Markus M. Bugge

Creative Distraction
The Digital Transformation of the Advertising Industry
Abstract


This thesis is primarily based on a case study on how the Internet affects the advertising industry in Oslo, Norway, and on how the digitization of advertising adds to our understanding of the geography of innovation and urban and regional development. The study argues that the Internet fundamentally changes and challenges the advertising industry, and that advertising merges into market communication and even user experience and product development. The interactive nature of the Internet and its parallel social and commercial worlds contribute to transcend the role of a traditional medium and to coalescence between production and consumption. Despite the fact that those involved in online and traditional advertising are located close to each other in Oslo, the extent of collective learning, knowledge externalities and innovation has been scarce. The study shows that the creative destruction of this industrial sector is ignited by actors outside the traditional advertising industry. Due to path dependency along one-way mass communication media incumbents within the advertising industry have left room for new actors, such as web agencies and technology consultants, to explore and take market share in online market communication services. The reconfiguration of market communication is regarded as the result of an industry mutation across advertising and ICT, and creates a need for bridging skills and competencies across creative, strategic and interactive domains. The implications of such an industry mutation across diverse sectors are used to discuss the evolutionary potential of the related variety perspective. The study argues that localized industrial change may be conceptualised in terms of a cyclical relationship between externalities from localisation economies and urbanisation economies respectively. The implications of the findings from the case study are in this way used to discuss more general drivers of urban and regional development.

*Keywords*: economic geography, innovation, advertising, Internet, agglomeration economies, creative, interactive, knowledge, Oslo, Norway

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urn:nbn:se:uu:diva-109707 (http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-109707)
To my mother
List of Papers¹


¹ All the papers are attached at the back of the document.
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Oslo, October 2009

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1 Introduction

These are exciting times for anyone interested in technological change and urban and regional economic development. We are living through a period of rapid industrial change and shakeout. This is caused not only by the current economic recession, but also by the pervasive implementation and adaptation of the new logics and dynamics of the Internet. New technologies, new media habits and new digital content production causes massive changes and challenges not only to market communication or to the cultural industries, but across the entire economy.

The digitization of the cultural economy represents a threat to industries such as the music industry (Leyshon et al. 2005), the film industry (Currah 2006) and publishing (Hibbert 1999). For some time these industries have been struggling to adapt to new digital and online paradigms, and have been unwilling to adapt their core products and business models to new technological platforms. Along with these industries, the advertising industry similarly finds itself in the midst of a process of significant technological transformation and industrial restructuring (Garber, Hyatt, and Boya 2009; Law et al. 2009; Sweney 2009; Bradshaw and Edgecliffe-Johnson 2009; Edgecliffe-Johnson 2009; Gapper 2009; Palmer 2009; Palmer and Rappeport 2009; Waters 2009; Whitehead 2009; Scott 2009). The current transformation and adaptation process seems to arouse much debate and uncertainty in advertising and market communication. Whereas the implementation of enterprise information technologies into existing business systems to increase productivity and automate processes is now well understood among both businesses and service providers, the adaptation and understanding of social media still seems immature. As social media allows new and uncontrollable types of business and communication such as viral marketing and independent consumers’ reviews, rankings and recommendations reflecting their consumption experiences, this automatically implies great challenges and possibilities for service providers within market communication.

Recent theorizing in economic geography has called for a closer focus on the ability of the discipline to get to grips with the underlying mechanisms for economic change (Boschma and Martin 2007; Grabher 2009; Feldman 2009). Against this background, this thesis seeks to add to our understanding
of the geography of innovation and some of the driving forces behind technological transformation, industrial change and urban and regional development. The study focuses on the creative destruction of the advertising industry in Oslo brought about by adaptation to the Internet as a growing channel for market communication.

The thesis should be seen as part of a wider theoretical field and framework. This broader background is made up of a number of observations. Firstly, since the theorizing on creating national systems of innovation (Freeman 1987; Porter 1990; Lundvall 1992; Nelson 1993) was supplemented by a focus on the role of regional innovation systems throughout the 1990s (Cooke 1992; Asheim 1996; Asheim and Isaksen 1997; Cooke, Uranga, and Etxebarría 1997; Isaksen 1997; Malmberg and Maskell 1997; Cooke, Heidenreich, and Braczyk 2004 (1998)), much work within economic geography has focused on how institutional, cultural and systemic capabilities and underpinnings serve as a structuring context for urban and regional economic development.

Secondly, much emphasis has been put on exploring the systemic and contextual nature of localized industrial agglomerations (Coe and Townsend 1998), but less has been said about how they transform from within (Boschma and Martin 2007) into new constellations, and how they serve to cause industrial change and economic transformations at a wider scale (Storper 2009). This has got to do with the composition of actors and knowledge in agglomerations, and nonetheless also with the value chains that these tap into.

Thirdly, focusing on particular, defined and well known industries and categories may prevent understanding the broader and more underlying mechanisms behind cross-sectoral technological development and industrial change. The reason for why there is still much uncertainty around the relationship between geographical proximity and innovation is a lack of links between knowledge forms and innovation (Gertler and Wolfe 2005). This leaves us with a need to take a closer look at how different forms of knowledge relate to each other in order to achieve a better awareness of how innovation occurs and unfolds. In order to obtain such an understanding it thus becomes natural to go beyond industrial borders and delimitations.

This dissertation may be seen as a response to these observations, as it focuses on the knowledge composition within a localized cluster and seeks to see how an industry changes and transforms due to altered technological and socio-economic preconditions. The greater part of this thesis rests upon a study of how the advertising industry relates to and adapts to generic Internet technology, and what the Internet does to the advertising industry as
we know it. As such this study redirects attention from localized learning and innovation within a sector to a focus on how different spheres of the economy converge and merge.

More recent approaches in economic geography and beyond, such as evolutionary economic geography (Boschma and Martin 2007), the related variety approach (Frenken, Oort, and Verburg 2007; Boschma, Eriksson, and Lindgren 2009; Boschma and Iammarino 2009), the knowledge base approach (Laestadius 2000; Asheim and Coenen 2005; Asheim and Coenen 2006), Jacobian clusters (Cooke 2008) or the policy platform approach (Cooke 2007) apply a broader perspective on innovation and regional development, and may be seen as a response to how increasing globalisation and distribution of knowledge networks constitute new preconditions for industrial agglomerations. These later approaches may serve to improve our understanding of the relationship between how regional capabilities influence on economic growth, through what seems to be bridging localisation economies and urbanisation economies and bridging various types of skills and forms of knowledge. In the wake of the urban turn (Glaeser 2000; Florida 2002) these developments may signal an increased awareness in economic geography of the need to improve our understanding of emerging economic activities.

1.1 Aims and objectives

The present study draws upon four papers of which three present the findings from a study of how the advertising industry in Oslo, Norway relates to and is affected by the Internet; and one paper that applies Richard Florida’s thesis on the creative class to a Nordic context. The aim of the study is two-fold:

1. First, through a study of creative destruction within the advertising industry the thesis aims to show how this particular industry is altering due to new technology and the wider society’s adaptation of the Internet.

2. Second, in response to the lacunae identified in the literature the thesis aims to improve our understanding of the driving forces underpinning economic transformation, industrial change and urban and regional development. In particular the study emphasises the relationship between industrial agglomerations and innovation, the relationship between existing and emerging industries, between specialization and diversity and between production and consumption.
The thesis focuses on the spread of information and communication technology (ICT) as an important and generic driver of innovation across the economy, and how this contributes to redefining the economy. The study investigates to what extent and how evolving business areas emerge within or outside existing industries, and how this can be understood and conceptualised in relation to knowledge dynamics in industrial agglomerations. The study also investigates how various forms of diverse and specialized knowledge in industrial agglomerations influence the ability to adapt to new technology and how it manages to explore and incorporate new knowledge. Finally the thesis discusses how productive and consumptive factors influence urban and regional growth and development.

It has been stated that many studies within economic geography lack a sound integration of empirical and theoretical focus\(^2\). Yet others have called for more systematic empirical ground work in economic geography. It is therefore part of the ambition for the present case study to try to link the ongoing empirical industrial change to relevant conceptual and analytical tools in economic geography.

### 1.2 Research questions

Following from the aims and objectives for this dissertation, and based on the theoretical framework to be presented in chapter two, the research questions for the present study may be formulated as follows:

1. To what extent and how does the Internet affect the advertising industry?
2. How do perspectives from the geography of innovation help us understand this changing field of economic activity?
   a. Do the new Internet-based advertising services emerge within or outside the established advertising industry?
   b. How does diversity and specialization influence upon innovation in localized industrial agglomerations?
   c. How do production and consumption work as drivers of industrial change?

The research questions reflect the wish to discuss and examine some of the drivers underpinning industrial change, urban growth and regional development. Reflecting the research questions and the overall direction of

\(^2\) According to Allen Scott at the AAG Annual meeting in San Francisco, 2007.
this PhD thesis, the study can be read as three parallel versions of or perspectives on the same basic story:

**The basic story** (Research question 1) is about how a localized and urban creative industry relates to and adopts new technology, and how this technological transformation process can be understood in terms of urban and regional development. The three versions each focuses on different perspectives of the same story:

**The first perspective** (Research question 2a) focuses on the relationship between existing and emerging industries. To what extent do emerging economic activities build on existing industries? Is it the incumbents of the advertising industry or newcomers that are first to exploit the new technology? The study investigates what types of actors are the first to explore and exploit new possibilities associated with online market communication. Taking an occupational approach to uncover these dynamics, the study documents what types of knowledge portfolios the different types of actors possess.

**The second perspective** (Research question 2b) is about how the technological transformation process and its underpinnings for urban and regional development may be perceived and conceptualised in terms of diversity and specialization. Due to the ongoing debate in the discipline on whether innovation and economic growth stem from specialization or diversity (Storper 2009), localisation economies and urbanisation economies appear to be existing side by side as two parallel categories. However, the finding that localized learning and diffusion of incremental innovations are succeeded by radical innovation and the emergence of more diversity outside the localized industry implies seeing the relation between localisation economies and urbanisation economies somewhat differently. In addition to referring to the two as separate categories describing a particular location or industry, they may also be seen as referring to different stages of the innovation process in the same location. Rather than being treated as separate and independent categories, the two could therefore be seen more as agglomeration modes of innovation.

**The third perspective** (Research question 2c) consists of relating the case study on the digitization of market communication to production and consumption as drivers of industrial change and regional development. This perspective discusses some interlinkages between the case study on the digitization of the advertising industry on the one hand and the theory on the creative class on the other. One of the contemporary discourses in economic geography revolves around whether it is productive or consumptive forces that drive urban and regional development. This third possible reading of the
study comments upon this ongoing discourse by discussing production and consumption as drivers of urban growth and regional development. The theory on the creative class represents some of the later contributions in the discipline that tend to put more emphasis on cultural amenities and consumptive factors in our understanding of the dynamics of urban and regional development. As such this theory contributes to maintaining the dichotomy between productive and consumptive forces for urban and regional development. The case study on how the Internet is incorporated into the advertising industry and transforms market communication adds to this dichotomous discussion by introducing a third way to perceive how a dyadic relationship between the producer and the consumer becomes obsolete and reshuffled in the online and interactive economy.

Figure 1: Illustration of the main themes of the dissertation

As the dissertation is primarily based on a study of advertising and market communication in Oslo, the thesis mainly revolves around intra-regional industrial dynamics. However, the paper on the applicability of the creative class thesis in a Nordic context and its implications for urban and regional development dynamics discusses central preconditions for inter-regional industrial processes.
1.3 Why is it interesting to study the advertising industry?

At first glance it may seem odd to focus on an industry that is neither well known internationally nor crucial to the Norwegian home market. For some the advertising industry even has a bad reputation and is considered to be all about some funny people earning their living through coming up with ‘crazy’ ideas. So why bother studying this industry?

There are several reasons. One reason is that advertising may be seen as a generic knowledge intensive business service that supports and boosts distribution and sales in all industries. As such advertising may influence the overall performance of the entire economy. Another reason is that advertising serves as an intermediary connection between the producer and the consumer (Leslie 1997). Furthermore, the advertising industry is a creative industry that is highly concentrated to the capital city of Oslo3. The spatial concentration of this industry to Oslo makes it an appropriate case for studying industrial agglomeration dynamics.

Advertising is a central part of the growing cultural economy. The growth of the cultural industries throughout the last decade and the role of the creative economy constitute a societal trend that has aroused considerable attention in economic geography in recent years. The advertising industry may be seen as producing creative content in the sense that the actual advertising campaigns are creative, but also in the sense that the products and services being promoted often become affiliated with a certain symbolic value that the cultural or creative campaigns ascribe. Sometimes the symbolic ‘wrapping’ and brand identity of the products is what makes similar products stand out and differ from each other. In these instances it may be the story about the product and not the product in itself that is the innovative element which ensures sales.

In economic geography, the work by Gernot Grabher (2001, 2002, 2002) has made the advertising industry synonymous with flexible organizations and project-based work. Within the project ecology, there are requirements for different knowledge portfolios and different skills sets that need to communicate and understand each other, and which constitute necessary prerequisites for the project-based dynamics to unfold. The present study

3 The location quotient ranges from 2.0 to 2.6 depending on the level of aggregation of the municipal region. The location quotients can be found in paper number one and two.
documents and discusses how the project based advertising industry struggles to bridge interactive and creative skills sets.

In many ways advertising is an industry at the interface between various forms of industries, competencies and actors. Apart from the fascinating and bridging role as an intermediary between the producer and the consumer, advertising may also be seen as a hybrid between the creative and the traditional economy. The advertising industry holds elements of both commercial and artistic values which in itself is interesting. Advertising used to be considered as a business service, but has developed into a cultural industry (Lash and Urry 1994). The findings in this study may be read as suggesting that this trend will soon be reversed. Yet another aspect or dimension of the multifaceted nature of advertising is the various types of creative content and cultural expressions it draws upon, combining knowledge and input factors from a range of various (cultural) industries, such as literature, film, design and music. Innovation is thus often taking place at the intersection of related competencies, individuals, firms and industries.

As a knowledge intensive business service, advertising also bridges goods and services. According to the Norwegian white paper on innovation policy (NHD 2008-2009) goods and services need to be seen in relation to each other, as goods- and service production often are tied together in value chains. Goods shall not only be produced, they shall be designed, developed, marketed, sold and transported. Services inherit characteristics from production of goods, such as standardisation, whereas manufacturing companies increasingly produce goods in which services constitute a considerable part. The services incorporated in goods seem to constitute an ever increasing role in the competition between companies in advanced economies. One of the reasons for this is that goods that are knowledge and service intensive can be harder for competitors to copy. Although the downstream activities of advertising has not traditionally been seen as part of Norway’s industrial specialization within oil, gas or fisheries it may be considered a part of knowledge intensive business services (KIBS) whose importance has increased in the last decades (Isaksen and Vatne 2005; Aslesen and Isaksen 2005) and that may be more important to new forms of emerging economic activities. KIBS are regarded important to the innovative capacity of economic actors both within private and public sector.

Currently, and parallel to other cultural industries, the advertising industry struggles to find and take its new position in an online paradigm, in which the Internet constitutes new challenges and conditions. This is a process that the Norwegian industry shares with its international counterparts. The industry finds itself in the midst of a technological transformation process where various actors need to adapt to new technology and new forms of
competencies and skills. But this adoption process not only involves understanding the logics of the new technology, but also seeing how these new principles may alter the way business is carried out and how market communication changes. According to Perez (2002), the two contextual factors for this study, i.e. the economic recession and the maturation and implementation of ICT, are closely interlinked4. The first burst of the dot com bubble around 2000 can be interpreted as a burst in expectations around the new technology as an independent industrial sector. Then, since the burst of the first dot com bubble, the generic implementation of ICT in various sectors of the economy has triggered off increased returns on investments which in turn have generated expectations of similar returns from all sectors. Perez sees these increased expectations as an explanatory factor for the recent crash in the financial sector and its subsequent consequences for the entire economy. However, according to Perez, we are currently finding ourselves in the middle between the installation period and the deployment period of the ICT regime, so the remaining second half of the present ICT regime will constitute a golden age of steady growth and incremental innovations. The current technological adaptation process in advertising and market communication may be seen as an empirical example of how the implementation of ICT is creatively destructing existing business models and conditions.

1.4 Structure of the thesis

The thesis consists of four papers, of which three are based on a study of the Norwegian advertising industry. The fourth paper is part of the output from a larger European research project on the creative class. The research questions are addressed in various ways by all of the four papers. Although the four papers in this sense constitute a whole, they all have different foci:

The first paper, ‘Lack of collective learning in online advertising in Oslo, Norway’, finds that despite being a creative industry that is often perceived as consisting of flexible project ecologies the incumbents of the localized advertising industry have not been the first to embrace the new possibilities associated with the new Internet technology, and asks why this is so. The paper argues that specialization and path dependency along one-way mass communication, together with a lack of understanding of the Internet as a medium may explain why the incumbents have been reluctant to explore the possibilities of the Internet. This is then related to the characteristics and

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knowledge portfolios of both traditional and emerging actors, and the findings are discussed in relation to theorizing on collective learning, the project ecologies of advertising and interactive learning in industrial agglomerations. In order to uncover the knowledge portfolio of the various groups of actors identified, the paper takes a micro level occupational approach to the observed industrial dynamics.

The second paper, ‘Jacobian cluster mutation: From advertising to Internet-based market communication’, discusses how the evolving Internet-based market communication industry in Oslo may be perceived as an industry mutation across advertising and ICT. This paper is underpinned by theory which takes an intersectoral perspective on industrial change, such as the notion of Jacobian cluster mutation. The paper outlines some broader trends of how the Internet contributes to redefining the organization and role of advertising as we know it, due to the interactive nature of the Internet and the melting together of its role as medium, social forum, information source and online store. Applying the concepts of localisation economies and urbanisation economies on the case study the paper also suggests how the observed industrial dynamics may be conceptualized in terms of cyclical agglomeration modes. Dealing with the implications of the Internet for an existing industry the analysis of this paper is on a meso or industrial level.

The third paper, ‘How technological change redefines related variety: The case of Internet-based advertising’, uses the case study on interactive advertising to exemplify how industrial actors that used to be unrelated may become related through technological development, industrial mutations and innovation. The paper documents a related variety approach to the emergence of Internet-based advertising. Based on the insights generated from this exercise the paper questions the evolutionary capabilities of the related variety approach, and calls for a more multi-faceted and a more continuous understanding of how various industrial actors are related or not at any time. This paper comprises a meso level discussion of how various industries are related to each other or not.

The fourth paper, ‘One Size Fits All? Applying the Creative Class thesis onto a Nordic Context’ applies Richard Florida’s thesis on the creative class to a Nordic context, and analyses the roles and importance of people climate and business climate to the location of the creative class in the Nordic countries. The paper finds that due to the urban hierarchies of the Nordic countries, as well as the strong welfare policies which contribute to erasing regional differences, people climate is regarded as secondary to business climate for the creative class in the Nordic countries. This paper deals with the macro level and underlying mechanisms for industrial change which may be applied onto the industrial dynamics observed in the case study on
advertising. In particular the paper serves as a background to the discussion of whether it is production or consumption that drives urban growth and regional development. As such the paper bridges the study on market communication with some of the driving forces underpinning the case study in particular and urban and regional development in general. The paper also relates to the empirical case study through its focus on attracting and retaining a diverse set of adaptable, creative and skilled knowledge workers to different regions, which is a prerequisite for industrial prosperity and innovation.

Figure two illustrates the interfaces between the research questions and the four papers; i.e. how the papers cover and address the different research questions. The figure also illustrates the analytical level of the various papers.

![Figure 2: Analytical relationship between the research questions and the papers](image)

The thesis is structured as follows: Chapter two introduces the theoretical and conceptual framework for the present study, and it sets the stage for a discussion of the findings from the study. The two first sections of this chapter are rather descriptive presentations of the theoretical framework, in which agglomeration theory and innovation theory constitute the main building blocks. The third section narrows in the focus from the wider theoretical framework to the relevant context for the present study. Chapter three outlines a more empirically oriented and industry-based context for the present study. This chapter discusses relevant aspects of the creative and the
digital economy, and presents characteristics of the Norwegian advertising market and of the advertising industry and the Internet. Chapter four presents the research design, methods and data collection applied in the study, as well as discussing and reflecting upon the chosen approach. As part of this the underlying epistemological principles guiding the study are also briefly introduced. Mainly based on the empirical evidence and substantiation from paper 1-3 at the back of the dissertation, chapter five presents the findings from the case study on the digitization of the advertising industry. This chapter responds to the research questions posed for the study and includes an account of how the Internet affects the advertising industry, where new economic activities associated with the new technology and business opportunities emerge, and how this may be conceptualized and understood in terms of specialization and diversity, and in terms of production and consumption. The chapter also describes how the Internet affects the products and services of advertising and takes into account the international context within online advertising. This chapter also reflects on how the institutional set-up and organization of the Norwegian advertising industry and beyond may affect the industry’s ability to learn and adapt to the new path of market communication in an online paradigm. Chapter six broadens the perspective from the case study on the digitization on the advertising industry, and relates the findings from the case study onto the creative class thesis in paper four and more general drivers of urban and regional development. Finally, chapter seven sums up and discusses implications of the findings for theory building and policy formulation. The seventh and last chapter also outlines some relevant issues for future research.
2 Theoretical underpinnings and conceptual framework

This chapter provides an account of the theoretical foundations on which this thesis draws upon and relate to. The two main theoretical traditions that the dissertation draws upon are agglomeration theory and innovation systems theory. Finally, the chapter narrows in the focus and the basic conceptual framework for the present study.

2.1 Agglomeration theory

A central component to understanding how innovation and industrial development take place relates to the agglomeration of various industrial actors, and how this affects economic performance. The basic idea behind the economies of agglomeration is that firms get advantages from locating close to each other. Much theorizing in economic geography rests upon the view that industries and economic activities are not evenly distributed territorially. Several studies have documented how industrial actors tend to cluster and agglomerate to certain places.

Agglomeration theory may be divided into a focus on the reasons for agglomeration on the one hand, and – as a consequence of different rationales for location - an understanding of various types of agglomerations and externalities on the other. The reasons why agglomeration forces occur are often associated with productivity gains, such as 1) reduction of production costs through shared services and infrastructure, 2) reduction of transport - and transactions costs, 3) local labour market effects and 4) the intensification of interactive learning and innovation (Malmberg and Maskell 2002). There seems to be widespread acceptance that firms and industries located in industrial clusters and agglomerations benefit from knowledge externalities. However, there seems to be more dispute regarding how these externalities occur. There is an ongoing debate in economic geography and beyond as to whether urban and regional development and industrial growth stems from intra-sectoral specialization or from different sectors (Storper 2009). A vital part of this discourse is whether specialization
boosts the ability to innovate, or whether innovation on the other hand is supported by a more fragmented and diversified industrial structure. Within theory on agglomeration economies three types of knowledge spill-overs are commonly pointed to: 1) Knowledge spill-overs within one sector (localisation economies); knowledge spill-overs from a related variety of sectors (Jacobs externalities); and knowledge spill-overs from unrelated variety in the form of a portfolio effect (urbanisation economies) (Frenken et al. 2004). In the following the basic characteristics of localisation economies and urbanisation economies will be presented.

2.1.1 Localisation economies

Since the seminal contribution of Marshall in the late 19th century, advocates of localisation economies have emphasised the advantages of being located in proximity to other firms in similar and closely related industries. In localisation economies the most important externalities are assumed to arise external to the firm but internal to the industry or sector (Beaudry and Schiffauerova 2009; Storper 2009).

Both the so-called ‘MAR’ approach (Marshall 1890; Arrow 1962; Romer 1990) and Porter’s cluster approach tacitly agree that there are positive geographical externalities from agglomeration, and that the most important technological externalities occur within industries (or in related industries). However, they disagree on the issue of local competition (Beaudry and Schiffauerova 2009). According to the MAR perspective competition does not promote innovation or growth, but the challenge for firms in agglomerations is to be able to internalise the externalities. In this sense the MAR approach assumes knowledge to be equally distributed and flowing around ‘in the air’ in an industrial district (Marshall 1890). The localized industrial system constitutes an industrial milieu and a context that shares features of tacit knowledge (Polanyi 1958/1962; Nonaka and Takeuchi 1995) and untraded interdependencies (Storper 1995) which gives positive externalities from knowledge spill-overs that are often assumed to be equally diffused ‘in the air’ of the local milieu.

Theorizing on advertising that owes to this tradition includes Grabher’s (2001) account of ‘rubbing shoulders’ in the ad village in SoHo, London, and Faulconbridge’s (2007) discussion of the role of institutional thickness and professional associations in mediating collective learning in the advertising industries in London and New York.

It's almost like an ideas village ... like a university, without the academic side to it ... people want to work here because they know they're gonna be rubbing shoulders with top directors (quoted from Grabher 2001 p. 368).
Grabher (2001, 2002, 2002, 2004) focuses upon how the project organization of work in the advertising industry facilitates temporary constellations of people and networks favours interactive learning across shifting ecologies. Faulconbridge (2007) has described how the institutional surroundings may influence upon the degree of collective learning in a localized industry. Although Grabher puts emphasis on the diversity of the ecologies of advertising, both serve as advocates for collective interactive learning and knowledge diffusion within the industry.

In addition to agreeing on the importance of localized knowledge spill-overs, Porter (1990) acknowledges competition and rivalry as promoting imitation and innovation (Beaudry and Schiffauerova 2009). With reference to this line of argument, later contributions have started to problematize whether knowledge is always symmetrically diffused throughout industrial clusters or whether there are specific determinants internal to clusters that decide who will profit from these and who will not. In a case study of mechanical firms in Brescia Lissoni (2001) finds that the diffusion of knowledge tends to be centred around epistemic communities of engineers rather than the cluster itself. Giuliani (2007; Giuliani and Bell 2005) also discusses how knowledge seems to be more unevenly distributed within a cluster, and in some instances closely related to external knowledge sources outside the cluster. In a study of a Chilean wine cluster Giuliani finds that the ability to gain from distributed knowledge flows in spatial clustering is due to different absorptive capacities and abilities among firms located in a cluster. Another example of such a new focus on aspects sub-ordinate to the systemic level of the cluster is the role of entrepreneurs and new business formation in clusters (Zander 2004).

The cluster approach stems from a Marshallian perception of industrial specialization, in which local or regional knowledge spill-overs (Marshall 1890) give rise to learning by doing (Arrow 1962) and interactive learning (Lundvall 1992; Asheim 1999). The cluster literature has tended to be oriented towards mapping the factors that influence the economic performance of given industries (Porter 1990). Subsequent contributions to the cluster literature have examined how local industrial systems are context-specific and place dependent and how localized learning takes place (Maskell and Malmberg 1999; Malmberg and Maskell 2006). In this literature there has often been a focus on how localized tacit knowledge (Polanyi 1958/1962; Nonaka and Takeuchi 1995) secures the maintenance of local rents to innovation (Storper 2009). Other aspects that have been covered include factors and determinants for the maintenance of competitiveness and performance in existing agglomerations and clusters, such as the balance between local and global impulses in clusters (Bathelt, Malmberg, and Maskell 2004); labelling various kinds of agglomerations
and districts, such as hub-and-spoke district, the satellite platform, and the state-anchored district (Markusen 1996); satellite-Marshallian industrial district (Coe 2001); temporary clusters (Maskell, Bathelt, and Malmberg 2006); cyclical clusters (Power and Jansson 2008); or comparing commonalities in various clusters (Hallencreutz and Power 2004).

Having tended to revolve around specific products, industries or sectors, but often dealing with the industrial dynamics among related economic actors, it may be discussed whether the cluster approach should be grouped within a localisation economies tradition or as closer to the spill-over effects associated with Jacobs externalities or urbanisation economies. Having had the relationship between industrial agglomeration and innovation as its prime focus of interest, cluster studies comprise one of the central traditions parallel to the innovation systems literature. In the ‘diamond model’ Porter (1990) describes how the competitive advantage of clusters is considered to be the outcome of four interrelated factors: (1) firm strategy, structure and rivalry, (2) demand conditions, (3) related and supporting industries and (4) factor conditions such as knowledge, capital and infrastructure. In addition to these four factors Porter emphasises how government and chance can challenge and push companies to improve their performance and stimulate early demand for advanced products.

The Porterian (1990) notion of industrial clusters implies a value chain orientation focusing on the industry rather than on the knowledge base or the technological platform. Porter’s notion of national advantage in particular industries is the result of the co-location of various types of producers who provide different input factors to the same product or belong to the same or related industries. Later, along with globalisation and an increasing distribution of knowledge networks globally, the localized industrial dynamics in clusters are increasingly seen in closer accordance with international and global inputs and pipelines (Bathelt, Malmberg, and Maskell 2004; Fitjar and Rodríguez-Pose 2009; Storper 2009) and clusters are ever more likely to be based on sharing a technological platform and belonging to various value chains internationally (Herstad et al. 2008; Lichtenthaler and Ernst 2007). Companies still cluster together in certain places and the geographical dimension is still important, but the building blocks of the industrial agglomerations and the relations within them seem to have changed. Although the local industrial milieu or district has maintained its importance for localized learning and innovation, it seems as if the way it is important may have changed. Its importance seems to depend increasingly more on (indirect) impulses from the local labour market than on (direct) collaboration with firms locally which have a negative impact on innovation (Cotic-Svetina, Jaklic, and Prodan 2008). Other findings suggest that when differing between collaboration in the value chain, with the research system
and with companies in other sectors, product innovations are found to be most associated with value chain collaboration internationally (Herstad et al. 2008). These findings imply a return to Marshall’s (1890) emphasis on the shared understandings achieved indirectly via the local labour market. Together this calls for a closer examination of the composition of localized industrial clusters; whether these may be clusters of firms in the same industry, related industries or different industries. As will be touched upon in later parts of this dissertation, the related variety perspective, policy platforms and knowledge bases may be seen as ways to approach and conceptualize the relations among a more diverse set of localized industrial actors.

2.1.2 Urbanisation economies

The notion of urbanisation economies, first coined by Hoover (1937), refers to the economic advantages of being located in an urban setting with a multitude of economic actors (Jacobs 1969; Glaeser et al. 1992; Henderson, Kuncoro, and Turner 1995). Externalities from urbanisation economies are external to the firm and sector but internal to a city-region. This implies that ideas, inputs, information and knowledge may arise from any of the firms and industries located in a given city-region. The basic assumption is that the critical mass and diversity of industrial actors in cities allow for interaction which generates knowledge externalities and innovation. The idea of the city is closely connected to the value of variety and unexpected meetings, and which oppose the unambiguousness of functionalism (Andersson 1985). With reference to one of the early theorists of urbanisation economies, the knowledge externalities that stem from urbanisation are often termed Jacobs’ externalities5.

The thesis on the creative class brought forward by Richard Florida (2002) has aroused vivid debate in both academic as well as in policy contexts, and has revived urbanisation economy theorists like Jane Jacobs (1969, 1992/1961) and Åke Andersson (1985). The thesis on the creative class is based on an assumption that jobs follow people, so that where the people go, the jobs will follow. Florida (2002) seeks to expand the prevailing understanding of economic growth as being promoted by regional clusters of firms and industries. Whereas the growth of clusters is traditionally explained by the upgrading mechanisms and competitive advantages accruing to collocated similar and related firms and industries, Florida supplements these explanations with a focus on how location patterns of people can also serve as a force behind clustering. Florida’s contribution is

5 Frenken et al. use Jacobs’ externalities to refer to externalities from related variety.
to highlight the importance of skilled and creative persons and how their choice of place to live triggers regional industrial growth.

In the North American setting, in which the theory was developed, the workforce has a great variety of choices as to where to live, due to the many large city regions with dense labour markets. The novelty in Florida’s theory lies not so much in the acknowledgment that educated and creative workers are important to the knowledge economy, but more so due to his combining professional and private spheres through the emphasis on people climate as a supplement to business climate. Business climate and people climate are central notions in Florida’s thesis on the creative class. Business climate refers to infrastructure, taxation level, social trust, institutions, educational offer and labour market; i.e. factors that stimulate and influence upon the abilities and performances of businesses in given places, cities or regions. People climate refers to place qualities, such as public provisions, cultural amenities, night life, selection of restaurants, sports facilities and parks; i.e. factors that contribute to attract, retain or repel skilled people to certain cities and regions. According to Florida, people climate should be seen as supplementing business climate in our understanding of what determines the location of the so-called creative class, which is a group of occupations that together comprise about one third of the North American workforce. To some extent the focus on people climate and the private sphere links to former contributions that have discussed the city as centres of consumption (Glaeser, Kolko, and Saiz 2001).

Common to both localisation economies and urbanisation economies is that both assume co-location of economic activities to give rise to knowledge spill-overs and externalities. There does not seem to be any disagreement as to whether agglomeration per se influences innovation, however, there is a discussion of how and when co-location or agglomeration of industrial actors influences innovation.

The interface between localisation economies and urbanisation economies constitutes a starting point for this thesis. Do the different kinds of externalities occur continuously or are they dependent on the life cycle of the industry in question? With reference to work on industry life cycles (Audretsch and Feldman 1996; Klepper 1997), Neffke et al. (2008) asks ‘when in the industry life cycle does agglomeration have an effect?’ Neffke et al. place emphasis on the interplay between agglomeration externalities and life cycle dynamics, and state that the benefits industries derive from their local environments are closely connected with the stage of the industry life cycle they are at. In this sense young and mature industries may have diverging needs. Mature industries are assumed to benefit more from MAR externalities in localisation economies than from Jacob’s externalities in
urbanisation economies (Henderson, Kuncoro, and Turner 1995). Oppositely, new and immature industries are assumed to benefit the most from Jacobs externalities in urbanisation economies, since they compete more on the uniqueness and characteristics of the product and less on process and the effectiveness of the production (Neffke et al. 2008).

2.2 Innovation theory

Economic geography often deals with structures of industrial orientation and the degree of industrial specialization within particular industries or in specific geographical areas, and also whether and how these industries and businesses manage to develop, innovate and grow. The innovation literature, in which economic geography plays an important role, regards technological development and innovation as some of the basic driving forces behind industrial development and economic growth. Schumpeter (1934 (1959)) originally focused on the individual entrepreneur as vital to the creative destruction of the economy; i.e. the new combinations and the generation of new economic activities that would come to challenge and replace old industrial structures. Schumpeter’s later theorizing eventually put more emphasis on the innovative role of large corporations, which reflected the era he was writing in (Spilling 2006 (1998); Spilling and Rosenberg 2008).

In the wake of Schumpeter’s theorizing on innovation dynamics of single entrepreneurs (Mark 1) and large firms (Mark 2), the focus on innovation per se has been accompanied by a focus on the societal systems surrounding processes of innovation. Part of the scientific heritage that the innovation systems literature draws upon is theorizing on the social and institutional embeddedness of economic life (Granovetter 1985; Williamson 1985).

Abernathy and Utterback (1978) have described how innovations go through three different stages from radical to incremental innovations; i.e. a fluid phase, a transitional phase and finally a specific phase. The ‘fluid phase’ resembles Perez’ (2002) notion of an installation period and involves an entrepreneurial stage of radical innovations, technological and market instability, many small firms and no direct competition. This phase is then followed by a ‘transitional phase’ (which according to Perez represents the current stage of the ICT regime in large) in which the producers learn more about the new technology and there is hard competition until the settlement of a dominant design. The transitional phase is finally succeeded by the ‘specific phase’ – which in Perez’ terminology would represent the ‘deployment period’ - of less competition, productivity growth, incremental innovations and standardization. According to Abernathy and Utterback (1978) there are different knowledge dynamics involved in the various stages that favour
different types of actors. Radical innovations require new knowledge and involve large technological advancements which make existing products non-competitive and obsolete. Incremental innovations build upon existing knowledge and involve modest technological changes which imply that existing products will largely remain competitive. In such a model incumbents will be best positioned if innovation is incremental as they can use existing knowledge and resources. New entrants will on the other hand benefit from radical innovation due to the need for new knowledge. Incumbents might also suffer from managerial constraints and because strategically they have less to gain from investing in products that will threaten their existing product portfolio (Abernathy and Utterback 1978).

2.2.1 Innovation systems
This theoretical school has traditionally focused upon the systemic nature of processes of innovation (For an overview of the systems of innovation approach see Edquist 1997; 2005). Innovation systems theory is based upon the assumption that those actors involved in innovation may be identified and that those processes leading to innovation may be characterised. It is also acknowledged that innovation does not occur in isolation, but depends upon the interplay between many different types of actors that take part in and play various roles in an innovation process; such as industry partners, collaborators, subcontractors and competitors, as well as educational institutions and governmental bodies.

There are many different approaches to this field of study. The systems of innovation literature was first formulated in terms of national systems of innovation (NSI) (Freeman 1987; Porter 1990; Lundvall 1992; Nelson 1993), in which universities and research institutes at the national level were central, and which had a prime focus on high-tech R&D and which was often affiliated with a science, technology and innovation (STI) approach. Other parts of this literature have focused upon how universities, public policy and industry function together in a triple helix (Etzkowitz and Leydesdorff 2000) and on how different countries or groups of countries hold different features and characteristics that may be described in terms of varieties of capitalism (Hall and Soskice 2001).

The national systems of innovations literature has been accompanied by a focus on technological innovation systems (TIS) (Carlsson 1995) and sectoral innovation systems (SIS) (Breschi and Malerba 1997) and subsequently by regional innovation systems (RIS) (Cooke 1992; Cooke, Uranga, and Etxebarria 1997; Asheim and Isaksen 2002; Cooke, Heidenreich, and Braczyk 2004 (1998)) and clusters (Porter 1998) (For an overview of the emergence of the regional innovation systems literature, see Cooke 2008). The focus on
localized clusters within the RIS approach adds a more articulated spatial perspective to the analysis and understanding of innovation processes. Common to all these approaches to innovation systems is that they apply a systemic understanding of economic development and industry dynamics.

When the regional innovation systems and cluster literature came to supplement the theorizing on national systems of innovation this represented going from a one size fits all approach to a more relative policy formulation that was to a greater extent directed towards taking into account local and regional specificities and unique capabilities. RIS activities may be seen as complementary to the NIS approach, but is closer to the innovation outputs in the firms regionally. The RIS approach may thus be seen as more hands on in relation to the regional context and the regional assets and strengths, whereas the NIS approach may be regarded more as a way of arranging for regional innovation through national initiatives.

2.2.2   The consumer and later trends in innovation studies

Traditionally innovation, competitiveness and economic growth have tended to be studied through the lens of companies, industries and upstream economic activities in the production process (e.g. Porter 1990; Abernathy and Utterback 1978; Lazonick 2005; Nelson 1993; Storper and Salais 1997). More recent theorizing has increasingly started to acknowledge the consumer as important to innovation (von Hippel 2005; von Hippel and von Krogh 2003; Chesbrough 2003; Howe 2008; Grabher, Ibert, and Flohr 2008).

Later trends within theorizing on innovation systems may be divided in three groups, of which the first is broadening the perspective on how innovation takes place, whereas the second is limiting the scope of specific types of innovation systems. The third group refers to studies that seek to take a more dynamic approach to processes of industrial development and economic growth.

The first trend has contributed to expanding the lenses through which processes of innovation have traditionally been observed and understood. This literature has increasingly started to include an emphasis on other innovative activities than high-tech R&D and the Science, Technology and Innovation (STI) mode. This includes a closer focus on a Doing, Using and Interacting (DUI) mode of innovation, which is based on informal processes of interactive learning and experience (Jensen et al. 2007). Other parts of this literature include an emerging focus on user-led and customer oriented innovation (von Hippel 1988, 2005), networked innovation (Giuliani 2007) and open innovation (Chesbrough 2003). According to Di Maria and Finotto (2008) the value creation stemming from the inputs, impulses and feedbacks
from the consumer to the producer may take place either through novel technical solutions and functional improvements of existing products based on their consumption practices, or through the cultural, communicative and symbolic content provided by user communities. The former and somewhat limited focus on the individual producer has lately been expanded to also include an acknowledgement and an increasing focus on how inputs from sub-contractors and end consumers (von Hippel 1988, 2005) in the downstream processes of distribution, marketing and sales influence the innovation process.

Other ways in which the innovation systems literature has become more open is through a focus on how the co-evolution of firms and industries may be seen as a result of intersectoral industrial dynamics among actors that are related or unrelated (Frenken, Oort, and Verburg 2007; Boschma, Eriksson, and Lindgren 2009; Boschma and Iammarino 2009); a growing attention to the dialectics of knowledge generation and distribution between local and global processes (Bathelt, Malmberg, and Maskell 2004; Storper 2009), or calls for joint efforts across studies of entrepreneurship and innovation systems (Spilling 2006 (1998)). Others operate with a multi-level analysis that both comprise top-down science and policy initiatives (at various geographical levels) and bottom-up and knowledge generation and technology development (Carayannis, Kaloudis, and Mariussen 2008). Related to the call for a closer integration of entrepreneurship and innovation systems Thiel (2005) discusses the relationship between opposing views on how innovation takes place. On one hand proponents of innovative milieus claim that innovative activities occur due to their systemic milieus of origin, whereas others put emphasis on the individual entrepreneur. According to Thiel (2005), one needs to acknowledge that there is a dialectical relationship between the two stances, and refers to Saxenian’s famous case from Silicon Valley (Saxenian 1994). In that account, innovation in Silicon Valley was seen to have been initiated by individual entrepreneurs, which were subsequently followed by collective innovation processes and implemented in a wider milieu. To make sure that the entire industrial system manages to adopt and acquire the innovations this requires dense social networks, social trust, open labour markets and circulation of workers within the region. Thus, the relation between innovative actors and their surrounding environment can be considered to be more complex than the simple dichotomy between individual versus milieu would hold.

A natural consequence of the development of this kind of integration of various elements into the analysis of innovation is that the innovation systems literature has become extremely vast, and there is a need for new ways of approaching this open and seemingly unlimited area and for making it comprehensible. This has laid the ground for the second trend within the
innovation systems literature, which may be seen as a response to a need for limiting the opening up of the various arenas on which innovation takes place. This literature questions generic policies (Miller and Floricel 2004) and the one size fits all approach (Tödtling and Tripl 2005), and emphasises that the validity of best practice is limited and relative to various innovation contexts, into which various industrial actors may be grouped across traditional industrial and sectoral classifications and taxonomies. This kind of cross-sectoral terminology aims at capturing the relativity and specificities of various economic systems and paradigms.

A third trend in the innovation systems literature and economic geography is to a large extent made up of a call for more evolutionary approaches (Boschma and Martin 2007; Grabher 2009; Maskell and Malmberg 2007; Feldman 2009). One may argue that many studies that focus on learning dynamics and knowledge diffusion have constituted somewhat static snapshots of the form, size and performance of various industries. Supplementing this way of unveiling the external world’s ontology, there is also a need to conduct longitudinal studies that apply a longer time perspective to the object of study, and which is thus a better tool in grasping the evolutionary nature of the economy.

2.3 Bridging agglomeration and innovation

Drawing upon the theoretical framework introduced above, this section seeks to narrow the focus for the present study, and discusses the relationship between agglomeration and innovation. The discussion ends up in a description of the basic conceptual framework for the present study.

Later contributions within economic geography attempt to expand the object of study in different directions, which together serve to bring agglomeration theory and innovation theory closer to each other. The contributions that will be included here deal with ways to approach the understanding of industrial change in economic geography; the relation between tacit and codified knowledge; the relation between analysis at the micro and meso level; and perspectives on the notion of diversity and relatedness between and across industrial sectors.

Recently scholars have begun to focus on the relationship between localized processes of learning and innovation and the wider geographical context that these are part of (Bathelt, Malmberg, and Maskell 2004; Storper 2009; Amin and Cohendet 2004; Giuliani 2007; Faulconbridge 2006). Much literature has asserted the superiority of relational and geographic proximity over
formal networks of knowledge and learning (Amin and Cohendet 2004). Focus is often put on the importance of place specific characteristics of tacit knowledge and on valuing and defending tacit knowledge as opposed to explicit knowledge rather than examining how the interplay between the two functions in various places, and how this relates to innovation (Johnson, Lorenz, and Lundvall 2002; Storper 2009).

Storper (2009) has recently discussed a need for economic geography to pay more attention to the bridging of tacit and codified knowledge. According to Storper, a lot of the work and theorizing in economic geography has concentrated on the localized and tacit dimension of knowledge without relating this local level to a larger spatial context. Often studies in economic geography focus on the ways in which one may improve and boost local strengths, regional innovation and economic growth. Less has been said about how such localized processes of innovation get distributed to wider contexts after their local origins have benefited some time from rents from innovation; whether these may be regional, national or international. Still according to Storper (2009), much of the literature has in this sense ignored seeing the local specialization or production system at one point in time (T1) in relation to other international and global conditions at T1, nor paying any attention to how changes in the international context at T2 may influence upon the local industrial system in T3. Storper discusses and criticises how economics has tended to treat the Marshall Arrow Romer (MAR) externalities as one integrated and homogenous group of spill-over effects, and he detaches the (global) R from the (local) MA externalities to illustrate that the two are referring to separate logics and rationalities. Even though he makes this statement and detachment, at the same time he both acknowledges local specialization and innovation rents on the one hand, and also international distribution and diffusion of innovations to the market on the other. Local specialization and innovation may give local or regional rents (according to Marshall’s localisation externalities or Arrows practice externalities) until the innovation get distributed to the rest of the market (in line with Romer’s technology spill-overs). In this sense Storper highlights the need for economic geographers to deal more with how international economies influence and structure the preconditions for local and regional economies.

Traditionally, theorizing within agglomeration theory has often focused at the meso level, i.e. on industries, clusters or networks. Focus has often tended to be put on the spatial concentration of industries and the geographical proximity of firms, or on how the embeddedness in business networks has a positive effect on innovation and learning in firms. In this sense systems of innovation tend to be processes that are treated as external to firms. More recently scholars have started to focus on the micro level,
such as how firms’ capabilities and characteristics influence on their ability to learn and innovate in clusters (Giuliani and Bell 2005; 2007). In line with this, Storper (2009) highlights the need for economic geographers to take into account more of the individual level and agency (behaviourism). Along with other proponents for a stronger focus on the individual economic agent (Power and Lundmark 2004; Andersson 1985; Florida 2002; Markusen 2004; Vinodrai 2006; Leadbeater and Oakley 1999), Storper calls for a closer attention on how economic dynamics at a micro level creates structures and institutions at a meso and macro level (which then again constitute preconditions for new agency and so on and so forth). Knowledge emerges from individuals and it is important that organizations constitute appropriate contexts for these (Nonaka and Takeuchi 1995).

Other recent contributions within economic geography and beyond have started to problematize and redefine the notion of diversity. Traditionally variety has been studied in terms of what later has become unrelated variety (Frenken, Oort, and Verburg 2007). Later contributions have addressed how different kinds of diversity or variety within a region may affect knowledge spill-overs, innovation and economic growth in various ways (Frenken, Oort, and Verburg 2007; Frenken et al. 2004) – and also when in the industry life cycle such diversity has any effect (Neffke et al. 2008). The notion of diversity or variety has been divided into related and unrelated variety (Frenken, Oort, and Verburg 2007; Boschma, Eriksson, and Lindgren 2009; Boschma and Iammarino 2009). The concept of related variety comprises an assumption that some sectors are more similar than others, and that agglomerations of related industry actors are more likely to give Jacobs externalities and to be more innovative than agglomerations with similar or unrelated actors. Unrelated variety on the other hand should be seen in accordance with portfolio theory (Montgomery 1994). Unrelated variety and portfolio theory both assume that variety reduces risk by protecting a region from external shocks. Findings suggest that related variety enhances employment growth, whereas unrelated variety reduces unemployment growth (Frenken, Oort, and Verburg 2007). Variety is often measured by using employment data. Those industry actors that share the same five-digit sector level are regarded as similar, whereas related variety is measured at the five-digit sector level within two-digit classes. Unrelated variety is measured at the two-digit sector level (Frenken, Oort, and Verburg 2007).

In addition to the related variety approach other recent approaches within economic geography also tend to expand the lenses and go beyond traditional industry boundaries through which agglomeration dynamics are studied. Other inter-industry or cross-sectoral approaches such as constructed regional advantage (Cooke 2006), industry platforms (Cooke 2007), Jacobian clusters (Cooke 2008) and knowledge bases (Laestadius
2000; Asheim and Coenen 2005; Moodyson, Coenen, and Asheim 2006; Asheim and Gertler 2005) may be regarded as ways to supplement the dominant position of the industry approach. These tendencies in the discipline legitimize discussing to what extent theorizing on agglomeration economies takes into account how economic activities occasionally change due to new technology or due to altered market conditions. In the following section some of the later contributions adding to this tendency are accounted for in somewhat more detail.

Cooke et al. (2007) discuss how there seems to be an emerging mismatch between how industry on the one hand increasingly thinks in terms of pervasive applications, platforms and related variety across sectors, whereas industrial policy on the other hand is still focusing on a ‘one size fits all’, ‘picking winner’ sectoral agglomeration mode. Constructed regional advantage and regional development platforms constitute a response to a narrow focus on specific industries and sectors (Cooke et al. 2007). Instead Cooke et al. call for thinking in terms of variety within industry platforms and generic applications. Cooke (2007, p. 308) sees constructed advantage ‘to rest on valuable, scarce, non-imitable and non-substitutable resources – for example specific combinations of talent, environment, knowledge [...].’ In continuation of this line of reasoning, and in line with Schumpeter (1942 (1975)), Cooke (2008) discusses how the co-evolution of various industries may give rise to industrial mutations in so-called Jacobian clusters. Just as a gene or a chromosome may change under cell division, the conditions, functionality or output from one or several industries may change due to the introduction of new technology.

It is further shown how certain economies have already applied a regional innovation system industry policy platform approach, in which one seeks to diversify or deconstruct the existing local or regional economy (Cooke et al. 2007) (often surrounding certain key sectors or industries) into a new industrial strategy that builds upon the principle of related variety (Frenken, Oort, and Verburg 2007; Boschma, Eriksson, and Lindgren 2008). Part of the strength of constructed regional advantage is considered to be the inimitable industrial structure that comes out of such a process. Through a unique combination of existing resources, specializations, knowledge types and the institutional set-up one creates an economy that is impossible for others to simply copy or recreate. Each region thus becomes different as they historically develop asymmetries in their knowledge and resource combinations.

Influenced by work on technological trajectories (Dosi 1982) and the distinction between tacit and codified knowledge (Polanyi 1966; Nonaka and Takeuchi 1995; Johnson, Lorenz, and Lundvall 2002; Gertler 2003), the
knowledge base approach (Laestadius 2000; Asheim and Coenen 2005; Asheim and Coenen 2006) can also be an appropriate way to improve our understanding of industrial change. The knowledge base approach is used to classify various firms and industries or to map different modes of knowledge creation or processes of innovation. An analytical knowledge base refers to knowledge which is said to be science based and easily codifiable. This type of knowledge is oriented to know-why; i.e. a scientific understanding of how things relate and work. A synthetic knowledge base is tacit knowledge based on experience and on applying or combining existing knowledge, it is often an inductive knowledge generation process focused around problem solving which is tacit and context specific. Know-how is the central driver of synthetic knowledge. Finally, a symbolic knowledge base is suggested to be about creating meaning or aesthetic qualities, i.e. cultural, artistic or semiotic knowledge, which are highly context specific and in which social relations and know-who are regarded as important.

In a case study of the pulp and paper industry Laestadius (2000) discusses why the industry hasn’t managed to incorporate biotechnology into its industrial production, due to both cultural and epistemological factors. The cultural aspects refer to social and intellectual mind-sets and a sense of belonging to the same professional community. The epistemological dimension refers to the high-tech knowledge base within natural science in biotech compared to the low-tech knowledge base within engineering science in pulp and paper. Because of this the pulp and paper industry gets locked inside its own technological trajectory, i.e. the pulp and paper industry does not manage to renew itself from within.

One may argue that there is a dawning consciousness in contemporary economic geography about the need to expand the object of study in various directions in order to capture the inter-sectoral, cyclical and evolutionary nature of processes of knowledge generation and innovation. The existing systemic and contextual orientation in economic geography thus seems to become more blurred in the interface between various disciplines.

This study takes its departure in the relationship between agglomeration and innovation. The notions of specialization and diversity in localisation and urbanisation economies respectively constitute central concepts in the dissertation. In more detail, the present study places itself between the theoretical approaches that concentrate on either localisation or urbanisation economies. As a part of this the thesis seeks to explore the interfaces between specialization and diversity (Andersson 1985), and how the two influence urban and regional development. On the one hand, localisation economies may be criticized for a narrow focus on particular industries and specialization without dealing with the interdisciplinary nature of much
industrial evolution. Urbanisation economies on the other hand may well be more immune to external shocks in the economy due to the portfolio effect from a variety of unrelated sectors, but these forms of agglomerations may also suffer from a lack of interconnections among the various actors within the city region. This leaves us with a need to explore more carefully the interface between localisation economies and urbanisation economies.

Theories of knowledge generation and innovation in industrial agglomerations and clusters often prescribe a prominent role for related industrial actors. Indeed, theorizing on localisation patterns and industrial clusters prescribe a prominent role for related industrial actors. In Porter’s diamond model related and supporting industries are regarded as central to maintaining national competitive advantage, and mobility across different industries is assumed to be important. However, despite such theoretical ambitions often the empirical focus of many studies becomes limited to studying the industrial dynamics within particular industries or industrial clusters (Power and Jansson 2004). Although the cluster literature often makes reference to the importance of related industries in clusters, sometimes the degree of relatedness is limited to firms within the same or closely related industries (Malmberg and Maskell 2002, p. 430). The empirical focus may thus be limited to the industrial dynamics within particular industries, and less on how particular industries change or evolve into something else. Focus tends to be put on systemic characteristics such as collaboration and learning within bounded industrial spheres and on how the surrounding institutional set-up influences this system. At the same time theorizing on localized learning in industrial agglomerations is often limited to a focus on the importance of geographical proximity and for the diffusion of tacit knowledge within particular localized industries (Storper 2009). Cluster studies are important in the way that they document how industries are spatially concentrated to certain places, how they are systemic in nature, what their input factors are and how learning and (incremental) innovation takes place within them. However, such a focus implies a relatively weaker understanding of how innovation and industrial change occurs at the crossroads and at the interface between different industries and technologies. It also seems opportune to question whether there is a mismatch between the theoretical emphasis on related industrial actors and empirical focus on particular industries in many cluster studies.

Theorizing on localisation economies that may apply to learning and innovation has tended to use indicators such as patterns of social interaction and relations between actors within an industrial agglomeration. This method assumes that interactivity can be used as a proxy for innovation. However, this may be debated, as later research suggests that direct collaboration with firms locally has a negative impact on innovation (Cotic-
Svetina, Jaklic, and Prodan (2008). The more recent contributions on related variety use more direct measures such as economic output and innovation, and in this sense they do not have to do a detour by the indicators for actual relatedness. There are also other methodological issues that may be problematized in relation to cluster studies. The way clusters are measured and accounted for ex post may reflect studying something given and therefore lacking the ability to study how this eventually becomes something else. By definition the notion of clusters thus alludes to something that already exists, and less to what will come. The cluster methodology is based on predefining the industries one seeks to trace and measuring localized concentrations. One of the assumptions behind or implications of this approach is that industrial specializations are stable, in the sense that they can be identified and measured. The strength of the cluster approach is perhaps therefore to understand how existing industries function and to measure existing (systemic) industrial characteristics. It may be less appropriate for understanding the emergence of new business areas and economic activities.

Critics of a localisation economies approach have questioned the ability to remain competitive and retain the ability to acquire new knowledge when being located in a specialized industrial milieu as strong ties of trust and social capital (Putnam 1993) may prevent radical innovation (Grabher 1993; Florida 2002). Specialization in particular industries or sectors may lead to path dependency along technological trajectories (Dosi 1982) that makes localisation economies vulnerable. Others have discussed the instability of localized industrial districts in an increasingly globalised world (Tomaney 1994; Storper 2009).

As some scholars have started to recognize (Boschma 2005; Giuliani and Bell 2005; Giuliani 2007) the knowledge externalities from geographical proximity in localisation economies do not spill over equally among all actors in a given location, due to the asymmetric distribution of learning capabilities and absorptive capacities among firms and industries. But a response to the question of who gains from knowledge spill-overs is not only about firm’s learning capabilities, but also a function of their technological base, product portfolio and knowledge bases. Absorptive capacity does not just follow from the implementation of organizational arrangements to nurture the ability to acquire information or learn, but nonetheless from the cognitive, technological, social, cultural or geographical proximity between different actors (Boschma 2005). In this sense the notions of related variety and knowledge bases constitute interesting conceptual responses to the wish to understand what kind of actors and industries go well together and who do not, across established industrial borders.
This study explores various dimensions of proximity and relatedness between the creative advertising industry and the interactive Internet technology. Both specialization and diversity are assumed to lead to productivity growth, although in different ways. The innovation associated with specialization is often assumed to be incremental, whereas innovation from diversity tends to be of a more radical character. Resembling the wish to explore the interfaces between specialization and diversity, part of the underlying motivation for the study relates to an interest in exploring some disciplinary interfaces, such as:

- Taking an inter-sectoral approach to industrial dynamics and change. Few empirical studies have discussed the way industrial innovations are structured in an inter-cluster environment (Power and Jansson 2004). This study has deliberately included a focus on related actors to the advertising industry, in order to improve the understanding of industrial change. In this study this becomes manifest through how an existing industry is challenged from the outside, and through how an existing industry develops into something new.

- Studying the relationship between existing and emerging industrial activities. The study emphasises the relationship between the related and competing actors within advertising and the broader market communication sphere. By focusing on who position themselves first to explore and exploit the new business possibilities associated with Internet based market communication the study seeks to add to our understanding of the relationship between existing and emerging economic activities.

- Relating the empirical micro level (occupations) to the meso (firm/industry) and macro level (nation). Scholars such as Andersson (1985) and Jacobs (1969) have taken several analytical levels into account when trying to grasp both social and economic dynamics. An understanding of the creative region presupposes a certain degree of comprehension of the creative process at the level of the individual. The conditions for creativity are created both at an individual level, at the regional level and at the institutional level (Andersson 1985). Partly due to the methodical combination of qualitative and quantitative data the study combines a focus on the micro level with parallel emphasis on the meso and macro level.

- Highlighting the interface between economic and social geography. Human geography comprises both economic and social geography. Although the two are often divided into different directions driving research, they should not become too isolated from each other. Part of the strength of geography is its ability to combine industrial and social aspects of society, such as e.g. Ettlinger (2001; 2003) and Florida (2008; 2002).
The relation between the individual and the firm as units of analysis. Many studies in economic geography and beyond utilize firms and industries as their basic units of analysis (Ettlinger 2001; Vinodrai 2006). This focus has lately started to become supplemented by an individual or occupational approach (Florida 2002; Markusen 2004). The present study seeks to combine the two. Seeing individual knowledge characteristics in relation to firm level aspects may increase the understanding of the bridging between geographical proximity and innovation.

The interface between production and consumption. The dissertation similarly relates and responds to what seems to have come to be a somewhat artificially dichotomous debate in economic geography over whether urban and regional development is primarily caused by productive or consumptive factors. On the one hand proponents such as Florida (2002) and Grabher, Ibert and Flohr (2008) have brought to the fore a discussion on the creative knowledge worker and consumer (people climate) as a powerful force in production and in urban and regional development. On the other hand, scholars such as Storper and Scott (2009) sustain productive factors such as companies and industries (business climate) as the most important determinants and drivers behind the formation and structuring of urban growth and development (Scott 2007; Storper and Scott 2009). Although the focus on people climate by Florida (2002) is initially intended to co-exist with and supplement the prevailing role by business climate, the debate has emerged as a dichotomous discourse on the driving forces behind urban growth and regional development along production and consumption as two opposing poles. This inflation of the debate can partly be interpreted as due to criticism being directed at the popularised version of Florida.

The thesis also discusses and reflects upon how the cultural economy relates to the rest of the economy. Theorizing on the cultural economy has created an impression that the cultural industries as one group of industries separated from the rest of the economy. With some notable exceptions (Vinodrai 2006) less has been done in terms of focusing on how the cultural economy is tied to the rest of the economy through labour market mobility or economic cycles. The present study focuses on how the advertising industry manages to implement generic ICT, and as such it eschews treating the cultural industries as one homogenous group of industries, and as a sector separated from the rest of the ‘normal’ economy. Quite the opposite from identifying peculiarities of the cultural industries, the present case study illustrates that the advertising industry faces much the same problems as other traditional industries when trying to relate to new technology.
The advertising industry is part of a group of industries that has received extensive attention in economic geography throughout the last years and that is often referred to as part of the cultural industries or the creative industries. This group of industries is often characterized by products and services that are primarily based on their symbolic, communicative, semiotic and aesthetic values rather than their utilitarian or functional abilities (Scott 2000). The cultural industries are very often located in urban and metropolitan settings (Scott 1997). Due to competitive and organizational pressures they tend to agglomerate in specialized clusters and industrial districts, while their products circulate on global markets (Power and Scott 2004). They sell unique products that may compete on other parameters than price, and their copyrights, trademarks, brand names and locations may also be part of what makes them unique and enable them to take part in a monopolistic competition. These industries are often characterized by a high demand uncertainty (Hirsch 1972), and they are characterized by an important role of third parties (e.g. critics, mediators and consumers) in sparking and identifying new products and services (DeFillippi 2007; Hirsch 1972). Their labour markets are often characterized by shifting networks of specialized and complementary firms, with extensive part-time work, project work (Grabher 2002, 2002, 2002), freelancing and temporary employment contracts (Power and Scott 2004).

This chapter discusses some aspects of the creative economy, whose increasing size and importance has neither gone unnoticed in academia nor in policy circles. In addition to this an account is given of the Norwegian advertising market, as well as the preconditions for and characteristics of interactive market communication in the digital economy.

There are several ways to conceptualise the cultural economy. The terminologies used include cultural industries, creative industries, copyright industries, content industries, experience economy, art centric businesses, cultural and communication industries, media industries and knowledge

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6 For an overview and discussion of studies on the cultural industries, see DeFillippi (2007)
economy. According to the European Commission (KEA 2006) the distinction between cultural industries and creative industries is useful. The cultural industries refer to industries selling products that primarily rest on cultural content, whereas creative industries are industries that are related to the cultural industries, and that sell products in which cultural content constitute one of several input factors. According to this definition, advertising is defined as a creative industry together with design and architecture.

Much work on the cultural industries has tended to be concerned with mapping and understanding their scope and importance, and on the mechanisms that seem to drive this group of rapidly emerging industries. Despite empirical contributions have often focused on separate industries within the cultural economy and their respective products, theorizing on the cultural industries and the cultural economy has tended to treat the cultural industries as one large group of industries sharing the same characteristics (Markusen and Schrock 2006). Examples of such an industry focus include video games (Johns 2006), advertising (Grabher 2002; Pratt 2006), film (Coe 2001; Scott 2002) music (Power and Hallencreutz 2002) or fashion (Crewe and Forster 1993; Hauge 2007).

Culture as an input factor in the economy may have economic value in different ways. The most common way to perceive the cultural industries is viewing this as a group of industries whose products and services primarily rest in their symbolic or aesthetic values rather than their utilitarian values (Power and Scott 2004). Complementing such an understanding scholars have begun to investigate how symbolic knowledge and industrial inputs are distributed across the economy. Such research has taken an occupational approach to understand the industrial and economic role of cultural and symbolic competencies and skills (Markusen 2004; Vinodrai 2006) in other parts of the economy than the cultural sector alone. Yet other contributions have sought to map how cultural industries and services may have an effect on urban growth and regional development, either through the spinoff effects within transport, accommodation and cuisine, or indirectly through the value added to the attractive or retaining forces of a given place, city or region (Florida 2002; Florida 2002; Bugge and Isaksen 2007). In sum one may say that the cultural industries generate economic value in three ways; 1) through the cultural product or service itself, 2) through providing added value to other industries, and 3) through the socio-economic effects they may have on spaces and places.

Rather than viewing a) how the various cultural industries differ from each other and b) how the cultural economy is integrated and related with the rest of the economy, many studies have concentrated on documenting the various
specificities of the cultural industries. This has been done through quantitative studies that have sought to map and measure their size and growth, or through qualitative studies that have sought to understand the characteristics and features of their products and services, as well as the working processes, organizational principles (Grabher 2002) and institutional underpinnings (Power and Hallencreutz 2002) of the cultural industries. Such a focus has in this sense tended to isolate this sector, and instead of analysing their impact on traditional industries and economic activities it has tended to treat the cultural industries as a separate group of industries, often at firm and industry level. In line with such an observation, certain scholars (Vang 2005) have called for a more nuanced way of unveiling the specificities and mechanisms of the various cultural industries. Contributions that include a focus on how the cultural industries are integrated with other industries include Vinodrai’s (2006) occupational approach to designers intra- and intersectoral career paths in the local economy and Markusen and Schrocks (2006) account of the artistic dividend. In line with the work of Lash and Urry (1994), Florida’s (Florida 2002) work on the creative class may also be seen as a way of integrating the cultural economy with the rest of the economy. Through both the super-creative core and the role of cultural vibrancy in the notion of people climate cultural occupations and place characteristics are expected to influence the economy.

3.1 The Norwegian advertising market

The Norwegian economy is largely resource-based (hydroelectricity, petroleum, fisheries, agriculture) and focused towards processing of raw materials (NOU 2001; Reve and Jacobsen 2001). Such industries tend to become production- and cost oriented, and product development, marketing and sales towards the end consumer market may not be that well developed (Reve and Jacobsen 2001). As part of this the Norwegian economy has had relatively few large companies that operate in the end consumer market. Also, as many of the Norwegian advertising agencies are subsidiaries of MNE’s many advertising campaigns involve doing national and local adaptations of international campaigns.

Norwegian businesses have traditionally been characterised by an early adoption and diffusion of high technology into existing industries (OECD 2007). A diffusion of ICT to sectors such as retail distribution and finance has given large productivity gains (OECD 2008). Electronic payment systems were also adopted relatively early by banks and the tax authorities have long been at the leading edge of online automation. Norway has among
the world’s highest internet penetration (*Internet World Stats - Usage and Population Statistics* 2008). Since the burst of the IT bubble around 2000, although at a varying pace, the Norwegian economy has experienced a persistent economic growth throughout the last decade (SSB 2009).

Norway has traditionally been a small advertising nation that relative to its size has received considerable acknowledgement in various international advertising awards such as the Cannes Lions, EPICA and Eurobest. As a result of Norway’s small population and limited advertising budgets the industry has had to compensate for monetary constraints by developing creative, humorous and innovative advertising campaigns based on simple ideas and concepts.

### 3.2 Advertising and the Internet

Advertising is an industry that sells services that are deeply creative and cultural. In advertising the medium and the message must be tailored to the tastes and preferences of consumers that are daily bombarded by competing messages and communication channels. As such advertising has developed into an industry where the manipulation and creation of powerful cultural imageries and messages defines success or failure. In this sense the advertising industry can be considered as a part of the so-called creative economy.

Advertising may be defined as ‘nonpersonal communication of information usually paid for and usually persuasive in nature, about products, services, or ideas by identified sponsors through various media’ (Arens and Bovee 1994). In this thesis the notions of advertising and market communication have somewhat different meanings. Advertising is primarily understood as communications campaigns that are limited in duration and whose objective is to generate desires to buy given products or services. In contrast, market communication is a broader term than advertising, and captures more of the long term online presence independent of short-term advertising campaigns.

*Marketing is far too important to be left only to the marketing department (David Packard, cofounder of Hewlett-Packard, in Kotler 1999)*

Earlier work within economic geography that has focused specifically upon advertising includes a focus on localized project ecologies and organizational structures within advertising (Grabher 2002, 2002; Bernutha and Bathelt 2007), on collective learning (Faulconbridge 2007) on the macro-scale internationalisation of advertising (Leslie 1995; Daniels 1995; Faulconbridge 2006; Pratt 2006) and on restructuring and innovation in advertising (Thiel
2005; Leslie 1997; Pratt 2006). Due to its role as intermediate between the producer and the consumer the advertising industry seems to be closely related to technological changes and changes in the organization of the economy. Reflecting the emergence of international markets for standardized goods Leslie (1995) argues that the advertising industry has moved towards more standardized advertising campaigns, global research studies, global media buying and international clients and accounts. Later, and mirroring the emergence of flexible specialisation (Piore and Sabel 1984) this standardization phase of established and integrated global actors in the US advertising industry was supplemented by the emergence of a new breed of flexibly specialized creative ‘boutiques’ (Leslie 1997).

Advertising agencies are often organised in teams of four which often consist of an account manager and an account planner, and creative teams of an art director and a copy writer. The account manager is responsible for the economy and progress of each project internally as well as representing the agency externally towards the client, and also representing the client towards the creative team internally. The account planner is in charge of analysis and strategy regarding the targeting of consumers and market segments through selected media channels. The copy writer develops the visual claim and direction of the campaign, whereas the art director provides this message with a visual profile (Grabher 2002).

The activities of creative industries are not necessarily industrial, and may be prototypes. Although outputs are based on copyright, they may include other intellectual property inputs, such as trademarks. The use of creativity is essential to the performances of these sectors (KEA 2006). The so-called ‘creatives’ of the advertising agencies constitute ‘the quintessential occupational role that moulds the image of the entire industry’ (Grabher 2002 p. 248), and a professional criterion that is seen to be central for the creatives is the ‘freshness’ of the idea of a campaign. The creativity of advertising is based on peer-regard, and the industry is characterized as a close-knit community of companies (Pratt 2006). The role and work ethos of the creatives are seen to diverge from the business and scientific logics of the industry (Grabher 2002).

With the outsourcing of the media buying function to the media agencies throughout the 1980’s and 1990’s the advertising industry has been nurturing creativity as its core product (Pratt 2006). The focus on creativity may also be seen as a response to advertisers’ wish to realign consumer scepticism towards traditional advertising through a stronger focus on creative, innovative and entertaining advertising campaigns (Leslie 1997). One may thus say that the core product of the advertising industry is creativity (Alvesson and Köping 1993). Indeed, they sometimes offer their clients both
creative ideas, strategies and analysis underpinning these creative concepts, design, pr and sometimes even the implementation and production of the actual campaigns. Advertising agencies have also integrated the account planner in-house, but one may still argue that advertising agencies have cultivated the creative as their core product. This is reflected by the high social status of the creatives (i.e. the art directors and the copy writers), by the internal hierarchy in the advertising agencies, in industry awards and (although decreasingly) in marketing budgets.

The first ICT wave revolved around the convergent nature of new media (e.g. Internet and mobile telephony) through its ability to combine still and moving images, text, voice and music (Cooke 2002; Pratt 2000). However, this convergence was part of a traditional one-way mass communication media paradigm. With the rise of web 2.0 and social media (to be discussed in the next section) Internet advertising and market communication becomes more oriented towards a dialogue with the consumer (Garber, Hyatt, and Boya 2009). In terms of advertising and market communication, the Internet is the first mass medium that allows for two-way mass communication (Evans and Wurster 1997). Whereas traditional advertising has often been based on mass marketing and push strategies in which fixed one-way messages have been targeted at potential consumers, advertising on the Internet becomes increasingly based on non-push or pull-strategies (Shankar and Malthouse 2007) and allows consumers to take part in a market conversation in which products and services are reviewed, ranked and evaluated based on consumer experience (Levine et al. 2000). But advertising on the Internet may also be displayed advertisements following a traditional interruptive model, such as banners or pop-ups (Law et al. 2009). It may also be direct marketing in the form of e-mails, or it may be integrated in other digital content, such as in-game advertising, which is advertising in computer games. Online advertising may also take the form of online entertainment games, experience universes, advertising in virtual worlds, viral advertising and consumer mobilisation through online social networks. One may also regard online product portfolios on existing websites or campaign sites as Internet based advertising. In the continuation of this follows the importance of being visible and accessible online through search engine optimization (SEO) and search engine marketing (SEM). Other ways to achieve visibility and interest online are through attention in blogs and other kinds of social forums.

The Internet can be regarded as a key technology, and as a general-purpose technology (GPT) (Malecki 2002) that can be applied across the entire economy. Being a pervasive technology the Internet represents not only a new industry itself, but new potential preconditions for social interaction, economic transactions and new approaches to production, marketing and
consumption, as well as for the scientific disciplines that seek to understand these. The increased participation of consumers online, e.g. through sharing consumer experiences, has made many companies start monitoring their customers in online communities as a source of feedback to the company (Dwyer 2007).

Internet is often used by consumers to conduct pre-purchase information search (Fallows 2005; Peterson and Merino 2003). This search phase can both include becoming familiar with possible products on display, prices, recommendations based on past purchases, but nonetheless also looking for good offers, being hit by or engaging with online advertising or by looking for other people’s experience with given products or services. Word of mouth (WOM) is traditionally seen as a powerful way to persuade consumers. On the Internet word of mouth (WOM) in the form of face-to-face conversation among consumers about their experiences with products and services become replaced by e-WOM, which is less personal but more ubiquitous. Despite e-WOM being impersonal research shows that online reviews have an effect on the decision making of the consumer. It is found that negative reviews have an effect on consumer decisions regarding utilitarian products, whereas positive reviews have an effect on consumer decisions regarding hedonic products (Sen and Lerman 2007).

The commercialization of the Internet from the mid 1990s (Greenstein 2000) has created new possibilities and challenges to the entire economy. The Internet connects people and makes the world smaller in many respects. Some have argued that with the Internet and globalization distance dies (Cairncross 2001), the world becomes flat (Friedman 2005), and the role of geography dissolves. Others maintain that geography still matters in the digital age and that ICT creates new and uneven geographies (Warf 1995; Castells 1997; Florida 2008; Leamer and Storper 2001; Feldman 2002), and even for the Internet industry (Jansson 2008), new media developers (Pratt 2000) and Internet content production (Zook 2000). Although physical distance in some ways is outpaced by the Internet, cultural, social and institutional contexts and features still characterize and influence places and people’s lives. Porter (in Engardio, Symonds, and Kharif 2006) emphasises how location becomes even more important in a globalized and fluctuating world: ‘The more barriers disappear, the more that capital and talent become mobile, the more decisive become geographic advantages.’ If technology disentangles certain types of economic activities from territory, then quality of place becomes even more important (Feldman 2002; Florida 2008; Florida 2002). The challenge is to see how the world is flat and spiky at the same time (Florida 2008).
Another way in which the Internet may cause changes to the role of geography relates to the notion of social capital and power. Putnam (1993; 1995) has problematized how social capital and trust can be viewed as closely related to political participation. Putnam has also identified how both rates have declined throughout the last decades. Social capital is measured as participation rates in social associations, whereas political participation is measured as voting, writing to Congress, participating in rallies and political meetings and so on. Lin (2001) problematizes how the indicators used do not cover what they are meant to, as social behaviour changes and takes new forms with technological development. On the contrary, according to Lin, one may say that the Internet allows for a significant rise in social capital due to the lowered (technical and social) threshold to take part in online communities. In terms of implications for geography, the Internet and globalization in this way allow for a redefinition of political spaces and democracy. Regarding Internet-based marketing, the transparent display of consumer preferences and experiences online may ensure greater consumer power and influence.

In addition to representing a potential removal of physical, territorial and social restraints of various forms of economic activities, the Internet also represents a threat to the core competencies and products of different industries. The rise of digital file-sharing systems has increased the rate of illegal circulation of copyrighted cultural content, and other cultural industries struggle to adapt their business models to the new technology (Leyshon et al. 2005; Hibbert 1999; Currah 2006). The core product of the advertising industry, i.e. developing creative ideas and concepts for the products or services of a client, is not threatened by illegal downloading in the same way as other cultural industries. On the contrary, the more a creative campaign is circulated the more successful it can be regarded. However, to some extent its significance and value may become reduced through new skills and new competitors from strategic business development and technology based forms of market communication, such as search, sharing and user experience. The business model in advertising has traditionally relied upon communicating messages on behalf of a client (i.e. producer) to the consumer. This model is partly redefined by new technologies, whose interactive and transparent nature allows for and requires a consecutive fundamental evaluation of the product and service portfolio offered (Garber, Hyatt, and Boya 2009). There is also an increasing awareness about the marketing potentials and business opportunities in information about the context of the consumer (Tennø 2009). Later research suggests that engagement with the media context ensures personal and social interaction which increases the effectiveness of online advertising (Calder, Malthouse, and Schaedel 2009).
Traditionally advertising agencies have communicated a given product or a brand to the consumer on behalf of a client. This brand has been predefined independent of the preferences and context of the consumer. With the growth of the Internet as a channel in market communication, the increasing interactivity in market communication implies a need for taking into account the context of the consumer. In order to ensure relevance of the market communication marketers need to increasingly understand and adjust to the context of the consumer. One may say that digital innovations on the Internet have moved through different stages; from an initial stage of ‘what’, which was solved by search engines and search engine optimization, to a subsequent phase of ‘who’, that has been addressed by social forums and networking online. As the Internet increasingly becomes available on mobile phones, information about the location of the consumer opens up new possibilities for tailor-made market communication in the next stage, which is assumed to be ‘where’ (Klaassen 2009).

3.3 Convergence of ICT and the rise of web 2.0

Around the turn of the millennium the IT bubble represented a hype of the potentials and the possibilities of the new information technologies. However, the actual implementation of this new technology in companies at that time only had a relatively limited effect, as it was primarily utilized to provide online information about the analogue products and companies. The marketing departments in various companies and the graphic design of the web pages constituted the main ingredients of the first Internet era, focusing upon information and electronic display of the products and services available. When the market realized the limitations of the new technology (at that time) and got a more realistic impression of the possibilities on the Internet, the technology has gradually been diffused and implemented in various parts of the economy. This has provided the basis for a more thorough integration of customer oriented information activities on the one hand and digital core systems and business applications on the other.

In order to fully realize how this industry is altering one therefore needs to take into account how the communication between these two forms of applications have improved. The new market opportunities that the Internet opens up for need to be seen in relation to the convergence of different computer applications. Throughout the last decade there has taken place important changes in the communication between the so-called front-end (web development) and back-end programming (systems development) (Maheshwari and Jain 2005). Front-end programming primarily refers to the interface between the user and the computer screen, whereas back-end...
programming deals with data storage and the core business solutions and services. What has happened is that the digitized core systems and business applications (function), having existed since the 1970s, have become better integrated with the customer interface (information). This convergence consists of both technical and social aspects. The user interface has been simplified and the threshold to upload private pictures, videos, experiences and opinions has been lowered. The convergence and improvement of the communication between front-end and back-end, in addition to the convergence between analogue and digital content (Kim 2005), has enabled the end consumer to take a more active role in the shaping, reshaping, distribution and consumption of content on the Internet. This involvement of the end user and the democratization of content production are central parts of both open source and what has come to be termed web 2.0 (O'Reilly 2005).

Online products and services have changed from being centralized to becoming distributed, interlinked and driven by user generated content. Other important aspects of web 2.0 are open source and the so-called mash-up-services, i.e. remixes of existing online services. Web 2.0 is also often characterized by a beta mode, everything is under construction – all the time, and there is an intrinsically innovative and explorative mentality linked to the services that are offered at any time. As such it reflects the continuous fluctuating consumer production and demand. Currently some relevant examples of web 2.0 services include the online encyclopaedia Wikipedia, the image database Flickr and iStockphoto, the social forums Facebook and Twitter, or the content on Youtube and Myspace. Common to these web sites is that the end user creates and shares the main content. This is not just user driven innovation of existing products, but may also be regarded as user driven products.

Due to this technical integration of various ICT applications and platforms, we now see the emergence of new and altered industrial relations and business areas. ICT has thus gradually become more fully integrated into the economy and should no longer be seen as merely constituting a new wrapping around traditional products or a new medium through which these are being sold. If the medium has not become the message itself, the medium and the message have sure become intrinsically intertwined. In other words, the real ICT revolution may be taking place right now, but without much attention.

The term ‘open source’ often refers to the free sharing and collective development of computer software (von Hippel and von Krogh 2003; von Hippel 2005). The free and democratic creation and sharing of software in open source programming may be described as a vital part of the web 2.0
(O'Reilly 2005) paradigm. But the principles of open source are not confined to the domain of software development. There is a trend that both software and information (i.e. data, content) are released for free usage and redevelopment online. The principles of sharing of work, services or content under certain varying conditions could be transferred to any other area and any other forms of information or content, such as the Creative Commons licensing (Lessig 2008). A lot of content on the Internet nowadays is published under the Creative Commons license, which often implies free usage and redevelopment of both data and software under certain conditions, such as not using the content for commercial usage or under the condition that any changes made to the original product should be communicated back to the initial producer. In this way much content production becomes outsourced, also termed crowdsourced (Howe 2008), to the end consumer, whose personal interests and leisure activities get intertwined with commercial activities.

Most of the smartest people work for someone else (Bill Joy, cofounder of Sun Microsystems, in Howe 2008 p. 11)

The above quote refers to the fact that the sum of the world’s intellectual and creative capacity will always be out of reach for a single firm, but that the boundaries of the firm do not need to prevent it from being able to tap into these vast resources and capabilities (Howe 2008). Such potential inclusion of the resources associated with user generated content into the economy is being referred to as enterprise 2.0 (McAfee 2006) and constitutes some of the new preconditions that the Internet brings forth.
4 Research design and method

This chapter presents the methods used in this dissertation, and discusses the reasons for and the implications of the chosen research design. The first section presents the epistemological and methodological underpinnings for the dissertation. This section discusses some underlying assumptions and principles for the role of research. Reflecting the research questions and the theoretical framework, the second section introduces the research design and the data collection process. The selected methods will then be discussed and reflected upon in the third and last section.

4.1 Epistemological and methodological underpinnings

The main aim for science should be to enable us with tools to better understand the world around us. Geography may be seen as a science of chorology (Cresswell 2004), i.e. the study of the causes and interrelations between geographical phenomena occurring within particular contexts or spatial settings, as well as of places and regions and their traits and features. Economic geography may be seen as the study of the relations between and explanations for geographical phenomena that influence the economic performance and development of particular regions, as well as studying the context in which these phenomena occur.

This dissertation uses perspectives from economic geography to arrive at a better understanding of the relations between and context for the actors currently involved in the transition to online market communication in Oslo, Norway. The study is based on a wish to focus on industrial processes that are rooted in and relevant to the industry in question, and it is based on a belief that it is possible to improve our understanding of the mechanisms and drivers behind the dynamics of our economies and societies. In order to ensure that the present dissertation is rooted in actual and ongoing industrial processes, an initial round of interviews with key informants was conducted. Through this first round of interviews the research problem emerged as an interesting object of study. The present study may thus be seen as rooted in grounded theory (Glaser and Strauss 1967), both in terms of identifying the research problem based on the pilot interviews conducted with key...
informants and in terms of looking for patterns and tendencies to be juxtaposed and conceptualized from the data collected. A central feature of the grounded theory approach is developing concepts and theories inductively from collected data.

The study is also based on a belief that science can improve our understanding of the economies and societies we live in. Allen Scott (2004) criticizes research devoted to the deconstruction of metaphors and narratives, a field initially opened up in economic geography by the cultural turn. Scott acknowledges the value in problematizing the ideology and work habits of scientists and how these may influence upon their subject matters. However, he reacts against the extent to which such deconstruction and relativism prevails over the wish to explore and grasp reality as we experience it:

I am perfectly prepared to admit that there may be strong elements of metaphor in, for example, a geography of hunger, but I certainly have no sympathy for the idea that hunger is just a metaphor, if only on the ad hominem grounds that it has painful physical manifestations and morbid long-term effects. Here, the legitimate claim that we can only know the world through socially-constructed codes of reference seems to have given way to the sophism that all we can know about the world is the codes themselves (Scott 2004: 490).

Economic geography (and social science in general) should, I believe, aim at mapping and making sense of the external world as opposed to a social constructivist viewpoint in which every aspect of reality is regarded as being socially constructed and thus relative. However, I do not share the idea highlighted by proponents of critical realism that it is possible within the social sciences to achieve any universal form of knowledge like those upheld in the natural sciences or in neoclassical economics. However, within a world that is believed to be, and correspondingly conceptualised as being inherently evolutionary and dynamic, the role of science should be to improve our understanding of our societal contexts, and how they structure the actions and dynamics within them. In line with critical realism (Sayer 1992, 2000), to the degree that it is possible, science should not only describe and measure the observed phenomena that surround us, but should also strive to grasp the underlying mechanisms and driving forces for the observed societal patterns of any kind.

As Scott (2004) points out, economic geography has for some time been divided between a focus on economic and industrial dynamics on the one hand, and on social and cultural processes on the other. To the degree that the two do not understand each other, or benefit from mutual tolerance, this is unfortunate and will only serve to undermine the possibility for providing an integrated understanding of society that human geography potentially
represents. This form of silo thinking and sector orientation only causes a lack of understanding and distrust between various spheres of society and between the academic scholars that seek to understand it. In the chapter that presents and discusses the findings from the present study, I touch upon the interface between the actual dynamic processes of industrial change in the economy, and our mental and social conceptualisation of these. This could be read as a modest attempt to comment upon the need for bridging economic and socio-cultural strands in geography.

4.2 Description of the data collection

The data collected for this dissertation stems from two research projects. The case study of the Norwegian advertising industry has been part of a larger research programme at CIND (Centre for research on Innovation and Industrial Dynamics) and the Department of Social and Economic Geography at Uppsala University entitled ‘Creativity and Innovation in the Cultural Industries’. This programme has been funded by Jan Wallanders and Tom Hedelius Foundation and Handelsbanken in Sweden. The paper on the creative class builds upon data collected in the joint European research project ‘Technology, Talent and Tolerance in European Cities’ financed by the European Science Foundation and National Research Councils. In the following I will present the data collection processes for the two studies separately.

4.2.1 Qualitative data

As the research questions for this study relate to exploring a new field, it has been natural to primarily apply a qualitative method in order to uncover both intended and unintended aspects and topics. Qualitative methods are interpretative and generate findings which statistical procedures and other means of quantification do not arrive at (Strauss and Corbin 1998). Interviews and close dialogue constitute a central component of qualitative methods, and are assumed to be an appropriate way to improve our understanding of the diversity of economic life (Clark 1998; Schoenberger 1991). In order to achieve a good understanding of the current status and dynamics in the advertising industry, I aimed at conducting many interviews with people representing different areas and perspectives within and related to the advertising industry.

The focus on related actors, i.e. the choice to have a closer look at actors other than advertising agencies and web agencies, may be legitimized in different ways. First, it follows as a natural consequence from the research
questions which emphasise the relation between existing and emerging economic activities and the relation between specialization and diversity. Second, in theorizing on clusters and industrial agglomerations related industries often play an important role, either as subcontractors, collaborators, rivals or as constituting parts of the same local labour market. Third, this perspective also came up in the interviews I did with the advertising agencies and the web agencies. In these interviews I was surprised to find that many of the informants considered some of their competitors to be actors that normally are associated with the ICT industry and business development strategy. When asked who they considered to be their competitors within online advertising, several of my informants pointed out that these activities seemed to be approached by many different types of actors from fields other than advertising and web agencies; actors in related fields such as technology consultants, media agencies, design agencies and branding agencies. This made me aware that I had to expand the lense through which I was initially trying to see the current technological adoption process. It almost seemed as if advertising was melting together with technology development. So this made me focus more on the fringes of what we normally think of as the core market communication industry, including some of the Internet-based ICT consultancies. How could advertising suddenly find itself in a competition with such a diverse set of actors? And if this is so, what implications does this have for how we tend to think about relatedness, variety and diversity in agglomeration theory and economic geography?

4.2.2 Selection criteria

The selection of informants was done partly on the basis of a conscious selection from a pool that was generated through a so-called snowball process in which I asked each of my interviewees to name central persons and companies in different segments. The pool of informants was also partly influenced by monitoring of newsletters and industry magazines. Together these informants represent the majority of the largest and most awarded advertising agencies and web agencies in Oslo, as well as a selection of some of the central related industry actors. In this sense the sampling of the respondents was based on talking to the biggest and most awarded agencies. In addition to names of relevant persons to talk with, my informants also contributed to the development of a figure with an illustration of the industry structure that presents the totality of service providers within market communication.

4.2.3 Interviews

The data collection for the case study on the advertising industry in Oslo consists of semi-structured interviews with 50 informants. The qualitative
interviews have been accomplished with respondents across advertising agencies (13), web agencies (9), media agencies (4), design agencies (1), industry organizations (6), press (3), market communication education (6), search engine marketing (2) and other related industry actors (6). Apart from a couple of persons in two of the most well-known advertising agencies, all of the respondents I contacted accepted my request for an interview. In the instances where the persons I contacted were not willing to give interviews I managed to get appointments with other persons representing the same companies.

The formal interviews for the advertising case study were primarily conducted from November 2007 to December 2008. The interviews were often with the managing directors of the companies in question. The appointments for interviews were made by telephone or e-mail, and the majority of the interviews were conducted face to face. A first round of interviews with key informants provided an overview of the current status and structure of this industrial sphere, which to some extent gave direction to the study. These key informants also helped correct some initial and skewed perceptions about the structure and functioning of market communication. The interviews with the advertising agencies and related industries (e.g. media agencies, SEO agencies and interactive design agencies) were primarily with individuals working in management functions, whereas the interviews with those in web agencies were primarily with founders and entrepreneurs, who often had entered managerial positions. The interviews with the industrial informants revolved around strategy, positioning, organization and motivations relating to the Internet. The interviews were recorded, and based on listening through the interview recordings interview protocols were made which summarized the most important content and outcome under each topic. In addition to the interviews accomplished, I have also monitored the local industry through a selection of industry magazines, digital briefs offered by industry service providers, blogs and industry newsletters between autumn 2007 to autumn 2009.

4.2.4 Quantitative data

The case study makes use of method triangulation of both qualitative and quantitative data. The qualitative data collection provided me with a good understanding of the current situation in the industry, as well as of the most important actors within and related to the advertising industry. After having accomplished the qualitative data collection it became easier to work with the quantitative data, which then added to the data collection from the interviews. Using quantitative data in this way supplemented the qualitative data collection and together they ensured addressing the research questions appropriately. The qualitative understanding acquired thus enabled a further
investigation of the sets of competencies in the various groups of actors involved in Internet-based market communication. The quantitative data collection is based on Norwegian employment statistics, which is a rich annual data set comprising annual information about every company and individual in the country distributed on several variables such as education, gender, workplace, living place, industry classification and occupation. The employment statistics was used to calculate location quotients of the advertising industry in Oslo and in mapping the knowledge portfolios and age distribution in various types of firms. The calculations of the location quotients are based on Standard Industrial Classification (SIC) code ‘74400 advertising’ for 2006 in the municipality of Oslo and in the Oslo labour market region respectively.

The procedure for mapping the occupational mix of different groups of firms started with identifying a number of advertising agencies, web agencies, media agencies and technology consultancies respectively. This sample represented companies whose products and services had become identified through web search and from industry magazines. This qualitative selection was then followed up by a mapping based on quantitative data taken from the databases. The selected companies were then identified in the employment statistics business register, and then their unique nine digit business registration numbers were matched with the corresponding numbers in the employment statistics database on individuals, in order to be able to study the portfolio of occupations in these groups of companies. In this sense the selection of firms was initially qualitative in order to assure that the samples from the quantitative databases consist of actors that offer services relevant to the analysis. Based on International Standard Classification of Occupations (ISCO) all the individuals in these different types of companies were grouped into the categories ‘creative’, ‘strategic’, ‘technical’ and ‘other’ respectively (See appendix in paper number one for an account of the occupational groups used). Then frequency tables were made for each group of companies.

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7 The reason for choosing to have both location quotients (LQ) and own industry employment in paper number one is that a potential weakness of the LQ measure is that it doesn’t say anything about the actual size of the industry in question, as LQ is a measure that only says something about the relative size of the industry in question compared to the remaining economy. Own industry employment on the other hand is an absolute measure that says something about the degree to which there is a critical mass of the industry in question present, but it does not say anything about how important or big this industry is compared to other industries in the region. So in this sense the two should both be included in order to get a better understanding of how an industry relates to the rest of the regional economy.

8 This procedure was approved by Statistics Norway in advance of the exercise.

9 [http://www.ssb.no/emner/06/01/nos_c521/nos_c521.pdf](http://www.ssb.no/emner/06/01/nos_c521/nos_c521.pdf)
The mapping of age difference between the advertising agencies and the web agencies followed much the same procedure as with the mapping of the different knowledge portfolios. Groups of advertising agencies and web agencies were selected in the business register and then their business registration numbers were matched with the corresponding numbers in the employment statistics database on individuals. Frequency tables of year of birth were then made for the two accumulated groups of individuals for advertising agencies and web agencies respectively.

The findings from the quantitative data exercises largely confirm and substantiate the findings and understanding acquired from the qualitative data collection. In this sense the dialectic between qualitative and quantitative data has worked well, and the application of more than one method in studying the same phenomenon contributes to increase the reliability and validity of the results of the study. Such method triangulation can also be seen in accordance with the coupling of micro and meso level analysis in the case study. As such, the supplementing of an industry focus in the qualitative interviews with quantitative data on the individual level proved to be an interesting and fruitful approach.

4.2.5 Data collection for the study on the creative class

The data collection for the joint European research project ‘Technology, Talent and Tolerance in European Cities’ consisted of both quantitative and qualitative data collection and analysis in all the European countries participating in the project. However, the paper on the creative class that is part of this dissertation is based upon the qualitative part of the data collection, which consisted of semi-structured interviews and focus groups conducted autumn 2006. This paper primarily addresses the research questions on specialization versus diversity and production versus consumption as drivers of urban and regional development. The decision to base this paper on qualitative method and interviews is due to the wish to be able to say something on the causality of the thesis of the determinants of the location of the creative class. The paper is based on interviews with 114 informants and 19 group interviews in 14 city regions in the Nordic countries of Denmark, Finland, Norway, and Sweden (cf. Table 1 in paper number four). The group interviews on lifestyle preferences of the creative class consisted of four to six representatives of the creative class.

The interviews reflected the focus on the dynamics of people climate and business climate in three types of regions; 1) capital cities, 2) regional centres and 3) semi-peripheral regions. The study included the same type of regions in the four Nordic countries. The informants in each region included government officials, business leaders, civic leaders, representatives of
marginalized and minority groups. The selection of informants reflected aspects of the people and business climate in the regions. The creative class respondents represented a broad variety of professions stretching from artists to university researchers and from librarians to ICT professionals. As the data collection generated similar findings in the various groups of regions across the four countries, this indicates that the results are transferable across the Nordic countries.

4.3 Reflections on the method applied

When conducting a study such as this there are several aspects that need careful consideration, clarification and conscious decision. In this study there have been many topics that have made me reflect on ethical, methodological and practical challenges and dilemmas, which together constitute the building blocks of the reliability and validity of the results brought forward from this research project. In the following I will provide an account of what I consider to be the most important of these aspects.

4.3.1 Pilot study

The project has largely found its direction and inspiration from inputs from the industry and key informants in the market communication industry. A first round of interviews with key informants gave direction and represented a reality check before the more targeted round of interviews with industry representatives. Initially the reason why I wanted to focus on the advertising industry was that as an industry it serves as a meeting point for different forms of cultural skills and competencies, such as writing, film, design and music. After my round of pilot interviews it turned out that an even more relevant focus than the cultural intersection was the interface between creative and technical skills and understanding. So getting ‘real’ by leaving the office may be time saving compared to sitting in the office and musing about possible (and often irrelevant) research questions and problems. According to Cook and Crang (2007) such establishment of contact with the informants at an early stage can be wise in order to ‘cast the net widely’; i.e. that one does not close the door to other angles before having been out there and got a feeling of what is going on.

The identification of the research problem and formulation of research questions after a first round of pilot interviews, the selection of informants and the understanding of the industrial system together signal that the study has been rooted in the industrial system it intends to understand. This industrial anchoring of the study aims at ensuring the relevance of the
present study in terms of linking contemporary industrial challenges to the analytical tools and conceptual lenses of economic geography. However, one may object that such anchoring of the project in a particular industry may represent a danger in terms of a skewed focus that can disturb the objective and external view that the researcher is often assumed to represent and inhabit.

4.3.2 Interviewees

As the interviews conducted were often appointments with the managing directors of the companies in question and seldom with the various creative practitioners this may have influenced the answers to a certain degree. On the other hand one is likely to assume that the managing director possesses an overall view on the company and its strategy and positioning, and that the director represents the official view of that company. Further, in a small industry like the Norwegian advertising industry the managing directors have often experience from been active practitioners themselves. Some of them function partly as active practitioners parallel to their positions as managing directors. Even though I have not talked to the creative practitioners themselves, I have talked to several of their most important subcontractors on interactive advertising.

Completing the qualitative interviews has not only added a lot to the study in terms of data to be synthesized and analysed but also in the sense that talking to a lot of nice and interesting people has been inspirational to the working process. However, in terms of analysis there are both advantages and weaknesses to conducting semi-structured interviews that need comment. The most obvious advantage is that it does not always make sense to pose the same set of questions to different informants who are all situated in various contexts. By choosing to adapt the questions to the person in question, and nonetheless letting the conversation be steered by the answers given, one keeps the possibility open for answers, clarifications and elaborations that were not initially intended but that nevertheless may be valuable to the data collection and to the study (May 1993). Part of the objective of such an ethnographic interview method is to obtain information that is important to the respondent – not to the researcher (Schwartzman 1993). The respondent will always be able to provide answers that are at the side of the intended focus, but that still represent interesting and enriching perspectives that contribute to enrich the study. In this sense the semi-structured method ensures diversity in answers and a corresponding presence of a magnitude of aspects. This way the template for the interviews becomes contextual, flexible and relative, and there is a need to qualitatively distil out the common denominators from all the interviews. The danger and challenge of such a qualitative research design is that it becomes hard to compare
answers across all the informants, and similarly difficult to quantify trends in the data collected, in part due to the challenge to be aware how many that have responded to each question. If quantifying the answers given is important, one should make sure to accomplish a very detailed log over the different questions posed to the different informants.

4.3.3 The economic context for the study

The case study on the advertising industry in Oslo was conducted during a period of rapid industrial change, and as companies have merged, new actors have established and others have been reorganised throughout the study period the object of study has been a moving target. This confirms the nature of continuous industrial change and evolution and similarly the inability of studies like this to capture and claim any final truth about what happens. To the degree that the present case study has been dealing with radical industrial transformations it is hard to tell what the industrial landscape will look like when the radical innovation mode transforms into an incremental mode.

The current downturn in the economy has not made the outlook for the current technological transformation process any more lucid. The finance crisis hit in October 2008 and by then I had completed the majority of the data collection. The study was started in 2007 and as the data collection was accomplished before the present economic recession it has probably not affected the present study. Still it seems likely that the findings may become affected by the current economic recession through increasing or decreasing the pace of the cumulative creative destruction of the advertising industry as we have traditionally known it. In line with the theorizing of Schumpeter (1934 (1959)), the creative construction of new economic activities replaces and destructs the old economic structures and activities. Due to the ongoing process of technological adaptation and change within market communication several of my informants were in the middle of ongoing strategic processes within their respective companies. This may imply a chance that through my agenda and questions I may have influenced my informants by bringing forth topics they might not have considered previously. But then again, this can be thought of as part of a process of interactive learning across academia and industry.

4.3.4 Delimitation of the study

Even though it would probably have improved and enriched the present study, the clients of the various service providers and the end consumers have been excluded from this study. This does not mean that it would not have been interesting to include these. On the contrary, it is possible to argue that since the relation between production and consumption is so central to the present
study, it seems odd that these have not been taken into account. There are two interlinked reasons for why these have been excluded from this study. First, the present study focuses not only on advertising agencies but also on related actors and other emerging and competing actors in market communication. This decision has meant delimiting the study to service providers and an exclusion of clients and consumers. Second, the decision to exclude the clients and the end consumers from the analysis rests more upon time and resource restraints than it is due to a lack of belief in the way the study could potentially have benefited from their inclusion. The same goes for the delimitation of the study to concentrate on the Internet instead of including all digital media, such as mobile phones and computer games. So far these digital platforms have not yet been implemented into market communication to the same degree as the Internet has. However, this does not exclude the possibilities for including these groups and perspectives in future research.

4.3.5 Challenges and insights

One of the main challenges throughout the work of writing the thesis has been to balance theory with empirics. Initially I started out with some theoretical ambitions to investigate the inter-sectoral nature of innovation at a micro (individual) level. This aspiration was then applied empirically. Subsequently, as the data collection has been replaced by analysis, and analysis has been replaced by writing (although the three somehow overlap), the data collection process has been transformed into lifting the empirical findings up to some more analytical insights that are easier to theorize from. In the writing of the various papers it has also been a challenge to achieve an appropriate balance between empirics and theory in each paper.

Another challenge I have experienced throughout the writing process has been to ensure that the different papers that constitute the thesis both differ from each other and have distinct identities and at the same time constitute a coherent whole. My first attempt was to let the empirical focus drive and structure the papers but this seemed to lead to too much overlap between the different papers. When replacing such an empirical focus with applying a unique theoretical identity onto each paper, this seemed to work better in order to both ensure diversity and coherence among the papers. As three of the papers draw on the same data material it thus seemed more straightforward not to attempt to hide this, but instead place the insights from the case study into different theoretical traditions within the discipline.

An insight achieved throughout the working process has been that writing in itself is a tool to use to think about things in new ways. There seems to be a dialectic relationship between thinking and writing, and writing can ignite thinking much more effectively than thinking alone. The use of language in
writing therefore seems to force a more precise discussion. Having started the writing process at an early stage not only ensures a certain progress in terms of text and pages actually written, but it also boosts reflection and thinking about what is written and how it is formulated often seems to ignite new or different ways to perceive the text, the findings and the study. Another fascinating challenge that has occurred throughout the writing process is the need to bring myself back to the stage where I was when departing on the project. This should be done in order to be able to communicate the findings in a way that includes the reader in the same way of thinking as I did in the initial stages of the project. In order to manage this, it seems as if one needs to try to see through much knowledge that has become tacit throughout the project period.

Another insight into the working process has been that it has been appropriate and fruitful to conduct a first round of pilot interviews with selected key informants in and around the industry before formulating the final research questions and structuring the final study. This has ensured that the study has been rooted in current problems that are up to date and deal with problems that currently constitute great challenges to the industry.

4.3.6 Reliability and validity

The findings from this study are a product of synthesising of the existing literature and the richness of experiences, opinions and perspectives from 50 informants. During the interview process I reached a point at which the answers contain the same elements as heard from other informants in interviews already conducted. When the same patterns in the data collected are repeated several times this indicates that one has reached a level of so-called theoretical saturation (Strauss and Corbin 1998), which may be seen as an indicator that one has achieved a relatively representative level of sampling and covered a given population. Also, the use of quantitative data, such as the location quotients, the mapping of age differences between the advertising agencies and the web agencies and the occupational mix of the different groups of companies, has complemented and strengthened the understanding achieved from the qualitative data collection. All in all I believe that the ground covered in the present study represents a reliable data collection process and analysis, which legitimizes the validity of the findings from the study.
5 Findings from the study on the digitization of the advertising industry

This chapter builds upon and supplements the findings from the four papers to be found further on in this dissertation. Each paper deals with specific issues and can be read independently from each other. An attempt is made in this chapter to summarize and synthesize the diverse findings presented in the papers. Some additional aspects have also been added to this discussion. The findings respond to the research questions posed at the outset of the dissertation. The sections in this chapter follow the same structure as the two research questions, which addressed 1) how the Internet affects the advertising industry, and 2) how the case study on the digitization of advertising adds to our understanding of the geography of innovation and urban and regional development – in terms of three sets of drivers for industrial change, i.e. existing and emerging industries, specialization and diversity and finally production and consumption.

The first section presents how the Internet grows as an advertising channel. The second section accounts for what types of actors that have been the first to explore advertising on the Internet and discusses this in terms of existing and emerging industries. The third section discusses how the Internet changes the core products and the organization of the advertising industry. A part of this section outlines how the Internet causes a merger between the producer and the consumer in online market communication. The fourth section reflects somewhat on how the institutional set-up surrounding the local advertising industry may affect the observed industry dynamics. The fifth and final section discusses how the current industrial transformation process can be conceptualised in terms of localisation economies and urbanisation economies and discusses how the findings relate to the ongoing debate in economic geography on how diversity in industrial agglomerations influences upon innovation.
5.1 The Internet grows as an advertising channel

There is no reason anyone would want a computer in their home. (Ken Olson, founder of Digital Equipment Corp. (1977), in Dodge, Kitchin, and Zook 2009)

The Norwegian advertising industry is currently undergoing a process of severe restructuring. Traditional media like TV and print are gradually being complemented and increasingly replaced by digital and often interactive advertising on the Internet and on mobile phones. After many years of growth, the Internet now constitutes the third largest channel for market communication after TV and print and constitutes about 12 percent\(^{10}\) of total advertising expenditures in Norway (MIO 2008). Figure three illustrates how the Internet has grown as an advertising channel throughout the last years.

| Medium                  | 2005     | 2006     | 2007     | 2008     | Growth 2005-08
<table>
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<td>6528</td>
<td>7189</td>
<td>6872</td>
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<td>Inserts daily press</td>
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<td>589</td>
<td>413</td>
<td>502</td>
<td>-7.0</td>
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<td>Free newspapers</td>
<td>132</td>
<td>149</td>
<td>171</td>
<td>177</td>
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<tr>
<td>Weekly press</td>
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<td>668</td>
<td>650</td>
<td>642</td>
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</tr>
<tr>
<td>Specialist press</td>
<td>514</td>
<td>539</td>
<td>567</td>
<td>592</td>
<td>15.2</td>
</tr>
<tr>
<td>Catalogue</td>
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<td>1127</td>
<td>871</td>
<td>713</td>
<td>-42.4</td>
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<tr>
<td>Unaddressed DM**</td>
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<td>1191</td>
<td>1193</td>
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<td>Internet classifieds***</td>
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<td>424</td>
<td>452</td>
<td>484</td>
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<td>18414</td>
<td>18416</td>
<td>11.3</td>
</tr>
</tbody>
</table>

*Net turnover
**DM = Direct Marketing
***Numbers for Internet search (SEA) and catalogue not included

Source: INMA and MBL/NettForum

Figure 3: Annual Norwegian advertising spending* by media channel and growth, 2005-2008. Million NOK and percent

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10 Measured as display and classifieds
Within Internet-based advertising there seems to be a trend that search engine advertising (SEA) have increased more rapidly than display, classifieds and catalogue advertising. Based on market estimates figure four illustrates this trend.

![Norwegian online advertising spending 2003-2008. NOK](image)

*Search and catalogue based on market estimates*

Figure 4: Online advertising spending in Norway, 2003-2008. NOK

Source: INMA 2009

These trends where search and online presence become more important to the total market communication online imply that the resources channelled to online market communication may not only stem from advertising budgets, but also from other budgetary entries such as business development and ICT. If these elements were also considered to be vital parts of a total market communication strategy, which one could easily argue that they in fact are, the Internet’s real share of total advertising expenditure would be higher.

The current emergence and growth of the Internet as a channel for advertising and market communication in Norway is not a unique phenomenon, and other countries also experience the same shift (Bradshaw and Edgecliff-Johnson 2009; Edgecliffe-Johnson 2009; Gapper 2009; Palmer 2009; Palmer and Rappeort 2009; Waters 2009; Whitehead 2009). In the UK Internet has recently overtaken television as the biggest media channel
for advertising (Sweney 2009). Due to the small size of the Norwegian market, the absolute numbers on online advertising expenditure are low (Figure 5). However, in terms of online advertising expenditure relative to total media spend and relative to the population, Norway ranks high among the European countries (Figure 6 and 7). According to IAB Europe, Norway ranks second in Europe on share of total advertising expenditure spent on online advertising (IAB 2008). Despite being a small industry in a small country, Norway has high per capita spending on advertising in general, and in 2006 the country occupied the 4th place globally after Hong Kong, USA and Ireland (World Advertising Trends 2007). Norway also has high per capita spending on online advertising, and is here too ranked 4th globally (World Advertising Trends 2007).

![Total spend on online advertising 2007 (Million Euros)](image)

*Source: IAB Europe / PwC / AdEurope*

Figure 5: Norwegian online advertising in an international context
Figure 6: Online spend as share of total media spend 2007. Percent

Figure 7: Online advertising expenditure per capita 2007
If one includes market estimates for search engine advertising and online catalogue, in Norway the Internet constituted the second largest advertising medium after daily press in 2008 (Figure 8).

![Figure 8: Norwegian advertising spending by medium, 2008. Percent](source)

Source: INMA

*The Internet covers display, classifieds and market estimates for search (search engine advertising) and online catalogue

**Includes both addressed and unaddressed direct marketing

As being discussed in paper one respondents from both advertising agencies and web agencies share a common understanding of the current situation in the Oslo advertising industry that despite the relatively high per capita spending on online advertising (World Advertising Trends 2007; IAB 2008) there is a lack of innovation, sophistication and collective learning within digital and interactive advertising. These qualitative findings are further backed by the results in international interactive advertising awards and rankings (Cannes Lions 2008; Epica Awards 2007; Clio Awards 2008;)

11 The reason why the 2008 numbers in Figure 8 differ from the 2008 numbers in Figure 3 is that Figure 8 includes market estimates for search and online catalogue.
Eurobest Awards 2007; The Gunn Report 2007). Also, there is a general view among the web agencies, which often serve as subcontractors to the advertising agencies, that the advertising agencies have not managed to adjust to interactive advertising. An advanced consumer market and high spending on Internet marketing constitute parameters that would suggest that the sophistication and innovation within online advertising would have happened quicker and be higher.

5.2 New activities emerge outside existing companies

With reference to the research question on where new economic activities occur, this section presents the findings from the case study that relate to who have been the first to offer services within Internet-based market communication, and how the incumbents of the advertising industry have dealt with the Internet.

My research has found that there is widespread consciousness and concern that incumbents in the advertising industry have been reacting late to the new challenges and possibilities associated with Internet technology (see paper one). This has allowed for an emergence of a diverse set of new actors offering a broad range of services within Internet based market communication and which may be seen as hybrids between the creative industry and the generic new technology. These are specialized agencies that have adjusted to the new web 2.0 paradigm, e.g. interactive advertising agencies or web agencies, digital production bureaus, design agencies, digital media agencies, user experience agencies or search engine marketing companies, as well as larger all-around and more fully integrated technology consultancies. Many actors from more technologically oriented sectors have been the first to achieve the best skills within digital market communication.

Reflecting Abernathy and Utterback’s (1978) theorizing on how radical innovations represent an advantage for actors outside an existing industry, this study has also shown how the incumbents of the advertising industry have outsourced tasks within Internet based advertising to a new and emerging set of specialized smaller and niche oriented web agencies and interactive advertising agencies. In line with theory on economic development (Jacobs 1969) much of the current digital transformation process in advertising has been sparked off outside the traditional advertising industry.
Major product change is often introduced from outside an established industry and is viewed as disruptive [...] (Abernathy and Utterback 1978 p. 43)

Old industries and companies often (but not always) fail to grasp the leadership in new technologies. To redirect and develop a core competence so that radically new technologies can be adopted is a challenge for a mature industry (Laestadius 2000 p. 209)

Although most web agencies both serve as subcontractors to the advertising agencies in addition to having their own direct clients, most of them started out positioning themselves as production bureaus focusing on the technical implementation of the creative ideas from the advertising agencies. But as the advertising agencies often lacked an understanding of the interactive nature and potential of the Internet and instead delivered reflections of one-way mass market communication from other traditional mediums, the web agencies have often had to interfere with and improve the creative ideas coming from the advertising agencies. As a result of this the web agencies have expanded their creative skills and understanding. In terms of Jacobs’ terminology (Jacobs 1969), they have been adding work, or have expanded their existing product portfolios. Parallel to what happens in online marketing at present, Jacobs has described how some of the large car manufacturers in the US initially started out as subcontractors to some few existing manufacturers12. With the growth and implementation of the Internet in market communication the same pattern has been repeated. This time the late response by the advertising agencies has left room for the emergence of the specialized web agencies that now possess the best skills within interactive and online advertising and market communication. It thus seems easier for actors who possess the best understanding of the new technology to provide applied services based on the technology than it is for existing creative and strategic services to implement the new technology. Both web agencies and other types of actors are adding work in the direction of taking market share within online market communication, whereas most of the advertising agencies have so far struggled with integrating these services into their existing service portfolios. In fact, due to having served as subcontractors to the advertising agencies for some time, the web agencies have been built up by the advertising agencies. So to the degree that these types of actors may develop from subcontractors and collaborators to possible competitors, this is something that is empowered by the advertising agencies themselves.

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12 Buick initially started out with sheet-metal work, while Dodge was contracting engines (Jacobs 1969).
Many advertising agencies tend to view the web agencies as representing specialized technical skills. However, as illustrated in figure 9, an examination of the occupational mix in different types of companies reveals that the web agencies are far more creative than anticipated by the advertising agencies.

![Pie charts showing occupational mix in different types of companies](image)

Figure 9: Occupational mix in different types of companies

Source: Norwegian employment statistics, 2006

When looking for patterns in what characterises the entrepreneurs in the web agencies, such as education or professional careers, their backgrounds seem very diverse. Although their professional careers may have influenced their ability to start up new digital enterprises, it seems that a genuine interest in the interactive is a common denominator for the entrepreneurs that have ended up starting web agencies. In this sense one may say that the new elements in the industrial transformation come from the outside, in the sense that the interactive comes from the introduction of the new technology, and except from face-to-face interaction in certain advertising events, the digital interactive is something new. Another factor which is related to the shared interest for the interactive is age. As documented in paper number one employees in the web agencies are younger than their counterparts in the
advertising agencies. This supports the idea that understanding of the Internet is partly dependent on what generation one belongs to.

The advertising industry struggles with understanding what interactive online spaces – such as social media - means to their clients and with what consequences this may have for their own service portfolio on this new technological platform. The advertising agencies have struggled to adapt their core product, i.e. creative ideas and concepts, to the Internet medium. Other actors - such as the specialized web agencies - who possess a lower share of creative skills than the advertising agencies, have managed to do this faster and better. To some extent this is a result of a conscious strategy in many advertising agencies, who have not wanted to engage in handling the new technology. Instead this opportunity has so far been won by the web agencies and the interactive agencies now serving the advertising agencies. As discussed in paper one, this can be understood partly as a consequence of path dependency along one-way mass communication media such as TV, print etc. The Norwegian advertising industry has been specialising within a given technological regime due to a need for increased productivity, which can be seen as a normal reaction to a market situation of mature and dispersed technology and a correspondingly strong competition (Abernathy and Utterback 1978; Mariussen 2008).

Neither the advertising agencies, nor the customers or the media agencies have taken any lead role in exploring the Internet as a marketing channel. This has generated a situation where all parties adopt a passive attitude in exploring digital technology in marketing. In line with the lack of integration between technical and creative skills described in paper one, there seems to be a lack of integration between media agencies and advertising agencies. Despite common ownership structures by large media groups covering both media agencies and advertising agencies, they tend to play separate and uncoordinated roles in advertising campaigns. What seems to be a tense relationship between the advertising agencies and the media agencies may be explained by the fact that the advertising industry has lost its former position as the client’s primary contact and strategic media adviser to a set of media agencies. Since the mid 1980s the media agencies have gradually taken over as the client’s main strategic adviser on media distribution and spending. It seems that the advertising industry is now primarily positioning itself as a creative industry that develops ideas rather than having a strong parallel focus on giving strategic advice, e.g. on the distribution of a given campaign in various media channels. Today media agencies are the ones that are in charge when it comes to strategic advice regarding the various media channels that should be present in an advertising campaign.
The order of inputs from the media agencies and the advertising agencies may influence the direction of advertising campaigns. Often both the advertising agencies and the media agencies communicate with the client. This is an example of media channels and creative content being treated independently from each other at industry level. As the client often comes to an advertising agency with a fixed media exposure and spending plan, there is little room for the advertising company (or the web agency) to structure the given campaign differently. As such the development of a creative idea for a campaign may come to play a secondary role to the distribution of the campaign. The division of labour between the advertising agencies and the media agencies implies that a campaign may be rather structured even before the idea for the campaign is made. In this sense the creative construction of a campaign and the implementation and distribution of it in various media channels can constitute separate processes.

Today’s technological developments and industrial positioning somehow resembles what happened when the introduction of advertising on TV and radio more than two decades ago led to the emergence of new services within strategic advice on media spending and distribution. In Norway the media agencies broke away from the advertising agencies during the second half of the 1980’s. Internationally, this trend started in the middle of the 1970’s (R/GA 2009). The media agencies were separated from the advertising agencies partly due to the emergence of a more complex media landscape. Moreover, as the advertising agencies worked on a commission basis, increasingly conflicting interests emerged between the advertising agencies and their clients. Due to the commission payment structure it was in the interest of the advertising agencies to obtain the highest possible advertising volumes, while at the same time they were supposed to advise the client on media distribution. Finally, as a consequence of the economic downturn from 1987-1991, the advertising industry kept focusing on its core business, i.e. developing creative ideas and concepts, and reduced investments in strategic media advice. Since the 1990’s there was an emergence of more media agencies, which in turn increased and sharpened the competition between them and which may have led to a development of better skills and competencies within this new field. The new actors within strategic advice and media analysis were adding work (Jacobs 1969), whereas the advertising agencies were following their core product and continued along their initial path.

Figure 10 is an attempt to illustrate and conceptualise how the existing advertising agencies (the white circles) get accompanied by new generic technology consultancies (the black circles), and subsequently how technological hybrids in the form of web agencies (the grey circles) emerge between the advertising agencies and the technical consultancies, and
eventually how the three become integrated and coordinated in various ways and comes to constitute a new industrial platform. The difference between the hybrid in Time 3 and Time 4 is that the hybrid of Time 3 could be seen as a temporary and semi-professional actor, whereas the new hybrid in Time 4 has managed to fully integrate the best competencies from the initial existing industry and the new generic technology.

![Diagram of industrial coalescence of technological hybrids](image)

**Figure 10: Illustration of emerging hybrids between established and new technology**

The introduction of new technology makes initially radically divergent industrial actors merge together and cause some kind of industrial mutation in the existing industry. The new technology creates new rules of the game. Another way to see this is that formerly unrelated industrial actors have become related and have turned into potential competitors and rivals due to the introduction and maturation of new technologies (see paper three).

The current situation in the Norwegian advertising industry may be seen as an example of an entrepreneurial phase where early adapters outside the established advertising industry are the first to explore and exploit the arising business opportunities along with new technology. This pattern is also well known from other industries going through phases of technological transformation (Spilling and Rosenberg 2008; Power and Jansson 2004). According to Spilling and Rosenberg (2008) entrepreneurs that challenge the
incumbents of a given industry may be an important factor for creating competition and innovation.

According to Schumpeter, the entrepreneurial function is about creating new combinations, whether these may be accomplished by so-called dependent or independent entrepreneurs, i.e. whether they represent existing companies or whether they establish new organizations for new economic activities. To conceptualise the digital adaptation and transformation going on in advertising in terms of the theorizing of Schumpeter, one may say that the new web agencies (and to a lesser extent the in-house departments in the advertising agencies) represent new combinations of interactive technology and creative advertising. These new combinations, which due to the pervasiveness of the interactivity on the Internet may be termed recombinant innovation (Cooke and Schall 1997), seem to cause a mutation in the DNA of advertising.

5.3 The Internet changes the DNA of advertising

There are many signs that the Internet causes fundamental changes to advertising that go beyond the advertising industry itself. It may seem as if a creative destruction of the DNA of advertising is taking place. If the rationale for advertising agencies traditionally has been to make their clients sell more; this remains their prime task even within Internet-based market communication. But there are many signs that the means to get there change. This section presents four ways in which advertising is changing due to the introduction and implementation of the Internet into market communication. These reflect changes to the core product of advertising, as well as to the way the core product is integrated with and organised with other central services in a business.

When a technological revolution irrupts in the scene, it does not just add some dynamic new industries to the previous production structure. Through the configuration of a techno-economic paradigm, it provides the means for modernizing all the existing industries and activities. The process of diffusion of both the revolution and its paradigm across the economy constitutes a great surge of development. (Perez 2002, p. 151)

If you talked to people the way advertising talked to people, they’d punch you in the face13

13 http://www.slideshare.net/uwegutschow/whats-next-in-advertising?src=related_normal&rel=1223452
5.3.1 Interactivity, dialogue and engagement

You can’t bore people into buying your product – you can only interest them.\(^{14}\)

Previously the role of the advertiser has been to call for the consumer’s attention through disruptive broadcasting through one-way mass communication media. The Internet seems to change this disruptive way of getting the consumer’s attention.

The Internet medium is characterized by its interactive nature as opposed to one-way mass communication media. This interactive characteristic implies that instead of producing a creative idea to be communicated through various media to targeted and passive receivers, one is able to engage in a two-way dialogue with the consumer. Several of my informants consider the interactive potential in online marketing to be a strength that makes this a potentially more powerful and effective media channel than one-way mass communication media. Advertising on the Internet may still be regarded as mass communication, but the interactive potential of online marketing opens up for the potential of two-way dialogue with the consumer which may let the consumer actively engaging with and taking part in shaping the content and message of the advertising campaign. If replicating the logics from advertising through one-way mass communication media one does therefore not take out the full potential of online advertising. Although advertising always has had elements of interactivity in events and pop up stores etc. the Internet brings the interactive aspect to a new level. Whereas face to face interactivity has comprised a marginal share of the total media mix, the interactive element is now a crucial part of the logics for market communication online. This has implications for the making of the creative concept for an advertising campaign. It becomes more effective to include the consumer in the market communication process through pull factors as opposed to traditional push strategies. This touches upon the interface between the traditional one-way message about a product which was sent out to the consumer, and how this message and product is now being received and appreciated by the end consumer. The new is that this reception phase also becomes part of the online ‘truth’ about a product, in that Internet-based market communication in this sense becomes more transparent than traditional one-way advertising. On the other hand, this transparency is paralleled by other aspects associated with online advertising, such as spyware, adware and tracking cookies, which are often invisible and deliberately hidden.

\(^{14}\) http://www.socialmediatoday.com/SMC/94975
Web 2.0 (O'Reilly 2005) and open source (von Hippel and von Krogh 2003) allow disruptive advertising to be replaced by engagement and involvement, which are seen as being much more important to a brand. But the interactive nature of much of the online advertising is not limited to adverts and exposal on the Internet, as extracts from consumer reviews, responses and recommendations may also be actively used in traditional one way media, such as printed adverts or TV commercials. In this sense the new interactive logics of Internet based market communication also becomes transferred onto traditional media.

The interactive element implies that the Internet medium may be seen as superior to other media in certain respects. On the one hand, the Internet may be seen as yet another media channel like TV, print, radio - which possesses its own and unique capabilities that should be reflected in the development and implementation of a creative idea. On the other hand, the Internet is not just a medium. The Internet is as much a social forum in which people interact and talk about everything, including their experiences as consumers, and their rankings, reviews and recommendations based on their consumption. Increasingly the Internet is the place where consumers go to search for information and other people’s reviews to get oriented in advance of a purchase. The Internet also comprises e-commerce solutions that are closely integrated with all other forms of search and social interaction. Further, advertising on the Internet may also be integrated with market communication in other media channels, such as TV, radio, print and so on.

These capabilities of the Internet together make it likely that it will achieve a role as a hub or a node from which other media span out from and interact with. The Internet will contribute to a transformation in advertising and branding from broadcasting towards customer reviews and rankings. When we are to book a holiday destination we are likely to check out the experiences that other people may have from that destination. In this sense the consumer’s perception and experience of the product becomes part of the shared product experience. The Internet seems to alter the DNA of advertising not only in the sense that it changes the way companies could communicate its products and services to the consumer on an interactive web 2.0 and open source platform, but also in the sense that advertising can be seen in closer accordance with sheer online presence. Many advertising campaigns can benefit from becoming closer integrated with online products and services, e-commerce solutions and search engine optimisation.

5.3.2 Implications for the core product of advertising
The advertising industry may be seen as the result of a division of labour, in which production, marketing, sales and distribution are seen as separate parts
of a product life cycle. This is a way of viewing business from the producer’s or the client’s point of view. With the growing use of online media such as the Internet, in which the consumer’s point of view is increasingly incorporated into the production and consumption process of a product, such a one-way value chain and departmentalized thinking seems to be increasingly replaced by an ongoing two-way dialogue and relationship between the consumer and the producer across all media and throughout the entire value chain of the product in question. The consumer does not differ between online display, online reviews, online e-commerce solutions, online contact with the producer or possibilities for online complaints. To the consumer these are all integrated parts of the total user experience. To meet this demand the producer could similarly benefit from more integrated services across these functions. This implies that instead of being seen as a media channel in which traditional advertising may take place, the Internet can also be understood as an extension of existing products and services. The market communication becomes increasingly intertwined with the online user experience for the consumer. In this way market communication, user experience and product development to some extent seem to merge online.

Advertising is the price you pay for not realizing the value of building your passionate tribe\(^\text{15}\)

Interactive advertising and market communication on the Internet also represents a possibility for a continuous feedback loop from end consumers to the producer. This feedback from the users and the consumers is not only accessible to the producer, but to other users and potential consumers who are exposed to this information online. This implies engaging with the consumer’s experience of these products or services. The consumers’ actions, searches, sharing, purchasing, recommendations, reviews and rankings on the Internet provide the consumer with a new form of influence upon the product. An example of this is how hotel guests can now upload and share their private photos from a hotel stay, and it becomes easy to compare these with the official hotel photos of the hotel rooms.

The consumers’ reception of and experiences with and reactions to a product entails an online market transparency that cannot be ignored and that implies that what the consumers have done for a long time; i.e. to talk about their experiences as consumers, has suddenly become potentially extremely

influential. This can create a form of transparency which implies that the advertising of a product becomes much more interlinked with the reception and use of that product by the consumers. Although the consumer has always been talking about his or her consumer experiences to friends and colleagues, the potential consequences and impact of this has increased due to the online reach of these activities. Also, analysis has shown that online consumers are more likely to trust other consumers they don’t know than they trust brand web sites (European Technographics® Benchmark Survey, Q2 2008). Advertising and market communication in this sense become less about persuading the consumer about the perfection of an existing product, and more about providing strategic, creative and technical advice and services to the construction of the (portfolio of) products or the services in question. Whereas the producer and its product portfolio was treated as something more or less given in the pre Internet era, the transparency and the feedback from the consumer enables the producer and its service providers to continuously monitor and potentially adjust the products or the market segment. The role of advertising agencies or other forms of service providers in this sense alters from creating an idea based on a given set of products or brands into arranging for such feedback to take place, and to intermediate between the producer and the consumer.

Figure 11 illustrates how the preconditions for the advertising agency as an intermediate between the producer and the consumer seem to alter in the Internet era. This mediating role is redefined from primarily consisting of the creative formation of a ‘top-down’ message that is broadcast from the producer to the consumer onto a new type of dynamics in which the advertising (or market communication) agency assists the producer in its bottom-up relations and two-way interaction with its consumers. The creative elements in advertising seem to be forced to co-exist with technical and strategic competencies to a greater degree than other one-way mass communication media ever has. In terms of knowledge bases, there seems to be a tendency that the symbolic knowledge base once being the strongest driver in advertising, now needs to become synthetically reconfigured in the sense that it needs to adapt to the logics of the Internet medium. The symbolic knowledge base also needs to become closer integrated with an analytical knowledge base to the degree that is needs to be integrated with the technical characteristics, potentials and dynamics of the Internet.
Figure 11: Market communication dynamics prior to and in the Internet era
Seen from a historical perspective, an interesting aspect appears: Fifteen years ago Lash and Urry (1994) talked about how there seems to be a so-called de-differentiation of culture and economy, and that advertising, which used to be a business service increasingly produces cultural and aesthetic artefacts, whereas other cultural producers become more like business services. To the degree that one may say that advertising previously moved from being a business service to becoming more of a producer of symbolic content, the findings in this study suggests that there are signs that the recent and current technological transformation and digitization represents a reversal of this pendulum.

5.3.3 New conditions for corporate organization

Creative team Pre Internet: AD + Copy / Creative team in the Internet era: Developer, UX Specialist, Connection Strategist, Social influencer, Designer, Copywriter

The redefined role of market communication may call for new conditions for corporate organization. In order for service providers to improve their ability to offer good creative and strategic services that are adapted to the interactive potential of the Internet, there is a need for a closer integration of strategic, technical and creative services on the Internet. Online presence of products and services, as well as e-commerce and search engine optimization could also be seen in closer accordance with advertising. Analysis and tracking can be important to the formulation of a creative message, and there may be benefits associated with balancing a long-term online presence with targeted shorter-term advertising campaigns. So far, to the degree there has been sufficient available skilled interactive services, they have tended to be fragmented and poorly coordinated. As advertising agencies have in many instances continued to work as they have always done in other media, the creative idea for a campaign on the Internet has often been developed prior to the implementation of it on the Internet. Even though the first phase of adapting to the Internet in market communication has comprised new establishments that have specialized in interactive niche services, the findings suggesting a closer integration of services will perhaps cause a development towards larger and more integrated service providers in the time to come.

In contrast to the music industry, the film industry and the publishing industry, the business model and the core products of advertising - i.e. concepts and ideas which is largely based on creativity - are less threatened

16 https://twitter.com/joakimnilsen
by piracy downloading and digital technologies. Whereas the content of the music, film and publishing industries are economically vulnerable to illegal downloading, the viral spread and distribution of the creative content of an advertising campaign only contributes to increase the value of the given campaign or product. However, it seems as if the creative core product in itself is being challenged by the new technologies, and by the need for strategic and technical services related to business development, online services and infrastructure related to search engine optimization and marketing, websites, e-commerce solutions and user experience on the Internet. This would imply that short-term advertising campaigns become increasingly replaced by long term online presence and the market communication period becomes extended from pre-purchase to the entire product life cycle.

5.3.4 Production and consumption merge online

What implications does the digitization of the advertising industry have for production and consumption as drivers of industrial change? This section presents the findings from the case study which relates to this question, and which also relates to one of the current debates in economic geography. Throughout the last decade there has been a closer focus on the role of the consumer and how consumptive factors influence on economic and territorial dynamics (Florida 2002; Grabher, Ibert, and Flohr 2008; Hauge 2007). These contributions argue that the consumer’s influence on products and services through reception, evaluation, modification and configuration has been neglected in economic geography (Grabher, Ibert, and Flohr 2008).

The findings from the empirical case study on the current technological transformation process in the advertising industry illustrate that productive and consumptive factors merge, due to new technology that enables new products and services to be evaluated, modified and even partly constructed by the consumer. Is this development a result of pure technology determinism? The consumer has always been talking about gadgets and shopping, as well as sharing consumption experiences with friends. So what is new? The new lies in the ability to act as before but in another forum, and with an increased potential influence on the market. The new technological possibilities allow for new forms of social usage. In many ways social media has moved from being sheer networking to becoming central to business. First, as discussed in paper two, the consumer often participates in the actual production of advertising campaigns through creating, sharing or remixing content often revolving around the product on display. Second, the consumers’ role as product reviewer has become increasingly important on the Internet. Third, social media have risen to become a key public space in which people often discuss and share their consumer experiences, reviews and advise. Consumers’
online product reviews can therefore considerably contribute to the value of a product. Figure 12 illustrates how the development in the relation between producer and consumer may be interpreted.

![Diagram of user-producer relations in enterprise 2.0 advertising](image)

**Figure 12: Change of user-producer relations**

On an enterprise 2.0 platform much of the content production of market communication is outsourced to the end consumer, and it may no longer be sufficient to organize focus groups to have inputs from the end consumer. The enterprise 2.0 edition of user-producer interaction is no longer a one-way information or feedback to the producer on user preferences, but rather a two way equal, open, honest and continuous dialogue and even co-production with the end consumer. This new proximity between the producer and the consumer mirrors the relation between the producer and the consumer of cultural content before the era of mass production. With the introduction of mass production and mass media the relationship between the producer and the consumer became disentangled. However, this relationship seems to become re-integrated online (Howe 2008). The discussions on online forums may be regarded as self driven and distributed focus groups with the most important customers (Lüders 2008). A success criterion for companies is thus to understand the need for and be able to monitor and use these inputs to improve the quality of the products offered to meet the demand and preferences from the customers. Within this new
user driven paradigm the consumer constitutes a new factor in the existing industrial cluster surrounding the advertising industry. Advertising on the Internet and on an enterprise 2.0 platform calls for taking into account the new media habits of the consumers, and enabling the consumers to interact with one another, with the advertisement and with the producer.

The merging together of production and consumption should also be reflected in the discourse and conceptualisation on what drives urban growth and regional development. This new insight should thus replace the traditional dichotomous relation between production and consumption. In line with theorizing on Jacobian industry mutations (Cooke 2008) one may interpret the current developments in advertising and market communication as an example of a mutation that alters the conditions for industrial development and also our understanding of it. The case study exemplifies how production and consumption merge together in the web or enterprise 2.0 paradigm. The maturation and development of web 2.0 and social forums online have changed the preconditions for creative content production in the sense that a part of the production of creative content has been outsourced from the producer to the consumer, and as such this function has shifted from being a traded interdependency between the client and the advertising agency to becoming an untraded interdependency between the producer and the consumer. The advertising agency has traditionally served as an intermediary between the producer and the consumer. By providing a company or a product with a creative concept the advertising agency has called for the attention of potential consumers. The maturation and implementation of social media into businesses contributes to reshuffling the relation between the consumer and the producer. With the Internet this role as an intermediate becomes obsolete to the degree that the producer manages to obtain and maintain a direct relation with the consumer through the daily business of providing quality in products, services and consumer experience. The role of the advertising agency may in this sense become marginalized, to the degree that the new online media allows for a direct communication between the producer and the consumer.

To the extent that the advertising agencies are based on a production model in which the consumer is a passive recipient of communication services, one may say that the regulatory mechanisms between production and consumption have entered a stage of disruption. In line with theorizing on industrial divides (Piore and Sabel 1984) such a mismatch between production and consumption in the existing institutions may be termed a regulation crisis. The introduction of computers in the industrial production

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17 The emerging semantic web will probably serve to strengthen this trend.
laid the grounds for the flexible specialization production paradigm (Piore and Sabel 1984). However, although the notion of flexible specialization is largely based on an increasingly fragmented and volatile consumer demand and behaviour, it primarily refers to the resources and effectiveness of the production process, without including the potential co-production of the consumer. The point to be made here is that the Internet causes changes not only to how existing products and services are being brought to the market, but as much brings forward new logics for production and consumption itself. The interactive nature of the Internet, consumers’ reviews, recommendations, rankings and the expedience of online e-commerce solutions all contribute to the total user experience and brand experience for the consumer. In this sense advertising seems to merge into market communication, and even user experience and product development. This obviously makes it very tempting to suggest that we are at the brink of a third industrial divide, in which the consumer plays the lead role. Anyway, when realizing the potential in how the crowd has become central to production (Howe 2008), or how the consumer has turned into a prosumer (Toffler 1980), this will be an opportunity to add work, i.e. expanding the original product portfolio (Jacobs 1969).

5.4 Institutional set-up of the local advertising industry

This section comments upon certain contextual factors and characteristics of the institutional practices and apparatus surrounding the Norwegian advertising industry.

The institutional practices that govern the advertising industry in Norway at present are founded in an industrial system that is strongly reliant on subcontracting and network relations for its working practices. Advertising agencies often use subcontractors such as production companies and web agencies, who again use sub-contractors such as technological consultancies that possess skills on user experience and back-end programming. In addition to the relation to advertising agencies, the client relates to a media agency that originally was an administrative role that did the purchasing and placement of the actual advertising campaign in various media channels. The media agencies have kept this function, and it is from this they still earn most of their revenues, but in addition to this traditional role, they increasingly offer strategic counselling on consumer behaviour patterns and market strategies. The media agencies often use sub-contractors such as PR bureaus and seeders that communicate with their targeted market segments through carefully selected channels. In addition to advertising agencies and media agencies, larger clients also often relate to a design agency and a
branding agency that both provide services on the long term profile and appearance of the client.

The mutual interdependencies and changing relations between the various types of actors within the wider field of market communication represents a form of fixed division of labour which may help explain why the established advertising industry has not taken a lead role in the adaptation to the Internet. As being documented and discussed in paper one the way the advertising industry seems to struggle to adapt to the Internet may also be understood as a consequence of challenges in bridging different types of knowledge and a sense of lock-in. Apart from this, other types of institutional arrangements are important for understanding the adjustment processes at hand. In particular, industry representative bodies and organizations are often seen to have a role to play in terms of collective learning (Faulconbridge 2007).

The industry organizations within the local market communication industry in Oslo largely seem to reflect the technological channels through which advertising campaigns are distributed. As we shall see later in the thesis this may also have contributed to the present situation where learning and upgrading of the industry across various technological platforms face difficulties. The number of industry organizations within advertising and market communication may suggest that the institutional apparatus surrounding advertising is fragmented: The Norwegian market communication industry is represented by no less than 15 industry organizations reflecting various technologies and media channels. There are also signs that the organization of the local advertising industry is poorly coordinated. So the structure, the amount and the contact across the industry organizations may slow down capabilities for collective learning across different media and professions within market communication. Part of the reason for this fragmented structure may be that the industry organization for the advertising agencies has traditionally focused on creators within mainstream advertising, which has resulted in a situation where other actors that operate in different media channels have established their own interest organizations, and these have not communicated that much among each other.

18 These are ANFO (Advertisers), Designbyråforeningen (Design), GRAFILL (Visual communication), INMA (Interactive marketing), Kreativt Forum (advertising), Mediaforum, MiO (Media agencies), NIR (PR consultants), NORDMA (Direct marketing), Norges Markedsføringsforbund and their 10 local branches, Norsk Form (Design and architecture), Norsk kommunikasjonsforening, Norsk markedsanalyse forening (NMF), NRF Norske Reklame Fotografer and PIN (Publishing agencies).
INMA, the industry organization for interactive marketing in Norway, has 19 advertising agencies as members\textsuperscript{19} (16 per cent of the total number of INMA members and 16 per cent of all advertising agencies in the county of Oslo\textsuperscript{20}). The various industry organizations also arrange their own respective awards, something that further contributes to a fragmented professional industry community within market communication. This specialization within industry organizations may be a good thing in times of incremental innovations, but it may similarly be a potential hindrance for innovation in times of rapid change. Such a fragmented organization of the industry may possibly affect the degree of collective learning, knowledge externalities and innovation to occur across companies and competencies. The scarce resources from the start get additionally limited as they are divided between several actors, and make it harder to benefit from economies of scale. Existing literature (Porter 1990) suggests that a well functioning institutional set up such as industry organizations and supporting institutions are essential to competitiveness and innovation. A ‘narrow’ or specialized focus in industry organizations can make it harder for the advertising industry to see the wider industrial landscape in which they are part. A consequence may be a lack of understanding across professional disciplines within the market communication industry, and a limited and fragmented competence building and professionalization of the industry.

Parallel to what seems to be a path dependent behaviour among the advertising agencies, other institutional factors may also contribute to a situation where the industry as such function sub-optimally in regards to relating to and integrating new technology. The local advertising schools have largely treated the Internet as any other medium and not given it any other priority than the other media channels. The fragmented structure of the industry organizations serve to attend to each respective member group, but may be a hindrance when new (external) technology requires them to coordinate and diffuse their resources and knowledge forms. The division of labour and competition between the advertising agencies and the media agencies also contributes to an industrial system that is very much geared towards exploiting a given technological production regime or paradigm.

\textsuperscript{19} Based on information on the INMA website in October 2008
\textsuperscript{20} Source: Big Book, published by Findexa Forlag AS, www.bigbook.no
5.5 Innovation cycles of specialization and diversity

Moving on from the discussion of whether the new economic activities associated with Internet-based market communication stem from within or outside the established advertising industry, this section presents the findings in terms of different modes of industry agglomeration.

Regarding specialization and diversity the case study of the Norwegian advertising industry has shown that there have developed parallel local communities for innovation and learning that have had trouble communicating with each other. In terms of the analytical apparatus and terminology of the discussion of social capital one may say that there has been mutual trust and a shared social understanding within both the analogue and the interactive production regimes respectively. On one hand, the new digital and interactive production regime possesses a common set of norms and mutual trust and understanding, whereas on the other hand there seems to be a somewhat similar and parallel social codex in the creative and ‘analogue’ one-way mass communication production regime.

The case study has shown that this particular industry has been focused around productivity, excellence and creativity – within a set of given frame conditions. When the existing industry and practices face new technological possibilities however, there seems to be a lack of driving forces or incentives in the industrial system to explore and exploit this new technology. Many of the largest advertising agencies have for a long time been reluctant to explore the new field of marketing on the Internet, and have instead continued to focus upon the more prestigious advertising channels TV and print.

In a period of specialization and productivity gains in terms of exploitation of well known resources and one way mass communication technologies, there is a focus on incremental innovations and a form of bounded creativity within a certain technological paradigm. However, when new technology enters and becomes available on the market, this may require other forms of organization of the industry in question. Instead of being primarily oriented towards specializing within a particular field, it may then become crucial to be part of a more open industrial system in which there are linkages and possible knowledge sharing with other related and unrelated sectors. Contrasting such an open organization the advertising industry has been specialized within one technological paradigm and generated a reluctance to step outside of the present production regime.
Figure 13 illustrates how this process may be illustrated as a cyclical relation between localisation economies and urbanisation economies. The research question of whether it is specialization or diversity that has the strongest economic effect therefore has to be answered by reference to the two constituting modes of a cyclical process rather than opposing and separate categories.

<table>
<thead>
<tr>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
<th>Time 4</th>
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<td>Advertising</td>
<td>Advertising and Internet-based service providers</td>
<td>Towards Internet-based market communication</td>
<td>Market communication in the Internet era</td>
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<tr>
<td>Initial cluster</td>
<td>Jacobian cluster</td>
<td>Integration</td>
<td>New cluster</td>
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<tr>
<td>Specialization</td>
<td>Parallel specializations</td>
<td>Orchestration</td>
<td>Mutated specialization</td>
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<td>Localization economies</td>
<td>Urbanization economies / related variety</td>
<td>Towards new localization economies</td>
<td>New localization economies</td>
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Figure 13: Cyclical cluster evolution from advertising to Internet-based market communication

The case study has shown that in terms of conceptualising the knowledge portfolio of the market communication agglomeration in Oslo, one may say that the growth and maturation of the Internet in market communication has caused a regime specialized in one-way mass communication media (Time 1) to become split into a more diverse and fragmented set of smaller an niche oriented suppliers and sub-contractors (Time 2), which due to the need for an integration of strategic, creative and technical services online is followed by an orchestration phase (Time 3) that will result in a new online regime. Due to knowledge diffusion this new regime will face sharpened competition and eventually will become more specialized and focused on productivity gains (Time 4). The emergence of new actors represents an agglomeration mode of diversity, which subsequently is followed by diffusion of innovation,
integration of new services with existing services, and finally specialization due to price competition within the new regime.

To some degree it seems as if the localized Internet-based market communication industry in Oslo resembles theorizing on the cyclical nature of industrial change, where innovation is followed by diffusion, increased competition and new specialization (Mariussen 2008). However, to the degree that the local industrial system is characterized by a fragmented institutional set-up reflecting the previous technological regime, this may prevent an effective diffusion and learning across various actors in the new Internet-based market communication industry (lag in time 3). In terms of the cyclical nature of innovation, it seems that theorizing on localized interactive learning describes the process of diffusion of the innovations more than it explains the emergence of the same innovations.

Regarding implications for industry organization, if products and industries are best understood as going through various phases from emergence to maturity, there does not seem to be any universal or eternal optimal recipe for how an industry should be organised. Instead the principles and institutional endowments surrounding an industry should perhaps aim to be flexible and able to adjust easily according to what stage a given industry finds itself at. The apparatus surrounding the industrial system in market communication could have been more attuned to changing circumstances in order to pick up on and to be able to upgrade or integrate new competencies, technologies and mentalities. The restructuring phase that the industry is going through could perhaps have been better facilitated through a platform organization (Cooke 2008), in which the various actors would be integrated horizontally, than through an industry specific or value chain organization.

One way for studies of clusters and agglomerations to respond to the challenge to bridge considerations of maintaining competitiveness in existing industries and of the emergence of new industries is to put more emphasis on the interface between localisation economies and urbanisation economies, and on the consequences of various combinations of input factors. The related variety approach may be seen as such a new emphasis; as a form of synthesis between localisation economies and urbanisation economies, and as such a way to supplement the predominant focus on productivity and specialization in agglomerations with a closer focus on emerging economic activities. However, as discussed in paper three the way the related variety approach has been applied so far is based on a rigid and one-dimensional measuring of the multifaceted nuances of economic life and industrial relatedness.
The above illustration and reading of the industrial development process would imply seeing localisation economies and urbanisation economies respectively as describing modes of innovation belonging to various life stages of the innovation process rather than (statically) referring to different kinds of industries or regions. So instead of seeing the economy as consisting of various industries working in this way or that, another way to perceive industrial dynamics is through seeing the economy as evolving through various life cycles (Audretsch and Feldman 1996), continuously fluctuating along the scale from localisation economies to urbanisation economies depending on the need for integration of external inputs, knowledge or new technology. This also reflects the call for joint efforts across studies of entrepreneurship and innovation systems (Spilling 1998 (2006)) in search of a more nuanced and refined understanding of the dynamic world and economy.
6 Broadening the perspective: Drivers of regional development

The findings from the case study on the digitization of advertising have implications for how we think about the underlying mechanisms for industrial change and urban and regional development. This chapter discusses some interlinkages between the case study on the digitization of the advertising industry and the theory on the creative class. The chapter also examines how the findings from the case study relate to and have consequences for our understanding of drivers of urban and regional development.

Some of the more underlying and fascinating insights generated by the study carried out as the majority of this dissertation relates to the finding that the introduction of new disruptive technology in the market often implies the establishment of altered or new conditions for urban and regional growth. In itself, it is interesting to note how the interactive nature of the Internet differs from other one-way mass communication media, and how this means Internet advertising perhaps works best when coordinated with existing online products, services, user experience and e-commerce solutions. In paper number two it is suggested that the Internet is an example of a new technology that needs to be interpreted differently from other media channels within the previous technological paradigm or regime. It has also been interesting to see how this case study bears close resemblance with parallel processes of technological renewal and adaption in many different industries, in which the incumbents are often challenged by a set of newcomers and start-ups that are faster in developing the best skills and building their business model around and suited to the new technology and tomorrows customers, instead of trying to make the new technology fit with yesterdays customers, technology and business model (Levitt 1960; Bower and Christensen 1995). The disruptive nature of many new technologies makes it hard to predict the possibilities and challenges of the economy of tomorrow if such a foresight is based on the basic principles of today’s economy. This understanding reflects the evolutionary development path of the economy and society.
When trying to capture how drivers of urban and regional development influence industrial change it seems as if it is not a question of the one or the other. Rather, important questions are: How do the driving forces (i.e. existing / emerging industries; diversity / specialization and production / consumption) work together internally? How do the different drivers interact? In relation to later developments within agglomeration theory, it seems that a traditional focus on (systemic) context is being complemented by a renewed focus on (evolutionary) industrial change within various contexts. As such this may suggest that there is an ongoing convergence between understanding of and theorizing on innovation systems and industrial agglomerations.

It may be discussed whether the current case can be perceived in terms of incremental innovation, radical innovation or industrial mutation. The findings from the present case study depend on how one interprets the current industrial transformation process. On the one hand it may be said that a mature and established industry is struggling to relate to and implement new generic technology. Such a reading would be in line with a localisation economies explanation and tradition. On the other hand one may perceive this process as an example of industry convergence and industry mutation within an urbanisation economies context. The latter interpretation would be more in line with an inter-sectoral (Jacobian cluster or platform) approach to industrial dynamics. Some of the recent cross-sectoral approaches in economic geography make an attempt to bridge or nuance the (analytical) dichotomy between localisation economies and urbanisation economies. The convergence between different skills and services documented in this study (see paper two) could be interpreted as an example of a merging of initially different value chains in a localized industrial setting. This would imply understanding the immature industry (i.e. Internet-based market communication) as having emerged from unrelated variety (as discussed in paper three), and due to technological convergence and industry mutations the rules of the game have shifted in a sense that has made the formerly unrelated industry actors related. Alternatively the introduction of the Internet into market communication may be perceived as an example of an industrial mutation between co-existing clusters, and as the seed to an altered industrial landscape.

Independent of which interpretation one finds the most appropriate, it seems that in a case with a generic technology like ICT the ones that possess skills within the new technology are better suited to implementing the new technology into new products and services than those who need to adjust to the new technology. One may therefore say that knowledge on new technologies and possibilities first emerge outside established industries, and
are then gradually implemented, acquired or merged with the established industry in question.

Some of the challenges for the incumbents of the advertising industry in Oslo have been to acquire and learn the new skills and competencies required to be able to offer good online advertising services. To the degree that there exist good competencies, they tend to be poorly integrated across the wider industrial system. Various actors have taken different paths, either through establishing in-house departments, through collaboration with sub-suppliers or through employment of skilled personnel. In terms of policy implications regarding knowledge provision it is important both to follow up on changes in educational needs and provide knowledge, but at the same time to stimulate to the combinations and re-combinations of various forms of knowledge in the economy.

When new technology becomes available on the market, this may require other forms of industry organization. Instead of being primarily oriented towards specializing within a specific field or within particular technologies, it may then become crucial to be part of a more open industrial system in which there are linkages and possible knowledge sharing with other related and unrelated sectors. On the other hand, it is not decisive which types of firms that survive and which that will add work (Jacobs 1969).

How do production and consumption constitute drivers for economic and regional development? In synthesizing the findings from this study on the relationship between the various driving forces for urban and regional development, it might seem as if these might represent an internal conflict. On one hand, paper number four on the creative class concludes that people climate is secondary to business climate in the Nordic countries, at least on a national level. In this sense the findings from the creative class paper serve to maintain the discourse on the dichotomous relationship between productive versus consumptive forces in governing urban and regional growth and development. On the other hand, the new dynamics and logics for market communication uncovered in the case study on the digitizing of the advertising industry indicate that production and consumption tend to melt together, and that at least from a perspective on this particular industrial segment it becomes hard to maintain a dichotomous relationship between production and consumption.

Cities are no longer seen as landscapes of production, but as landscapes of consumption. (Zukin 1998 p. 825)

What is the connection between the tendencies towards a merging between production and consumption in digitized market communication and drivers
of industrial change and regional development? Although at different analytical levels, both the case study on the digitization of the advertising industry and Florida’s thesis on the creative class revolves around consumptive driving forces in industrial and regional development. On the one hand the case study on the digitization of the advertising industry has shown how the recreation and consumption of the end consumer is increasingly included in the production process of market communication and business services. On the other hand recreational and consumptive preferences have increasingly become acknowledged as an important determinant to the location of the creative class. Although constituting different analytical levels these examples illustrate two ways in which consumption becomes a more integrated and central part of production and of economic and industrial development.

The application of Florida’s thesis on the creative class in a Nordic context in paper number four found that it is hard to apply the thesis on the creative class in the Nordic countries. This is due to the structure of the urban hierarchies within these countries which do not allow for the same thick labour market and equal job opportunities in several cities within the Nordic countries. Also, the Nordic welfare policies serve to erase potential regional differences and competitive advantages in terms of people climate. The paper found that the creative class values people climate, but it is secondary to business climate as a location determinant. However, another finding of this paper is that the creative class thesis may work better on a Nordic or international level. If workers have more or less equal job opportunities in several Nordic capitals or cities, then people climate will constitute a more important determinant in relation to the location decisions of the creative class. Applied to the case of the Oslo advertising industry, this implies that the lack of skilled personnel within interactive marketing identified in paper number one may be met by the attraction of skilled workers and the creative class internationally. Based on the interviews conducted in the case study on the advertising industry it seems that Stockholm and Sweden has got a better educational offer within interactive marketing than Oslo has. At the same time Sweden performs better than Norway on international rankings for interactive advertising (The Gunn Report 2007; World Advertising Trends 2007). This is a situation in which the mobility dynamics of the creative class might have an effect on a Nordic level (provided that the creative class workers find Oslo more attractive to live in than Stockholm). Business climate factors such as generally higher wages in Norway than in Sweden and the strong Norwegian currency together with possible people climate factors might potentially contribute to attracting knowledgeable workers from Sweden to Oslo. This application of people climate and business climate factors onto the Norwegian case study illustrates how the two types of factors can co-exist.
However, the structure of urban hierarchies and characteristics of the Nordic countries may not only have consequences for the mobility and locational preferences of members of the creative class in the Nordic countries, but also for the industrial dynamics within and between cities. In line with the findings and discussion in paper number one, the notion of collective learning may serve as one example of how urban structure and characteristics may influence industrial dynamics. Faulconbridge (2007 p. 977) has described how actors in the advertising industry in London may benefit from the city’s competition for business in a global marketplace, in the sense that all firms in some sense play on the same team and compete against other world class cities for large international clients. According to Faulconbridge the workers share a sense of community and benefit from collective learning spurred by industry organizations and formal meetings which eventually may lead to informal communities of practice. As the advertising industries in the Nordic capitals and particularly in Oslo primarily serve local and national clients, there is no similar strong incentive to act collectively at the regional level to improve the competitiveness of the entire industry. As a consequence there may be stronger inter-firm competition and less collective learning within the localized industry.

How do specialization and diversity constitute drivers of urban and regional development, and how do the findings from the case study relate to this? As the study of the digitization of the advertising industry shows there is a need for bridging creative and interactive skills sets. The creative teams of the advertising agencies need to make their knowledge base more compatible with the practical problem-solving of adapting their creativity to new technology. These findings tap into the discussion on how diversity may spur innovation, and how and to what extent various types of knowledge and knowledge bases are ‘compatible’. Florida’s theorizing on the creative class has emphasised how diversity and urbanisation economies are important to innovation in production. Later trends on innovation and education policy (Finland’s National Innovation Strategy 2009; Jensen et al. 2007; Hill 2007) also signal a move towards a closer integration of various forms of competencies that sees connections between areas that have traditionally been held separate.

In order to arrange for an innovative and learning economy that encourages and enables inter-disciplinary connections and interlinkages, it may be important to bridge various knowledge bases. One way to pursue such a goal would be to incorporate new elements in different types of education, e.g. to incorporate practical elements in theoretical education, and vice versa. Another way would be to allow building on a practically oriented education in a theoretical way or the opposite. The point is that the educational system represents an important part of the economy’s ability to learn. This can
possibly help facilitate more seamless communication, shared understanding and mobility across various knowledge bases, which in turn might address the lack of collective learning identified and discussed in paper one. Taken further, one may also discuss how there may be elements of practical problem solving and creativity to be unleashed in any type of occupation. This way of thinking across occupations and knowledge bases in the entire economy would imply that the notion of the predefined and limited creative class becomes too narrow to capture the full creative and innovative potentials of the entire workforce. The degree to which this potential is taken out may depend upon national and institutional characteristics of culture, education and work conditions. The Nordic countries seem to possess more equality on the labour market than other countries whose labour markets tend to be more hierarchical. Businesses in the Nordic countries also seem to be more open to impulses from customers than businesses in other countries (Parent-Thirion et al. 2007).

21 The discussion in this section is inspired from forthcoming and not yet published work by Lorenz and Lundvall.

22 This equality and openness consists of various variables, such as autonomy of employees in the workplace, share of workforce dealing with people that are not employees, pace of work dependent on demand from customers, pace of work dependent on boss, autonomy over working time and general influence upon the work situation.
7 Concluding discussion

This thesis has focused on how the advertising industry in Oslo is currently undergoing a process of adaptation to Internet based advertising and market communication. The study has emphasised how this process may be seen as an example of creative destruction, where some economic activities become supplemented or replaced by others through novel combinations of existing and new knowledge and technologies. The study has also linked this case study to some of the wider underlying driving forces for urban growth and regional development, primarily through a paper on applying the creative class thesis onto a Nordic context. This last concluding chapter sums up the major findings from the study and attempts to reflect on some of their theoretical implications.

7.1 Summing up

In summary the thesis presents some new insights in two main areas: How the Internet affects and serves to alter the advertising industry, and the drivers and mechanisms underpinning technological transformation and urban and regional development.

As an example of a new and maturing technology the Internet may contribute to increased productivity within this particular industry (e.g. more effective distribution of an advertising campaign). Moreover the study has illuminated how technological maturation and integration alters the relation between existing industry actors and creates new preconditions, principles and logics for the way in which market communication works in the Internet era. The creative destruction of the DNA of advertising and market communication consists of new ways to relate to, communicate and interact with the consumer, as well as a merging across market communication and product development. This opens up for new skills and services, such as strategic business development or technical services regarding online visibility, access, e-commerce or user experience. Not least this implies an integration and bridging of strategic, technical and creative forms of competencies within Internet-based market communication.
The three sets of drivers of urban and regional development explored in this study have not turned out to be questions of either or but rather both: Actors outside the traditional advertising industry have been the first to explore the new possibilities within interactive online market communication, but the technological and industrial convergence taking place in online market communication consists of actors across existing creative, strategic and technical domains. The study has also found that industrial development may be conceptualised in terms of a cyclical relationship between knowledge externalities from localisation economies and urbanisation economies. Finally, productive and consumptive drivers for industrial change and urban and regional development seem to merge in online market communication.

In terms of specialization and diversity, the study has acknowledged that the related variety approach represents an interesting way to explore the interfaces between localisation and urbanisation economies respectively, but that the approach is still quite one-dimensional. Technological development will continuously serve to alter the degree and ways in which various industrial actors are related to each other or not. The study documents how it may be more useful to think in terms of modes of diversity and specialization in a continuous process. The study has also found that the maturation and integration of ICT (e.g. the coupling of front-end and back-end programming) has made formerly unrelated actors (e.g. creative design and strategic business development) and industries become related. This insight signals how the relationship between diversity and specialization is fluid and subject to continuous change.

Another finding relates to how geographical proximity among the service providers in market communication may be a prerequisite for innovation and interactive learning, but it does not seem to be sufficient to benefit from knowledge externalities. Epistemic and cultural factors also seem to be of equal importance in accommodating for learning and for the spill-over of (tacit) knowledge across creative and interactive domains. In terms of epistemic constraints to innovation and its diffusion, there both seems to be codified and tacit dimensions of the different types of knowledge which prevent (or slow down) collective learning and innovation.

### 7.2 Destructive creativity

The study demonstrates how the advertising industry faces the challenge of decoding the logics of marketing on the Internet, and how interactive marketing methods seem to represent a barrier between two production regimes. In a general sense the findings from the case study show that a
creative industry like advertising struggles to adapt to new technology like many other industries. Although the cultural industries are often grouped and treated as a special set of industries possessing characteristics such as flexible and project based organizational principles (Grabher 2001, 2002), this study has shown that the advertising industry, despite being a creative industry, faces the same challenges and problems as other industries in adapting to a new generic technology. It seems that creativity within advertising has existed within given boundaries based on one-way mass communication media and technology. Rather than constituting an innovative asset facilitating collective learning, the organization of creative teams within the project ecology of advertising may serve to slow down the ability to learn across various forms of knowledge and skills sets. One implication of this is that the industrial organizational structures within a production regime may not always be the best when the regime needs to change.

As the incumbents of the advertising industry have been late in reacting to the new technological challenges and opportunities, this implies that the creative practitioners within this industry are also bound by some epistemic, cultural, social and cognitive restraints that have caused a form of path dependency and myopia. It seems then that epistemic and cultural factors are more important to learning and innovation in advertising than geographical proximity. Geographical proximity may be a prerequisite but it may be insufficient to gain from interactive learning and knowledge spill-overs across disciplinary borders. In this sense the findings of the present study give support to the view that geographical proximity may be a necessary though not necessarily sufficient prerequisite for localized learning and innovation (Boschma 2005).

The study has found that the implementation of new generic technology into market communication represents disruptive innovations that alter the internal DNA of the existing market communication industry. The Internet represents possibilities for adding work (Jacobs 1969) to existing structures, product portfolios and business models in and related to advertising. It seems that it is mainly other types of actors outside the traditional advertising industry that position themselves for, and who explore, the new technological and industrial opportunities. The new online market communication platform is becoming populated by different kinds of actors from across different industries and value chains. The technological development and industrial convergence and mutation have made actors that formerly may not have been regarded as related or rivals into potential competitors for the same market share. The convergence of technologies and markets also make current ways to measure efforts in online advertising and distribution of a campaign obsolete, as this should be seen in closer accordance with e.g. ICT investments and strategic business and product development.
This may subsequently diminish the role and importance of the traditional creative input factors in advertising. Despite being a ‘creative industry’ the advertising industry has problems renewing itself and relating to new technology. One may view the creative exploitation of existing media channels as myopia (Levitt 1960) or as a technological trajectory (Dosi 1982) that has distracted the industry from exploring new media more actively. The advertising industry faces the same challenges as other industries in respect to adapting to and implementing new and emerging technologies and dealing with their socio-economic implications. Advertising is thus yet another (creative) industry that struggles with adapting their core products and business models to the Internet. The creativity in many of these industries thus operates within certain given boundaries, and may not always be as open-ended as one is inclined to think. Seen from the advertising industry it thus seems as if a potential process of creative destruction instead has taken the form of creative distraction.

7.3 The rise of the amateur class

The innovation systems and cluster literature has traditionally been preoccupied with the systemic and spatial relations among the producers, their subcontractors, collaborators and rivals. The present case study on the digitizing of the advertising industry may serve as an example of how the governing principles behind open source and web 2.0, in which the consumer takes an ever more active role in the shaping and re-shaping of an actual product or service, may be transferred onto the notion of innovation systems in general. The central principles driving economic development in such an enterprise 2.0 based innovation system are mash-up of services, open source and an integration of the consumer into the innovation system in which users’ problem-solving based on a non-profit rationality and sharing interact with and supplement the more traditional private investment innovation model. This conceptualisation resonates well with other concepts for understanding user-driven innovation systems, such as the notion of prosumers (Toffler 1980), ‘private-collective innovation model’ (von Hippel and von Krogh 2003), crowdsourcing (Howe 2008) or co-development (Grabher, Ibert, and Flohr 2008). As new technology enables new products and services to be evaluated, modified and even in part constructed by the consumer, productive and consumptive factors merge. As such one may talk about a rise of a (sophisticated) amateur class as a powerful force in innovation and in economic growth.

23 This title is inspired by Howe’s (2008) chapter 'The rise of the amateur’ and Florida’s (2002) ‘The rise of the creative class’
The advertising campaigns that manage to involve the end consumer, such as through enabling private remixing or production of a homemade TV commercial or a song, and interaction and inputs from the users and the consumer ensure a new form of innovation system which is anchored in the context, preferences and interests of the consumer. In addition to being continuously updated in real-time such an innovation system will have a cost-efficient distribution of the campaign through online viral marketing and buzz. All leisure activities and working hours in the world become potential parts of the web 2.0 or enterprise 2.0 innovation system. Von Hippel (2005) has discussed how user-driven innovation unfolds and constitutes important elements of today’s innovation systems. However, less has been done in terms of conceptualising the spatial implications of this form of ‘glocal prosumtion’. The importance of consumer inputs to online market communication also has implications for how we think about local and global inputs to the production process. In addition to the prescribed necessary balance between local and global inputs to the producers of a localized industrial cluster (Bathelt, Malmberg, and Maskell 2004), it might be equally important to have parallel local and global inputs to a continuous reception, ranking, reviewing and redevelopment of existing products and services from consumers worldwide. It seems as if online the production spaces become ubiquitous and transcend the boundaries of local and global, as well as the boundaries between the producer and the consumer or private and professional.

It has been asserted that ‘creativity is becoming the currency of the contemporary economy’ (Vinodrai 2006 p. 237). However, the findings from the present study suggest that interactivity replaces creativity as the currency of the enterprise 2.0 economy. At least it seems that interactivity provides a new framework for a re-configured and more untraded and personalized form of creativity. The examination of how creative and interactive domains are merging across productive and consumptive domains brings forward a discussion on how the cultural or creative economy is perceived and relates to the rest of the economy. Consumer creativity and communication online interacts and affects all kinds of commercial activities. Such an integrated form of the interactive-creative economy may be seen as the result of a close interaction with or inclusion of the content provided by the end consumers or the place-bound characteristics of the product or service in question. So perhaps there is a need to understand in what way culture is not only a group of industries or service inputs to other industries, but that it constitutes vital parts and building blocks of the online economy?

What are the implications of the development towards a merging of production and consumption? One of the implications of the new integrated relation between the producer and the consumer online is that cultural/leisure
activities and business merge. When non-profit leisure activities and cultural content production increasingly take place within commercial settings, cultural and industrial spheres (and policies) will potentially affect and benefit from each other. This resembles the way in which private and professional spheres of the economy may be bridged, such as through the notions of people climate and business climate (Florida 2002), or through networks of trust (Ettlinger 2003).

When production can no longer be seen independent from its consumers, what implications does this have for how we think about context? If both productive and consumptive factors should be treated equally, and perhaps simultaneously, the focus on (institutional and societal) contexts for production should be succeeded by a similar interest in the contexts of the consumers. When consumptive elements are intertwined into production it becomes crucial for the producer to be able to not only know who the consumer is but also to understand and interact with the consumer online. This may also have consequences for how and to what extent the context of the consumer becomes relevant to the production process. Traditionally, studies in economic geography have tended to concentrate upon the producer and their (institutional and societal) context. But parallel to the focus on how context influences production there is perhaps a need to realize that the consumer is also situated in contexts which affect the reception and relation to products and services. From talking about skilled workers one may be starting to talk about passionate and sophisticated consumers, as well as about a sophisticated understanding among the producers of the context of the consumers. In this sense it is important for producers (in this case market communication service providers) and their clients to recognize how new social media and online communities entail new requirements for ensuring a close relation with the end consumers through creating spaces in which they want to take part.

7.4 Enabling creative destruction

The fragmented structure of the industry practices and organizations in Norway, as well as their specialized and skills specific arrangements may represent a possible hindrance to effective collective learning and knowledge sharing. The institutional set-up surrounding the advertising industry and its related industries may in this sense not accommodate a necessary focus on inter-disciplinary learning and exchange in such a period of technological and industrial change.
Together the papers have made relevant a discussion of whether today’s policies directed at industrial innovation are sufficiently inter-sectoral and adequately integrated with the remaining political apparatus. The study has attempted to underscore how the cultural economy is not only a closed sector but rather an intrinsic part of the entire economy through relating to technology, to consumers and to the region. As new generic technologies such as the Internet mature, they gradually become applied and implemented into existing industries (Jansson 2005). To the degree that industrial policies (including educational offerings) are targeted towards particular and pervasive new technologies or industries, they should not necessarily be limited to focus on the new technologies or industries in themselves, but to ease and facilitate a synthetic implementation of these onto potentially all existing industries the entire economy. In terms of challenges to technological adaptation advertising is not so different from any other industry. One should avoid treating the cultural industries as a separate group of industries, and there may be potential gains of seeing various industries as part of larger societal contexts. This finding points to a need for integrated and horizontal innovation policies.

7.5 Future research

The findings from this study and the conceptualisation of the drivers behind urban and regional development have signalled that some of the mental maps that drive the discussion within economic geography may not always be the best tools to analyse and comprehend the dynamic economy. It is important to continuously revise the conceptual tools by which we seek to pin down such mechanisms and drivers. In order to avoid interpreting an evolutionary external world with skewed frames of reference it is crucial that our interpretative tools reflect the external dynamics and are not based on a different economic or technological rationality. This represents a need for developing a dynamic and evolutionary understanding of systems of learning (Edquist 2005). According to Edquist (2005), systems of learning would expand and transcend the systems of innovation approach by focusing more on the fundamentals for innovation systems, i.e. the infrastructure for learning and knowledge generation.

24 This would be in line with the latest innovation policy trends from Finland, a country that in recent years has been seen to be in the forefront when it comes to implementing the latest analytical tools and apparatus in innovation policies. In the latest report on the Finnish innovation policy one seeks to broaden the base for what is included in the innovation policies and also renew and rearrange the institutional apparatus and underpinnings for the future innovation policies (EC 2008).
In the same way as industries need to adopt new technology and develop new products and services on the basis of this, economic geography and other disciplines must understand and capture how the economy works and develops in order to use updated tools to conceptualise and theorize on it. The way we learn should not be regarded as something static, but our perceptions also need to reflect changes in the world out there. So when the conditions and mechanisms for the external world change through the introduction of new technology, we accordingly need to change and adjust the lenses through which we seek to perceive and understand the world. This argument reflects Perez’s (2002) expansion of Schumpeter’s (1934 (1959)) term creative destruction from describing industrial change to also include institutional and mental endowments.

As most of this study has been limited to industrial dynamics in one location, future research on this topic could include conducting comparative studies where national and regional differences and similarities are explored in terms of institutional and structural practices. Resembling Storper’s (2009) call for more research on the interlinkages between innovation and diffusion locally and internationally further research on this topic can focus on how the current technological shift is influenced by ownership structures among various companies. Another way to continue research within this field is through a closer look at innovation in location-based marketing and the potentials in the future convergence across mobile communications and the Internet (Klaassen 2009). It would also be interesting to generate knowledge on various types of industries’ use and sophistication within online market communication.

Yet another direction for future research includes a focus on labour market mobility across interactive and creative domains. Future research could also include linking national or regional industrial specialization to comparative studies on innovation in market communication. Furthermore, aspects that were excluded from this study, such as the perspective of the clients or of the consumers, would be interesting to pursue in further research. Also, some of the findings from the present study call for new indicators for how advertising and market communication expenditure in various channels could be measured in the Internet era.

Finally, throughout the research process it has become ever clearer that the initial focus on how the Internet affects advertising is a topic that is not only a current challenge to service providers within market communication, nor to actors in the digital economy, but in fact to actors and businesses across the entire economy. This ongoing technological shift is not likely to be of less significance when TV becomes digitized or when mobile telephony becomes increasingly integrated into market communication. So although having been
able to go into depth on these issues within market communication, the topic seems far from fully explored. All businesses and industries need to relate to this in some way or another, and the socio-economic shift that this technological platform has opened up for will no doubt have far-reaching consequences for the behaviour of both businesses and consumers.
8 References


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9 Appendix
9.1 Glossary

SEA/Search Engine Advertising: Also often referred to as ad words, and refers to paid for advertisements integrated in search engines.

SEO/Search Engine Optimization: The process of improving the volume or quality of traffic to a web site from search engines via ‘natural’ or un-paid search results.

SEM/Search Engine Marketing: Refers to both search engine advertising and search engine optimization.

Web 2.0: Refers to social media and interactive communication from many to many. Other features of the web 2.0 paradigm include mash-up of services, open source and often being in a constant beta-mode.

Enterprise 2.0: The commercial edition of web 2.0. The notion refers to an online platform where companies use technology that lets users build structure over time. Such conscious use of transparent, distributed and user driven innovation based on the collective intelligence of many is assumed to cause competitive advantage of increased innovation, productivity and agility.
9.2 Interview guide

1. Bio (Education, former positions and experiences)

2. About the company:
   a. When was the company established?
   b. Number of employees
   c. What types of competencies do you have represented in the company?
   d. Core products and services
   e. How is the company organised?
   f. Who are your customers?
   g. Who are your competitors?
   h. Who are your collaborators?
   i. What are current challenges for the company?

3. Questions for key informants:
   a. How can the various parts of the advertising industry be grouped?
   b. What occupations does advertising consist of?
   c. How does the development of interactive advertising take place?
   d. What do you consider to be the most important changes in the advertising industry these days?
   e. What are the most central challenges to the advertising industry today?
   f. Is the advertising industry an innovative industry?
   g. Who are the most central actors within online/interactive advertising?
   h. How has the advertising industry developed throughout the last ten years?
   i. In what ways can the Internet be used in advertising?

4. Questions for entrepreneurs in web agencies and other related actors:
   a. Why did you start up?
   b. Why did you start up here?
   c. What have been the main motivations for setting up the company?
   d. How was the company set up?
   e. What have been the main challenges?
   f. What industry do you regard yourself as part of?
   g. Positioning relating to the advertising agencies

5. Regarding online marketing:
   a. Is the industry changing due to the Internet? If so, how?
   b. What are the driving forces behind these changes?
c. Do these changes possibly represent challenges to you?

d. How do you view the current situation regarding advertising on the Internet?

e. What is your impression of the advertising industry in Norway compared to other countries?

f. How do you view the Internet as a marketing channel?

g. What is the company strategy regarding online marketing?

h. How is the work on digital media organized in the company?

i. Is online advertising different from other advertising? If so, how?

j. How do creative and technical competencies relate to each other?

k. Examples of good cases of campaigns on the Internet?

l. Who do you view as the most trendsetting milieus regarding online marketing?

6. Regarding the industry in Oslo:

   a. How do you view the current situation in the industry in Oslo regarding online marketing?

   b. How is the access to new knowledge?

   c. How is the situation in the industry in Oslo compared to the rest of the country and other countries?

   d. Significance, use and role of industry organizations / industry events and meeting places

   e. Individual industry or professional community?

7. Feedback/comments on figure of industry structure? How / why?

8. Who else should I talk to?
9.3 List of informants

Informants in the interviews in the case study of Internet-based market communication, Oslo:

Grouping:

(A) Advertising agencies (13 informants)
(D) Design agencies (1 informant)
(E) Market communication education (6 informants)
(I) Industry organizations (6 informants)
(M) Media agencies (4 informants)
(P) Press (3 informants)
(R) Related industrial actors (6 informants)
(S) Search engine marketing (2 informants)
(W) Web agencies (9 informants)

1. Bendik Samuelsen, Associate professor, Institute for Market Communication, BI, 07.12.07 (E)
2. Bjørn H. Solvang, Managing Director, Futatsu Industries, 13.02.08 (A)
3. Børge Vik Sandengen, Managing Director, INMA, 26.11.07 (I)
4. Bård Torgersen, Westerdals School of Communication, 16.11.07 (E)
5. Casper Willer, Consultant, Naked Communications Copenhagen, 28.01.08 (A)
6. Charlotte Dahl Brekke, Managing Director and Partner, Mediafront, 15.02.08 (W)
7. Christian Fure, Digital business development director Vizeum, 14.11.08 (M)
8. Dag Inge Fjeld, Communications Consultant, 21.01.08 (R)
9. Even Aas-Eng, Managing Director McCann Worldgroup Digital Media, 06.03.08 (A)
10. Even Fossen, Managing Director, Making Waves, 03.12.08 (R)
11. Geir Modum Managing Director, Bates Red Cell, 24.01.08 (A)
12. Haakon Dahl, Managing Director, Kitchen, 08.02.08 (A)
13. Hans Hjellemo, Chief Editor, Kampanje Industry Magazine, 23.11.07 (P)
14. Helge Tenno, Strategic Manager, Screenplay, 22.01.08 (W)
15. Håkon R. Stenberg, Managing Director, Plastikk Media, 28.02.08 (W)
16. Jan Grønbech, Country Manager, Google Norway AS, 25.11.08 (S)
17. Janne Johannesen, Journalist, Dagens Næringsliv, 18.12.07 (P)
18. Karl Fredrik Tangen, Lecturer, Oslo Markedshøyskole, 05.12.07 (E)
19. Katrine Haug, Managing Director, Bleed, 29.10.08 (D)
20. Kjetil Manheim, Director Business Development, Creuna/Cobra, 05.11.08 (R)
22. Lars Bjørge, Manager, Tribal DDB, 11.02.08 (A/W)
23. Lars-Petter Windelstad, Creative Director, Hyperlinkto, 03.03.08 (W)
24. Maria Aas Engh, Managing Director, Outrider, 21.11.08 (S)
25. Martin Devold Soknes, Managing Director and Partner Soul Police AS, 28.02.08 (W)
26. Mona Jensen, Managing Director, Jimmy Royal, 15.02.08 (W)
27. Morten Kjærnes, Manager, Bates Red Cell Interactive, 24.01.08 (A)
28. Nils Petter Nordskar, Managing Director, Innoventure Communications Group, 27.02.08 (R)
29. Nina Marie Hølke, Managing Director, Confetti, 16.12.08 (M)
30. Ole Kristian Hustad, Partner APT, 13.02.08 (W)
31. Pål Eidholm, Managing Director Carat Interactive, 22.12.08 (M)
32. Roar Sletner, Managing Director, MIO, Mediebyråenes Interesseorganisasjon, 04.01.08 (I)
33. Ruben Søgaard, Managing Director, MediaCom, 29.10.08 (M)
34. Sol M. Olving, Managing Director, Kreativt Forum, 30.11.07 (I)
35. Stein Erik Selfors, former copy writer and Master, Institute of Marketing, BI, 13.12.07 (E)
36. Sveinung Totland, Managing Director, Voyage, 27.02.08 (W)
37. Tom E. Søgård, Managing Director, Dinamo, 25.01.08 (A)
38. Trond Blindheim, Principal, Oslo Markedshøyskole, 26.11.07 (E)
39. Trond Høiås, Westerdals School of Communication, 20.11.07 (E)
40. Trond Sønju, Manager, Schjærven Interactive, 30.01.08 (A)
41. Wenche Jacobsen, Managing Director, ANFO, 20.12.07 (I)
42. Øivind Breen, Managing Director, Grey, 06.03.08 (A)
43. Ørnulf Johnsen, Managing Partner, Naked Communications Oslo, 28.01.08 (A)

Informal and/or shorter talks:
44. Anders Christensen, Manager, Bekk Consulting (R)
45. Bjørnar Bugsrud, Creative Manager, DDB (A)
46. Christian Steen, Managing Director, SMFB Oslo (A)
47. Espen Dysvik Hagen, Copy writer and Creative Director, Grey Oslo (A)
48. Harald Grenne, Chief Editor, Kreativt Forum (I)
49. Line Midtsjø, Journalist, Kampanje (P)
50. Per Christian Bjørhusdal, Graphic Designer, Tarantell (R)
Informants in the interviews in the research project Technology, Talent and Tolerance in European Cities conducted in Oslo, Norway:

1. Policy maker/civil servant: Bernt Bull, Special Adviser, Ministry of Health and Care Services
2. Policy maker/civil servant: Øyvind Såtvedt, City Council Secretary / Chief of Staff for the Director of the City Council, Municipality of Oslo
3. Business manager: Jarand Rystad, CEO, Rystad Energy
4. Business manager: Anne Stavnes, Director Human Resources, Opera Software
5. Planner: Morten Bildeng, Byråd for finans og utvikling
6. Community leader: Fahkra Salimi, Leder, Mirasenteret
7. Creative class: Vegard Iglebæk, VIPE
8. Creative class: Christer Jensen, VIPE
9. Creative class: Hilde Madsø Jacobsen, Albatrass
10. Creative class: Christopher Garmann, DNV
11. Creative class: Marte Ness, DNV
12. Creative class: Kristine Hauge, DNV
13. Creative class: Christian Schuetz, DNV
9.4 Co-author declaration

Oslo, 2nd September 2009

To whom it may concern,

The authors hereby certify that the paper entitled ‘One Size Fits All? Applying the Creative Class thesis onto a Nordic Context’ is based on equal contributions by the respective authors, Andersen, Bugge, Hansen, Isaksen and Raunio.

Kristina Vaarst Andersen
Markus M. Bugge
Høgni Kalsø Hansen
Arne Isaksen
Mika Raunio
9.5 Definition of Oslo labour market region

The definition of the Oslo labour market region in the calculation of location quotients is taken from NIBR report 2002:20 (Juvkam 2002) and includes the following 30 municipalities:

301 Oslo
123 Spydeberg
138 Hobøl
211 Vestby
213 Ski
214 Ås
215 Frogn
216 Nesodden
217 Oppegård
219 Bærum
220 Asker
221 Aurskog-Høland
226 Sørum
227 Fet
228 Rælingen
229 Enebakk
230 Lørenskog
231 Skedsmo
233 Nittedal
234 Gjerdrum
236 Nes (Årnes)
238 Nannestad
533 Lunner
534 Gran
627 Røyken
628 Hurum
235 Ullensaker (Jessheim)
237 Eidsvoll
239 Hurdal
121 Rømskog
9.6 Relevant websites in Internet-based advertising

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11. http://nrkbeta.no/
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