

# Media Technologies, Transmedia Storytelling and Commodification

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Digitisation of the media is a phenomenon that has been central to the re-shaping of the media landscapes over the past two decades or so. The process of digitisation has affected all areas of the media industries from production practices, over distribution technologies and audience reception, and has in turn made the media more mobile, increasingly interactive and overwhelmingly versatile. This mobility, interactivity and versatility have their roots in the fact that the media are involved in a process of convergence, where the borders between different media technologies are becoming blurred. Following from this process, it becomes increasingly difficult to make distinctions between different media technologies, as they adopt functions and forms from each other: we can listen to the radio on television, computers, mobile phones, etc. We can watch feature films at the cinema, on our television sets, in our mobile phones and, again, on our computers. In fact the computer, with its digital technology based on transistors and integrated circuits, is found at the heart of this development (and in that respect the mobile phone is just a variety of the computer) (Winston 1998). The computer is also the very medium surrounded by the discourse of convergence, as it so obviously 'melts' several older media into its technology.

The literature on 'new media', new technologies and new media landscapes is vast, as has naturally been noted previously (see e.g. J.F. Jensen 1998). Indeed, there have always been 'new media' around, as what is new for one generation is old news for the next. That the media and technology is at the heart of societal development is also a common assumption, as is the perception of the development as being increasingly rapid. Take this quote from a classical study in urban anthropology from the 1920s as an example.

[w]e are coming to realize, moreover, that we today are probably living in one of the eras of greatest rapidity of change in the history of human institutions. New tools and techniques are being developed with stupendous celerity, while in the wake of these technical developments increasingly frequent

and strong culture waves sweep over us from without, drenching us with material and non-material habits of other centers. (Lynd & Lynd 1929:5).

I am quite fond of this quote, as it covers so many of the foundational problems that we as scholars of the humanities and social sciences are still struggling with today: the rapidity of social, technological and cultural change, the flow of cultural influences around the world (globalisation), etc. In short, what it proposes and points to is the very modernisation process – and the constant need to analyse contemporary technical, social and cultural phenomena as they appear around us. You could stretch this further and even say the constant need to reflect on our own societal and cultural actuality.

There is a certain grandness of scope in the quote above that is quite fitting for an opening of a major classical study such as the one that Robert and Helen Lynd had conducted with their study of Middletown. However, I do not have such grand pretensions with what I am about to do in the following. My aim is merely to try to give a short contribution to the debate, with a focus on the relation between technological digitisation and convergence, as well as textual divergence. I will do so from a perspective that also considers the fact that convergence, digitisation and textual divergence all are processes triggered by, or at least related to, the commercial media and communications industries.

I wish to proceed in three steps. First, I will say some introductory things about the history of the concept of convergence, in which I also want to briefly discuss the concept of divergence – a word not equally widespread, but also central to the development. Secondly, I will qualify the discussion with some consequences of the convergence/divergence process for narrational praxis. Thirdly, I will give a couple of reflections on the fact that texts are working in a commercial setting, and the consequences for value formation that goes along with this development. I will conclude with some general reflections on the possible impact of the digital development for the contemporary media landscape.

## Technological and Institutional Convergence

Convergence, in its technological meaning of the blending or merging of different media technologies into one another, 'terminal convergence' as it is labelled in the opening chapter to this volume, seems to have appeared in the early 1980s, with the publishing of the US political scientist Ithiel de Sola Pool's *Technologies of Freedom* (1983). To refer to the technical capabilities of the media to blend into one another is obviously also the most common way in which convergence is used. This technological root of the concept needs to be related to the digitisation process, and convergence is thus seen as being a consequence of what digitisation permits. The conver-

gence effect springs from the unique capacity to break down all kinds of information into binary digits that makes it possible for technical functions and textual content to appear on different media technologies, as long as these are also digital. Danish communications scholar Jens F. Jensen has described this process as 'liberating it [the information] from dependence on any given medium' (J.F. Jensen 1998:41). This would then be the second wave of liberation for media texts, the first being connected to the advent of mechanical printing, when the words were liberated from their authors, as this is famously described by Roland Barthes, ([1968]1977).

Although computers have existed since the 1940s, the debate on convergence did not appear until the 1980s. Computer technology was, at first, built around valve-based machines, which made them large and sensitive. It was with the change to transistor technology and microprocessors that computers first became personal computers (PC), and accessible for larger parts of the population of the Western world. This happened in the 1970s (Winston 1998:207ff), and is one explanation of why the concept of convergence did not get widespread recognition until the effects of the large-scale dissemination of personal computers had taken place in the early 1980s, and further actualised in the process of increased Internet and World Wide Web access in the 1990s.

However, although we often attribute convergence to a technological process, it is quite obvious that the development transcends the technological, and connects to vaster areas of society. Technology is always embedded in social and institutional structures. It thus transcends the mere technological in its effects, into what Robert Latham and Saskia Sassen (2005:16ff) has termed 'sociodigitization'. When we, for example, speak of 'the media', we speak about at least two things. On the one hand we speak about a technology that can bind people together in common, shared experience, or a technology that can disseminate stories, information, etc. On the other hand, we speak of an organisational form, where 'the media' refers to the institution, the media, with its sub-divisions – the journalistic institution, the entertainment industries, etc.<sup>1</sup> We then need to discuss this both as technological convergence, and as institutional convergence.

### *Digitisation and technological convergence*

Digitisation, then, can be analysed from different perspectives, which all correspond to a pattern of convergence/divergence. Firstly, we can speak of an increased digitisation of media *production*. If we see (book) printing as the first mass medium, we can see that the production practices initiated by Gutenberg and others in the mid-fifteenth Century remained principally the same up until the early nineteenth century, when the steam-driven cylinder and rotary press, and new setting machines radicalised production (Williams [1958]1963:290). Such refinement of techniques has, of course, been

at hand over the years. The past two decades, however, have seen the rise of digital technology replacing previous analogue procedures: in printing we have gone from off-set printing to digital printing. If we look at the area of academic publishing we can also see that, in a very short time, the academic journal has become totally digital, downloadable, and has thus taken on a new form with inevitable consequences for not only production, but also distribution and reception. Within music production, film production, photography, we have also seen the rise of digital production procedures for recording sound and still and moving images, all of which is 'liberating' the information and making it increasingly more fluid.

The fluidity of content is also what brings us to *distribution*, as the second area where digitisation has set its mark. The last couple of years have, for example, seen the gradual replacement of analogue television broadcasting to the benefit of digital signals, in Sweden as elsewhere. This is perhaps to most people today the most significant contact with the process of distributive digitisation. However, distribution of music and films over the Internet has become increasingly common, following from the rapid spread of broadband access. Broadband distribution does not always flow from the media industry to media users. There is also large quantity of film and music distributed through peer-to-peer networks. This is an area where things are changing very fast, and the film and music industry is working hard to try to secure their assets in order to be able to control the content flows and thereby securing their revenue streams (cf. Miller 2007).<sup>2</sup>

Thirdly, one could also speak of a digitisation of *reception*. By this is meant the need for audiences to buy increasingly more media technologies that can decode the digital content. We can call these technologies or media platforms *means of consumption*, as they, on the one hand, are commodities in themselves (DVDs, computers, mobile phones), but, maybe most importantly, on the other hand are necessary for us to be able to take part of media texts at all. We not only need these means of consumption in order to handle the problem of distribution, but also in order to consume or use the texts we buy. Without these machines we would have to rely on printed books, magazines and journals.

The new means of consumption, the technological equipment that we all surround ourselves with (cf. Nowak 1996), are becoming increasingly complex. Within the mobile phone industry, for example, the research and development sections are intensely occupied with adding new functions to our small pocket computers, which makes them less 'phone' and more 'mobile'. As the mobiles are filled with increasingly more functions it is also very hard to 'choose away' functions. Even if I do not want a mobile phone that is 'the electronic equivalent to a Swiss army knife', as Henry Jenkins (2006:5) has put it, there are no phones that are only equipped with the basic function of just talking. So, irrespective of whether we want it or not, we are forced into the possibilities of multi-functional communication (in the same way as we cannot today choose a car with manual window winders). And, naturally,

we also need to pay for this over-capacity, irrespective of whether we want to or not.

This multi-functionality means that we all have an equal access to different functions and different kinds of services. In a given society, then, most people have the same possible access to the same possible services. We could say that our access structures are converging in the way that they are becoming increasingly similar. On the other hand, there are discernable patterns in the ways in which we use, to take the most obvious example, the mobile phone,. Even if most people have access to SMS functions, not all people choose to send text messages. In fact, the older you are, the more likely it is that you use you mobile phone as an ordinary telephone – to talk to people. If you are young, it is more likely that you use other options, most notably SMS, but also other technological options such as mobile Internet, radio, television, downloads, etc. (Bolin 2007). However, not all young people will use the phone in exactly the same way as everybody else in his or her age group. We will then have diverging patterns of use – what we perhaps could call user divergence.

### *Institutional integration and market convergence*

Convergence can also point to *institutional integration* and *market convergence*, connected to the fact that the media as institutions operate in commercial markets. Media markets in themselves are, of course, nothing new. With the advent of a mass medium such as the book, there also appeared a market, with publishing houses and people with special skills with working procedures connected to these. However, since printing was the only available media technology, there were no other sectors that could be integrated. Since then, new media have continuously appeared, adding new markets in relation to these. So, in the longer historical perspective a plurality of media markets has gradually appeared, specialising in their respective genres tied to specific media technologies: the publishing industry, the newspaper industry, the film industry, radio industry, television industry, etc. These media markets are, at present, being integrated. This integration does not always follow from the digitisation process, although this process has certainly speeded up the development.<sup>3</sup>

In this process of market convergence, media companies formerly in different media branches join forces, which lead to institutional convergence. On the organisational level this has led to a situation where media organisations that had previously concentrated on a specific medium, say print, such as Bonniers, Schibsted, and others, have today developed into media houses that move into other sectors such as the broadcast media, the film industry, etc. These kinds of tie-ins have, of course, long since been observed by scholars within the field of political economy of the media (e.g. Wasko 1994; Herman & McChesney 1997), but they are increasingly hard to neglect even

for those more interested in media aesthetics and media reception, since these relations, as I will explore in greater detail below, have effects on the construction of the media texts (and hence have a bearing on media reception).

As audiences and media users, to an increasing extent, are becoming dependent on the means of consumption, and as content is becoming increasingly fluid and hard to control for content providers and copyright holders, the means of consumption are also becoming the locus of the generation of capital within media industries. When, for example, the music industry is facing a decline in record sales, and hence a loss of profit in this specific sector of the industry, they are compensated by the increased profitability of concerts, including various kinds of merchandise sold at these events. There are also many examples of negotiations between music companies, such as Universal and other content providers, and producers of the means of consumption, such as Apple (Chaffin 2007). Apple has its own music distribution through iTunes digital music store, which provides owners of iPods and other MP3 players with content for purchase. Apple thus provides both content and means of consumption.

However, we should not confuse market convergence with institutional integration (and maybe convergence can be also used for this phenomenon), since markets can perfectly well converge without the merger of institutions. This was in fact the case for quite a long time, when the film industry coordinated releases of films with the record releases of soundtracks together with the music industry. Although leitmotifs for films had previously been popular, it was not until the 1970s that the film industry developed more strategic techniques for this kind of market convergence. According to film studies scholar Thomas Schatz (1993), this rise of 'the New Hollywood' came with the releases of *American Graffiti* (1973), *Jaws* (1975), *Star Wars* (1977) and *Saturday Night Fever* (1978). With these films, Hollywood entered into a new era of filmmaking, where market considerations, 'commercial tie-ins and merchandising ploys' (Schatz 1993:18) became as important as choosing the director for each production. The timing, in the mid-1970s, also coincided with a converging market, and a diverging technological sector: the emergence of, firstly, a new relationship between cinema and television, including the advertising of films on television, secondly, the rise of payable services ('movie channels'), and, thirdly, the 'home-video revolution' (Schatz 1993:21), all of which were new distribution and marketing channels for feature films. These channels thus functioned as different platforms for the diverging film texts. Hollywood, then, since the Second World War, had gone from having been an industry marked by 'vertical integration' (that is, owning both production and distribution facilities), to 'horizontal integration of the New Hollywood's tightly diversified media conglomerates, which favors texts strategically "open" to multiple readings and multiple reiteration' (Schatz 1993:34). The cinematic texts then became constructed to appeal to several different audiences.

Another example of market convergence can be seen in the coordinated initiatives by media and non-media enterprises, where media enterprises get involved in co-operations with producers of other, non-media market products in order to co-ordinate their activities to the benefit of both. An obvious example of such market convergence is Disney logos on H&M products, or Disney toys in Macdonald's 'Happy Meals' for kids in connection to cinema releases (or re-releases on DVD). Disney does not own, or have economic interests in, either H&M or Macdonald's (yet?), but they have joined forces to the presumable benefit of all.

These campaigns build on, and thus point to, the importance of fictional characters as commodities. This is also a phenomenon that has grown over the past few decades, and it could be seen as another kind of textual liberation, that is, the liberation of *textual components*. This has meant that trademark law has become increasingly important for securing profits, as of media characters such as the Simpsons, Superman, Winnie the Pooh, Batman, etc., become trademarked and move into non-media settings on T-shirts, thus integrating these characters into the urban sign landscape (Gaines 1990).

So it is obviously beneficial for media houses to control texts that travel over several media technologies, in what has been described by Janet Wasko as a form of *cultural synergy*, whereby 'the megacorporations which produce and distribute cultural products' develop an 'economic logic' where commodities (characters for example) benefit from moving between different formats (Wasko 1994:252). The Disney industry is perhaps the most elaborate in this respect, but others are equally efficient in taking advantage of popular characters that can appear in films, television, books, magazines, computer games, etc.

These tendencies naturally have consequences for the training of people that are to work within the media industries, and media production training today privileges textual production that travel over technologies. In educational jargon (or is it industrial jargon?) this is called 'platform independent' production, which means that you produce texts that fit many, possibly all, platforms. However, on the contrary, such production is in fact platform dependent, as it is dependent on the weakest link of textual presentation. When television companies adjust their web pages to mobile phone displays, as BBC and Swedish SVT have, they have had to adjust it to fit a small screen. This means that it cannot take advantage of the larger screens of television sets or computers.

These technological and institutional convergence processes are naturally affecting the ways that texts are produced. The next section will discuss some of the consequences.

## Textual divergence and transmedia storytelling

Convergence in its technological aspect is thus the most common way in which the concept is used. What is less often discussed is the textual *divergence* that follows from this, in a dialectical opposite to the technical convergence (Jenkins 2006:10ff, cf.; Jensen 2006). Media content, or texts, that previously were considered as belonging to a specific medium are today produced for audiences through a range of different distribution techniques. As already indicated, and exemplified above with the happenings in the 1970s, when new distribution technologies were introduced for cinema feature film, we can watch a film in the cinema, on television (stored on video, laser disc, DVD), on computer, etc., and we can distribute it through a range of technologies or platforms: celluloid, magnetic tape, DVD, or any other digital storage form. If we do not listen to music live, we can choose to do so on a similar range of platforms: shellac disc, vinyl disc, CD, magnetic tape, DVD, VCR tape, MD, iPod, memory stick, etc.

When films started to get produced with these different platforms in mind, they were accordingly adjusted to the future trajectory of cinema release, video/DVD release, pay-channel release, etc. The media industry has since, to an increasing extent, started preparing for platform independent content to be produced. As I have argued above, this in fact means that texts are constructed in order to function on several platforms, which might then be limiting for what can be told or represented. However, platform independence, or the fluidity of media texts, makes them divergent in character: something happens with the text when it is transferred from one technology of representation into another. There is at times a striking difference between watching a film at the cinema, and watching it at home on the television screen. Not only has the format changed, the film text has also been transferred to another reception context (cf. Bolin 1994): cinema is watched in a dark room with very few competing sources of attention; the television text is watched in the home, often in a semi-dark setting, and often with a range of competing sources of attention (people walking in and out of the room, noises from the kitchen, children toddling around, etc.). Furthermore, if we are watching the film via video, DVD or blue-ray, we can alter the order of scenes, take a break, etc., which are all options we do not have at the cinema. This is the divergent character of texts suited for a multi-platform setting: each medium has its own specificities when it comes to the conditions of reception. For some media technologies you can control in which order you can take part of a narrative. For some media you can also choose at which speed, or tempo, you want to take part of a narrative (you can read a book slowly or you can skim through its pages). Some media are mobile and you can therefore control the spatial location of reception, some media allow for social reception (such as the television, or the music record), and some are more individualised (such as the book).<sup>4</sup>

As Thomas Schatz (1993) observed, in the 1970s the films produced were consciously addressing different layers of the cinematic audience: the texts

became open to multiple readings. This is perhaps best exemplified by Disney films, which on the one hand address the very young pre-school children, but on the other hand also address grown-ups, with political and other references that are obviously way above the heads of five-year old children. This, then, means that such extremely polysemic films tend to be directed towards several different niche audiences.

However, in the prolongation of this trend, there is another phenomenon that has arisen as an outcome of the institutional and technological convergence and the textual divergence that has followed from that, namely what Henry Jenkins has termed 'transmedia storytelling' (Jenkins 2006:93ff). This means that the media content providers are developing texts across several technological platforms, thus taking advantage of each platform's specific qualities and abilities. The example that Jenkins engages in is *The Matrix*. This science fiction film trilogy cannot be fully understood from only the film text, but needs to be complemented with the computer game. The story thus unfolds on several platforms, and was consciously produced to do so. This is how artists can develop narrative construction in more 'ambitious and challenging works' (Jenkins 2006:96).

Transmedia storytelling also involves examples of how texts are promoted through other media. A notable example also mentioned by Jenkins is the promotion of the film *The Blair Witch Project* (1999), which was promoted through the construction of a web site that paved the way and produced a large interest in the film already, a year before its release. Through this web site fans could also discuss and engage in the speculations about the film, thus actively contributing to its reception context.

There is, of course, also another background to transmedia storytelling. Remediation, as theorised by Jay Bolter and Richard Grusin (1999) in their book of the same title, refers to the phenomenon where older media and media texts re-appear in new media forms. Narratives from literature become adapted to the stage, to the cinema, etc. And there are, of course, examples of narratives that have appeared in many different media forms. *The Hitchhiker's Guide to the Galaxy* was, for example, first made for radio and broadcast on the BBC in the UK for the first time in 1978. The year after, it was published as a book by the same author, Douglas Adams. The radio show was released as a recording and the radio production was also translated and produced for the Swedish Radio, by the same translator that also translated the book into Swedish (Tomas Tidholm). In 1981 it was adapted for television, and in 1984 the narrative was released as a computer game (in English), where you could follow the same adventure into space as you could in the first book. Four sequels have since been published (Bolin 1994). It has since been re-made for film in 2005. It has appeared as comic books, TV-series, etc. And throughout it has had a large fan following.<sup>5</sup>

Although something happens with the narratives when they are transferred between media technologies, this is not exactly the same as transmedia storytelling, since the aim with new adaptations is not to add something to the sto-

ries (although in reception this is of course unavoidable). And although the various versions of *The Hitchhiker's Guide to the Galaxy* seem to have changed slightly between the various versions that Adams himself produced, resulting in some contradictions, this does not seem to have been consciously made in the same way as *The Matrix* was (although it certainly changes the meaning of the story, dependent on which of the forms one has taken part of).

### Commodified communication

Although there are undeniable aesthetic and artistic gains connected to transmedia storytelling, there are also profound economic incentives for its development. It makes the customer (reader) dependent on not only one medium or means of consumption, but on several platforms in order to be able to appreciate the story in a comprehensible way. It also encourages consumer loyalty. In a multi-channel environment, where each media user has an almost indefinite number of texts to choose from, it is important for the media industry to try to create loyalty among the audience members. Serialisation and transmedia storytelling are but two such techniques. And they both build on the fact that popular culture texts circulate in a commercial market that demands profits, and hence commodifies all communicative acts.

This is also why the audience is increasingly becoming a more important factor. In the age of technological convergence and textual divergence, content becomes more fluid, and thus harder to control and capitalize upon. As it has become increasingly hard to charge media users for content, the media industries need to develop new ways to secure economic revenue. This is why the market divisions of media companies are nervously trying to control another of their chief commodities: the audience. By selling this commodity, this statistical aggregate, to advertisers, economic revenues are secured. However, in a situation where audiences have almost indefinite access to millions of stories on a multitude of media platforms, the techniques for constructing the audience commodity, that is, the price-setting mechanism that is used to negotiate prices with advertising agencies, are in constant need of adjustment. There is an increased need to fine-tune these instruments, as the zapping audience is a moving target, and it is important to try to find out every second of audience attention (cf. Bolin 2005). This is also why one can argue that it is consumption, rather than production, that is the motor of development within the media industries.

The commodities, meant to attract the audience, that are circulated on this market are of two kinds: texts and means of consumption. Dependency on means of consumption is a way for the integrated hardware and software industries to secure profits, even for those products that are mainly user-generated in content (e.g. on YouTube, MySpace, etc.), as these also require

means of consumption (which are, at the same time, means of production for those who upload material to these sites).

*The Matrix*, and other texts that are played out across several platforms are, on the one hand, examples of the possibilities of constructing increasingly sophisticated narratives. On the other hand, there are obviously very materialistic reasons for why these possibilities have arisen: it motivates more consumption of both texts and means of consumption. It also makes audience measurement more flexible, as the increased complexity of the statistical audience composition makes this commodity even more abstract, symbolic or text-like. This is also why Simone Murray is wrong when she ends her otherwise illuminating essay on 'media convergence's third wave' by saying that 'content no longer represents merely the filler for industry pipes but, rather, that it now constitutes the media industries' structural logic' (Murray 2003:16). This is wrong because although content is important, and has structuring power within media industries, the means of consumption cannot be neglected, nor can the role of audiences as commodities. And these also have structuring power over the media industries. In fact, you could say that the powers that structure the industry, as well as the viewer, reader, listener reception, are based on the very combination of converging technologies and diverging texts and narratives.

## Notes

1. This has also led some scholars to try to distinguish between the two uses by giving them separate names. Simone Murray (2003:16), for example, 'uses the plural term "mediums" when referring to multiple content delivery systems in order to differentiate such usage from the more generalised term for communication industries as a whole, namely the "media"'.
2. I hesitate to use the term 'meaningware' suggested by Liestøl (2003), as it connotes materiality in the same way as hardware does. By using the term 'ware', we imply that texts are goods for distribution in a way that plays down the conceptualisation of texts as webs of meaning. It then privileges a transmission perspective on communication that I wish to avoid.
3. Film and television, for example, did integrate their activities in certain national markets – for example in the US – long before digitisation (Wasko 1994:11ff).
4. For a more detailed account of the conditions of reception in relation to different media technologies, see the discussion in Bolin (1994).
5. For details on all of the different media appearances, see the quite detailed information on Wikipedia ([http://en.wikipedia.org/wiki/The\\_Hitchhiker's\\_Guide\\_to\\_the\\_Galaxy](http://en.wikipedia.org/wiki/The_Hitchhiker's_Guide_to_the_Galaxy)).

## References

- Barthes, R. ([1968] 1977) 'The Death of the Author', in Barthes, R. *Image-Music-Text*. London: Fontana.
- Bolin, G. (1994) 'Vad är ett medium? En guide till mediegalaxen' [What is a Medium? A Guide to the Media Galaxy], in Carlsson, U., von Feilitzen, C., Fornäs, J., Holmqvist, T., Ross, S. and Strand, H. (eds.) *Kommunikationens korsningar. Möten mellan olika traditioner och*

- perspektiv i medieforskningen* [Crossroads of Communication. Traditions and Perspectives in Media Studies]. Göteborg: Nordicom-Sverige.
- Bolin, G. (2005) 'Notes From Inside the Factory: The Production and Consumption of Signs and Sign Value in Media Industries', *Social Semiotics* 15(3).
- Bolin, G. (2007) 'Mobiltelefonen som interpersonellt medium och multimedialt sökverktyg' [The Mobile Phone as Interpersonal Medium and Multimedia Information Tool], in Holmberg, S. and Weibull, L. (eds.) *Det nya Sverige* [The New Sweden], Göteborg: SOM-Institutet.
- Bolter, J.D. and Grusin, R. (1999) *Remediation: Understanding New Media*. Cambridge, MA: MIT Press.
- Chaffin, J. (2007) 'Music Labels Ask Apple to Adopt Subscription', *Financial Times* 12 April, [online] available at: [www.ft.com/cms/s/7c141a22-e91c-11db-a162-000b5df10621.html](http://www.ft.com/cms/s/7c141a22-e91c-11db-a162-000b5df10621.html) [April 14 2007].
- Gaines, J. (1990) 'Superman and the Protective Strength of the Trademark', in Mellencamp, P. (ed.) *Logics of Television: Essays in Cultural Criticism*. Bloomington & London: Indiana University Press/BFI.
- Herman, E.S. and McChesney, R.W. (1997) *The Global Media: The New Missionaries of Corporate Capitalism*. London & Washington: Cassell.
- Jenkins, H. (2006) *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press.
- Jensen, J.F. (1998) 'Communication Research after the Mediasaurus. Digital Convergence, Digital Divergence', *Nordicom Review* 19(1): 39-52.
- Jensen, K.B. (2006) 'Sounding the Media. An Interdisciplinary Review and Research Agenda for Digital Sound Studies', *Nordicom Review* 27(2): 7-33.
- Latham, R. and Sassen, S. (2005) 'Digital Formations: Constructions of an Object of Study', in Latham, R. and Sassen, S. (eds.) *Digital Formations: IT and New Architectures in the Global Realm*. Princeton & Oxford: Princeton University Press.
- Liestøl, G. (2003) 'Gameplay – From Synthesis to Analysis (and Vice Versa). Topics of Construction and Interpretation in Digital Media', in Liestøl, G., Morrison, A. and Rasmussen, T. (eds.) *Digital Media Revisited: Theoretical and Conceptual Innovations in Digital Domains*. Cambridge, MA: The MIT Press.
- Lynd, R. and Merrell Lynd, H. (1929) *Middletown. A Study in Contemporary American Culture*. New York: Harcourt, Brace and Company.
- Miller, T. (2007) 'Global Hollywood 2010', *International Journal of Communication* 1(1-4).
- Murray, S. (2003) 'Media Convergence's Third Wave', *Convergence: The International Journal of Research into New Media Technologies* 9(1): 8-18.
- Nowak, K. (1996) 'Medier som materiell och mental miljö' [Media as Material and Mental Milieu], in Carlsson, U. (ed.) *Medierna i sambället: Igår, idag, imorgon* [The Media in Society. Yesterday, Today, Tomorrow]. Göteborg: Nordicom-Sverige.
- Pool, I.deS. (1983) *Technologies of Freedom: On Free Speech in an Electronic Age*. Cambridge, MA.: Harvard University Press.
- Schatz, T. (1993) 'The New Hollywood', in Collins, J., Radner, H. and Preacher Collins, A. (eds.) *Film Theory Goes to the Movies*. New York & London: Routledge/BFI.
- Wasiko, J. (1994): *Hollywood in the Information Age: Beyond the Silver Screen*. Cambridge: Polity Press.
- Williams, R. ([1958] 1993) *Culture and Society: Coleridge to Orwell*. London: The Hogarth Press.
- Winston, B. (1998) *Media Technology and Society. A History: From the Telegraph to the Internet*. London & New York: Routledge.
- Zimmermann, P.R. (1995) *Reel Families. A Social History of Amateur Film*. Bloomington & Indianapolis: Indiana University Press.