ‘ProAm’ content (professional-amateur edited content). The ProAm model has proven results – and not only because it is an answer to the global need of ‘empow-

erment' (Jenkins 2006). The collaboration between Agence France-Presse and Citizenside has been mentioned; to this could be added the fact that the AFP, with the support of Citizenside, is involved with ten other partners in the European-funded project 'Glocal' which aims to "provide to the amateurs an interactive framework to describe and categorize their event experience bridging the gap between their local representation and the global one [provided by the media]" (Teyssou 2010:5). Another example that can also be emphasised is the website NowPublic, which started in 2005 in Canada and has made an agreement for content-sharing with Associated Press, the major American and international news agency.

Three main reasons may explain the relevance of such a paradigm. Firstly, in a strategic context of 'abundance' (Boczkowski 2010:171-186), traditional newsrooms can collect and treat more photographs than they did or do with their own teams, and sometimes more quickly (in the previous sections it was shown how user-generated content may complete the work of photojournalists, who cannot cover every location). Secondly, the content proposed by participative agencies now forms a reliable and quality offer. Thirdly, this is not the first time that media use and diffuse material produced outside their own newsrooms: indeed, they sometimes did it for well-known breaking news such as John Fitzgerald Kennedy's death in 1963. Some media, especially radio, in the 1960s and 1970s were known for enhancing the participation of the audience. Finally, when collaborating with freelance staff, traditional journalism was already involving external human resources for the production of news content.

At Citizenside, the collaboration goes further than the punctual sale of images to mainstream media. The agency sells a service called 'Reporters Kits' to traditional media in order to develop their own news community. Among others, this has been acquired by free daily papers (*20 Minutes* and the French version of *Metro*), by the French regional paper *Le Parisien*, by a French 24/7 channel called BFM-TV, by the website of the historical radio RTL, and recently by Archant, a UK-based group of local papers. These mainstream media collect their own material but the platform management is operated by Citizenside, although the latter remains invisible to news consumers (this is known as a 'white-label product' operation). Finally, special partnerships can be set up: in the summer of 2011, a special coverage of the international sports event the Tour de France was operated for the British daily *The Guardian*, which helped to enhance Citizenside's reputation in the professional media landscape. More generally, this exemplifies the recent trends in journalistic practices: traditional mainstream media now face new offers and productions, including user-generated images, and increasingly they do not reject such content. The collaboration therefore exists and could be extended: participatory news agencies have proved that they are not competitors but rather partners to established media. Moreover, their innovative practices and tools can create inspiration for the latter.

Long-term Transformations and Innovation as a Continuum

Every journalist is a citizen, whereas every citizen is not a journalist. However, every journalist is not a good and accurate journalist. Web innovations and new competitors are no doubt challenging for professional journalism. Understandably, traditional news actors, facing the Internet, tried and still try to defend their positions. However, they seem less threatened by ProAm content. Agencies such as Citizenside aim to propose new angles, new 'types' and new approaches to news, and they managed to guarantee the authenticity of their content. The case discussed in this chapter, showing that such participatory news agencies do not position themselves as competitors but rather as innovators, suggests the following answer: when processed seriously and professionally, the practices of digital news actors are an opportunity for traditional modes of journalism.

Furthermore, the reality and main characteristics of their 'innovation' may be questioned. In the case of user-generated photo agencies, they gain credibility by checking and double-checking the images they receive from their contributors. In this regard, journalists working in UGC newsrooms are not journalists of a new kind. They certainly use new tools, but they did not invent a so-called 'new' journalism. They simply highlighted crucial modes, which are both *similar to classical practices* – at least what they were or should be – and *specific to online*, continuous and non-scheduled publishing. Rather than 'innovating', they basically refreshed journalistic requirements and media responsibilities, such as the need to verify sources, to reflect and discuss before publication, and to investigate. Innovation therefore appears as a paradox: it refers both to new techniques, new tools and new procedures and also to the reactivation and adaptation of fundamental and practically abandoned existing processes. It is through this prism that innovation should be considered as a *continuum*. The case of user-generated content exemplifies this: what made it innovative in the early and mid-2000s (e.g. compact digital tools at an accessible cost, the speed and spread of information, openness and the role given to the audience) is no longer new a few years later. Innovative actors of yesterday, such as Citizenside, are aware of this: they have to produce constant innovation in order to maintain their position, their values, their reputation and their business. Finally, the notion of *constant innovation* illustrates the continuum.

Conclusion: Innovation as a Business Discourse

Citizenside and its equivalents not only had and still have to compete in the delivery of images, they also had and have to fight for their own image. When collecting photos and videos, the newsroom and the management aim to furnish their primary news material to mainstream media; this is the basis of their

'business-to-business' model. We have shown the processes of verification to ensure the authenticity and reliability of their news images: in this regard, Citi-senside claims to move from UGC to 'UCC', i.e. from User-Generated Content to 'User-Certified Content' (Matthieu Stefani, co-founder of Citizenside, during a conference at the AFP headquarters, Paris, November 26, 2009). Such a statement aims to strengthen the image of the company – which, technically, can no longer be called a 'start up' company. However, by positioning itself since its creation as innovative, the agency attracted interest both among the digital audience and among the news professionals community.

The ProAm paradigm, i.e. the collaboration of UGC platforms with mainstream media, brings variety because the material is different in, for example, its angles and places. Finally, it could be stated that stronger ties between traditional newsrooms and user-generated content agencies may be a way of making journalism itself stronger, because the latter uses two strategic positionings: *reactivity* by using new techniques, which brings speed and a closer link to the audience; and a *reactivation* of original principles, which brings accuracy, reliability and reputation.

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Chapter 14

Small Pieces in a Social Innovation Puzzle? *Exploring the Motivations of Minority Language Users in Social Media*

Niamh Ní Bhroin

Abstract

This chapter explores the interactions of 20 individual minority language users in social media. It queries how they are motivated to communicate in these languages, and to what extent their motivations are ideological. Drawing on theories of innovation and psychology, three categories of motivations are established: intrinsic, self-determined extrinsic, and externally-determined extrinsic motivations.

Practices driven by self-determined extrinsic motivations were most directly aimed at protecting or promoting minority languages. The other categories of motivations drove a range of relevant practices, although some participants explicitly denied language-ideological goals. The chapter contributes to a theoretical understanding of how motivations can interrelate with specific contexts to produce socially innovative outcomes.

Introduction

Social Innovations are new practices for resolving societal challenges, which are adopted and utilized by the individuals, social groups and organizations concerned. (Zentrum für Soziale Innovation 2012)

Social media offer new opportunities for users of minority languages to communicate and interact. Individuals, language advocacy groups and organisations take advantage of these opportunities. Their practices result in socially innovative outcomes that contribute to resolving the societal challenge of protecting and promoting these languages. However, in the case of individuals, the practices are largely autonomous and uncoordinated. This chapter queries why individuals are motivated to communicate in minority languages in social media. Are they ideologically driven to protect and promote these languages, and thereby acting to resolve societal challenges? Or are other motivational

factors involved? Furthermore, how do these motivations interrelate with the participants' understandings of social media contexts? In exploring these issues, this chapter contributes to a theoretical understanding of how motivations can interrelate with specific contexts to produce socially innovative outcomes.

Social innovation is theoretically understood as a distinct kind of innovation that meets social needs and improves people's lives (Mulgan *et al.* 2007). Although all innovation is fundamentally social in nature, social innovation is considered to result in social outcomes and to be directed at solving social problems (Hill *et al.* 2010). It involves new ideas about people and their interactions within a social system (Mumford and Moertl 2003). Its relevance increases in contexts where national administrations are faced with complex challenges that cannot be dealt with by state policies alone, and trends in outsourcing, privatisation and changes in political systems are implemented. It offers potential solutions to these challenges, envisaging new combinations of actors collaborating to address social needs (Nicholls 2010; Mulgan *et al.* 2007).

Language planning, and in particular minority language preservation, is an example of the kind of complex challenge that has traditionally been the responsibility of national administrations. It is, however, recognised as being reliant on an interaction between top-down and bottom-up policies and practices, and on the participation of a range of actors, for success (Fishman 2001; Moriarty 2011). Minority language research has focused on efforts to protect these languages, including the introduction of the Indigenous and Tribal Peoples Convention (no. 169) of the International Labour Organization (1989) and the European Charter for Regional or Lesser-Used Languages (1992) (cf. Guyot 2004). These efforts reflect a movement of these issues to a new domain of international laws and regulations (Pietikäinen *et al.* 2010).¹ The challenge of minority language preservation at an individual level is therefore an interesting case in the context of understanding social innovation in practice. This chapter examines the practices of individual Northern Sámi and Irish language users in this context.

In discussing collaborative innovation processes, Wittke and Hanekop (2011) refer to two categories of innovation distinguished by their governance mechanisms. Both involve more or less structured innovation processes aimed at shared goals of producing products or services. The first category includes 'pure models', where largely autonomous actors collaborate within new governance structures to produce products or services (i.e. Open Source Software or Wikipedia). The second includes 'hybrid models', taking place at least partly within traditional corporate structures (i.e. gaming companies working with modders). These categories are referred to collectively in this paper as 'collaborative innovation'.

This article examines a third category of innovation that is related to, but distinct from, collaborative innovation. The socially innovative practices of

individual minority language users in social media occur autonomously, independent of governance mechanisms. Collaboration, whether to achieve an articulated shared goal or to create shared products or services, is not central to these practices. This category of innovation is therefore referred to as ‘autonomous social innovation’. The motivations driving these practices have not previously been examined. This chapter aims to address this gap by building on understandings of motivations as outlined in theories of collaborative innovation, and posing the following research questions:

- How are individual Northern Sámi and Irish language users motivated to participate in autonomous social innovation practices in social media?
- How do these motivations interrelate with the participants’ understandings of social media contexts?
- How can this contribute to a broader theoretical understanding of motivations in autonomous social innovation practices?

The first section of this chapter outlines the methodological approach applied to addressing the research questions. The second section presents the theoretical background and relevant concepts. The third section presents and discusses the research findings. The conclusions of the chapter are presented in the fourth section.

Section One: Methodology

Herring (2004) notes that online communication practices leave textual traces that are more accessible to scrutiny and reflection than is the case in ephemeral spoken communication. This is particularly relevant in the context of minority language communication that is traditionally marginalised in the public sphere (cf. Lane 2011; Guyot 2004). The textual traces of minority language users in social media spaces can therefore be analysed to gain insights into their motivations for participating in autonomous socially innovative practices.

The Northern Sámi and Irish languages are categorised as “definitely endangered” by Unesco (2012, online). Building on Androutsopoulos’s *Discourse Centred Online Ethnography* (2008), a multiple case study incorporating ethnographic and discourse analytical methods was implemented to compare and analyse the practices of individual Northern Sámi and Irish language users (Yin 2009).² The multiple case-study design was also implemented to identify potential hidden research assumptions or inferences on the part of the researcher, an Irish language speaker from the Republic of Ireland. These may arise from close involvement with, and understandings of, the historical, social, political and ideological aspects of this language case.

A purpose-driven sampling process was implemented to identify 10 active Irish language participants. In the Northern Sámi case, purpose-driven sampling was combined with convenience sampling to identify ten active participants. A mixed sampling approach was necessary in this case as there were fewer Northern Sámi participants interacting in openly accessible spaces in social media.³ The convenience sampling process was facilitated by a Sámi research assistant. All of the participants' interactions in social media were recorded for a minimum six-week period. Understanding these texts was supported by broader ethnographic methods, including online and offline interaction with the participants.

Borrowing from Self-Determination Theory (SDT), a model for analysing the motivations driving the participants' communication practices was constructed (Ryan and Deci 2000:71). The construction of this model is discussed in detail in the next section. In keeping with SDT, the model separates the innate individual needs for competence, relatedness and autonomy from the categorisation of Intrinsic and Extrinsic motivations. The application of this model facilitates a systematic analysis of the interrelation between individual needs and motivations in specific contexts.

This methodology differs from previous empirical studies of motivations in collaborative innovation processes. These predominantly used online questionnaires or a combination of qualitative interviews and questionnaires to establish motivations amongst a representative sample of participants (cf. Hars and Ou 2002; Hertel *et al.* 2003; Lakhani and Wolf 2005; Blätel-Mink *et al.* 2011). The more exploratory nature of the present study allowed for greater intersubjective reflection and discussion, and enabled findings from multiple sources of data to be cross-analysed, thereby facilitating the reconstruction and analysis of specific contextual settings (Bruhn Jensen 2011; Geertz 1973).

In order to protect the privacy of the participants to the greatest extent possible, they are referred to in this chapter by an altered first initial only. Furthermore, although the data source is identified, direct quotes from social media platforms, emails and interviews have been translated, and the original quotes are not displayed. The Northern Sámi translations were undertaken by a Sámi research assistant. The remaining translations were undertaken by the author.

Section Two: Motivation

Motivations in collaborative innovation have been examined from a range of perspectives, including behavioural science, psychology, economics, sociology and media studies (cf. Rafaeli and Ariel (2008) on studies of motivations in Wikipedia). These studies have queried why users contribute to these processes when their participation does not lead to clearly tangible rewards. They have

found that a mix of extrinsic, intrinsic and social motivations are involved. Earlier studies emphasised the role of extrinsic motivations such as pay, career, technical know-how, reputation and product use (cf. Hars and Ou 2002; Hertel *et al.* 2003; Lakhani and Wolf 2005 on Free or Open Source Software; von Hippel 2005 on “user-centred innovation”). However, more recent research has also emphasised the importance of intrinsic and social motivations. Intrinsic motivations refer to enjoyment, creativity, self-fulfilment, interest and mastering skills. Social motivations refer to fun, helping others, communicating, reputation and influence, thereby incorporating dimensions of both intrinsic and extrinsic motivations (cf. Bruns 2007 on “produsage”; Wittke and Hanekop 2011; Blätel Mink *et al.* 2011 on hybrid firm-driven collaborations).

Where motivations are addressed in social innovation theory, it is envisaged that a combination of intrinsic and extrinsic motivations is required to drive these processes. Mulgan *et al.* (2007:44) note that motives may include material incentives but will “almost certainly” include motivations such as recognition, compassion, identity, autonomy and care. This is related to the understanding that social entrepreneurial organisations are less likely to have economic or financial incentives available to motivate participants and therefore must emphasise altruism, compassion, volunteerism and social value creation instead (Bloom and Smith 2010:131). This is in line with the findings of earlier studies of prosocial behaviour, where appealing to the beliefs and values of volunteers was found to be an important motivational factor (cf. Clary *et al.* 1998).

The differentiation between the categories of intrinsic, extrinsic and social motivations is not significantly developed or consistently applied in these studies. Furthermore, how these motivations interrelate within particular collaborative innovation contexts is not systematically explored. For example, Blätel Mink *et al.* (2011) find that the mix of intrinsic and extrinsic motivations depends on the character of specific collaboration processes, but the nature of this interrelationship is not further explored.

Of particular relevance to this study, due to its focus on the autonomous practices of individuals, is Self-Determination Theory (SDT) (Deci and Ryan 1985; Ryan and Deci 2000). A model for analysing motivations that differentiates between intrinsic and extrinsic motivations according to their relationship to specific practices was constructed using this theory. Intrinsic and extrinsic motivations are positioned at both ends of a continuum, ranging according to degrees of autonomy. Intrinsic motivation drives individuals seeking novelty, challenges or enjoyment in practices undertaken for their own sake and without external pressure. In contrast, extrinsic motivation drives activities aimed at outcomes that are separable from specific practices. Most human activities are therefore considered to be extrinsically motivated. Extrinsic motivation is also considered to undermine intrinsic motivation as rewards, deadlines or other

external pressures undermine individual autonomy (Ryan and Deci 2000:71). This model enables a more structured analysis of motivations than that which has been applied in previous studies of collaborative and social innovation.

SDT also provides a solution to the fuzzy category of social motivation identified above. In studies of collaborative innovation, this category is understood to have either or both intrinsic and/or extrinsic dimensions. SDT separates three innate, and therefore continuously present, individual needs for competence, relatedness and autonomy from the categorisation of intrinsic and extrinsic motivations (Ryan and Deci 2000:72). Autonomy is related to the desire to exercise volition in one's own life, without being necessarily independent of others (Ryan and Weinstein 2010). Relatedness refers to the need to interact and connect with others. Competence refers to a desire to control outcomes and experience mastery. The social motivation category is subsumed in this model under the need for relatedness. These innate needs interact with intrinsic and extrinsic motivations to varying degrees in particular contexts. As practices driven by extrinsic motivations increasingly fit with an individual's values and beliefs, they fulfil their needs for autonomy, relatedness and competence (Ryan and Deci 2000:72). This model therefore facilitates a systematic analysis of the interrelation between individual needs (including social needs) and motivations in specific contexts.

Building on Ryan and Deci's continuum, and based on the range of motivations observed during the study, two categories of extrinsic motivations were constructed. The categories are based on the extent to which the participants' motivations reflect autonomy. The categories are 'self-determined' and 'externally-determined' extrinsic motivations.

Practices driven by self-determined extrinsic motivations have been fully integrated with the beliefs and value systems of individuals. These include practices to use minority languages in new contexts and to encourage or facilitate minority language use. Participants perceive these practices as being undertaken of their own volition. The goals of preserving and promoting the relevant minority languages are integrated with the participants' beliefs and value systems.

Practices driven by externally-determined extrinsic motivations are perceived as resulting from more external pressures than is the case with self-determined motivations. Certain participants perceive their language use as according with contexts of communication rather than with political ends. All participants actively communicate in minority languages in social media. However, they do not all acknowledge or prioritise the goal of protecting or promoting these languages. Other participants engaged in practices using minority languages skills to develop and promote professional careers. In these contexts, the minority language communication is valued and recognised by the participants, but is less integrated with their core belief and value systems.

In summary, this study explores the motivations of individual minority language users communicating in social media according to the categories of intrinsic and extrinsic motivations. Extrinsic motivations are further sub-categorised as self-determined and externally-determined motivations. This enables a structured analysis of these motivations according to the extent to which they are autonomous. The interrelation between these motivations and the innate individual needs for competence, relatedness and autonomy also enables a systematic analysis of individual perceptions of specific contexts and how these impact on their motivations.

Section Three: Findings

This section presents the findings of the study according to the categories of (a) intrinsic motivations, and (b) extrinsic motivations. Extrinsic motivations are further sub-divided into two categories referring to the degrees of autonomy observed during the research process: (i) self-determined, and (ii) externally-determined. The aim of this discussion is not to present absolute or essential interrelationships between particular individuals, practices and motivations. It is rather to establish categories of motivations arising from complex, multi-dimensional interactions. It is also an attempt to systematically explore the interrelation between these categories and individual needs for competence, relatedness and autonomy in particular contexts.

(a) Intrinsic motivations

Some of the participants demonstrated intrinsic motivations in their interactions with social media. In particular, participants developed innovative approaches to language learning in these environments. They engaged in these activities for their own sake, and because they satisfied their needs for competence and autonomy. The need for relatedness was less relevant to the intrinsic motivations observed. However, participants understood social media as environments where they could draw on networked resources to achieve their intrinsic goals.

One participant described by email how he used the Twitter platform to participate in a “kind of immersive education” project. (*N: Irish*). His understanding of Twitter as an environment where he could draw on available resources, in terms of other platform users who were competent in the Irish language, to increase his own skills, reflects how his needs for competence, autonomy and relatedness could be satisfied in this context. He marked Tweets for translation with the hashtags #CaD (*What*) and #Gaeilge (*Irish*), for example: #CaD “*there’s a nip in the air*” #Gaeilge (*N: English/Irish*). Participants subscribing to his feed responded with translations. One participant, when thanked for

providing assistance on the Twitter platform, adapted an Irish proverb to explain: *“The networked people depend on each other’s links” (B: Irish)*. This observation points to the fact that although the motivation to learn is intrinsic, the communication practices undertaken to realise these motivations also address a need for relatedness.

Another participant grew up in Northern Ireland where, in contrast to the Republic of Ireland, Irish is not a compulsory subject or, in most cases, taught in schools. She described by email how she used Irish in Twitter to develop language competence: *“I think my interest in Twitter increased significantly when I understood that it was a way to practise my Irish when I was starting to learn. I remember writing things like ‘I am drinking wine. I am dancing on the table’. You know, practising a language I didn’t know.” (T: Irish)*.

However, as this participant’s competence developed, her motivation to use the language in Twitter changed from purely intrinsic (striving to learn, master new skills or apply talents in practices undertaken for their own sake) to more extrinsically focused. She notes by email how, now:

I regard my usage more as a result of my bilingual life (T: Irish).

This demonstrates the fluidity of the participant’s motivations according to a changing understanding of her own linguistic competence, and her increasing integration of the language in her linguistic repertoire.

One of the Sámi language participants described via Facebook Messenger how he is motivated both creatively and in terms of developing language skills to communicate through blogging.

(I) think that I learn a lot from blogging. I want to find positive representations of myself. I want to vary and I do not always want to write about the same thing. I want to feel that I am a versatile person when I look at the blog. (W: Swedish).

He regularly reflects on language use in his posts, as can be seen from this example:

Linguistically, I notice that all Joiking⁴ titles on this particular album are in the accusative (or potentially possessive) case. On other CDs the title may have been ‘Grandmother’, but on this CD the title is ‘Grandmother’s’ or ‘The Grandmother’ in the accusative case. I don’t know how I should interpret this, I must think about it a bit. (W: Northern Sámi).

This participant understands the blogging environment as facilitating this kind of language learning project. He reflects in Facebook Messenger:

I have time to look up words and try to find ways of expressing things. One has more time when one sits and writes a text alone compared to when

standing and talking to someone. I think blogging is one reason that I have learned Sámi as well as I have. (W: Swedish).

The kind of asynchronous communication facilitated by blogging is also characteristic of Twitter and aspects of communication in Facebook. It facilitates overcoming the difficulty of losing face in synchronous interaction experienced by language learners or language users who are uncertain of their competence. These media environments thereby enhance the participants' sense of competence. In each of the examples discussed here, participants also have a strong sense of autonomy in terms of the extent to which their language-learning projects are conducted of their own volition. Finally, the participants' actions also imply an understanding of social media environments as supporting their needs for relatedness, although this need is less relevant to their intrinsic motivations.

(b) Extrinsic motivations

All extrinsic motivations relate to goals that are separate from or extend beyond particular practices. Extrinsic motivations are sub-categorised in this section according to the extent to which they relate to autonomous practices. Greater autonomy is evident in motivations that are integrated with the participants' beliefs and values.

(i) Self-determined extrinsic motivations

A number of the participants engaged in practices in social media environments that were extrinsically motivated but reflected full autonomy. These included practices to use minority languages in new contexts and to encourage or facilitate minority language use. These practices were conducted by individuals of their own volition and integrated with their beliefs and values in terms of the importance of the relevant languages. These motivations were clearly related to satisfying the participants' needs for competence, relatedness and autonomy. The participants' understandings of particular contextual environments as supporting the satisfaction of these needs were also central to the implementation of their practices.

Normalising Minority Languages in New Contexts

One participant described in Facebook Messenger how he understood blogging as a tool to broaden the spheres in which the Northern Sámi language is used online. He also recognised blogging as a way to demonstrate that using the written version of this language could be associated with fun or more mundane contexts:

I thought there were very few Sámi language texts on the web, and those that did exist were not written by desire, but more out of duty – for example, some governmental pages translated into Sámi. It was a driver for me, to try to write on various topics, so that if someone were to google a Sámi word they would find a text where the word is used and also see if it is spelled correctly. (W: Swedish).

His blog describes a wide variety of topics from his personal life, for example reading, jogging and music. The following is one of approximately 2,000 posts he has written:

When the dog barks:

The dog barks sooo. I don't know how it manages. Doesn't it get tired? It must be a puppy. It doesn't know about relaxing and peace of mind.

I've started to read again. Read four pages today. I'm content. It's special work, reading. It needs a lot of concentration. It's a full-time job to know others' thoughts/experiences.

How that dog barks!

(W: Northern Sámi).

The participant uses the multimodal capacities of blogging to post combinations of text, photographs, videos and links. His writing style is deliberately conversational. Shifting between topics signifies the fact that the Northern Sámi language is used actively in his stream of consciousness. This participant's motivation to demonstrate the relevance and functions of the written Northern Sámi language is driven by his belief in the importance of this language. The practices are aimed at achieving the outcome of normalising the Sámi language in blogging contexts. The implementation of these practices depends on the participant's understanding of the extent to which he can satisfy his needs for autonomy, competence and relatedness by blogging.

Facilitating Minority Language Communication

Another participant discussed his understanding of the potential of social media environments to support the development of strong minority language communities, particularly where these communities have traditionally faced geographical obstacles to interaction. He considers the Internet to offer an immersive environment for Irish language speakers who have traditionally been separated according to Gaeltacht⁵ regions or diasporic communities. He stated in email correspondence:

The Internet is a kind of 'virtual Gaeltacht' – where a person can spend their entire day using Irish, if they wish to. (L: Irish).

Thus, social media environments offer the potential to support the basic needs for relatedness, competence and autonomy amongst users of minority languages.

This participant has been active in localising and designing tools based on Open Source Software to optimise minority language communication for the past 13 years. One example of these tools categorises and ranks users of Twitter according to language use and links to their profiles to facilitate connectivity. Another tool is a 'greasemonkey' add-on script for Firefox that translates the Facebook interface to any language. This means that minority language users do not need to rely on Facebook's own translation application to interact with the platform in the language of their choice.

This participant believes that everyone has a right to use the language of their choice, and is motivated to facilitate this in social media contexts. This extrinsic motivation is therefore internalised and congruent with his beliefs and values. He started working with these projects because of his awareness of the issues he faced as an Irish language speaker. He states that there are 'foolish technical reasons' that people use default majority languages on the Internet, related to issues such as an absence of keyboards, localised software or terminology. He maintains in email communication that these problems are easily solved:

I'm not a linguist, a sociolinguist, or a politician – I'm a computer scientist!
Therefore, I work in the field I understand. ... This doesn't equate to 'saving'
a language of course, but it's a small piece in a big puzzle. (L: Irish).

This comment demonstrates the importance of the participant's understanding of how his particular competence relates to the broader task of protecting and promoting minority languages.

On a more individual scale, one of the Sámi participants declares in both her Twitter and Facebook profiles that her political views are ČSV. These three letters were adapted as a symbol of pride in the Sámi identity and a commitment to Sámi political issues during the 1980s.⁶ This participant acknowledges in Facebook Messenger that part of her motivation in using Twitter is to promote the Northern Sámi language:

I hope that my followers (who know a little Sámi) are so curious that they
will try to understand what I write, and in that way learn more Sámi. (B:
Norwegian).

Although she perceives Facebook as a more personal space due to the number of her family and friends that are present there, her motivations in using the Sámi language are also somewhat political. In Facebook Messenger she notes:

In Facebook the most important thing is that I prefer to communicate in Sámi
with my friends. But here also of course language politics come into play.
There are far too many people who know how to write and read Sámi but

choose Norwegian, so I write in Sámi so that they are exposed to at least a little bit of Sámi in their everyday lives. (B: Norwegian).

This comment demonstrates an understanding on the part of the participant that persistence is required in order to elicit communication amongst competent users of the Northern Sámi language. The participant harnesses the fact that social media facilitate asynchronous communication and allow for time to be taken to interpret and react to her messages. By insisting on communicating in Northern Sámi, this participant is attempting to implement a positive context for her friends, family and subscribers to communicate in.

Some of the participants interact with social media in deliberate ways to encourage the use of minority languages. Their practices represent new strategies, whether acting to normalise minority language use in new contexts, to eliminate technical reasons that these languages cannot be used in social media, or to insist on using these languages when communicating with friends and followers. These practices are driven by extrinsic motivations as they are aimed at achieving particular outcomes that extend beyond the practices themselves. However, they are autonomous, as they are inseparable from the participants' beliefs that protecting and promoting minority languages are important. They are also linked to the participants' understandings of social media as environments that support the achievement of their goals, in addition to their needs for competence, autonomy and relatedness. The practices driven by this category of self-determined extrinsic motivations could most readily be understood as aimed at achieving socially innovative goals.

(ii) Externally-determined extrinsic motivations

All of the participants actively used minority languages in social media contexts. Importantly however, they did not all acknowledge or prioritise the goal of protecting or promoting these languages. Some were keen to underline the fact that their language use in social media was normal, and did not want to be considered 'activists'. Minority language communication was therefore valued and recognised by the participants, but less integrated with their belief and value systems. In contrast with the practices driven by self-determined extrinsic motivations, these practices are considered to have socially innovative outcomes, rather than being aimed at achieving socially innovative goals.

Contextually-driven Language Use

Certain participants perceive their language use as according with contexts of communication, rather than with political ends. These contexts included a desire to express things efficiently or to communicate with particular people. Social media were understood as environments that supported the achievement of

these communication goals. Relatedness was therefore a more relevant need in these contexts than autonomy or competence. One participant, when asked what using the Irish language in social media meant to him, noted by email that:

It has never occurred that I have not been able to use the Irish language online (or anywhere else!) so it's hard to answer that. Even though I love and respect the language, I don't see myself as an activist or anything like that. I speak the language, in my opinion, because I am Irish and because I am interested in languages generally. ... I see languages purely as tools or methods to communicate with other people. (T: Irish).

This comment refers to a broader discourse where the label of an Irish language activist or 'Gaeilgeoir' is viewed negatively. This participant explained in an interview that the term is associated with people who are cranky, irritable and do not portray a positive image of Irish language speakers. The comment also demonstrates the extent to which some of the participants accept social media as 'social facts' or normal contexts in which to communicate using their available linguistic repertoires (Blommaert and Backus, forthcoming). In terms of motivations, a recognition and conscious valuing of the minority languages is evident. However, full congruence of achieving the goal of protecting or promoting minority languages with the participant's internalised beliefs and values is not apparent.

One Sámi participant discussed in an interview an ideological tension between the desire to promote a language and the desire to promote and support a broader community culture. This participant is aware that a number of people who identify themselves as Sámi don't speak Sámi languages. Due to the impact of this larger discourse related to the extent to which this culture is threatened, she is more concerned with expressing social solidarity with, rather than alienating, these people:

I write in Norwegian because I know more people will understand what I am writing, even if it might feel more natural to write in Sámi. It feels more important to reach people than to insist on using a particular language. (T: Norwegian).

The participant also uses social media to inform people about her culture, providing a perspective that may not otherwise be accessible. She believes that Norwegians learn very little about Sámi culture, beyond stereotypical depictions. The practices of this participant may imply that a motivation that is externally controlled can be deprioritised if it comes into conflict with other more internalised motivations.

Alia (2009) has noted how what she terms 'new media' provide an alternative discursive framework for indigenous people to validate perceptions that mainstream media and authorities seek to render illegitimate, and how this use

can be embedded in wider social networks to form alternative social possibilities. The practices of these participants, in using their languages in particular communication contexts, contribute to these alternative discourses.

Career-Related Motivations

Some of the participants engaged in minority language communication practices to develop and promote professional careers. These participants combined their minority language skills, and interpretation of the potential of social media environments, towards this end. The need for competence was therefore most relevant to these motivations. Interactional sociolinguists have developed the concept of ‘sociolinguistic scaling’ to refer to how languages and linguistic resources are hierarchically ordered. They argue that access to discursive resources iconises and indexes particular levels on scales that, depending on the context, can alter the functions of languages (Moriarty 2011; Blommaert 2007; Pietikäinen 2010). The practices of these participants, reflecting motivations to develop their careers, also contribute to the promotion of the functionality of their languages in socio-economic contexts.

One participant expressed his motivation in a blog post about minority languages:

I was able to launch my career in the media because of my ability to speak Irish. ...Of course, more people will pay attention to TV and radio shows in English than Irish. That's totally understandable, but it doesn't take away from the fact that media is media, and honing your skills – regardless of the language one works in – will improve one's career prospects. (T: English).

Implicit here is the understanding that competence in Irish facilitates career development in media contexts in Ireland to a greater extent than monolingual English language competence does. This demonstrates that the Irish language has a socio-economic value for the participant as part of a broader multilingual environment. The participant is not acting on a motivation to promote the Irish language alone, but to promote his competence in using the language to the extent that it will help him to develop a career in multilingual media contexts.

During the study, this participant arranged a number of Irish language events including a weekly short-film club, a conversation group and a symposium about blogging in Irish. He also participated in a local festival discussing how competence in the Irish language could enhance career prospects. He promoted these events in social media in Irish and English, demonstrating an understanding of these media as effective spaces for increasing the visibility of events directed at particular communities of interest.

Another participant uses her blog to post in Irish about topical, language-related issues. She promotes her blog on Twitter and Facebook, drawing atten-

tion to the fact that the posts are in Irish. During the course of the study she participated in a radio interview about her blog and promoted this on Facebook:

Folks, I'm being interviewed on BBC Radio Ulster tomorrow night @7pm on 'Blas' about blogging as Gaeilge & social media ... I edit & write most of the content for (Name of blog) a little venture that (Name of Colleague) & I set up last year ... it's going to make us millions one of these days ... millions! So tune in tomorrow if you can! (T2: English).

This status update reveals a motivation linked to career development and related to the creation and use of the blog. However, it also reveals that the language has a potentially ambiguous value for the participant. The blog is written in Irish, the interview about the blog will take place in Irish, but these media events are promoted to a broad network of friends and followers with an ironic comment as to their value. The Irish language does not appear to be valued as highly as English on the participant's socio-linguistic scale.

The participant also refers to the fact that she will be interviewed about 'blogging as Gaeilge'. This assumes a sufficient level of competence on the part of the intended readers of the status update to understand that she will be discussing 'blogging in Irish'. Although some level of competence is assumed, the status update is written predominantly in English. This is either based on an assumption that the majority of readers would not understand the status update if it was written entirely in Irish, or based on an assumption that Irish language communication may not be valued highly by the intended readers. At the same time, the participant is promoting a clear message about the extent to which Irish language competence is helping her to develop her career, potentially altering the function of the language. This demonstrates the extent to which the meaning and value of the language is constantly negotiated in communication.

One of the Sámi participants acknowledges similar motivations in an interview:

Understanding Sámi is a door opener. Depending on what you want to work with, it can be a great bonus to say that you also understand Sámi, or even that you can read or write in the language. (T: Norwegian).

This comment, although reflecting a socio-linguistic value for the Northern Sámi language, reveals an understanding of this value in relation to another language, positioned higher on the hierarchical socio-linguistic scale. This other language may have a determining role in whether the Sámi language has a value or not. This participant notes in an interview how she is explicitly aware of her role in promoting positive ideological messages about the language:

If I could wish for one big thing, it would be to change the way we talk about the language. It doesn't help to talk about how close we are to the

catastrophe. We should instead discuss the possibilities and emphasise the positive things we have. Hopefully that will help to create a desire to use the language. ... Instead of threatening people by saying 'If you don't speak it, it will die out', we should be spreading enthusiasm. (T: Norwegian).

These participants engage in social media practices to demonstrate their linguistic and professional competence. Their practices result in outcomes that promote minority languages, however this goal is externally perceived. In promoting their careers, these participants also promote positive ideological messages about the socio-economic value and functions of their languages. The participants can be understood to be acting as role models promoting the fact that they have careers not in spite of but *because of* their competence in minority languages. These practices can also be considered to have socially innovative outcomes, rather than being focused on achieving a particular, socially innovative goal.

Section Four: Discussion and Conclusion

This chapter explored why individuals were motivated to communicate in minority languages in social media, and how these motivations interrelated with their understandings of specific contexts. Minority language communication in social media reflects a change in social practice that is implemented and negotiated largely at an individual level. This communication also results in the socially innovative outcome of protecting and promoting these languages. A multiple case study was implemented to examine the motivations of active minority language users. The textual practices of these individuals were recorded and analysed using a combination of discourse analytical and ethnographic methods.

In identifying autonomous socially innovative practices as a separate category of innovative behaviour, this study has contributed to a broader understanding of social innovation. It has demonstrated that motivations driving these practices are grounded in varying degrees of individual autonomy. By building on previous studies of motivations in collaborative innovation and Self-Determination Theory, a structured model for analysing motivations was developed. This model differentiated between intrinsic and extrinsic motivations based on their relation to the outcomes of specific tasks. It also enabled the exploration of two separate categories of extrinsic motivations based on the extent to which they reflected individual autonomy. The interrelation between these motivations and the innate individual needs for competence, relatedness and autonomy was also systematically explored.

Intrinsic motivations drove creative, bottom-up, innovation practices. These practices were contingent on the participants' understanding of social media

environments as effective spaces for language learning, based on the asynchronous communication capacities of the relevant media and the potential to connect with other language users for support. Since practices driven by intrinsic motivations were undertaken for their own sake, they were not aimed at socially innovative goals. Participants' implementation of these practices related to their understanding of social media environments as contexts that supported their needs for competence, autonomy and, to a lesser extent, relatedness. Consequently, ensuring that appropriate conditions and supports are provided to harness intrinsic motivation, in contexts that support competence, autonomy and relatedness, may support the achievement of socially innovative outcomes. The motivation to learn was also observed as being particularly fluid as it shifted according to the participants' increasing linguistic competence.

'Self-determined extrinsic motivations' were grounded in individual beliefs that minority languages should be protected and promoted. These motivations extended to goals beyond specific practices, such as encouraging or facilitating minority language communication. The related practices addressed the participants' needs for competence, relatedness and autonomy. They were autonomously implemented and required individual competence and understanding of social media environments to create technological infrastructure or to use and adapt available technological tools to achieve socially innovative outcomes. They also aimed at satisfying the participants' need for relatedness as they sought to support communication between minority language users.

'Externally-determined extrinsic motivations' drove practices that resulted in socially innovative outcomes. These practices were grounded in an understanding of the potential of social media to contribute to achieving externally controlled personal goals. In these cases, individuals valued minority language communication, but were keen not to be considered as 'activists' trying to protect or promote the languages but rather as 'normal' individuals. The need for relatedness was more relevant than those of competence or autonomy to the implementation of contextually driven communication practices. However, in the case of practices aimed at career driven goals, the need for competence was most relevant. These practices spread positive ideological messages about the socio-economic value and functions of the participants' languages, based on their understanding of the value of these languages for their careers.

Self-determined extrinsic motivations were therefore exceptional in driving practices that were directly aimed at protecting or promoting minority languages. The practices driven by other categories of motivations were undertaken to achieve a range of goals. In some cases, the participants undertaking these practices did not want to be associated with language-ideological goals. However, their practices also resulted in socially innovative outcomes. Consequently, such outcomes arise from the implementation of practices negotiated largely at an individual level and driven by a range of motivations. The complex context-

tual interrelations between individual needs for competence, relatedness and autonomy, and a range of intrinsic and extrinsic motivations, should therefore be considered relevant to the implementation and analysis of social innovation processes more generally.

Notes

1. The publication of the Arfe Report (1984) brought about the foundation of the European Bureau for Lesser-Used Languages. This in turn produced the European Charter for Regional or Minority Languages (1992). In 1988 the Broadcasting Across the Barriers of European Languages (BABEL) organisation was merged with Measures Pour Encourager le Développement de l'Industrie Audiovisuelle (MEDIA) to provide support for multilingualism in the audiovisual sector. The European Convention on Human Rights (1950) and the Universal Covenant on Civil and Political Rights (1966) were foundational here.
2. The case studies were conducted over a 12-month period, between September 2011 and August 2012.
3. Openly-accessible spaces are accessible once connected to the Internet or with minimal additional effort, i.e. open blogs or open Twitter profiles or Facebook profiles that are accessible purely by establishing an account with the service. For the purposes of illustration, at the beginning of the study in August 2011, there were over 2,000 Irish language users on Twitter, compared to 59 Sámi language users (source IndigenousTweets.com).
4. Joiking is a traditional form of Sámi singing.
5. A Gaeltacht is a region in Ireland where it is aimed to preserve the Irish language as the primary spoken language. This aim has largely not been realised, with successive population census results revealing declining numbers of Irish speakers in these regions.
6. A number of slogans were constructed using the three letters, for example "Čajeheakkut Sami Vuonja" ("Show Sámi Pride") or "Čákkejekket Sámiid Vuitui" ("Gather the Sámi to be Victorious").

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Chapter 15

Historiographic Innovation

How the Past Explains the Future of Social Media Services

Jeremy Shtern, Daniel J. Paré,
Philippe Ross & Michael Dick

Abstract

This chapter examines how the case of the Federated Social Web (FSW) initiative problematises distinctions between incremental and radical innovation and challenges existing theoretical frameworks of media innovation. The FSW represents an effort to develop, mobilise and diffuse an alternative to incumbent social media services. It is based on technical architectural principles, politics and business models that are in stark contrast to the advertising-supported social networking that is typical of incumbent social media platforms. Analysis of the FSW suggests that theorising innovation in digital media services requires a more nuanced examination of the processes through which ‘new’ media are replaced by even ‘newer’ media. To this end, the concept of *historiographic innovation* is proposed. The chapter concludes by presenting the FSW as an historiographic innovation and by considering the utility of investigating media innovations as systems in dialogue with their own histories.

Introduction¹

This chapter explores contemporary developments that challenge existing theoretical frameworks of media innovation. In particular, we draw on the case of the Federated Social Web (FSW) initiative to problematise distinctions between incremental and radical innovation. The FSW represents an effort to develop, mobilise and diffuse an alternative to incumbent social media services. It is, as we will discuss, based on technical architectural principles, politics and business models that are in stark contrast to the advertising-supported social networking that is typical of incumbent social media platforms. The FSW’s members and objectives are diverse, but its central unifying agenda is the development of technical interoperability standards that allow the interconnection of various open-source social media projects and firms, while simultaneously diminishing

– rather than optimising – opportunities for new media services to efficiently centralise, collect, aggregate and profit from the personal information of users, as well as from the data and content that users generate while interacting through social media.

The “FSW Summit” emerged in 2009/2010 as a gathering point for a loose coalition of technology firms, entrepreneurs, hackers and activists. Participants ranged from Google to individual hobbyists. In the middle, and more typical of the FSW’s positioning, are small and medium-sized technology firms offering social media platforms and solutions such as *StatusNet* and (the now shuttered) *Diaspora*. The principle of computer network federation is similar to the notion of a federated network of states; in a federated network there are relatively weak links between the nodes, who share resources to only a minimal degree. Participants in a federated social network operate and control their own respective node. Thus, data remain on each user’s server, and users retain control over what they share within the network. This, it is claimed, enhances both privacy and user agency. Furthermore, keeping data at the ends of the network biases the network architecture toward favouring the development of numerous interoperable nodes as opposed to a handful of walled gardens. This empowers users to make use of differing function-specific platforms. The lack of central stores of big data also diminishes the utility of advertising to end users, thus potentially further promoting the end-user experience within the design and management decisions made over the network. Although not all participants in the FSW have the same conception of what an ideal federated social Web would entail, common key priorities include: ensuring a marketplace replete with many small players rather than a few dominant, monolithic, generalist social media platforms; creating a technological architecture which codes for locally controlled and stored data and implementation details; and shared protocols for interoperability among existing open-source platforms rather than the creation of shared platforms *per se*. In summary, the FSW represents a conscious alternative to a social media landscape that is, at present, dominated by trends of consolidation, aggregation and centralisation.

Following Schumpeter (1934), we ask whether the FSW might be deemed a radical innovation relative to incumbent “Web 2.0” social media services or if it might be better understood as representing an incremental innovation of the Semantic Web, a competing vision of the Internet that emerged in the early 2000s. We argue that neither of these frames is satisfactory. Indeed, analysis of the FSW suggests that theorising innovation in digital media services requires a more nuanced examination of the processes through which ‘new’ media are replaced by even ‘newer’ media. Doing so requires frameworks that are sensitive to the conscious efforts of designers, programmers, engineers and various other stakeholders in confronting and leveraging unintended consequences of previous iterations. To this end, we propose the concept of *historiographic*

innovation, which we operationalise through analysis of the FSW. We define historiographic innovation as innovation with a deliberate link to a particular system's development history, which is driven by a shared sense, within a community of practitioners, that the system has drifted from its original promise. Ongoing developments are thus conceived as attempts to retroactively rectify missteps. Under such a treatment, the FSW case study reveals some of the limitations of established theories of innovation as they apply to social media services.

More broadly, the framework we propose may extend to initiatives which, like the FSW, are premised on a desire to recode the sociocultural and political economic relationships embedded in incumbent new media services with innovative Web technologies and standards. Thus, this chapter also joins ongoing discussions within literatures on peer-to-peer, distributed or federated social networks (Musiani 2010, 2011), privacy and persona rights in social media services (Kerr, Lucock and Steeves 2009), innovation and technological architecture (Van Schewick 2010), innovation and business models in open-source software communities (Berdou 2011) and the tensions between the Internet as a consolidated and highly distributed media system (Wu 2011).

The chapter begins by problematising literature about innovation in digital media services. Section 3 looks at this innovation system within the history of social media services. Section 4 examines the FSW as a media innovation, and Section 5 concludes by presenting the FSW as an historiographic innovation and by considering the utility of investigating media innovations as systems in dialogue with their own histories.

Innovation in Digital Media Services

The concept of innovation is most frequently associated with Schumpeter's (1934, 1943) notion of combining existing knowledge and resources in novel ways and the production of 'gales of creative destruction' by entrepreneurs who break with convention. It refers to the creation or renewal of material artifacts, practices and ideas and the processes by which the latter are propagated and diffused. Innovation tends to be understood as involving two interrelated dimensions of change. The first pertains to *what* is changing, and spans from the level of individual components of economic, political, social and technological sub-systems to whole systems. Francis and Bessant (2005) offer a categorisation schema which they refer to as the *4 Ps of Innovation* to conceptualise this dimension:

- Product innovation – changes in the products/services offered by an organisation;

- Process innovation – changes in the ways in which products/services are created and delivered;
- Position innovation – changes in how products/services are positioned or framed within particular contexts;
- Paradigmatic innovation – changes in organisational values and business models.

It is important to note that the 4Ps are not mutually exclusive and that the boundaries between them are rather fluid. Indeed, there are linkages between each of the 4Ps in so far as each is contingent and involves cognitive, economic and organisational elements (Pavitt 2004).

The second dimension of innovation pertains to the degree of novelty the change involves. Innovation in this regard is usually understood as existing on a continuum extending from incremental or continuous change that exploits existing knowledge to do more of the same but more efficiently/effectively, to radical or discontinuous change involving drastic departures from extant products and processes and their logical extensions (Pavitt 1991; Veryzer Jr. 1998; Hill and Rothaermel 2003). The modest changes associated with incremental innovation are frequently associated with enhancing organisational competencies and consolidating industry leadership. By contrast, radical innovations render existing products obsolete because they require new forms of knowledge. As such, they tend to be seen as competency-destroying (Tushman and Anderson 1986).

Processes of technological change are extremely complex and take on multiple forms and directions (Dosi 1982; Rosenberg 1983; Dosi, *et al.* 1988; Arthur 2009). With this in mind, it may be argued that the framework outlined above risks downplaying the intra- and inter-dynamism of the cognitive, cultural, organisational, political and social factors characterising processes of change. This is especially so when it comes to social media platforms because these technologies are objects of consumption and production as well as the means by which public and private meanings are negotiated. Building on Mansell and Silverstone (1996) and Silverstone (1992), we posit that any effort at understanding innovation in digital media services must be sensitive to the ability of individuals to alter the trajectories of these technologies, whether by design or default, given that decisions about systems architecture are both technical and sociopolitical.

Social media platforms are not just technical artifacts: they constitute large technical systems that support innovative activities in a multitude of directions. According to Hughes (1983, 1987), large technical systems: (1) contain messy, complex, problem-solving components comprised of socially-constructed and society-shaping physical, organisational and legislative artifacts; (2) these components are interactive and interdependent; (3) are controlled and bounded

by artifactual and human operators; and (4) are goal oriented. Hughes (1994) posits that as a system expands it gains momentum that is akin to the notion of path-dependent technological change (Dosi 1982; David 1985, 1997). Put simply, what has gone before is seen to influence contemporary and future technological possibilities. The result, as Rosenberg (1983:16) avers, is that “technological progress at any given time ... has to be understood as an attempt to extend and further exploit certain trajectories of improvement that are made possible by the existing stock of technological knowledge”. In the digital media services environment, which is characterised by the rapid succession of new and newer media that are both enabled and constrained by what has gone before, this points to the need to develop conceptual and methodological tools that enable localised processes shaping the direction(s) of change to be isolated. The Federated Social Web initiative affords an opportunity to do just that.

The FSW is a fascinating boundary object for thinking about innovation. It is a hybrid and mutually-reinforcing form of social movement and cooperative start-up, with the ambitions for each invested primarily in technology. Moreover, its participants explicitly draw upon a stock of knowledge stemming from both established/ongoing and unrealised/bypassed technological developments. As we discuss below, the FSW seeks to build upon the technical principles established with Web 2.0's rise to technical and market prominence, while simultaneously revisiting alternative infrastructural principles of the sort proposed by the neglected Semantic Web in order to realise a particular vision of interoperability among websites and platforms. We describe this process as historiographic innovation, i.e. contemporary technological change that has a deliberate link to a particular system's development history and which is driven by a shared sense, within a community of practitioners, that an existing product/service/process has drifted from its original promise. In this specific case, the process of historiographic innovation involves retroactively amending perceived design and ideological missteps thereby altering the technological trajectory of social media platform development. In order to evaluate and conceptualise this type of boundary object, we discuss the FSW case as an innovation system that is in dialogue with its own history.

The Historical Emergence of Social Media Services

While Hollywood would have us believe that “the social network” was created as the result of Mark Zuckerberg being called an asshole by a co-ed in a Cambridge dive bar, much of the orientation of what we now think of as social media can actually be traced to the tensions between two competing visions of the Internet's future that emerged in the early 2000s, namely the Semantic Web and Web 2.0.

The Semantic Web

Reflecting upon the Web's creation in his autobiographical text *Weaving the Web* (1999), Tim Berners-Lee problematises the uptake of HTML and similar markup languages by suggesting that innovation had already strayed from its original intentions. He suggests the original, intended evolutionary framework for the Web was to feature a "Web of Data" versus a "Web of Documents". In 2000, Berners-Lee and others presented the notion of the "Semantic Web", which they defined as an online environment in which websites would be constructed with XML-based languages that code for both meaning and form so as to enable machine interoperability and intelligent agents.

Generally speaking, the Semantic Web project is focused on making the Web more understandable to and among machines, enabling disparate systems to interoperate. For example, in a supply chain one company may manage its inventory with a given system and another with a different system, but by marking up the data with Semantic Web standards, the differing systems would nonetheless communicate with each other. The Semantic Web project has tended to follow a taxonomical structure where a balance is struck between the centralised and decentralised elements of the Web. Centralisation, in this model, manifests itself in the form of control by the World Wide Web Consortium (W3C)² and related groups, and is seen as a vital element in maintaining an open, decentralised Web built on top of the plethora of public and private networks comprising the Internet.

Enabling the Semantic Web requires more than just websites and platforms built with code that enables meaning to be constructed (namely XML-based code). In order to ensure interoperability, a controlled vocabulary must be used when coding for meaning. This is achieved through the use of relevant languages (e.g. RDF and OWL) to create top-down, industry-specific controls that reduce ambiguity and facilitate specific knowledge management functionalities. These ontologies are a prerequisite for the effective operation of the Web in this context, particularly with respect to business applications, in that they ensure the interoperability of websites and platforms within specific industries.

The concept of a universal Semantic Web, or a "Web of Data", has yet to be fully actualised. Coinciding with Berners-Lee's and the W3C's early forecasts regarding the evolution of the Web within the context of the Semantic Web project, a number of actors who emerged in the wake of the 2000 market correction utilised the Web's increasing user base and the potential of widespread adoption of broadband technologies in other ways. In effect, the more dispersed and decentralised innovation that occurred in this context was broadly focused on shifting the Web's political economy towards a bottom-up, grassroots, "folksonomic" structure that is encompassed by the term "Web 2.0".

Web 2.0

The term Web 2.0 entered the popular vernacular following its use by O'Reilly Media in 2004. It is applied to projects that seek to foster collaboration within the framework of user-centred design. To this end, the role of the user and of user-generated content and user-focused knowledge representation schemes is central to the Web 2.0 innovation system. With user-generated content, for example, users are framed as central to the creation of content and thus to the creation of folksonomies through tagging. Under Web 2.0, familiar platforms like YouTube curate and aggregate content and, with varying degrees of success, monetise it, both for themselves and on behalf of the user who created and/or uploaded the content in the first place.

A hallmark of Web 2.0 is facilitation of groups of like-minded users creating and shaping evolving knowledge frameworks by categorising content. With many sites, and especially with incumbent social networks, value is derived from mining data relevant to the creation of advertising profiles from the consumption patterns of users and how they engage with content, from the users' content and, more generally, from their data. This contrasts with the Semantic Web project, where the Web as a medium is not considered to be 'generative' in the same sense, in so far as users are restricted to representing knowledge within the framework of defined ontologies (see Zittrain 2008).

Web 2.0 and the Semantic Web also diverge on the crucial matters of control and openness. In the discourse surrounding Web 2.0, certain widely circulated themes relating to a so-called participatory culture can be found. The first centres upon public spheres and the ways in which Web 2.0 can be seen to enable or enhance them. Practices linked to user-generated content and social production are viewed as having fuelled the rise of the Web 2.0 innovation system by enabling and empowering users and new forms of networked culture, politics and commerce (Benkler 2006). The malleability of emergent platforms, it is claimed, encourages user participation, both in terms of co-opting older forms of content that can be created, shared and monetised within a newer media framework (Zittrain 2008), and in facilitating the evolution of the Web's composition itself through innovation (Jenkins 2008). Put simply, the open construction of Web 2.0 is often understood as catalysing user empowerment.

Another important distinction between Web 2.0 and the Semantic Web pertains to the impact of technological change and innovation capacity within the framework of social production and user creativity. Working with the assumption advanced by Tapscott (2009) that later generations of Internet users have become 'digital natives', the ability for users to both consume and produce content with varying degrees of professionalism and quality has also been analysed to both acclaim (e.g. Shirky 2008, 2010) and criticism (e.g.

Keen 2007). YouTube, for example, serves as an aggregator of user-generated audiovisual content, while sites like Reddit, Slashdot and Wikipedia host both audiovisual and textual content. In all these examples, policing infringing content (as defined by issues of copyright within particular jurisdictions and other legal requirements regarding such things as obscenity, ‘house’ policies, and the terms of service of particular sites) and moderating user comments and rating systems is a persistent challenge for platform operators. However, within the ostensibly bottom-up framework of many Web 2.0 applications, a bureaucracy is still required in order to adjust for unwanted elements caused by flaming, trolling and the like. This new public sphere, in effect, is not always as open as intended: even when Web 2.0 bureaucracies are formed from the bottom up, as with Wikipedia, a centralised decision-making process remains in place that seeks to balance the aspirations of the networked public sphere on the one hand and those of the “electronic mob” on the other hand (Siegel 2008).

In Web 2.0, the Web itself remains an open medium upon which various platforms are constructed. However, folksonomy-driven Web 2.0 applications (including social media) are not necessarily inherently more democratic than the Semantic Web project because ‘house rules’ are enforced top-down by administrators. Although the Semantic Web continues to be championed by Berners-Lee and by the W3C, it may be argued that its failure to take hold relates in part to its clear delineation of various facets of control. Conversely, most contemporary Web 2.0 advertising-supported social networking platforms effectively mask their built-in capacities for centralising, aggregating and profiting from their users.

The FSW as Media Innovation

Despite the discourses of democracy and user empowerment that surround Web 2.0, the current social media landscape is typified by a handful of proprietary platforms operated for profit and usually by large, multinational corporations. The most popular of these services are analogous to Swiss army knives – they are capable of performing many functions (e.g. searching, microblogging, social networking, media sharing etc.) but are not optimally designed for any one role. Popular services such as Twitter and Facebook require registration and sign-in and are based on technical architectures that centralise and store data. The aggregation of these data – for sale to analytics firms or for use within in-house targeted and behavioural advertising services – is a core element of the corporate Web 2.0 business model.

This political economy is the source of increasing user angst and government concern about monopolistic behaviour and the linkages between advertising and

privacy. In response, the FSW innovation system purports to offer the average user more robust communication tools, greater choice in services and platforms and more control over personal data. It also proposes a fundamental shift in the revenue model of social networking services, away from packaging end-users into advertising markets and toward corporate implementation and support.

Large organisations are increasingly identifying the value that intra-organisational social networking platforms can add through facilitating communication and collaboration and through building relationships and culture within and between partner organisations. However, incumbent market leaders in social networking remain unable (or unwilling) to fill this sort of role. Some of the key constraints in this regard include:

- the inability of the large incumbents to reconfigure their platforms for optimal use in various scenarios;
- the inability of the large incumbents to ensure locally developed security and administration controls;
- questions about privacy and security;
- concerns about the trustworthiness of partners whose stock in trade is selling third party access to users;
- concerns about not being unable to garner a sufficient first-mover advantage over competitors.

It is here that many of the insurgent firms active in the FSW seek a platform to challenge the market stranglehold of incumbents by offering an innovative set of social media technologies, business models and ethical orientations. A common value proposition underlying many initiatives involved in the FSW is a conviction that a social media marketplace dominated by a handful of firms offering general platforms for all purposes based on proprietary software that cannot be reconfigured for local needs is unsuitable for the fledgling and potentially lucrative market for intra-enterprise social media services.

Unlike incumbent Web 2.0 firms that make money primarily from packaging their public user base to advertisers, many of the firms active in the FSW seek to profit from commercial clients rather than from public users. They offer intra-enterprise social networking solutions and services whose revenue stream incorporates implementation and support. Consequently, versions of these services can be offered to the public as part of a FSW that promises to eschew consolidation and to shelter user privacy and experience from the impact of advertising agendas. Nonetheless, the public-facing deployment of FSW platforms can still create value by generating brand awareness through increased user numbers and/or by reaching key procurement decision-makers within organisations in their personal rather than professional capacities. Moreover,

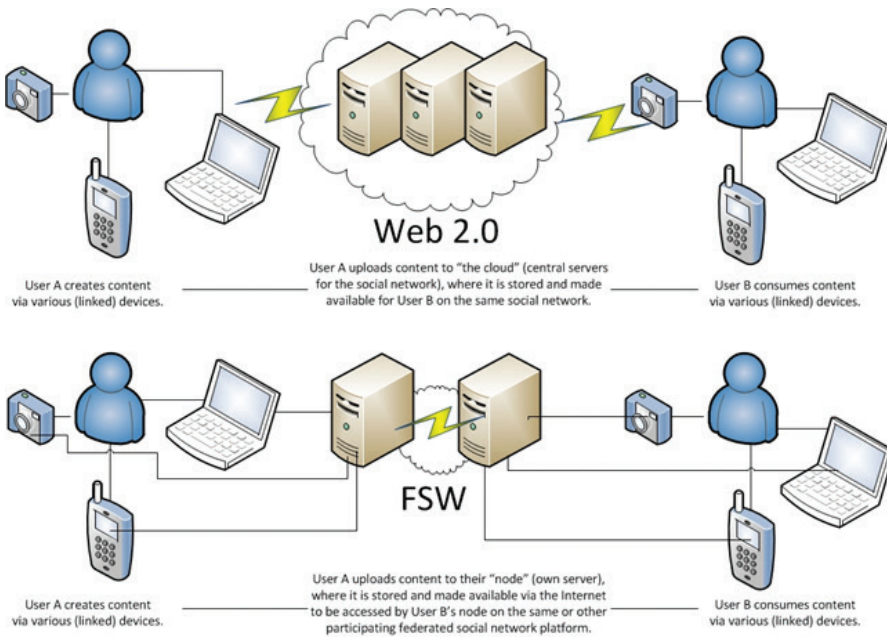
Table 1. FSW, Web 2.0 and Semantic Web: A Comparison of Platforms

Feature	Web 2.0	Semantic Web	Federated Social Web (FSW)
Project Vision	"Rich Internet applications" allowing for greater user participation and interactivity; "Web-oriented architecture" to build non-semantic functionality between applications; "Social Web" applications	To move beyond a Web of semi-structured and structured documents to a "Web of Data" by encoding meaning into Web-based content to allow for interoperability between systems, as well as automated inferencing capabilities; part of "Web 3.0"	To create a distributed or social network by enabling interoperability between various (and some open-source) social media platforms; focused on the concepts of portability, interoperability and a federation of platforms
Knowledge Representation Framework	Folk taxonomies ("folkonomies") created through bottom-up structures (e.g. "tagging" to create meta-data)	Taxonomies ("ontologies") created through top-down structures (e.g. imposing a "controlled vocabulary")	Respective social networks may be built using folk taxonomies or ontologies; standards for interoperability are built and refined with a mix of both grassroots and institutional efforts (and, like most relevant code, become standard through work with, and direction from, the W3C)
Interconnectivity Features	Mostly proprietary platforms (limited sharing of data via RSS, third-party applications, etc.); "walled gardens"; some open-source platforms exist as well	At present, the focus is on building tools (some open-source) to create ontologies; data are inherently linked on the Semantic Web, but individual platforms (both proprietary and open-source) would still exist to leverage data	Like the Semantic Web, a shared set of standards ensures interoperability between various data stores (e.g. the "Social Web Acid Test" or SWAT, OAuth, OpenID, OStatus, etc.); however, with the FSW, this takes the form of distinct platforms being rendered interoperable (rather than data stores alone, as with the Semantic Web)
Treatment of Data	Generally uploaded to, and shared via a central server ("cloud") for a given platform	Data must be mined (in the "Deep Web") to mark it up appropriately; data and knowledge sharing is implicitly required in order to create ontologies	Participants in a social network operate and control their own "node"; therefore, data remain on each user's server, and they retain control over what they share within the network

the public-facing deployment of an open-source, primarily commercial-service social networking platform dramatically increases the user-testing base of the product/platform and, accordingly, the potential for innovative local configurations that can be built into subsequent iterations of commercial applications. Of course, the FSW's efforts to institute this form of innovation depend upon entrepreneurship and a capacity to mobilise sympathetic figures in the technical community and standard-setting bodies.

The social and business objectives outlined above are to be achieved through a technological architecture based on principles of local control of platform implementation and data, with centralisation – or rather federation – occurring only in the form of interoperability (see Figure 1). As defined by one of the leading figures in the FSW, this "means that there are distinct entities that

Figure 1. A comparison of the technical configurations and operations of typical Web 2.0 social network platforms and Federated Social Web (FSW) social network platforms



control parts of the system, but those parts are connected with agreed-upon rules to make a pleasing and usable whole” (Prodromou 2010:para. 2).

Returning to our framework of innovation, the FSW includes dimensions of product, process, position and paradigmatic innovation relative to contemporary Web 2.0 social media incumbents. What is less clear is the degree of novelty regarding the FSW’s innovation. When comparing the vision of the FSW with existing social media services, this initiative might be viewed as reflecting a radical innovation over Web 2.0. Alternatively, it might be understood as an incremental innovation stemming from the Semantic Web. Indeed, it might even be seen as comprising an effort to fuse together the best of the Semantic Web and Web 2.0 systems. Recalling Bolter and Grusin’s (1999) theory of ‘re-mediation’, which argues that successful new media are those that ‘refashion’ their technological predecessors, each of the latter perspectives focuses attention foremost on the technological dimensions of the innovation process. We maintain that such a conceptualisation is inadequate in that it reflects an oversimplification of the innovation processes in media services in general and in new media services in particular. Central to our argument is the notion that existing knowledge upon which innovation in media services seeks to build is not a static, atemporal body codified in the most recent iteration of

the system. Rather, we understand knowledge in this context as a dynamic *ongoing* dialogue between the present and the history of the medium – history which features technical, but also social and political, considerations that may or may not be resolved. Thus, the order and events shaping those knowledges can matter to contemporary efforts at innovation. This is particularly salient when the FSW is considered within the broader context of the recent history of digital media innovations.

Historiographic Innovation and the Case of the FSW

Within the past decade, the work of the W3C has shifted from focusing foremost on creating a Semantic Web towards mining and managing existing online data more effectively. Known as the Deep Web, research in this area relates to the development and study of more effective algorithms designed to scrub the data undergirding various Web services, presumably in the service of creating more accurate ontological structures for use in an eventual Semantic Web (Geller, Soon and Yu 2008; Wright 2008). The effect of better data mining techniques is also relevant to the realm of Web 2.0 and its concurrent focus on tagging user-generated content to create folk taxonomies (“folksonomies”) of knowledge representation aimed at promoting a more efficient user experience online. This has facilitated, and continues to facilitate, the rise of Web 2.0 platforms built on crowdsourcing.

While Web 2.0 allows for more user input in the creation and representation of knowledge, it also promotes the siloisation of that knowledge within proprietary platforms, such as social networks. The Semantic Web, on the other hand, promotes the federation of data in terms of interoperability among diverse websites and platforms within a particular set of use cases (e.g. a particular industry) and is facilitated through the top-down management of knowledge via controlled vocabularies. The FSW, on the other hand, expands upon the folksonomy aspect of Web 2.0 in a manner that incorporates elements of the Semantic Web. Specifically, in the FSW innovation, a series of independent social media would exist, but taxonomies (for example, the SWAT – the “Social Web Acid Test”) would still be required to control how to go about federating that data. It is this process – actors seeking to overcome perceived shortcomings in existing media platforms by reintroducing elements of previously bypassed innovation systems – that we propose can be explained through the concept of historiographic innovation. Equally important in this regard is the FSW’s move to develop and establish standards for federated interoperation into the W3C, the same organisation that pushed the Semantic Web innovation system.

The term historiography is generally taken to refer to the history of history or the act of writing history (Munslow 2006). The term historiography implies

a dialogue in which history forms a narrative in itself, with the narrative's connection to the specific area being examined, forming a metanarrative. Historiography is held to be a broadly applicable methodology that serves an online environment where time is the "core variable" (Jones 2010:xvii). While all innovation is historic to the extent that it builds upon previous generations of products or services, by recalling previous debates and mobilising existing constituencies around common frustrations with the path of Web 2.0 development, the FSW has effectively proposed innovative solutions that draw from historical foundations and learn from perceived mistakes. It is a clear example of what we describe as historiographic innovation. Put simply, this innovation is a product of this constant dialogue with the domain's history rather than a mere subsequent chapter in a developmental trajectory. The actors involved in the FSW are not simply building upon what came immediately before it, but are rather synthesising multiple, competing, earlier iterations of new media service while consciously seeking to rectify what they perceive as missteps in the evolutionary pathway of current social media platforms. To this end, the FSW may be viewed as innovation fostered with a deliberate link to the history of the Semantic Web that seeks to build on the selective elements of Web 2.0.

The case of the FSW underlines how broad conceptualisations of innovation, such as the radical/incremental dichotomy, risk downplaying the dynamism and complexity of the behavioural, cultural, organisational, political and social factors that characterise innovation in information and communication technologies. New media research is often critiqued for treating Internet services as being in perpetual emergence and transformation while neglecting the now multi-generational and decades-long history of innovation in digital mass media (Wellman 2004). The concept of historiographic innovation offers a means of directly redressing such concerns by drawing attention to both technological progress and the process in which innovators make choices about the specific, collected, historically-rooted knowledges and histories they draw upon. In so doing, it provides an epistemologically significant lens through which to further examine innovation in media systems precisely at a time when intellectual, organisational and technical histories are becoming sufficiently developed and traceable so as to provide explanatory frameworks for evolving developments in the realm of social media.

Whether the FSW's vision of alternative Social Web services will take root and stabilise remains uncertain. The outcome, however, in no way detracts from the importance of the concept of historiographic innovation. Indeed, we maintain that it merits much further examination. For instance, it is not clear at this time whether historiographic innovation is a transitory phase or a distinctive feature of the innovation process. Equally uncertain at this time is the extent to which this concept is applicable to other technologies. Thus, further research is required to identify and analyse other apparent cases of

historiographic innovation in media and other sectors. In terms of the FSW, history is a factor in understanding this innovation in media services. Our aim for this chapter has been to use this case to stimulate reflection upon the role of history in media innovation theory and to argue that history might matter far more than current models suggest.

Notes

1. This research is funded through a standard research grant from the Social Science and Humanities Research Council of Canada (SSHRC).
2. The W3C is the standards body responsible for recommending best practices regarding the Web's structural framework and relevant coding standards.

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Chapter 16

Innovation and the Genre-Platform Model

Kjartan Müller

Abstract

This chapter describes a model for working within the complexity of genre innovation and the design of digital platforms and artifacts. The model combines functional genre theory with an analysis of digital media as modular platforms, in the context of activity theory. Central to the model are the concepts of horizontal and vertical genre convergence, which here are compared and related to the concepts of architectural, modular, incremental and radical innovation, drawn from innovation theory. Genre innovation in digital media does not necessarily imply radical new genres or substantial changes in existing genres, but can also be a result of how existing genres are combined and used with new or existing digital platforms – sometimes by providing possible design strategies for new areas of design and development. The use and purpose of the model is illustrated by using examples from publishing.

Introduction

In researching genre and innovation in digital media, a general challenge is to find a coherent model for the relationship between genre, media and technology. For example, looking at the research on blogging, we find that there has been some uncertainty as to whether a *blog* should be categorised as a medium or a genre (Nardi, Schiano and Gumbrecht 2004; Fagerjord 2006; Rettberg 2008; Miller and Sheperd 2004; Lüders, Prøitz and Rasmussen 2010; Sheperd and Miller 2009; Murray 2011). This kind of confusion can be seen as symptomatic of how media studies struggle with the question of how to integrate a technological perspective into their research on new digital phenomena. Digital media are often being “black boxed” in media studies (Nyre 2004), where their functions are interpolated from how their effects and presentations are perceived. At worst, we can end up in some sort of essentialism or technological determin-

ism; at best, we still run the risk of putting forward an understanding that sets us apart from other processes of technological change and creation within the field of digital media. As a result, media studies may culminate with a very limited role in ongoing innovation, and may also be less able to critically examine claims of innovation.

This chapter presents a model that opens up this black box by combining a model of digital media, as technological platforms, with modern genre theory. This new model opens up for new approaches on analysing how genre change and how the emergence of new genres relate to underlying technological change and innovation. In order to illustrate this, the model will be applied in analyses of Wikipedia and the EPUB 3.0 platform.

Theory and Methodology

The model proposed in this chapter is based on different theories and methods, and attempts to synthesise genre theory, activity theory, design theory and the practical design and development of digital media. Thus, it can be placed within what has been described as *medium theory*:

Medium theorists are interested in differentiating between media. Broadly speaking, medium theorists ask: How do the particular characteristics of a medium make it physically, psychologically, and socially different from other media and from face-to-face interaction, regardless of the particular messages that are communicated through it? (Meyrowitz 1997)

Nyre has suggested that there are three generations of medium theory: McLuhan represents the first generation with his “medium is the message”; Meyrowitz represents the second generation with his “media as an environment”; and recent initiatives, including Nyre himself, can be said to represent a third generation of medium theory (Nyre 2004). Nyre focuses on hermeneutics and “the operations of technology in their relation to the perceptual experience of a medium and its presentations” (Nyre 2004). I am more oriented towards pragmatics, so in my version this last quote could be reformulated as “the interactions with technology through the creation and use of digital artifacts in the form of software and texts” (*texts* in a broad, multimodal and heuristic sense). A pragmatic version of medium theory benefits from being combined with modern genre theory, since the latter offers a way to describe these interactions. The perceptual experience of a medium and its presentation are a result of what genre theory describes as *typification*, i.e. the process by which we create and identify certain types of presentations as genres, and certain configurations of technology as media. The process of typification should be a natural part of innovation research in digital media, since it can tell us something about how

and when we perceive something as new and adapt to its newness. Even if there was some confusion as to whether a blog was a new medium or genre, the discussion highlighted how blogging had come to stand out as a new type of communication through digital technology, and how it was different from homepages and the like.

Genre Theory

The genre-theoretical approach for this model is rooted in what has been called the *Rhetorical Genre School (RGS)* (Artemeva and Freedman 2007; Bawarshi and Reiff 2010). This is a research tradition in which Miller's definition of *genre as social action*, in the form of *typified responses to recurring rhetorical situations*, is central (Miller 1984). In contrast to a more traditional analysis of genres based on formal categories, RGS is based on a functional analysis of how different genres solve different kinds of rhetorical situations. These rhetorical situations describe the genres' typical context, and are understood as socially defined and interpreted frames for rhetorical action (Swales 2009).

Genre Theory and Activity Theory

The twin concepts of rhetorical situation and rhetorical response have their limitations in the analysis of digital media and genres. To extend the analysis of the situation and context where the rhetorical situation comes up short, I have used activity theory (Cultural Historical Activity Theory – CHAT). The combination of RGS and activity theory has made important contributions to both genre and activity theory (Russell 1997; Clay Spinuzzi 2003; Engeström 2009; Artemeva and Freedman 2007).

Activity theory is based on a model of human action as directed and mediated by tools (Engeström 1987). Engeström has further developed this into a model of *activity systems*. In an activity system, the actions are placed in a larger context as common activities for that context. This context includes the system's rules, tools, community and division of labour. In an analysis that combines genre and activity theory, genres are among the tools that mediate and structure activities within and between such activity systems. In my model, the *activity system* supplements the *rhetorical situation* as a way of describing what can loosely be called the context for the use of genre and digital platforms.

Central to activity theory is the activity systems' potential for *contradictions* (Engeström 2001). Such contradictions are tensions in an activity system that the system may try to overcome in some way. These contradictions can be important sources of innovation where, for example, tools in activity systems in the form of platforms and genres can be changed, adapted, replaced or developed to resolve these contradictions. In this way, genre change and/or

platform innovation can be seen as responses to recurring contradictions in similar and/or related activity systems.

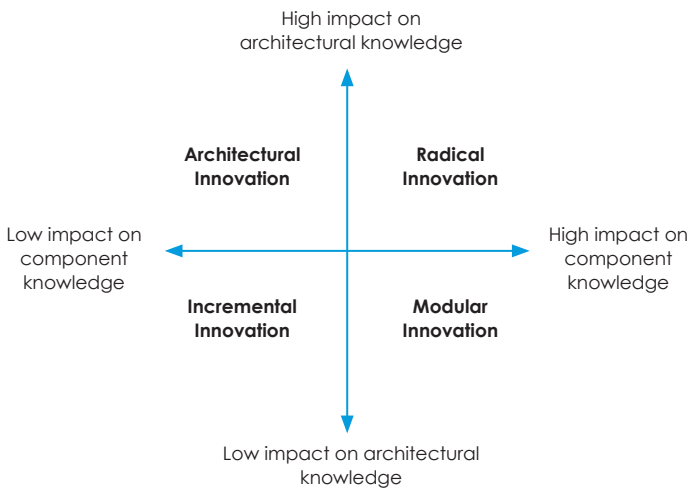
Genre Form and Design

Genre form has been under-analysed by RGS (Devitt 2009). Even if genre is not primarily based on formal categories, form is still a vital part of what is considered to be a genre. In this model, genre form is drawn into the analysis by *how* the typified response is designed to solve the recurrent situations. Here I use the concept of *design patterns*, an approach that originated with design theory (Alexander, Ishikawa and Silverstein 1977) but that in particular has been used in connection with software design and development (Gamma, Helm, Johnson and Vlissides 1994; Tidwell 2006; Akesson 2003). I use design pattern as a way of describing the relationship between genre and form within a functional analysis.

Genre Convergence and Innovation

Central to the discussions in this chapter is the concept of *genre convergence*. Genre convergence¹ is an attempt to describe genre formation and genre change as a result of combining various features and elements from existing genres (Liestøl 2006). In this chapter, the concept is expanded by splitting it into *horizontal and vertical convergence*.

Figure 1. Henderson and Clark's Model of Types of Innovation



Source: Henderson and Clark, 1990.

There is a distinction in the literature on innovation between *architectural* and *modular* innovation. The former is innovation by the combination of parts, where the parts are standardised but combined in new, innovative ways. In modular innovation, the combination of parts is standardised, but parts can be replaced (Garud and Karnøe 2001). The concepts of modular and architectural innovation complement an earlier dichotomy in innovation research – *radical* and *incremental* innovation. How these four concepts relate to each other can be illustrated by Figure 1, which is a model by Henderson and Clark (Henderson and Clark 1990). This figure describes how the four concepts can be positioned with regard to two axes of how innovation impacts on knowledge: high/low impact on architectural knowledge, and high/low impact on component knowledge. This chapter uses this model of innovation types in combination with horizontal and vertical convergence.

Presentation of the Model

Everything is radical about Wikipedia – except the articles! (O'Sullivan 2011)

Some of the details of the model will now be discussed, using the quote above to illustrate the sort of claims that can be examined and analysed using the model. The quote is from a presentation held by O'Sullivan, who published a study (O'Sullivan 2009) where he compared Wikipedia with historical encyclopedic projects such as Diderot's and Bacon's. O'Sullivan's point is that while Wikipedia has made changes in how we produce and use encyclopedias, the articles are recognisable for anyone who has read traditional encyclopedias such as Encyclopedia Britannica. He is not alone: an early comparative genre analysis of Wikipedia and similar projects concludes in the following way:

The results of the four-way comparison reveal a continuum of formality and standardization, with the traditional encyclopedia and the interactive discussion at opposite extremes. Wikipedia and Everything2 differ significantly from one another, with Wikipedia towards the formal, standardized end, and Everything2 towards the informal, variable end of the continuum. Surprisingly, Wikipedia is statistically indistinguishable from the print encyclopedia in terms of the formality features measured in this study. (Emigh and Herring 2005)

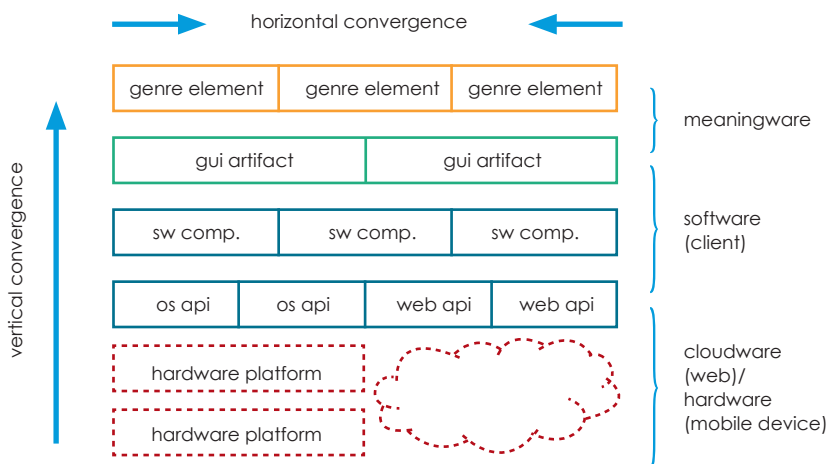
In a more recent comparative study, Mako Hill has compared eight encyclopedic projects along the axes *innovative process*, *innovative product* and *dependency on technological development* (Hill 2011). He finds that Wikipedia is alone in combining an innovative process with a known product – which here can be interpreted as the genre of encyclopedic articles. In addition, it used an existing platform and did not rely so much on developing new technology. The

platform in question was WikiWikiWeb, created by Cunningham for the collaborative publishing of design pattern repositories. At the time of its creation, a version of WikiWikiWeb (Quickie Wiki) was described as a tool for personal web publishing in the following way:

The notebook model is perhaps the most pragmatic way of viewing the wiki and how to use it. In this notebook, you can either edit existing page content or add new pages at will. Over time, as you add cross-links between pages and expand your notes to include references to external resources, you create added value in these notes. (Leuf and Cunningham 2001)

Even if WikiWikiWeb was described as a freeform notebook, the examples listed by Leuf and Cunningham are mainly genres that involve organising, listing and cross-referencing in different ways. WikiWikiWeb was the first of what today are generally known as Wikis – a type of digital platform, in the same way as a genre can be said to be a type of text. There are different ways to describe and analyse such platforms, but a platform is in this model analysed as a stack and a layered configuration of different levels of hardware and software. These main layers may be separated into smaller sub-layers, e.g. the software layer can be separated into the operating system and the application layer. Texts and genres may also be included in such a platform analysis and may be seen as belonging to a separate *meaningware* layer as a supplement to the hardware and software (Liestøl 2006). Furthermore, GUI (Graphical User Interface) can be singled out as a hybrid layer mixing software and meaningware, and *cloudware* can also be added into the mix when combining web-based services and so on with the rest. See Figure 2 for a generic model of a platform for digital media:

Figure 2. Generic Platform Model



Previously I have proposed that the relationship between the various layers in a platform – and between the software and the meaningware – can be described using the term *design space* (Müller 2011; Stankiewicz 2000). Every layer in a platform defines the design space for the layer above. A design space is defined negatively by the constraints one layer sets for another layer, and positively by the possibility space the layer opens up for the layer above. Using a chess analogy, it can be said that the board, pieces and rules define the constraints of chess as a design space, while the total number of possible chess games defines the totality of the possibility space.

An analysis of a Wiki as a platform could start on different levels. On one level, Wikis are content management systems; on a lower level they are a combination of database, web server and an application framework for creating web content. One question could be: where do Wikis differ from blogging platforms? Another could be: have Wikis, as a type of design space, special affordances for encyclopedic articles?

By defining a design space, a platform defines the constraints and possibility space for the realisation of *genre as form*. Form should also be an important part of a functional analysis of genre: how does the genre form contribute to how the genre solves the functional demands of the situation? This is a question involving design, in the broad sense, and one where the concept of *design pattern* can be useful. Design pattern is a concept that was originally coined in connection with architecture but is now probably more associated with software design.² A design pattern can be said to describe an ongoing best practice or canonical solution to a recurring design problem:

Each pattern describes a problem that occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice. (Alexander, Ishikawa and Silverstein 1977)

This is a description that is reminiscent of Miller's definition of genre as a typified response to recurring situations, and it is my hypothesis for this model that this similarity is not accidental but stems from how meaningful and identifiable patterns emerge from what we design, create and use.

Thus, looking at genre form as a kind of design pattern enables us to analyse genre form within a functional genre theory, since form can then be related to how the genre solves the situation. It can also relate genre to digital media by examining how a design pattern associated with a genre can be realised within different design spaces. The design space of a platform may have certain affordances for certain design patterns. The quote from Leuf and Cunningham suggests that the Wiki platform is more suited for genres that involve patterns with indexing, listing and cross-referencing.

Genre form as a design pattern also gives a different perspective on how form can be shared between genres. A food recipe can be identified from its topic (food), list of ingredients and step-by-step procedure. The same kind of design, with lists of ingredients and a step-by-step procedure, can also be found in the instructions for putting together IKEA furniture, albeit as a simplified cartoon. The similarity of the situation – that something is to be constructed (a cake or a piece of furniture) – may help to explain the similarities. Furthermore, minor design patterns from different sources can be combined and mixed into major design patterns. Thus, the concept of design patterns can in some ways help to explain the mechanisms of genre convergence.

As a way of describing genre form, design pattern connects functional genre theory with the layered model of a platform. Returning to the chess analogy, a design pattern is similar to identifiable strategies for playing in certain game situations, such as the Sicilian Defense. A design pattern is a strategy for exploring a design space with regard to common design problems or situations. This means that genre form is not necessarily bound to a specific platform, since patterns can be used on different platforms as long the design spaces do not differ too much, or the design pattern can somehow be translated between design spaces.

Thus, in one perspective, Wikipedia was an example of how the encyclopedic genre could be used as a strategy for exploring the design space of the WikiWikiWeb with its affordances for indexing, listing and cross-referencing. Some of the criticism of Wikipedia for not being innovative enough is in many ways a criticism of not exploring the full capabilities of the perceived design space of digital media in general – for example, by not fully exploring the principles of hypermedia (Fagerjord 2011). This is a common criticism concerning new media: we are sometimes disappointed when the new just seems to remediate the old, and does not expand fast enough into the new and promising design space – sometimes creating expectations bordering on technological determinism. However, genre can also be a conservative force for good reasons. One of Hill's hypotheses for the success of Wikipedia in comparison with others is that by using a known product (Britannica-like articles), Wikipedia lowered the threshold for participation – and thereby fuelled the innovative process for producing encyclopedic articles.

Convergence as a Mechanism of Genre and Media Innovation

Even if Wikipedia did not radically change the genre of encyclopedic articles, it was still something totally new and innovative. So how can the newness of it be analysed?

Genre convergence (and similar concepts) has been mentioned as a source for genre innovation and change (Liestøl 2006; Fairclough 2003). Genre convergence means that a new genre can integrate elements from existing genres. As already mentioned, sharing design patterns or parts of design patterns can be one of the mechanisms involved in this form of convergence. This type of convergence is an example of *horizontal convergence*, since the elements belong to the same level of analysis.

I also use *vertical convergence* in this model. Askehave and Nielsen have proposed a two-dimensional model of digital genres, where text and medium are the two axes of the model (Askehave and Nielsen 2005). In their model, the digital genre encompasses both traditional genre elements along one axis, and elements belonging to the digital medium along the other. My platform model follows this two-dimensional perspective, and analyses this as a combination of horizontal and vertical convergence of the different levels of the model. It is also important that horizontal convergence not only happens on a textual level but that it is something that can be analysed on every level. Moreover, convergence on one level can enhance the design space for the level above and be a prerequisite for convergence on that level. For example, when web browsers add functionality for geolocation, an online travel guide can integrate a GPS-enabled map service with its navigation and articles. The resulting online guide is a complex totality combining different genre elements on a horizontal axis and elements belonging to different levels of the platform along the vertical axis – such as GPS hardware, OS components for accessing GPS data, and the HTML5 geolocation API specification as implemented by browser vendors.

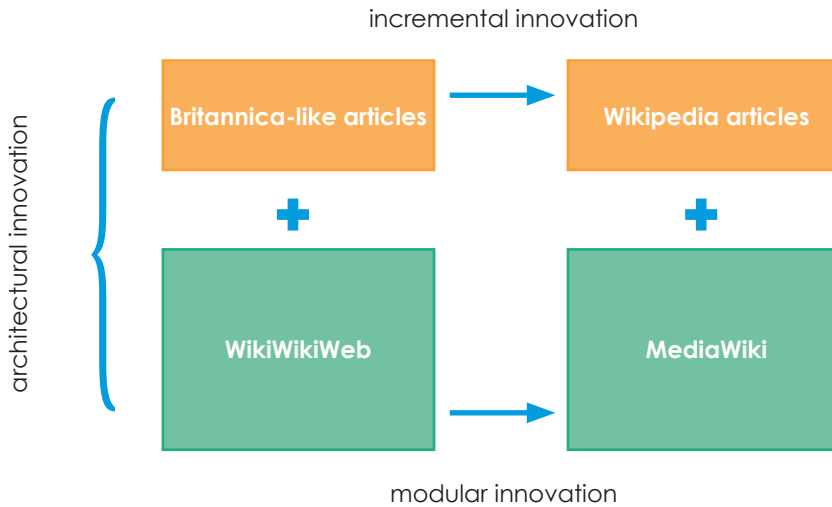
So when we perceive genre as being integrated with digital media technology, this can be analysed as a form of convergence. And just as genre convergence is a form of horizontal convergence between elements on the meaningware level, digital genres can also be analysed as a vertical convergence of texts, software and hardware artifacts on the underlying levels. In this way, we can combine the platform model with Askehave and Nielsen's two-dimensional model of digital genres.

As mentioned, horizontal and vertical convergence can be a source of genre innovation, and this can be analysed using Clark and Henderson's model of incremental, radical, modular and architectural innovation (Henderson and Clark 1990). Combining elements horizontally and/or vertically in the platform can be seen as architectural innovation, replacing one element with a better one can be seen as modular innovation, and enhancing one element can be seen as incremental innovation (see Figure 1).

In this regard, combining Britannica-like articles with the WikiWikiWeb platform was a kind of architectural innovation, while the evolution from the original Wikipedia articles into what they are today may be an example of in-

cremental innovation. On the other hand, the WikiWikiWeb has been replaced by a new Wiki-platform, Media Wiki, and that would be an example of modular innovation (see Figure 3).

Figure 3. Innovation and Wikipedia



In *The Innovator's Dilemma*, Christensen described how disruptive innovations could occur by combining off-the-shelf components in a new way (Christensen 1997). In some cases, an existing genre, such as encyclopedic articles, can be seen as such an off-the-shelf component ready to be used with other components such as the WikiWikiWeb platform.

Contradictions as a Source of Innovation

The combination of Britannica-like articles and WikiWikiWeb did not come from nowhere. There have been many such projects, and Wikipedia itself branched out of another project called Nupedia. Since the advent of digital media, encyclopedias seem to have been ripe for digital disruption, and many have tried. In terms of Engeström's model of activity systems, new digital media was a prominent source of contradictions within the systems dealing with encyclopedias:

When an activity system adopts a new element from the outside (for example, a new technology or a new object), it often leads to an aggravated secondary contradiction where some old element (for example, the rules or the division of labor) collides with the new one. Such contradictions generate disturbances and conflicts, but also innovative attempts to change the activity. (Engeström 2001)

The various historical projects can be seen as different attempts to innovate through the contradictions created by the availability of new digital tools and platforms, both for producers and for consumers. The old way could not sustain for much longer, but a question remained as to how the activity systems could accommodate and stabilise.

Miller and Sheperd use the old rhetorical concept of *kairos*³ to capture the cultural moment when public blogging took off (Sheperd and Miller 2009): a cultural historical moment characterised by the ethos of self-publishing and dissatisfaction with mainstream media in combination with new technology that fitted the new kinds of rhetorical responses that emerged with blogging. The same can be said for Wikipedia – the use of WikiWikiWeb for creating an encyclopedia was part of the *kairos* that emerged from the contradictions, the available technology and the ethos of technological collaboration that later enabled Wikipedia to succeed. However, the technology did not cause the change by itself in any deterministic sense of the word – contradictions are not causes of innovation but rather present opportunities for innovation. And in contrast to blogging, the encyclopedic genre did not change much with regard to form either; instead, the changes stabilised around a new way of producing and collaborating on an existing genre form. Genre and platform change are in this perspective a result of a kind of emergent collaborative design process in and between activity systems (Engeström 2006), where one sort of digital platform can be part of the contradiction introduced in the activity system and another sort of platform can represent an opportunity to solve this contradiction.

Digital Guides as Enhanced Ebooks

I will end this with a brief discussion on how the genre-platform model relates to a prototype I have been developing as part of my PhD project. The prototype is a digital guide for cultural heritage objects, and it has been developed in the form of a so-called enhanced ebook. The digital guide presents a selection of cultural heritage sites along the Aker River in Oslo, similar to a guided tour.

The prototype is developed in collaboration with a larger project between InterMedia at the University of Oslo, Oslo City Museum and the Norwegian Museum of Science, where the project objective has been to create a hand-held, digital guide for communicating parts of the industrial history of Oslo along the Aker River (Rogstad 2012). The project is also a pilot project for a major national project, *Heritage Here – see the invisible*, organised by the Arts Council Norway (Kultur og naturreise 2012).

My prototype is a side experiment to this digital guide project, where I use the material for experimenting with so-called enhanced ebooks using the EPUB 3.0 standard (International Digital Publishing Forum 2011). I have chosen the

EPUB 3.0 as a case because it has been described as the new platform for ebooks, and has been developed precisely to deal with more interactive digital genres such as digital guides. This digital guide as an ebook takes the form of a cover, a table of contents, an interactive map including support for GPS, and a series of chapters, each covering a Point Of Interest (POI) in the guided tour. Each description of a POI consists of text linked with images, maps and sounds. The result has been tested using the iPad and the iBooks reader, which has some support for the EPUB 3.0 standard.

Activity Systems, Contradictions and the Need for Innovation

There are two types of activity systems that can be linked to the development of this prototype. One is the museums, represented by Oslo City Museum and the Norwegian Museum of Science, and the other is ebook publishers or ebook technology vendors, in this case represented by my research project. For both types of activity systems, the relevant contradiction here is rooted in the transition from analogue to digital media; and for both activity systems there is a strongly perceived need for innovation with regard to this contradiction. In that sense, my prototype is an experiment on how my model can be used with an ongoing process of innovation between and within activity systems.

For museums, this fundamental contradiction manifests itself in various ways. On the one hand, we have the demands and expectations, as expressed in strategies, plans and surveys, that museums should make use of digital media in communications with the public. Here, the contradiction lies in the discrepancy between the museums' internal activities and self-image, and external expectations.

On the other hand, new media technology with new opportunities for communication allows the museums to reach out with their content in new ways. This can be perceived as new opportunities that may even solve existing contradictions, such as the limits of exhibitions when it comes to a broader and deeper narration and linking between knowledge domains (the Aker River project combines industrial and cultural history together with environmental issues). However, this gives rise to a new contradiction between what museums want to do and what they can do on the basis of internal competence, organisation and an unclear understanding of what their audience may be interested in. The result is that museums are now experimenting worldwide, and on a large scale, with how they should adopt new digital media and genres. A project such as this one for Aker River, and the development of digital guides for the dissemination of cultural heritage and history, are partly a response to these contradictions and a movement towards the usage of new platforms and genres in the sector.

With ebook entrepreneurs, the relevant contradiction is the gap between the ebook as digitised literature, in the form of text and images, and the new

possibilities in combining this with audio, video, animations and richer functionality and interactivity in general. An *enhanced ebook* is a concept that is partly a response to this contradiction. It is a compromise that tries to carefully expand traditional book genres into the new design space of digital media.

The Digital Guide as a Genre

Digital guides for cultural heritage objects and monuments is a genre in development, but a wealth of projects, examples and experiments with various aspects of this emerging genre already exists. A digital guide for cultural heritage, intended for use in the physical space, is also related to several earlier or existing genres. Travel Guides, with its combination of maps, photographs and textual descriptions of the guide book's objects (Fagerjord 2010) is strongly present. Audio guides and various online guides for use in museums are also important precursors (Tallon and Walker 2008; Warberg Løssing, J. Hansen and C. Hansen 2009). Guided city tours, as organised by Oslo City Museum, is another genre that contributes to the understanding of what a digital guide might be.

There are also other already-established digital genres, associated with digital mapping services and the like, that influence the design of digital guides. This applies, for example, to location-based services for searches for nearby restaurants, transportation and various other commercial enterprises. Also of interest are services for creating personal trips for culture and recreation. In the prototype, these kinds of online map services are 'simulated' using the specifically designed and developed map component.

Genres associated with social media could also be relevant as potential genre convergence material, but the 'offline' nature of ebooks means that such elements will in most cases fall outside the design space of the platform. The exception is that some platforms, such as Kindle, integrate note-taking features and these notes can be shared. However, these features should be analysed as part of the *genre system* the digital guide participates in, rather than as belonging to the potential genre convergence that the digital guide is built upon (Bazerman 1994; Erickson 2000; C. Spinuzzi 2004).

Two of the key elements of a guidebook are *maps* and *entries* in the form of descriptions of places and objects that the map refers to. To this can be added the use of an *index*, i.e. some sort of list of references to the entries. I use index in a rather broad sense – in a printed book this could be covered by both the table of contents and a referential index at the back of the book. There can be more than one index – for example, covering different categories. Each of these three elements can be considered as design patterns on their own, and the aggregated combination of them is a common design pattern for the guide genre in general, including digital guides for the cultural heritage domain.

The question remains as to how this design pattern can be realised in digital form on different platforms. Design patterns are not precise instructions, but are rather patterns that emerge from dealing with common design situations. Just how they are realised can depend on both the design space in question and the specifics of the situation (designer, target group, guide topic etc.). Furthermore, these three main elements can be combined with other elements and design patterns. How all of this is integrated is also an issue for GUI and interaction design, which brings their own design patterns into the mix. In digital guides, the integration between index, map and entry is automated and linked in different ways; in my ebook prototype of a digital guide, this main design pattern is solved by combining a table of contents, an interactive map component and entries combining text and images with audio.

Platform: Web, App or Ebook?

When creating a digital guide for mobile devices, one of the immediate questions at the moment is whether it should be web-based or created as a native app. The question of web or app has become one of the crucial and strategic questions today when developing digital media in any form. It came to the fore with Chris Anderson's provocative article "The web is dead" (Anderson and Wolff 2010). This was also one of the immediate questions in the Aker River project, which ended up with a native app as the preferred platform. The choice between web and app is a choice between platforms and design spaces. In theory, there is a huge overlap between the design spaces for web and native app, but performance and implementation issues can create some practical constraints when developing for the web. Not all issues are to do with the design space as such – it is also a question of distribution and sales through app stores, and whether assets and content should be installed and accessed offline or online. In addition to web and apps, there are ebooks – these are accessed through dedicated ebook readers or apps, and can be based on different formats. Ebooks can be sold and distributed in much the same way as apps, and can access offline assets, which makes it a viable third option.

My prototype is based on parts of the open EPUB 3.0 standard, which defines a platform for ebooks that also includes the possibility for enhanced ebooks. EPUB 3.0 is in many ways a meta-standard that shows how different standards, such as HTML5, CSS3, JavaScript and SVG, can be combined to form the basis for how enhanced ebooks can be produced. If we compare web, apps and EPUB 3.0 ebooks as possible platforms for digital guides, apps represent the superset of the design space, while the design space for the web and EPUB 3.0 is practically the same – the main difference being that EPUBs cannot access additional online resources and are dependent on the assets packaged

with the ebook. There are also some important constraints in how content is presented and laid out, due to the pagination and page-turn effects that are normally implemented and enforced by ebook readers.

The prototype uses the extended design space of EPUB 3.0 (compared to EPUB 2.1) in several ways that are crucial for the functionality of the prototype as an enhanced guide ebook:

- CSS3 is used to give the digital guidebook a more appropriate and functional design and layout.
- HTML5 is used to provide a better semantic structure for the kind of multimodal text that is a digital guidebook.
- The Canvas element in HTML5 is combined with the HTML5 geolocation API to provide an interactive map both for navigation in the ebook and for enabling the ebook as a guide in the physical environment.
- In addition, the Canvas element, along with the audio element, is used to implement the controls for the audio part of the guide.
- JavaScript is used to enable the map functionality and navigation, and also for controlling the specially designed audio control.

EPUB 3.0 as Innovation and a Platform for Innovation

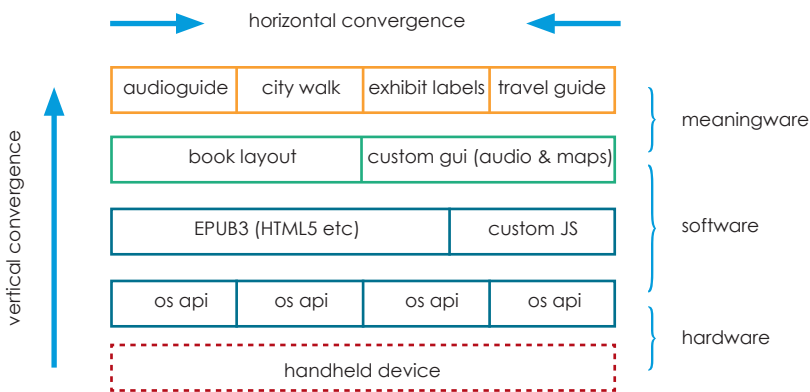
As a new standard, EPUB 3 to some extent represents *prescribed innovation*. Currently, one year after the specification was released with the status of recommended, there are still no full implementations of the standard. The transition from HTML 4.01 to HTML5 as a basis for ebooks may look like incremental innovation, but this transition is wholly dependent on the availability of new rendering components. Thus, in practice it is actually more of a modular innovation. Furthermore, the EPUB 3.0 standard increases the design space considerably compared to the previous EPUB 2.1 standard by including additional web technologies, and thus represents both a horizontal convergence of different web technologies and architectural innovation. The rationale for this complexity is that the resulting design space is needed for the further innovation of ebook genres and formats.

A standard such as EPUB 3.0 can be said to define a minimum predictable design space in the platforms that implement the standard. Ideally, the various platforms that implement the same standard should behave as a single platform. However, in practice there are often significant discrepancies that can hamper innovation based on the standard. In addition, major players such as Apple and Amazon have their own competing enhanced ebook formats – IBA (iBooks Author File Format, Apple) and KF8 (Kindle Format 8, Amazon).

These formats are in many ways similar to EPUB 3.0 in how they combine web standards such as HTML5 and CSS3, but they are different enough *not* to let enhanced ebooks be treated like a generic ebook platform with a coherent design space. Since enhanced ebooks will compete with both apps and web with regard to design space and distribution, it is probably no accident that ebooks have also become part of the overall platform wars.

One of the conclusions to be drawn from my experiments and prototyping with enhanced ebooks using EPUB 3.0 is that EPUB 3.0 as a platform, when fully implemented by different vendors, will probably still not be a suitable platform to solve the contradictions that the concept of enhanced ebooks was created to solve. On paper, its design space showed a promise that the actual platform, as implemented, has not yet been able to deliver. It is too complex and yet still not flexible enough. This may be good news for innovators on a platform level, but less so for those who need a stable platform on which to innovate new kinds of ebooks – who will instead probably end up using web or native apps as their chosen platform.

Figure 4. Digital Guide as EPUB 3.0 and the Platform Model



Conclusion

In this chapter, I have presented a model that has been designed for working with and researching innovation in digital media and genres. The model has been designed to solve some conceptual and methodological challenges regarding how we understand the relationship between genre and the technological aspects of digital media, which I think is sorely needed in order to understand innovation in this field.

It is based on a layered and modular understanding of digital media as platforms, where the design space of the platform is the primary subject of analysis. This is combined with functional genre theory, where genre form is

analysed in terms of design patterns in respect of the situational and functional aspects of the genre. It is in the relation between the genre's design pattern(s) and the platform's design space that genre and technology meet. I use activity theory and activity systems to describe the context for the use of platforms and genres, and the contradictions in activity systems for identifying the sources of innovation. The resolution of these contradictions may involve the design and redesign of both platforms and genres.

The components and layers of the platform can be analysed as a combination of horizontal and vertical convergence, expanding the concept of genre convergence. Here the genre as a type of textual artifact on a meaningware level is combined with artifacts on other levels. This allows an analysis of innovation with regard to digital genre and media in the terms of Henderson and Clarke's model of types of innovation, since genre convergence – horizontally and vertically – can involve incremental, modular and architectural innovation. I have not discussed radical innovation here, but the most relevant example would be the emergence of the web as a platform, and how this has become a major driver of contradictions between and within a plethora of activity systems that live by and for their genres.

I have discussed this model using Wikipedia and digital guides as examples. The Wikipedia example showed how the model can be used to analyse innovation, while the guide example showed how the model can be used while experimenting in a process of innovation. It is still a new and unrefined model, and I consider it as more of an active hypothesis than a finished methodological tool. However, it has proved very productive and I am strongly encouraged to further develop the model. Models that try to integrate a technological perspective into media analysis, such as the one discussed here and others, should prove useful for enabling new approaches for working within the field of digital media and innovation.

Notes

1. Other related terms are genre mixing (Fairclough 2003), genre negotiations (Asdal et al. 2008) and rhetorical convergence (Fagerjord 2003).
2. Using the term *design pattern* with regard to genres can be a bit confusing, since it is both a *concept* and also the *name of a genre*, especially within technical writing. In this regard, it shows some recursivity since there is a sort of design pattern for writing design patterns – which borrows elements from other design patterns, such as *recipes*.
3. The Greek for a right or opportune moment. In rhetoric, it can mean the relevance of time and place for putting forward certain statements.

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About the Authors

Piet Bakker is Professor Cross Media & Journalism at the School of Journalism and Communication at the Technical University Utrecht. He studied Political Science at the University of Amsterdam and worked as a journalist for newspapers, magazines and radio stations. He edited and published books and articles on reading habits, media history, journalism, new media, Dutch media, international news, investigative journalism, the music industry, media innovation and free newspapers. He runs several blogs, for instance on the development of free newspapers at www.newspaperinnovation.com and on newspaper circulation and readership at krantenstatistiek.tumblr.com.

Prof Dr *Pieter Ballon* is Professor in Media Economics at the Vrije Universiteit Brussel. He is also Director Living Labs at iMinds, the Flemish research institute for ICT innovation, and head of the Markets Innovation and Sector Transitions (MIST) unit at iMinds – SMIT. He is leading various national and international programmes on business models for new media services and platforms. Since 2009, Pieter Ballon is the international Secretary of the European Network of Living Labs.

Prof. Dr. *Sabine Baumann* is Professor for Media Management and Economics at the Institute for Media Management and Journalism at Jade University in Wilhelmshaven, Germany. Before rejoining academia she worked for Bertelsmann in various positions including Director of their Content Management Competence Center. Besides teaching a variety of courses in media and corporate communication management, her current research interests lie in cross-media publishing, media branding, and social media networks. Her recent publications investigate media ownership and finance structures using innovative graph-based methods and hybrid organisational strategies for media companies.

Charles H. Davis, Ph.D., is a professor in the RTA School of Media at Ryerson University in Toronto, Canada, where he holds the R.S. Rogers Research Chair in Media Management and Entrepreneurship. He also serves as Associate Dean for Scholarly Research and Creative Activities in the Faculty of Communication and Design. He conducts research and teaches courses on media audiences, new product development, media innovation, media management, and political economy of media.

Michael Dick, M.A., is a Ph.D. Student in the Faculty of Information at the University of Toronto. His presentations, publications, and current research focus on the history and political economy of online Information and Communications Technologies and technological innovation. He holds a Joseph-Armand Bombardier Canada Graduate Scholarship from the Social Sciences and Humanities Research Council of Canada and frequently consults on matters relating to intellectual property and technology for the Canadian creative industries sector.

Karen Donders, Ph.D., is Professor European Information Society at Vrije Universiteit Brussel and Guest Professor Media Policy at the University of Antwerp. She is Senior Researcher at the centre for Studies on Media Information and Telecommunication (SMIT), a partner in iMinds. Her research is funded by the Research Foundation Flanders (FWO). Karen has published several articles on public service broadcasting, European competition law and media, private broadcasting, and broadcasting and distribution. She is a member of the Flemish Council for Journalism.

Leyla Dogruel works as research assistant for the department media economy/communication policy at the Institute for Media and Communication Studies at Freie Universität Berlin. Her research interests include media innovation, media economics and digital media. She has published articles on business journalism and digital media use and adoption processes among elderly people.

Gillian Doyle, Ph.D., is Professor of Media Economics and Director of the Centre for Cultural Policy Research (CCPR) at the University of Glasgow where she directs Glasgow's MSc in Media Management. She is a Visiting Professor (II) at the Institute for Media and Communication (IMK), University of Oslo. Gillian is currently PI on 'Multi-platform Media and the Digital Challenge' funded by the ESRC and PI on a major study of The UK Film Council funded by the AHRC. Her work on the economics of mass media and on media ownership has been translated and published in several languages. Gillian is former President of the Association for Cultural Economics International (ACEI).

Rasmus Helles is Associate Professor at the Department of Media, Cognition and Communication at the University of Copenhagen and a member of the Center for Communication and Computing. His work focuses on the sociology of digital media. Recent research includes analysis of the consequences of digitization of the media sector for media freedom and independence, and the business and research opportunities that follow the emergence of big data and data mining.

Iris Jennes is a Ph.D. student and assistant in the Department of Media and Communication Studies at the Vrije Universiteit Brussel (Brussels, Belgium). She

is also researcher in the research centre SMIT (Studies on Media, Information and Telecommunication) and member of the User Empowerment unit in the Digital Society research department of iMinds. The focus of her research is on the changing role of the audience in the converging and digitising television value network. Her PhD-project consists of three main research components: audience practices, affordances of digital television technologies and television value network.

Arne H. Krumsvik, Ph.D., is Associate Professor in Journalism at Oslo and Akershus University College of Applied Sciences and Adjunct Associate Professor in Media Management and Innovation at Gjøvik University College. He is Vice Chairman of The Norwegian Media Authority's Board of Appeal for Media and member of the board of Centre for Research on Media Innovations (University of Oslo). He has published several articles on media management, media policy, and online journalism. His latest book *Medienes Privilegier* (in Norwegian) was on media policy.

Lucy Küng is currently Visiting Fellow at the Reuters Institute for the Study of Journalism in Oxford and Professor of Media Management and Economics at the Media Management and Transformation Centre at the University of Jönköping, Sweden. Lucy specializes on strategic responses to technological innovation, creativity and leadership, and divides her time between Switzerland, Sweden and the UK. In addition to her academic work she is a member of the Supervisory Board of the Swiss public service broadcasters, SRG SSR, and from 2008-2010 was President of the European Media Management Association. In recent years she has worked closely with the BBC exploring the success of their highly successful online and digital television services. She is the author of numerous books, cases and articles, including *Strategic Management in the Media – Theory to Practice* and *Inside the BBC and CNN – Managing Media Organisations*.

Gunnar Liestøl is Professor at the University of Oslo, Department of media and Communication. He has authored and edited numerous books and articles on rhetoric, narrativity and digital design, among them *Digital Media Revisited* (MIT Press 2004). Liestøl has a two decade long track record of digital design for various platforms, starting with early hypermedia systems for museums, cd and the Web, such as the award-winning Interactive Kon-Tiki (1995). Liestøl focuses on combining practical, methodological and theoretical experiments based in and informed by humanistic disciplines. He is currently exploring the field of locative media and indirect augmented reality for simulation of past and future environments in situ (www.sitsim.no), as well as investigating design methodologies based in rhetorical invention.

Sven Lindmark, Ph.D., is Senior Researcher at iMinds-SMIT/VUB in Brussels, Belgium, where he researches new ICTs and media, their business models, value networks and innovation systems, and their impact on industry structure, industrial competitiveness, innovation, and sustainability. His expertise is mainly in: Industry analysis; Management, policy and economics of Innovation, in the ICT and media sectors. He holds a Ph.D. in Industrial Management and Economics, Chalmers University of Technology, Sweden, where he also held various positions between 2002 and 2007. From 2007 to 2010 he was a Senior Researcher in the Information Society unit of the European Commission's Joint Research Centre IPTS.

Stine Lomborg is Associate Professor at the Department of Media, Cognition and Communication at the University of Copenhagen. She is member of the ethics committee of the Association of Internet Researchers and a member of the Center for Communication and Computing. Her research on social media, web archiving and communication theory has been published in a number of international journals. She is the author of *Social media – social genres. Making sense of the ordinary* (forthcoming at Routledge).

Kjartan Müller is a Ph.D student at the University of Oslo, and works as a consultant, developer at Gyldendal Norsk Forlag, one of the largest publishing houses in Norway. His research interest in innovation with regard to genres and development of digital media stem from working professional with digital publishing since 1995, and he has a very practical focus on how research on genre and media can inform everyday design challenges in development of digital media systems, platforms and services.

Niamh Ní Bbroin is a Ph.D. Research Fellow with the Department of Media and Communication at the University of Oslo. Niamh's PhD project explores what social media mean to users of minority languages. Niamh is member of the board of the Centre for Research on Media Innovations (University of Oslo). Niamh has previously worked for the Broadcasting Authority of Ireland and as secretary to its Irish Language Development Committee.

Jérémie Nicey is Associate professor at the public school of journalism of Tours (EPJT, linked to Université François-Rabelais de Tours) and he belongs to the laboratory CIM, Communication Information Médias, at the University of Sorbonne Nouvelle, Paris 3. During his post-doctoral research on the archives of Agence France-Presse (AFP), he had access to news-flashes and was also able to investigate new procedures and new partners of the AFP – e.g. the participatory photo agency Citizenside. His research focus on media practices, on the production of international news and on citizen journalism.

Daniel J. Paré, Ph.D., is Associate Professor in the Department of Communication at the University of Ottawa and is cross-appointed with the university's School of Information Studies (ESIS) and the Institute for Science, Society and Policy (ISSP). He is especially interested in issues pertaining to the governance of new technologies, and the relationship between innovations in ICTs and social justice. His research and publications investigate the processes associated with the diffusion and integration of new technologies in transitioning and industrialized economies.

Jo Pierson, Ph.D., is assistant professor on digital media use and innovation in the Department of Media and Communication Studies at the Vrije Universiteit Brussel (Brussels, Belgium). He is also Senior Researcher and staff member at the research centre SMIT (Studies on Media, Information and Telecommunication) since 1996. In this position he also coordinates the User Empowerment unit in the Digital Society research department of iMinds (Interdisciplinary Institute for Broadband Technology). In the past he has worked as researcher-advisor for the Dutch knowledge institute TNO in Delft (The Netherlands). He lectures undergraduate and master courses, covering social issues relating to the information society, digital media marketing and digital broadcasting. His research focus is on privacy, domestication and innovation in new media.

Dr. *Heritiana Ranaivoson* is a Senior Researcher at iMinds-SMIT, Vrije Universiteit Brussel (Belgium). Member of the Unesco Expert Group on the Statistical measurement of the diversity of cultural expressions (2007-2011) and since 2008 of the U40-Capacity Building Programme „Cultural Diversity 2030“; his research and teaching fields include: media innovation, cultural diversity, copyright, and the impact of ICT on the creative industries.

Philippe Ross is Assistant Professor in the Department of Communication, University of Ottawa (Canada). He obtained a PhD from the London School of Economics and Political Science and was SSHRC Postdoctoral Research Fellow in Communication Studies at Concordia University (Canada). His work, which focuses on knowledge, experience and expertise as they relate to new media production, appears in journals such as *Social Studies of Science*, *New Media & Society*, *Television and New Media* and *Sociology Compass*.

Jeremy Shtern is Assistant Professor in the Department of Communication, University of Ottawa. His research focuses on the governance of communication industries and technologies in the context of digitization and globalization. Amongst various research contributions, Jeremy has co-authored two recent books, *Media Divides: Communication Rights and the Right to Communicate in Canada* (2010, UBC Press, with Marc Raboy) and *Digital Solidarities, Com-*

munication Policy and Multi-stakeholder Global Governance (2010, Peter Lang, with Marc Raboy and Normand Landry).

Eli Skogerbø, Ph.D., is Professor in Media Studies at the University of Oslo. She is part of Centre for Research on Media Innovations (University of Oslo). She has published on media and telecommunications policy and regulations, journalism in online and traditional media and political communication. Among the latest publications is Skogerbø, E. & Winsvold, M. S. (2011). "Audiences on the move? Use and assessment of local print and online newspapers". *European Journal of Communication* 26 (3), s 214- 229 .

Steen Steensen, Ph.D, is Associate Professor in Journalism at Oslo and Akershus University College of Applied Sciences. He has published widely on new media journalism, narrative journalism and related topics. He is also Editor of the Norwegian Journal of Media Research.

Tanja Storsul, dr.polit, is Professor and Head of Department of Media and Communications at the University of Oslo. She has been member of the Media support commission and the Media ownership commission. Her research interests include technology and media innovations, media policy and media convergence, about which she has published several articles. She coedited the book *Ambivalence towards convergences* with Dagny Stuedahl. Tanja Storsul was the first Director of the Centre for Research on Media Innovations, University of Oslo.

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.



Director and Administration

Director: Ulla Carlsson
Telephone: +46 31 786 12 19
Fax: +46 31 786 46 55
ulla.carlsson@nordicom.gu.se

Administration and Sales:
Anne Claesson
Telephone: +46 31 786 12 16
Fax: +46 31 786 46 55
anne.claesson@nordicom.gu.se

Technical Editing and Webmaster:
Per Nilsson
Telephone: +46 31 786 46 54
Fax: +46 31 786 46 55
per.nilsson@nordicom.gu.se

Field of Activities

Media and Communication Research

Publications

Editor: Ulla Carlsson
Telephone: +46 31 786 12 19
Fax: +46 31 786 46 55
ulla.carlsson@nordicom.gu.se

Research Documentation

Nordic Co-ordinator:
Claus Kragh Hansen
State and University Library
Universitetsparken
DK-8000 Aarhus C, Denmark

Telephone: +45 89 46 20 69
Fax: +45 89 46 20 50
ckh@statsbiblioteket.dk

Media Trends and Media Statistics

Nordic Media Trends

Nordic Co-ordinator: Eva Harrie
Telephone: +46 31 786 46 58
Fax: +46 31 786 46 55
eva.harrie@nordicom.gu.se

Nordic Media Policy

Editor: Terje Flisen
terjef@nordicmedia.info

Outlook Europe & International

Editor: Anna Celsing
anna.celsing@skynet.be

The International Clearinghouse on Children, Youth and Media

Scientific Co-ordinator:
Maria Edström
Telephone: +46 31 786 66 40
Fax: +46 8 786 46 55
maria.edstrom@nordicom.gu.se

Information Co-ordinator:
Catharina Bucht
Telephone: +46 31 786 49 53
Fax: +46 31 786 46 55
catharina.bucht@nordicom.gu.se

National Centres

Nordicom-Denmark

State and University Library
Universitetsparken
DK-8000 Aarhus C, Denmark

Media and Communication Research

Mogens Vestergaard Kjeldsen
Telephone: +45 89 46 21 67
Fax: +45 89 46 22 20
mvk@statsbiblioteket.dk

Nordicom-Finland

School of Communication,
Media and Theatre
University of Tampere
FI-33014 Tampere, Finland

Media and Communication Research

Eija Poteri
Telephone: +358 3 3551 70 45
eija.poteri@uta.fi

Nordicom-Iceland

University of Iceland
Félagsvísindadeild
IS-101 Reykjavík, Iceland

Media and Communication Research

Guðbjörg Hildur Kolbeins
Telephone: +354 525 42 29
Fax: +354 552 68 06
kolbeins@hi.is

Nordicom-Norway

Department of Information
Science and Media Studies
University of Bergen
PO Box 7800
NO-5020 Bergen, Norway

Media and Communication Research

Ragnhild Mølster
Telephone: +47 55 58 91 40
Fax: +47 55 58 91 49
ragnhild.molster@infomedia.uib.no

Media Trends and Media Statistics

MediaNorway

Nina Bjørnstad
Telephone: +47 55 58 91 26
Fax: +47 55 58 91 49
nina.bjornstad@infomedia.uib.no

Nordicom-Sweden

University of Gothenburg
PO Box 713
SE-405 30 Göteborg, Sweden

Media and Communication Research

Maria Edström
Telephone: +46 31 786 66 40
Fax: +46 8 786 46 55
maria.edstrom@nordicom.gu.se

Karin Poulsen
Telephone: +46 31 786 44 19
karin.poulsen@nordicom.gu.se

Media Trends and Media Statistics in Sweden

Ulrika Facht
Telephone: +46 31 786 13 06
ulrika.facht@nordicom.gu.se

Karin Hellingwerf
Telephone: +46 31 786 19 92
karin.hellingwerf@nordicom.gu.se

Jonas Ohlsson
Telephone: +46 31 786 61 25
jonas.ohlsson@nordicom.gu.se

Innovation is about change, and media products and services are changing. The processes of production and distribution of media are changing. The ownership and financing of media are changing. The roles of users are changing. And our ideas about media are changing.

This book argues that innovation theory provides better tools for media researchers who wish to understand and explain current developments in the media landscape – tools that not only allow them to see completely new things, but also to investigate aspects of new media that would otherwise not be as accessible.

The various chapters of the book present selected studies that together illustrate how a more explicit focus on innovation and innovation theory can provide new insights into and generates knowledge about how media innovations develop, the sociocultural conditions of such innovations, the role of technology, and power relations in media developments.

NORDICOM

Nordic Information Centre for Media and Communication Research

University of Gothenburg

Box 713, SE 405 30 Göteborg, Sweden

Telephone +46 31 786 00 00 (op.) | Fax +46 31 786 46 55

www.nordicom.gu.se | E-mail: info@nordicom.gu.se



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