

Introduction

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Welcome to the *Nordic Journal of Media Studies*. The overall theme of this inaugural issue is the ongoing changes of media infrastructures resulting from digitisation; these changes currently affect the media industries in many ways and on many levels. What we are witnessing at the moment is a fundamental transformation of these industries which has (or which will have) great implications for society at large. Patterns of distribution have been changed from push to pull, and national media markets are being challenged by an increasing presence of transnational and global companies. Besides transforming the interface between the media and society at large, these changes are breaking up the established models of our media systems. The transformations emphasise and change the role of communication, establish new and ever-changing conditions for maintaining or building sustainable business models for both old and new companies in the media market, and shape the ideas of media professionals with regard to their role in society – and the role of the media in general. In other words, these transformations establish a new horizon which permeates the future strategies of media organisations and influences their engagement in new partnerships.

In the original call for contributions to this issue of the *Nordic Journal of Media Studies*, the theme of transformation was addressed using two concepts: “disruption” and “infrastructure”. Both of these have their conceptual origins in other, but increasingly relevant, scholarly fields – namely, business management, science and technology studies, and information science. Hence, the use of these concepts signals that digital technologies not only change the media landscape and conditions for the industry, but also challenge the field of media studies with regard to epistemology. We will return to these two concepts below, pointing out what they may bring to our field and our understanding of the transformations occurring. However, a brief background to the launch of the *Nordic Journal of Media Studies* is needed in order to address the issue of transformation of media industries, including academic publishers.

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Academic journals in a field of conflicting interests

The launch of this new open access journal is itself a product of the transformations brought about by digitisation and is thus part of a larger picture. In the EU and the Nordic countries, which are all dominated by publicly funded research institutions and universities, the emergence of the internet has led to a strong political focus on the dissemination and sharing of publicly funded research results across countries and research institutions, to a wider public and to corporations and private enterprises. Since 2007, the provision of “online access to scientific information that is free of charge to the user and that is re-usable” (European Commission, 2019) has been recommended by the European Commission; in 2012, the Commission recommended that “open access to scientific research results should apply to all research that receives public funds” (European Commission, 2012/417). The ambition of this recommendation is to strengthen societal engagement with research and to make knowledge and related innovation a backbone for future growth in a European context. In response to this, public financial support for scientific journals has changed; since 2018, the joint committee for Nordic research councils in the humanities and social sciences (NOS-HS), which financially supports scientific journals by Nordic foundations, has required that “scientific articles published with its support are open access. It means, in brief, that the articles can be found via a search on the internet and can be read by everyone, free of charge” (NOS-HS, 2018).

Thus, the political and scholarly movements seeking to utilise the many options provided by digitisation for the common good are disrupting the old infrastructures of research publication and the business model attached to this model, which required readers and/or libraries to pay for paper versions of journals or subscribe to them. However, as privately owned publishers of research journals have been adapting to digitisation, another strong trend in the industry has emerged, as pointed out by Mueller and Scheufen: “digitization offered new marketing strategies for commercial journal publishers, making bundling of different versions (electronic and print version) and journals (so-called ‘big deal’) predominant price discrimination strategies” (Mueller-Langer & Scheufen, 2012: 7). Thus, digitisation has paved the way for a strong concentration in the industry. Furthermore, the publishers charge customers, both when publishing and accessing research as readers. For more than a decade, this development has caused tensions, conflicts, and disputes between scholars and their research institutions which have provided content for free on the one hand and, on the other, a number of increasingly powerful privately owned publishers. One of the outcomes is that, in some cases, disputes relating to high fees, restricted access to citation data, and commercial control and ownership of scholarly works have caused the break-up of long-term, effective partnerships between editorial boards and publishers (McKenzie, 2019; Mueller-Langer & Scheufen, 2012). Another outcome is the diversification of the industry as a range of new

and different digital publishing platforms have emerged. Some are offered by private, commercial actors, including both new players and old, well-established scientific publishers who have simply added new revenue models to their businesses. Others are provided and operated by public libraries and/or universities, thereby building on the priorities of these institutions with public funding as part of their business model.

The *Nordic Journal of Media Studies* is being launched in this changing landscape as a response to some of the cross-pressures now surrounding and increasingly shaping academic publishing as a particular sector of the media industry. The name of the journal required careful consideration, because it is being launched in an international scholarly community and focuses on a field of research characterised by diversification and fragmentation, intensified processes of globalisation, and growing interconnectedness and rapidly changing media systems. Still, the journal is definitely also anchored in a specific Nordic context; this means that besides these commonly shared characteristics, it still has many cultural and social features ascribed to the Nordic context, including media and research practices and agendas. The next issue of the journal will focus on this “Nordic-ness” and on how it is perceived from different perspectives by scholars around the world.

Disruption: a particular process of innovation

In this introduction, the term disruption has, to this point, been applied in a rather commonsensical way, covering varying processes of change, breaks, transformations, innovation, etc. – all instigated by digital technologies which now underpin and structure the media and its industries. Used in this way, the term adequately reflects the transformative character of digitisation. However, if we consider the theoretical origin and exact meaning of “disruption”, it also becomes clear that while it has been widely used and is close to becoming a “victim of its own success” (Christensen et al., 2015: 46), it also contains a far more stringent and specific meaning than its metaphorical uses indicate.

The term originates from the works of the business scholar Clayton M. Christensen, who uses it in an analysis of how efficient companies “confront certain types of market and technological change” (Christensen, 1997: ix). The focus of his book is innovation and, in particular, how good companies and great managers in both manufacturing and service businesses face a dilemma as innovators. Christensen argues that all the good, logical decisions which have been crucial to their success are also the reason why they fail to keep on top of their businesses when faced with new, disruptive technologies. The term was originally used in a business and management context, and not particularly in connection with the media or media industries. When referring to disruptive technologies, the term “technologies” is defined very broadly as “processes by which an organization transforms labor, capital, materials, and information into products and services of

greater value. All firms have technologies” (Christensen, 1997: xiii). This broad definition of technology includes not only engineering and manufacturing, but also marketing, investment, and management processes; innovation is also broadly defined as a change in one of these technologies. Christensen introduces an important distinction between “sustaining” and “disruptive technologies”, with the former being used for new technologies which improve existing products and the latter actually resulting in worse product performance compared with established products on the market. But the two concepts have different features and attract new segments from the margins of the market, for whom cheaper, simpler, or more convenient products are attractive (Christensen, 1997: xv). The point here is that, in the long term, disruptive technologies often lead to the failure of established firms, which are more interested in the use of sustaining technologies and overlook the potential and functionalities of disruptive technologies. In a later contribution by Christensen and colleagues (2015), Netflix is used as a prime example of disruption. Because disruption is the “process whereby a smaller company with fewer resources is able to successfully challenge established incumbent businesses” (Christensen et al., 2015: 46), these companies are often based on alternative business models and focus on getting them right from the beginning – rather than focusing on the product in question (Christensen et al., 2015: 48). In other words, the concept of disruption does not mean exactly the same as “transformation” or “breakthrough”, nor does it indicate a situation in which an industry and its agents are shaken to the core. Disruption takes time and refers specifically to the particular process by which new entrants, which start up on a small scale at the low end or on the margins of a market, prove successful in the long term as their product is improved and finally achieves a quality matching the standards of a large proportion of mainstream customers.

Infrastructures and platforms in the digital age

The ongoing change from push to pull models for the distribution of media products, and the subsequent establishment of both new transnational and niche-oriented markets and business models, demonstrate that the analysis of media infrastructures is increasingly relevant. However, the broad field of media studies has not been characterised by research into media infrastructures and distribution in the past. Media studies have typically been dominated by academic interest in mapping content and carrying out textual analysis, by audience studies and media systems analysis, and to some extent by an interest in media industries and production studies. Nevertheless, it has always been important to consider infrastructures for the circulation of media content and the value chains of the distribution of content. All the legacy media have been dependent on analogue as well as recent kinds of digital distribution systems in order to reach their audiences and make money. One example of the huge importance of media infrastructures with regard to media content and the cultural and political importance of this content is the

way physical newspapers have always been distributed. The traditional distribution system for newspapers was dependent on the stability and accessibility of other kinds of societal infrastructures, such as the postal services, railways, and sales outlets. By contrast, the social impact of electronic media in the twentieth century has depended on political control of the airwaves and the national and international allocation of frequencies for radio and television transmissions. Since the 1980s, transnational and national television companies have been dependent on satellites and, since the turn of the century, terrestrial digital distribution networks as well as telephone and cable networks have been of huge importance to the proliferation of multi-channel television companies in European countries and elsewhere. Finally, in the new millennium, stable, well-funded, and affordable infrastructures for telecommunication and an electric power grid are essential for the use of mobile phones, mobile devices, and access to the internet in our society.

These traditional media infrastructures are still important to the media industries and are connected to different kinds of business models. However, in combination with the growing use of the internet, they also constitute a communicative infrastructure for content distribution and the backbone for the development of new business models. All the legacy media industries now include internet-distributed content in their portfolios, turning the internet into a kind of a meta-medium for the legacy media industries and for new media companies which are native to the internet but also deeply associated with the old industries (e.g., *Vice* or *The Huffington Post*). As pointed out by Sandvig (2015), during peak television viewing hours 34 per cent of North American wired broadband traffic went to just one source: Netflix (Sandvig, 2015: 237). The audio-visual industry is responsible for a growing amount of the traffic on the internet, supported by the increase in high-speed broadband internet access and mobile network access in many households in Europe and the USA. Thanks to their elaborate infrastructures and welfare state systems, the Nordic countries are leading this development.

As pointed out by Van Dijck and colleagues (2018), since the turn of the millennium, the development of the commercial potential of the open internet and web 2.0 has given way to new kinds of media companies with huge economic, political, and cultural ramifications. Google, Facebook, Microsoft, Apple, and Amazon – these companies are described as *infrastructural platforms* that form the heart of a new platform ecosystem:

They serve as online gatekeepers through which data flows are managed, processed, stored, and channelled. Infrastructural services include search engines and browsers, data servers and cloud computing, email and instant messaging, social networking, advertising networks, app stores, pay systems, identification services, data analytics, video hosting, geospatial and navigation services, and a growing number of other services. (Van Dijck et al., 2018: 13)

By contrast with legacy media companies, these transnational companies offer infrastructures for communication in return for the personal data of the users. The so-called big tech companies are intermediaries that still produce very little

content themselves. According to Van Dijck and colleagues, the fundamental mechanisms of these infrastructural platforms involve the combination of datafication of any specific aspects of the world, the commodification of this data, and the selection or curation of content (Van Dijck et al., 2018: 31-46). Increasingly, these platform mechanisms are disrupting the media content production economy that used to be based on advertising and direct payments for products, with the traditional news media in particular struggling to survive under these new conditions. However, all the media industries are affected by the dominant position of the big tech companies. Van Dijck and colleagues (2018) underline the importance of fighting the power of these few transnational companies and the need for civil society and governments to join forces nationally and internationally in order to protect fundamental democratic values like diversity, liberty, and solidarity in a connective world. The need for political regulation and containment of these transnational tech companies has been underscored by the fact that they are increasingly moving into content production with further economic ramifications for the media industries. As an example of this development, the retailer Amazon is moving into film and television production and distribution with Amazon Prime. However, increasingly, the big techs are running into problems both because of the content and the kind of information they distribute, and because their platforms disrupt democratic institutions. In addition, cases of privacy infringements and disruptions to traditional media regulation models are moving to the forefront of the international political agenda. Nevertheless, all legacy media companies and the content-producing companies native to the internet are now dependent in different ways on the infrastructures provided by the tech companies; there are no obvious and easy ways to avoid using these platforms and structures in the digital age if media companies want to get the attention of their audiences and users. In other words, the digital age presents new political and cultural dilemmas and new ethical challenges.

The radical developments in media infrastructures and media industries call for research into these changes. Plantin and colleagues (2018) have pointed to the fundamental challenge presented by these developments to the epistemology of traditional media studies, and they argue in favour of the need to include what is termed “platform” as well as infrastructure studies in order to address new digital developments. This line of research is connected to the new kinds of technological and communicative infrastructures in the digital era. It has its origin in science and technology studies and information studies, but also in media studies focusing on digital games, content sharing websites, and social network media. According to Plantin and colleagues, these two lines of research overlap owing to current technological developments. On the one hand, communicative infrastructures are developing into powerful platforms, as described by Van Dijck and colleagues; while on the other hand, platforms are developing into powerful infrastructures (Van Dijck, 2018). To Plantin and colleagues, this overlapping of research traditions entails a fruitful new critical focus on the materiality of these platformised

infrastructures and a historical interest in how these infrastructuralised platforms develop, and highlights the consequences for the production of artefacts, communication, expression, and knowledge in the tensions between the market and the public interest. These corporate media infrastructures of the digital era – or of a connective society – have severe ramifications for the way in which the media industries and the cultural–political role of these media will develop in the future. How will media industries, which are often highly nationally oriented, adapt to these new conditions for content production and distribution in order to survive? And how will the European tradition of cultural–political media subsidies and strong public-service media sectors, in support of the ideological role of the media in a democracy, develop within the context of increasingly transnational competition? How do these media companies and industries navigate, and do they still perform tasks in, the society that will support their continued importance in the future? Questions like these will be addressed in the seven articles of this issue of the *Nordic Journal of Media Studies*.

The articles in this issue

Because the theme of this issue addresses ongoing processes of transformation, several of the contributions apply relatively heuristic perspectives. The media industries are clearly evolving, but it is still impossible to determine which platforms and business models will prevail, and it is even more difficult to establish the wider consequences for the public sphere and society as a whole. Thus, several of the articles undoubtedly run risks of engaging in analysis of processes which are in a state of flux. This applies in particular to the first group of contributions, which share the view that the media are a central feature of societal coherence and adopt an explorative analytical focus on reflections and values expressed by a variety of professionals and decision-makers in the media industries. Trine Syvertsen, Karen Donders, Gunn Enli, and Tim Raats have a most explicit, broad interest in the wider societal consequences, exploring how media managers in the private media sectors in Norway and Belgium (which are often overlooked) interpret societal responsibilities in the current state of disruption and turmoil. Their comparative analysis illustrates that concern for the public interest and market orientation go hand-in-hand in the private sector in both countries. However, among legacy media managers the balance between the two orientations varies and seems to be shaped distinctively by historical characteristics in the two national media systems. By comparison, managers from new media entrants in the two countries resemble each other far more in terms of their interpretations and visions regarding societal responsibilities.

The two other contributions in this group have a narrower, more traditional approach to the issue of societal significance, because they are concerned with specific developments within journalism. Chloë Salles' article illustrates how the social role of journalists is based on a very strong professional ethos which

persists despite the precarious situation of journalists in the digital age. Through the analysis of journalistic values and practices involving four French journalistic digital start-ups, she explains how the boundaries between editorial, content production, and marketing are adjusted but not totally eroded. One of the basic arguments in her analysis is that these small digital media are not strong enough to be considered actual disruptors of the French media sector. However, as water-holes for the maintenance and refinement of journalistic skills for an increasing number of journalists working in precarious conditions, they must be regarded as innovative elements in a journalistic ecology.

One emerging and highly debated challenge to journalism involves the use of automation as a new means of production, which is the focus of the article written by Stefanie Sirén-Heikel, Leo Leppänen, Carl-Gustav Lindén, and Asta Bäck. Like Syvertsen and colleagues; they analyse how media professionals and managers envision adapting to a changed media landscape. Building on the concept of “imagined affordances”, the article explores how automation is imagined. It presents a number of important reflections regarding the societal implications of this new technology: the potential for customising news to individual needs goes against universal principles in the public sphere, while at the same time helping people to find their way around a flood of information. Thus, the article indirectly raises questions regarding new demands in the public sphere in the digital age.

The second group of articles focuses on selected industries from the outside, and considers how they are affected by shifts in distribution. Terje Gaustad uses the term “technocultural disruption” to illustrate how shifts in film distribution channels have ripple effects on business models, production, and financing – effects which eventually call for a reconceptualisation of the models for value creation and distribution in the film market. One important point in his article is that small, local content providers – like Norwegian film producers in a small market such as Norway – are particularly vulnerable to the ongoing transformations of distribution and consumption patterns provided by digital home video services.

Television’s ongoing transition from push to pull is the subject of Hanne Bruun’s article. She compares the production and use of breaks – also known as “continuity” – in and between programmes by four Danish television channels. This analysis reveals that television is being transformed due to the introduction of Over-the-top (OTT) platforms, but also makes it clear that the transformation is particularly challenging for those channels whose business models depend very much on commercials. Across commercial and licence-fee-based channels, we can observe patterns of both continuity and change. The article documents and discusses a tension between two co-existing paradigms in television distribution, and argues that in the process the broadcasters are themselves powerful agents co-shaping the future habits of their viewers.

The change of business models for distributors and producers in the gaming industries is the focal point of Stefan Werning’s article. Using the perspective of diachronic software studies, he analyses the ways in which the game distribution

platform Steam was transformed from 2007 to 2018 through a process of platformisation. In this process, the constant change of features on the platform is identified as a possible new condition for cultural producers. The creation of ephemeral public spheres around the games and the adoption of elements from social media networks are among the most important changes, transforming the distribution platform into a more commercial networking platform.

Finally, Mona Solvoll and Linn-Birgit Kampen Kristensen bring an audience perspective to the discussion of disrupted media infrastructures. Drawing on data from two quantitative audience surveys, they explore the consumption of paid or unpaid online newspapers and books among young audiences. From an audience perspective, they explore the conditions in which these industries have to operate based on the satisfaction of their future audiences – and the willingness of these audiences to pay for newspapers and books. One important result from this audience perspective is that disruptive technologies mean different things for different industries. In the field that they consider, the fact that young audiences seem satisfied with a less sophisticated but free online newspaper may indicate the presence of a process of disruption in the long term.

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