Chapter 1

The Study, Its Design and Its Social Pre-conditions

Indrek Ibrus

Abstract

This chapter presents the many premises of this book. It first discusses the book's central questions and lays out the design of the large multi-national and multi-method study, carried out across Northern Europe. It also places the book at the interdisciplinary space between contemporary innovation economics and cultural and social theory. It then discusses the complex set of social processes that have conditioned the phenomena that the book studies – how and why are the contemporary audiovisual media industries co-innovating and converging with other sectors including education, tourism and health care? Within this framework, it discusses the effects of the broader individualisation and mediatisation processes, of media convergence, of the emergence of cross-media or transmedia strategies, of the evolution of the service and experience economies and of the emergence of creative industries policy frameworks.

Keywords: Cross-innovation; mediatisation; media convergence; cross-media; audiovisual media industries; creative industries

Nicholas Negroponte (1995): 'Early in the next millennium your right and left cuff links or earrings may communicate with each other by low orbiting satellites and have more computer power than your present PC'.

Roger Silverstone (1999): 'What will they say to each other, my cuff links?'

Indeed, what are the cuff links saying, now that the new millennium is well underway? Our newest technologies, even if they are not exactly what was imagined a quarter of a century ago, are very capable, of course. So, what are Siri, Alexa and others saying? It matters, since it is about communication and meanings, in the end. That is, it should be about what are we – everybody – doing with the new media technologies as they reach us? But it is also about what are all the others, those who have made the gadgets, those who have delivered them, those who may still own them and those who continue interacting with them – fetching data and injecting new algorithms, guidelines and questions – how do they all shape these gadgets, and via this, our communication, media usage and cultural practices? This book is about such questions. It is about dialogues between all those that shape, and what, then, are the cuff links, activity trackers, mobile phones, augmented reality glasses or any other new medium or communication device used for? Are they made to collect and interpret data on our health and wellbeing? Are they used to show and teach us new knowledge? Are they made to guide us through new surroundings, explain spaces to us and provide us with new experiences?

Under what circumstances would the distinct industries, say, tourism and media, decide to cooperate to provide us with these experiences and such uses of new technologies? What would make them co-innovate and what would hold them back? And how would the new medium then work – what will gadgets say and what will they show? These, again, are the questions that this book, broadly, asks. Yet, perhaps unusually, it does this, relying mostly on various forms of innovation theory and studies, especially those within the evolutionary and institutional economics that have addressed the nature of 'innovation systems'. It is because we want to understand these systems as they produce novelties in our lives. Relatedly, this book continues the work of those colleagues who have integrated economic innovation studies with cultural and social theory – especially Jason Potts (2011), John Hartley (Hartley & Potts, 2014), Stuart Cunningham (2014) and several others.

Yet, it needs to be emphasised, the protagonists – the case studies of this book – are the audiovisual (AV) media industries. We see that it is the AV media and their related industries that, paradoxically, are becoming both more dominant in contemporary culture and, as well as dissolving in it, they are both converging and diverging into an immensely heterogeneous pool of forms, practices and institutions. AV is increasingly used for learning, for personal communication and for modelling all relations. It is, in effect, the screenic, visual and AV forms of media that could be seen to mediatise the everyday textures of our lives (Silverstone, 1999). In this book, we are, therefore, interested in the specific ensembles where AV industries start co-innovating with three other sectors – health care, education and tourism – using available new technologies and other resources.

For this purpose, we have carried out an extensive empirical study consisting of 144 interviews and encompassing seven countries in Northern Europe – Denmark, Sweden, Finland, Estonia, Latvia, Lithuania and (Northern) Germany. All these countries are part of the Baltic Sea Region within the European Union

(EU) and our study was part of the Cross Motion research and development project,[1] part-funded from the EU Interreg programme. Regarding each cross-innovation area, we carried out two alternative sub-studies – a meso-level study and a micro-level study. The meso-level studies focused on comparative views on how the two industries were cooperating, co-innovating and converging in two select different countries: AV + education in Sweden and Finland (Chapter 5); AV + health care in Estonia and Denmark (Chapter 9) and AV + tourism in Latvia and Germany/Hamburg (Chapter 13). We interviewed a wide range of experts representing stakeholders in all our chosen four sectors – entrepreneurs, professionals, managers and policy makers.

The micro-level studies focused on the endeavours of specific start-up companies in different Northern European countries that were innovating at the same cross-sections between industries. As Cross Motion also financed the production of innovative prototypes by start-ups from around the Baltic Sea, we chose to observe more closely the struggles of a small subset of those start-ups. That is, we carried out longer-term observations on two start-ups in Estonia and Lithuania and their struggles to innovate in the education sector using augmented reality and virtual reality solutions (see Chapter 7); we also studied a start-up in Germany and another in Finland who innovated using AV solutions in the health care sector (Chapter 10); lastly, we observed the actions of small companies in Germany and Sweden that were innovating at the cross-sections between AV media and tourism (Chapter 14).

The multi-method studies of selected cross-innovation areas are divided into three larger sections in the book that all include introductions to the prevalent forms of cooperation and co-innovation between AV media and the other three sectors (Chapters 4, 8 and 12) and conclusions on the main findings in each section (Chapters 7, 11 and 15).

The subsequent pages present our conceptual assumptions before we embarked on our study. We discuss the broad social forces that could be understood to have conditioned these industries to cooperate and innovate together. In Chapter 2, we discuss the central concepts – *innovation systems* and *cross-innovation* among others – that we see as establishing the grounding for the intellectual work in this book.

Media Convergence

The idea of media convergence is more than 30 years old. Predicted by Ithiel de Sola Pool in 1983, the 'convergence of modes' as he put it, has been blurring the lines between different media since. The digitisation of all media as well as communications channels and protocols has allowed new combinations of formerly distinct media. Different combinations of television and point-to-point telephony have provided us, for instance, with Skype's video-calls and VOD-platforms

[1]See further: http://www.crossmotion.org/

such as YouTube. Combinations of all possible personal communications modes and recording devices (and more) have brought us contemporary mobile phones. Combinations of documentary film and tabloid press have enabled new multimodal forms of digital journalism such as Vice.com.

It needs to be recognised, however, that convergence is a concept with many implications. The term has been used generally as a flexible rhetorical device denoting the complexities of the modern media evolution (Fagerjord & Storsul, 2007). What this suggests is that convergence processes have been multidirectional and co-evolutionary. It has been a point of discussion whether the convergence of digital networks has been facilitating the convergence of forms of content, of industries, markets and policy frameworks, or if any of the latter has motivated the others. We posit that these have all been mutually conditioning. That is, they are co-evolutionary. Technical convergence of networks motivate visions of greater market scale, motivating in return investments in further network integration as well as in new cross-network or cross-media services. These developments may call for new domain-crossing regulations, but when these are enforced they facilitate again further convergence in networks, services, markets, etc.

The multi-directionality of media convergence refers to the paradox that much of convergence may in fact result in divergence (Jenkins, 2001) or emergence of new forms of media (Ibrus, 2016). This is because the new combinations may have entirely new properties and use values. Users may find the specific combinations more meaningful and relevant in their everyday lives. Also, the enterprises that produce these specific combinatory media are motivated to provide unique value to their customers and capitalise on at least temporary monopolies that this uniqueness enables for them.

This suggests that, effectively, media convergence refers to the emergence of new combinations of media that may, if adopted and diffused, eventually diverge, that is, emancipate, develop their own codified distinctions, markets, institutions, norms of transactions, professional identities, etc. As an example, we could think here of the rapid contemporary emergence of virtual reality (VR) as a combination of forms of videogaming, 3D modelling, film, social media, etc. This emergence has been facilitated by the rapid development of its own institutions, content and service markets, educational platforms, etc. It can be argued that the VR domain has started to operate 'auto-communicatively' (Ibrus, 2015; Ojamaa & Torop, 2015) re-affirming its existence with an assortment of self-codifying practices and self-addressed communications.

What this suggests is that the process of media evolution is constituted by constant dis- and re-assembling of media into new formations and sub-systems. The re-assembling is based on wider societal needs as well as on dialogic practices and knowledge exchanges between different media sub-systems or other knowledge domains. The further divergence and diffusion of new media formations is based on the success of their self-codification and institutionalisation.

Media convergence can also be multi-layered. While all new media are combinations (or remediations in terms of Bolter and Grusin (1999)) of earlier media, then these new formations may be connected and integrated either more or less strongly. Digitisation has enabled the rapid dispersion of media content across different channels and platforms. Content, its fragments or elements, can be moved from one media to another, creating meaningful connections between them, forcing cooperation and coordination upon them. The economies of scope logic have motivated media enterprises to develop various cross- or transmedia strategies that constitute another layer of media convergence. It is a 'higher' layer as it has the potential to integrate other singular, already convergent forms of media. The cross- and transmedia strategies were first recognised in academic literature in the 1990s and early 2000s (Jenkins, 2006; Kinder, 1991) and studies of these processes have formed a distinct academic domain of its own (Freeman & Proctor, 2018; Freeman & Rampazzo Gambarato, 2019).

When cross-media strategies are conceptualised as another 'layer' of convergence processes, we need to note that these layers may overlap with the ownership structures of media industries – consolidation of media enterprises and horizontal concentration of media markets has been a trend also associated with the digitisation and convergence processes. Yet, cross-media strategies may also function as market (or innovation system) coordination mechanisms, facilitating transactions and cooperation between different kinds of enterprises (of different media and of different sizes) and the related development and growth in some of these sub-domains. As evidenced by Bennett, Strange, Kerr, and Medrado (2012), the cooperation of the UK's public service broadcasters (BBC and Channel 4) with what were initially small independent digital content companies in the UK facilitated the development and growth of the latter. Working with large national broadcasters on their cross-media strategies and online output gave them the skills and experience to achieve international visibility and develop, eventually, new international strategies and presence. That kind of coordination and co-innovation processes; 'interactive learning' (Lundvall, 2010) of each other's knowledge domains and practices, can facilitate the emergence of new (convergent) industry formations.

The empirical and conceptual work on cross-media strategies form a basis for the work on cross-innovation in this book. Not only have several of our authors worked in this area before (Ibrus & Ojamaa, 2014; Ibrus & Scolari, 2012; Nanì & Pruulmann-Vengerfeldt, 2017), but the cross-media strategies could be understood as the Phase 1 of the processes and phenomena investigated in this book. This book looks at the contemporary co-innovation and systemic convergence processes between AV media and other sectors – education, health care and tourism. We argue that while the media industry has always cooperated with these sectors in various ways, their systemic convergence is new and at its contemporary scale, further promise is unprecedented. As such the convergence processes between different media constitute useful examples and provide potential insights on the further dynamics when the media industry starts to converge with other industries.

This is especially the case as in much of the media convergence processes the second or third party has anyway been a sector other than media – the information and communication technology sector (ICT), including telecommunications. The studies into how, for instance, formerly only desktop-optimised world wide web converged with mobile telecommunications industries to produce cross-platform web and also cross-platform or mobile-only content industries (Ibrus, 2013a, 2013b) have provided insights into the specifics of cross-industry co-innovation and convergence dynamics.

In the early 2000s, the telecommunications industries aimed to standardise and design the mobile web so that it would become a new networked content domain parallel to the world wide web (Ibrus, 2013a, 2013b). That scenario would have meant the evolution of two parallel hypertextually organised, but device-specific content and service domains: one limited to desktop devices and the other for mobile devices. Yet, as the engineering communities developed a dialogue across the industry boundaries, and new ways were developed to enable mobile devices to access web content, a very small number of mobile operators saw an opportunity for a unique selling proposition. They chose to offer access to the 'real web'. In parallel, the methods to adapt content for different access devices (what we now know as the 'responsive web') were also developed by a grassroots content developer community against the will of the major handset and software vendors, who preferred at the time not to openly reveal their handset characteristics and trusted their browsers to do the adaptation work. Content and service providers wanted to stay in control of the designs of their services on all devices. The eventual solution that resulted from the many power struggles between the converging industries was the technically converged cross-platform web while content and service developers became able to distinguish their output for different kinds of access devices enabling divergence in content forms. What this case study suggests is that convergence starts often from dialogues and knowledge exchange across existing industry boundaries, especially between relatively powerless grassroots communities. But the eventual direction of further convergence depends on the power of the converging sub-systems to retain their operational models, on how can these be matched, or on the perceived benefits of convergence for all the parties (for instance, market expansion).

Mediatisation

What the case study above also indicated is that when media and other sectors converge, the new combinatory formation needs to also accommodate 'media logics' (Altheide & Snow, 1979) of various kinds. Online content and service providers wanted to fully control how content is targeted to, and adapted for, different devices and user groups. It was important as direct contact with their audiences was central to their operational model. While technical convergence generally presumes universal standardisation to achieve maximum compatibility, media industries look to address the differences in cultural and social contexts where content is received and used. Meaningful life assumes meaningful distinctions and this understanding is among other things what media industries tend to bring to all cross-innovation and inter-industry convergence processes. We, therefore, suggest that the broad social process, recently labelled as 'mediatisation' (Hjarvard, 2013; Lundby, 2009), is central to understanding the contemporary convergence of media with other sectors.

There are many versions of mediatisation theory; it is mostly seen as another societal meta-process, part of general modernisation and equal to parallel trends such as globalisation, urbanisation or individualisation. The broad idea linking different approaches to mediatisation is that all social processes are increasingly mediated by media technologies, media institutions or media's representative conventions. All the social processes are enabled and coordinated by communications and as media 'modifies' communications (Krotz & Hepp, 2013) it shapes all social processes. To understand the ways this shaping happens is the focus of much of mediatisation studies. For the present purposes, however, we want to deploy an earlier and narrower approach to mediatisation – a tradition started with Altheide and Snow's (1979) work on 'media logic' that was later continued by Schulz (2004) and Mazzoleni (2008) and their conceptualisation of mediatisation.

The focus of the media logic concept has been on the principles and guidelines that media institutions apply when transmitting information and that are understood to inform social interactions. That is, the explicit focus of the concept is on the institutionalised media. The institutional approach to mediatisation has been further developed by Hjarvard (2008, 2013). In this book, we are similarly concerned with institutions and the meso-level of analysis – we look at how media industries co-innovate and converge with other sectors. Addressing how 'media logic' diffuses to shape operational modes in those other industries is one of the objectives of this book. Yet, we need to be precise here; media are complex, there are many media, different technologies and modalities, also institutions with very different kinds of rationales operating in different cultures and working with different talents and audiences. So, there must be many kinds of media logics, as pointed out by Couldry (2008, p. 378). In our analysis in the subsequent chapters, we are careful to note how the affordances of different media and rationales of different institutions express themselves in processes that could be understood as mediatisation. Yet, as analytical concepts we see as handy the system of four alternative ways in which media could affect social dynamics, designated by Schulz (2004).

First of these is *extension* – media just improves existing communication capabilities, advancing either transmission or decoding capabilities. Second is *substitution* – media substitutes for some social institutions or social activities. For instance, in case of hypothetical situation where VR replaces physical travel, or in much less hypothetical instances where online banking replaces high street branches. The third alternative is *amalgamation* – where media use is woven into existing social practices in ways that the media's definition of reality merges with the realities of that practice, creating an entirely new amalgamation. For example, in case of contemporary fitness trackers that encourage new modes of exercise and physical activity behaviour. Finally, *accommodation* – media is itself an influential economic and social actor that other sectors need to transact with and, therefore, accommodate.

Schultz's four modes of mediatisation are not mutually exclusive, but rather constitute analytically distinguishable components of the complex process. In this book, we will use these as tools to interpret ways convergence with media affects the conducts of other sectors.

Service Economy

One broader trend since the 1970s has been the steady rise of the service economy – seen often as an economic sidekick to the broader evolution of the information society. The broad argument since Bell (1973) has been that the driving force in capitalist economy is increasingly not physical resources and capital, also not material labour, but the processing of information, accumulation of knowledge and the resulting human abilities to learn and reach new ideas and discoveries. Processing knowledge means provision of knowledge-related services. And all of the four sectors, discussed in this book – AV media, education, tourism and health care – are evidenced (Gallouj, Weber, Stare, & Rubalcaba, 2015) to constitute some of the central forces in this general trend of the evolving service economy. All four sectors, for somewhat different reasons, but also as carried by the general trend, have been in the growth mode in recent decades. Education and health care are complex mixed-economy sectors where public subsidies are central, especially in Europe – therefore statistics on their economic contribution are scarce. But the statistics below by Eurostat and the World Travel and Tourism Council indicate the stable growth of the tourism and broader services sector in comparison to the general economy (Figures 1.1 and 1.2).

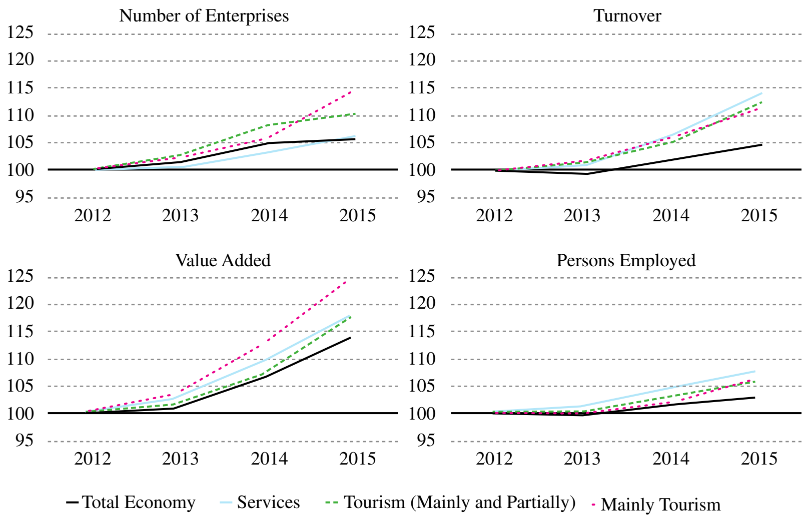

Figure 1.1. Growth of the European Union (28) Services and Tourism Sectors in Relation to the Total Economy, 2012–2015. *Source*: Eurostat.

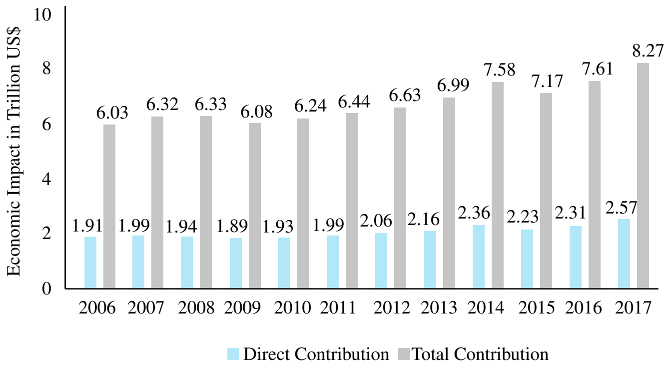

Figure 1.2. Direct and Total Contribution of Travel and Tourism to the Global Economy, 2006–2017 (US$). *Source*: World Travel and Tourism Council.

The growing importance of two of these four sectors – media and tourism – can be related to another concept – *the experience economy*. The argument here being that consumers are not only seeking out services that provide them distinct new information and knowledge, but also different new experiences. An 'experience' as such is often an alternative, entertaining form of acquiring knowledge and awareness. There is a related rationale to 'gamify' some of the services provided in more formal settings, such as health care or education. Videogame industries especially have developed new lines of business to gamify the services provided in these sectors. It has been projected that the revenues of the 'learning games' industries will more than double to US$8.1 billion by 2022, up from the US$3.2 billion reached in 2017 (Adkins, 2017). The more broadly defined global gamification market was valued at US$2.17 billion in 2017 and is expected to reach US$19.39 billion by 2023 (Mordor Intelligence, 2018). Therefore, these trends, the rise of the interrelated phenomena labelled as the information economy, service economy or experience economy, could be seen as facilitating the further convergence of the screen media sector with the other three sectors.

Individualisation

Also, the broader trend of individualisation could be seen to shape the convergence processes. As highlighted by Beck and Beck-Gernsheim (2002), individualisation associates with late modernism and inherently differentiated and complex societies – where information is processed to produce new spheres of knowledge, new meanings, experiences and identities. Here the cultural and media industries have a central role. Networked media and communications technologies and platforms, while facilitating new kinds of socialities, have enabled relative independence of workers in the economy and enabled more control for networked users regarding their communications and media choices. These same technologies have also enabled new forms of surveillance – used to collect data on users for service adaptation and personalisation. The latter – personalisation of services – has formed one of the core rationales for media innovation in the contemporary era. Media services are increasingly personalised and this presents a question: What does it bring about for co-innovation and convergence processes with other sectors? While health care services have been relatively personalised through all eras, education and tourism rarely have. Mediatisation of education and tourism is therefore disruptive not only in terms of services becoming mediated, occasionally public and on other occasions gamified or entertaining, but also in terms of becoming increasingly personalised, supporting further individualisation in society and culture.

Creative Industries Policies

Lastly, the convergence and co-innovation processes between media and other sectors have been further facilitated by a significant policy push – especially in Europe, but also in many other corners of the world. The 'creative industries' policy agenda emerged in late 1990s in Australia but gained high visibility with New Labour policies in the UK. While its emergence in the UK was perhaps circumstantial, relating to 'third way' rationales of the New Labour government, its rapid international diffusion indicates its fitness and match to the global *zeitgeist* in the late 1990s and after. The emergence and diffusion of this policy set has been related to the evolving information society and service economy, already covered above. Additionally, it has been associated with the parallel emergence of the 'Californian ideology' (Barbrook & Cameron, 1996; Bridges, 2018; O'Connor, 2016) – a system of beliefs that built on the entrepreneurialism of the ICT industries and on the view of its start-up scene that the information economy provides not only new freedom and disruption of former power-systems, but enables scalable growth and extreme productivity for innovative solutions in information services sectors. It has been suggested (Garnham, 2005) that one of the rationales of the New Labour government was to build on that dynamic and growth potential, linking the cultural and creative sector firmly to the ICT industries, marketise much of it and bring the Schumpeterian entrepreneurialism and innovation orientation to its heart.

What has followed in terms of the actualisation of real term policies is an assortment of instruments in European countries and at the EU level that support small- and medium-sized enterprises in the cultural and creative sectors in innovating and in development of scalable business models. We could think here about different business accelerators and incubators, public funding measures for developing innovative prototypes and business models, etc. Another closely related policy imperative has been support for export, especially relevant for small countries in Europe without a sustainable domestic market for niche cultural services or content products. What all this suggests, however, is that the policy-driven need to innovate in order to reach international markets of scale has come to constitute the focal point in creative industries policies. Furthermore, as was already indicated in the early EU creative industries studies and policy documents (European Commission, 2010; KEA European Affairs, 2006), the creative industries' potential to spill-over into other industries and induce dynamics and growth in them, has been another core policy objective. As it has been perceived, the most natural partner has been the ICT industries – it has been understood that rich provision of digital cultural services would provoke new demand and innovation also in ICT (European Commission, 2010). It has been also evidenced that the majority of the creative workforce works not in the core cultural industries, but is in fact 'embedded' in those other industries (as advertisers, marketers, designers, etc. – see Higgs, Cunningham, & Bakhshi, 2008). This could be understood as creating opportunities for cooperation and co-innovation as the embedded experts are generally also those commissioning specialised work or initiating cooperation processes.

It needs to be recognised that the study that the subsequent chapters of this book will discuss was funded by another of the EU funding measures aimed at supporting innovation in 'non-technological' sectors. The Interreg programme of the European Commission is designed to improve regional cooperation and competitiveness. Our project, Cross Motion, was co-funded from the Interreg Baltic Sea programme and promised to bring together the AV media industries with health care, tourism and education sectors, facilitate their co-innovation processes and learn from this. The fact that space was created for the project like this indicates the policy priority to facilitate such co-innovation processes and spill-over opportunities. Altogether, much of co-innovation processes between AV media and other sectors are driven by policy. What these policies are, and their exact effects is discussed in subsequent chapters.

Conclusion

There is a complex mesh of broad social forces that have conditioned the emergence of the phenomena that this book will study and discuss. The evolving trend of AV media co-innovating with other sectors results from digitisation, convergence, mediatisation, emergence of service economy and creative industries policy frameworks. These forces are not only interrelated and mutually conditioning, but also create distinctions and add complexity as all have their own increasingly codified purposes and evolutionary logics. Yet, what the chapter above suggests,is that what all this complexity seems to introduce is that many of the service industries have been on the course of convergence, and the question that has taken centre stage is how to facilitate their co-innovation processes in mutually beneficial as well as socially valuable ways. To answer this question, we build on the innovation systems theory introduced in Chapter 2.

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