

What to study when studying media and communication innovation? Research design for the digital age

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ABSTRACT

Since the final two decades of the 20th century technology mediated communication transforms from analogue into digital with serious implications on human communication. This process is usually called (digital) innovation. This article revisits the scholarly understanding of innovation in the field of media and communication from a normative point of view and subsequently develops an innovation research agenda which builds on this concept. This research agenda is built on the requirements of a democratic public sphere and consists of five levels: structural conditions, content production, communication and media economics, distribution and delivery as well as usage and user experience. *Communication Innovation Studies* (CIS) should undertake interdisciplinary research on communication innovation to evaluate and measure improvements or deteriorations of democratic values such as freedom, equality, diversity, solidarity and participation.

KEYWORDS:

media freedom, media crisis, communication innovation, communication value, invention, public sphere

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INTRODUCTION

During the 2014 communication study winter school I asked the participating PhD students to write down what they consider to be the characteristics of innovation and what the latest innovation was that crossed the roads in their lives. Here are the answers: Most often mentioned was that innovations must be different from what exists, followed by the notion that an innovation must solve a problem and that innovations need to be useful, for example to make one's life easier, more efficient, to save time, etc. Not surprisingly, their acknowledgment of the latest innovations were – most often mentioned – smartphones and smartphone apps, the Internet as such and computers. Others mentioned, again not surprising for communications students, were MaxQDA, Flattr, Skype, Ebay and the vacuum cleaner robot.

There is a lot of wisdom in these answers, and food for thought for social scientists working in the field of innovation studies. First, this group of PhD students, who had not particularly been involved in innovation studies, emphasizes that innovation need not only be *different*, but actually *better* than the state of the art before. And they underline the importance of *usefulness* of innovation, such as the mobility of communication provided by smart-

phones. Most of the other replies also contain this aspect of usefulness – including the notorious household robot.

This article revisits the scholarly understanding of innovation in the field of media and communication from a normative point of view and subsequently develops an innovation research agenda which builds on this concept.

Since the last two decades of the 20th century technologically mediated communication has transformed from analogue into digital with serious implications for human communication. This process is usually called (digital) innovation. Communication scholars have observed, embraced and analyzed this process enthusiastically (among them Yochai Benkler, Jeff Jarvis, Henry Jenkins, Clay Shirky) or skeptically (such as Robert McChesney, Matthew Hindman, Evgeny Morozov; for an overview see Mansell, 2012). The far-reaching implications pointed out by this well-established body of literature suggest new research designs when asking the fundamental research question: What to study when studying media and communication innovation?

Legacy communication studies focus on mass media shaped by the printed press, television, radio, film and more recently online-media. Their common characteristic is the top-down structure

with the professional “few” (journalists, editors) informing, entertaining and educating the “many” (audience, readers, viewers, listeners, users). Power relations are defined by commercial and industrial imperatives. Media and communication studies have extensively described and analyzed content, production, distribution and consumption.

Contemporary media and communication studies suggest the re-thinking of research orientations. After two decades of ever accelerating digital transformation, communication studies are increasingly challenged to adapt their agenda to digital communication. Chadwick argues that what we have today is best characterized as a *hybrid* media system: “Today, the media environment is far more diverse, fragmented, and polycentric, and new practices have developed out of the rise of digital communication.” (2013, p. 20).

In order to manage this process of change in communication research and teaching, the arising research field needs to be defined and discussed. This is easier said than done. Communication scholars might not always appreciate experiencing the gradual decay of their preferred research objects, such as newspapers or television channels. These objects are still dominating public communication and will continue to do so for some time; research on legacy media is still required. The

process of media and communication innovation, however, establishes inevitably new research objects, for which new research designs are necessary. I call this research field *Communication Innovation Studies* (CIS). For the purpose of defining this research field the term *communication* incorporates the fields of mass communication and media (one-to-many) on the one hand and web-based *social media* (one-to-one and many-to-many) on the other.

In the following, I will try to sketch a research agenda with an explicit normative starting point. Digital communication serves its purpose only to the extent to which digital technology contributes to a democratic public sphere. By choosing this terminology, a fundamental choice is made. This research agenda is about the public sphere in contemporary democracies. It is not about the improvement of media or communication industries' efficiency or profitability; it is not about ways and means of extending audiences and audience ratings; and it is not about how to increase satisfaction of *consumers*. So my guiding question is:

What media and communication research questions should be addressed to understand and explain the roles and functions of communication innovation for a democratic public sphere, shaped by the digital age?

In a first step, based on literature on normative research, I will establish a guideline of what values might constitute the democratic public sphere in communication terms and where the strengths and pitfalls are when social (communication) science addresses its favorite subject: social change. The second step consists of a critical assessment and analysis of the scholarly understanding of innovation with specific reference to communication. In the third step I will sketch a research agenda for CIS. The final part of this article will briefly look into what should be done by concerned communication scholars to cope with the research agenda.

MEDIA AND COMMUNICATION STUDIES AND THE DEMOCRATIC PUBLIC SPHERE

Building on the tradition of normative communication research, the question of what kind of communication might contribute to the democratic public sphere needs to be addressed. This is in line with Graham Murdock's reminder that critical research needs to ask 'Is it desirable?' (2004, p. 36) The public sphere is understood as where citizens communicate about the rule of their society and where media constitute a necessary infrastructure (Gripsrud and Moe, 2010, p. 9).

With a view to journalistic performance, Denis McQuail suggests a number of values and normative principles that contribute potentially to the public interest and welfare. For these values he claims universality, as they have their main origin in the history of western society in the 'modern' era (McQuail 2013, p. 54). Similarly, the "soul brothers", as Denis McQuail calls the authors (himself being one of them) in the Preface of the book *Normative Theories of the Media*, elaborate universal communication values from different angles (Christians et al., 2009). A third source for communication values is the edited volume by Karmasin et al. (2013), where the authors establish an extensive, but not exhaustive, list of communication values.

Within this tradition and along these lines of thinking, the following values are considered as constituents for a democratic public sphere in communication terms:

Freedom: In our context freedom refers to the possibility of the individual to exert the right to self-determination and the sovereign conduct of his or her life. Such freedom depends critically on communication, as personal decisions on the conduct of life are based on information, fundamentally provided by communication. Communication freedom therefore is essential for the democratic public sphere.

Equality and diversity: These values refer on the one hand to equal opportunities to receive and to impart information, as well as to the equality of representation. They require not only the opportunity to speak and to make oneself heard, but also access to a variety of information from diverse sources with – in an ideal world – no bias or blind spots. On the other hand, and following from equality, diversity of communication is needed to make up one's own opinion. This equally refers to the diversity of communication partners (agents) and of accessible contents. Another essential element of equality and diversity is the factual (not only theoretical) access to the means of communication. Van Dijk's (2009; 2012) outstanding work on first and

second level digital divides demonstrates the relevance of informational, communication, content-creation and strategic skills in addition to physical access to the Internet.

Participation and solidarity: These values refer to the degree to which individuals or groups are integrated or excluded from decision-making. Solidarity ranges from "patriotism and attachment to a 'national interest' to a concern for groups and individuals that might be marginalized, victimized or excluded." (McQuail 2013, p. 67) Participation in the field of communication can be divided into two aspects (Carpentier 2011, p. 131): Content-related participation refers to the decision-making processes within the production of content; structural participation refers to the openness of media organizations to input from outside the house. In addition to this differentiation, it is important to distinguish real or authentic participation from fake or pseudo-participation (ibid., p. 126). As real participation includes the transfer of power, it is not welcome in all communication circumstances, but real participation is an essential feature of the democratic public sphere. Accordingly, the mere fact that the Internet provides space to express opinions does not in itself provide more participation (Thomass, 2011, p. 123)

These three groups of values are consistent with

the extensive research undertaken by communication scholars interested in the role of communication in and for democracy (Hindman, 2009; Papacharissi, 2010; Trappel et al., 2010).

MEDIA AND COMMUNICATION CHANGE

It is one of the noble and honorable tasks of the social sciences to monitor and analyze changes in the democratic conduct of public life. Social sciences – with media and communications studies as one distinct discipline thereof – are generally interested in social change. Change is universal, has no beginning and no end. It happens all the time and in the long run nobody is exempted from change. Social science research questions include the analysis of drivers and impediments of change, winners and losers, the observation and analysis of processes of change and its implications for various strands of society. Social sciences are interested in shifts of power relations that come with change, as well as in external effects of change. In other words, borrowed from famous communication scholar Harold D. Lasswell (1948), social sciences are interested in *how* change happens, *where*, *when*, *why* and *with what effect*.

Media and communication studies are traditionally thrilled by the notion of change. Not only are changes in the way people use and consume media one of the most propelling research fields, changes in communication technologies have found solid reflection in communication studies. The term “new media” changes its meaning and con-

notation at least every decade: satellite and cable technology in the 1980s, computer and ICTs in the 1990s, Internet and online communication in the 2000s, and culminating recently in social networks and user generated content (UGC) in the 2010s. Some research done in the field has been infected by various degrees of “technological determinism”, confusing communication technology with social change or even social progress. Instead, Raymond Williams called for an “examination of (1) the reasons for which technologies are developed, (2) the complex of social, cultural, and economic factors which shape them, and (3) the ways that technologies are mobilised for certain ends (...)” (quoted in Lister et al., 2003, p. 81)

In taking up William’s examination demands, communication research is advised to avoid the temptation of overstressing technology which has indeed become ubiquitous in modern life. Communication research rather needs to establish why certain technologies have been developed, by whom and to whose benefit. Furthermore, intended as well as unintended implications of the use and implementation of communication technologies needs to be scrutinized. And, finally, communication technologies cannot and must not be separated from the social context in which they have been developed and in which they are used.

CONNECTING COMMUNICATION CRISIS WITH INNOVATION

When following the public discourse one can easily get the impression that innovation is considered the holy grail of progress and the heal-all remedy for any disorder of modern society. In particular during times of crisis, innovation is the order of the day to overcome the crisis. If a crisis occurs, just apply a sufficient amount of innovation for a fix. Such oversimplifications can be found in policy papers, government declarations and company mission statements. Nonetheless, or because this nexus is so popular, the notion of crisis is a suitable starting-point for a closer analytical look at innovation, as crisis and innovation can indeed be regarded as two sides of the same coin.

Economist Joseph Schumpeter has meticulously linked crisis to innovation. He suggested understanding crises beyond “isolated misfortunes that will happen in consequence of errors, excesses, misconduct” (1976 [1942]: 41) as cycles in the capitalist system. Such cycles of the “capitalist engine” (ibid., p. 83) are fueled by “new consumers’ goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates” (ibid.), in short, by innovation. The popular belief in the

crisis-killing capacity of innovation has its root in this highly optimistic and somewhat mechanical understanding of innovation.

Crisis has become a familiar feature in the world of communication since the turn of the century. At least two crises can be distinguished: One occurred following the burst of the new economy bubble in the years 2000 and 2001. The other crisis commenced as the financial market collapsed in 2008 and was still not entirely over at the time of writing (January 2015). Both of these crises had severe repercussions on the conduct of public communication and on professionals working in media companies. Steve Barnett calls the current state of the media a “perfect storm” that is “more destructive than at any time since the beginnings of a free press (...).” (2009, p. 217)

In its most slender form, crisis can be defined as something of sufficient importance going wrong. Michel Wieviorka suggests understanding crisis more sophisticatedly as “a disruption of a system in which uncertainties arise (...).” (2012, p. 97) With reference to Jürgen Habermas’ early writings (1973), John B. Thompson elaborates this understanding further: “A system crisis has to do with the breakdown of system integration: it occurs when the self-regulation mechanisms of a system break down, the medium for coordinating actions fails to

fulfill its role, and the system seizes up.” (2012, p. 62) Thus, a crisis has an individual and subjective component (“uncertainty”) and a collective component (“system integration”). This distinction will occur again when looking at innovation.

However, there is a feedback loop. While there are many textbook examples of how innovation has helped to end crises, the reverse relation is evident as well: Innovations that triggered crisis with incumbent services or even industries. Actually, the latter relation between crisis and innovation seems to occur more frequently as innovations can be and are highly dangerous, seen from the incumbents’ point of view. Cars with engines were detrimental to horse cart operators in the late 19th century, creating a formidable crisis for their business. This is what Schumpeter called the destructive element of innovation. Like crisis, innovation has a subjective component as well.

When looking into the scientific literature innovation is simply defined as “idea, successfully applied.” (Dogson and Gann, p. xi and p. 13). They admit, however, that such a simple definition raises questions: “What is ‘success’? Time is influential, and innovations may be initially successful and eventually fail, or vice versa. What does ‘applied’ imply? Is it applied within a single part of the organization, or diffused internationally amongst

a massive group of users?” (ibid., p. 13) In an attempt to widen the definition of innovation, Stone-man simply suggests accepting “newness as basic requirement of innovation” (2010: 20) and he subsequently defines innovation as “anything that is new (...).” (ibid., p. 35)

This understanding is somewhat in conflict with the Schumpeterian separation of invention from innovation with the latter happening only if an invention is successfully placed in markets. Technological inventions might or might not become innovations. “Indeed, the space of the technologically possible is much greater than that of the economically profitable and socially acceptable. It is with profit in mind that entrepreneurs and managers are constantly turning inventions into innovations; technical possibilities and discoveries into economic realities.” (Perez 2009, pp. 3f)

Innovation in the scholarly discourse, thus, is exhaustively determined by newness (also the first characteristic of media innovation, suggested by Dogruel, 2014, p. 58) on the one hand and market diffusion on the other. Whatever is new and successful in markets qualifies as innovation. Stuart Cunningham determines vaguely “(...) that innovation is not only the creation of new ideas (...) but also involves the application of those ideas for realised or potential economic, social or public ben-

efit.” (2013, p. 4) Social or public benefit is just a side effect of innovation in his reading.

This scholarly understanding of innovation raises questions. *Newness* and *market success* underestimate what was essential to the PhD students at the winter school quoted above: Innovation is considered to make things better: better for the purpose (e.g. more efficient use of bandwidth in mobile communication), better for the environment, better for social and democratic coherence, or better in respect to any other relevant value. Should something *new* and *successful* that does not correspond to any relevant value really qualify as innovation? Should, for example, cheaper production of goods at the expense of quality of the good be considered an innovation?

An example here is the question whether the so-called integrated newsrooms qualify as innovation. Such newsrooms unite for example print and online journalists into one physical unit, often in one open-space office. A few years ago, this idea was new and it was very successful in terms of diffusion among newspapers worldwide. But do integrated newsrooms improve editorial quality? Thus, shall integrated newsrooms qualify as innovation in journalism, or just as innovation in workflow management?

Another problem is that the scholarly under-

standing pretends to be value neutral, as any idea is considered an innovation as long as it is *successfully applied*. But, actually, it is not. If innovations are good in crisis solving, the limitation of innovation to what is successful in markets excludes ideas and solutions which are not. This shortcoming works in two ways.

First, not all inventions which have been diffused successfully in markets, were the best available alternatives. In such cases, the better ideas and solutions remained in the stage of inventions, while the inferior idea or solution stepped-up as innovation. An example is the case of the finally successful VHS video recording system in the 1980s which was clearly inferior to the Betamax system developed by Sony. In this example, the larger Matsushita-led consortium favoring VHS managed to exert stronger market power than its rival. Another wide-ranging example is those allegedly innovative complex financial instruments behind the global financial crisis that started in 2008 and which created phenomenal global turmoil. (Dodgson and Gann 2010, p. 31)

Second, new inventions with promising market potential never hit markets because incumbent competitors manage to prevent this invention from becoming an innovation. One example of this power play is the so called “Cologne newspaper

war” in 1999. At a time, when free-sheets started to flourish all over Europe, the Norwegian *Schibstedt* group launched such a commuter newspaper in Cologne, Germany. The incumbent competitors, *Axel Springer* and *DuMont Schauberg*, started their own free-sheets in order to prevent *Schibstedt's* “20 minutes” from succeeding economically. After seven months, “20 minutes” left the market, and both incumbents immediately closed down their free-sheets. German publishers learned their lesson well: no other free sheet has been launched in Germany since then. Again, (market) power is an essential reason why inventions transform into innovations or not. Other examples can be found in the file-sharing applications, such as Napster or Gnutella, which were defeated by incumbent media corporations and eventually went bankrupt (for a history see Allen-Robertson, 2013).

It occurs that innovation, understood as simply *idea successfully applied*, has closer relations to power than to excellence, and market-selected innovations do not necessarily provide the best available problem solution. Actually, the problem solving capacity of the market selection model of innovation should be closely scrutinized.

In conclusion, I suggest rethinking the notion of innovation. Innovations, then, are ideas and solutions (inventions) which are *new and better*,

thus *superior to the status quo ante*. They might or might not diffuse into markets, depending on what amount of (market and marketing) power is applied. By this definition, different ideas and solutions qualify as innovations: Those which are new and offer something better do. Those which are new, better and successful do as well. But those which are just new and pushed into markets do not. For new ideas and solutions which do not make things any better (with or without market diffusion), I suggest using the term *change* instead of *innovation*.

Such an understanding has repercussions not the least on research and the allocation of research funds. As “innovation” is a frequently and universally applied attribute in research calls, a different definition and understanding of innovation would open up new research fields.

These thoughts are now applied to the agenda of communication innovation studies (CIS).

RESEARCH AGENDA: COMMUNICATION INNOVATION STUDIES (CIS)

Terms, definitions and understandings of innovation in communication research are not much different from the orthodox canon. When studying media innovation, Storsul and Krumsvik start out from the conventional definition of innovation and invention, whereas “innovation is the implementation of this invention in a market or a social setting. (...) innovation implies introducing something new into the socioeconomic system.” (2013, p. 14) But they suggest including some normative perspective in innovation research: who gains from innovation, what interests are involved, how are they organized and who succeeds and who fails in the market (ibid., p. 15). These normative questions align with the two research questions formulated by Robin Mansell who suggests asking for the “dominant principles, values and perceptions of power embedded in our technologically-mediated interactions”, as well as for how innovation in the new media field is being structured (“by whom and for whom is it being negotiated”) (2004, p. 103).

These questions are important starting points for the development of a CIS research agenda. Another starting point is the definition of Internet studies, which is much wider in scope. In their in-

troduction to the *Handbook of Internet Studies*, Mia Consalvo and Charles Ess circumscribe their mission as “to study the distinctive sorts of human communication and interaction facilitated by the Internet.” (2013, p. 1). Innovation research is more specific than that and goes beyond that description when addressing the democratic public sphere in the digital age. If innovation is understood as ideas and solutions which are new and superior to the status-quo and if the democratic public sphere is defined in respect to freedom, equality and diversity, as well as solidarity and participation, then the following meta-research question for CIS can be formulated:

In what way does innovation change communication, what dominant principles of power are being embedded and what are the implications on the democratic values of freedom, equality, diversity, solidarity and participation?

Such a meta-research question allows for a wide array of more detailed research questions, but it always keeps in mind that innovation is intended to make communication better and to improve democratic values for those involved in communication. Nonetheless, it also leaves open the possibility that

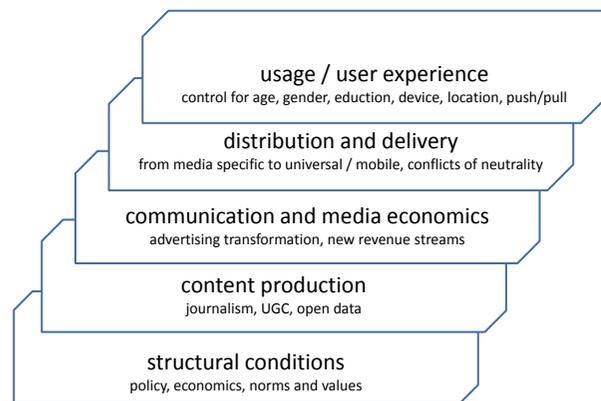


Figure 1. Five levels of Communication Innovation Studies (CIS)

changes in communication do not qualify as innovation and that communication deteriorates in respect to democratic values following such changes.

To structure and organize research in CIS subsequent to this meta-research question, the seminal work of Michael Porter is a useful starting point. His theory for understanding and explaining the production, delivery and service process as a “value chain” (1998 [1985], pp. 36ff) has helped scholars and practitioners alike to segment the complex processes within a given firm. Despite some weaknesses I pointed out elsewhere (Trappel 2014, pp. 126ff), the process segmentation into production/creation, packaging/production, distribution, and delivery/exhibition is still valuable. For the purpose of establishing a research agenda for CIS, however, the value chain needs a small but important amendment. Porter’s starting point is the production or creation of a product or service. This insinuates that firms are entirely free to choose what they wish to produce with the commodities and resources available to them. This might or might not apply to other businesses; in the field of communication there are relatively strict limits to what is socially acceptable and what is not. Therefore, the segmentation needs to accommodate external structures as a first step.

CIS first level of research: structural conditions

Communication innovation studies need to address the social and structural conditions that shape communication. Not only policy and economics need to be observed, but also social constraints, norms and values are important parameters for communication innovation. Communication is a rather strongly regulated field with policy regulation laid down in national Constitutions as well as supranational binding Conventions (such as the Council of Europe’s Convention on Human Rights). Communication innovation is subject to these rules. Furthermore, existing media markets in most European countries are structured into a public, a private commercial and a private non-commercial sector, with implications on the implementation of media and communication innovations. Such market segmentation might allow for a different diffusion speed of innovation in these segments. Another structural feature of European media markets concerns the high level of ownership concentration in most countries, with the emergence of horizontally, vertically and diagonally integrated corporations (Doyle, 2002, Downing, 2011; Meier, 2007). Increased ownership concentration is associated with increased market power, also to foster or, indeed, impede innovation. Finally, commercialism has been a dominant driving force over the

last decades and has presumably increased during the early years of the digital age. Since “possessive individualism promoted by consumerism is deeply corrosive of the sense of shared fate and equal entitlement required by a culture of citizenship (...)” (Murdock 2004, pp. 34f), the value of solidarity is under threat.

Research questions include: In what way and to what extent do national or supranational communication rules foster or impede communication innovation? How do market segmentation and ownership concentration impact the diffusion of communication innovation? How likely are the emerging, highly integrated communication corporations to contribute to innovation? To the extent that social networks such as *Facebook* and *Twitter* qualify as innovations themselves (Brunns, 2014), what form of re-mediation takes place, and what are the implications for incumbent media organizations and how do these networks perform in democratic values? To what extent do commercialism and consumerism drive innovation and how can non-commercial spaces be preserved?

CIS second level of research: process of content production (journalism)

The process of content production is fundamentally affected by the ongoing changes within pub-

lic communication. Not only are journalists losing their former monopoly as information providers and informants to a wide variety of voices raised on the Internet, journalism is under threat because of the unsolved crisis that affects newspapers almost all over Europe. Changes and innovations have furthermore transformed editorial newsrooms into integrated locations where all sorts of contents are created and blended into various play out centers and packages, online and offline. These conditions of content production impact the quality of the output. On the positive side, new (semantic and other) technologies might be developed and exploited in order to manage large amounts of data coming from a variety of sources (big data, open data, open government data) as well as to facilitate the use of archives and repositories for journalistic purposes. In more general terms, it is widely unclear how the Internet is challenging the authority of established news media and how the position of journalists as essential mediators of information is changing. (McQuail 2013, p. 178)

Research questions include: In what way and to what extent is the freedom of journalists and professional editorial ethics compromised by changing organizational structures? How does content quality change parallel with or subsequent to changes in the internal organization of newsrooms? How does

the interplay between social media, user generated content and incumbent media organizations work? To what extent do traditional journalism and social networks contribute to democratic values? What is the relationship between social media and traditional journalism with regard to investigation of factual information, immediacy, accuracy and other (former) journalistic values? What role does professional editing play within social networks and other emerging communication channels? How does/did public representation change with the emergence of social networks? What alternative and innovative forms of public communication emerge?

CIS third level of research: communication and media economics

At this level, CIS focus on communication economics in times of digital change. So far, the irrevocable departure of advertising funding from traditional mass media (in particular from newspapers) is confirmed. “Indeed, what is especially ominous for the future of journalism is that some advertising has shifted not from traditional news media to their satellite news web-sites, but has leapfrogged instead to other parts of the Web, which have nothing to do with journalism.” (Curran 2010, p. 468)

Advertising itself remains an important but rela-

tively neglected object of research (Murdock 2004; 31), but the separation of advertising from content constitutes a fundamental and radical break in the tradition of news and entertainment media. It is still unclear how media companies could possibly compensate for these losses. New ways of revenue generation for professional communication are urgently required but not (yet) available. Pessimists do not envisage any new business model “that can give us the journalism a self-governing society requires.” (McChesney 2013, p. 201). So far, in the absence of any promising revenue-generating model, incumbent media companies applied cost cutting measures. New streams of income are urgently needed and communication research might provide some insights into new opportunities.

Research questions include: What are the options to re-establish a business relation between those who produce content and those who seek the attention of the audience for commercial purposes? How can new income streams for content production be established? What kind of public support does not interfere with editorial freedom and independence? What best practice cases can be identified for distributing public support to news organizations or news journalists in return for editorial performance? How can the cost burden of

high quality journalism be distributed among more shoulders?

CIS forth level of research: distribution and delivery

Distribution and delivery of communication artefacts is under fundamental change. CIS need to observe the implications of the shift from media-specific distribution (such as the terrestrial television and radio networks) to the universal Internet and mobile transmission. Powerful actors from other strands of the economy are expected to extend their businesses into the profitable segments of content provision (such as the purchase of Champions League and Europe League football rights by British Telecom [BT], not by the broadcaster BSkyB, in the UK in November 2013). Another important ongoing change concerning the distribution of content comes with the growing popularity of pull-services, offered on the Internet. YouTube and Netflix are just two popular applications which allow for the usage of audiovisual content at any suitable time on any suitable device (see fifth level of research below). Providers of such audio-visual pull-content are both professional producers and laymen who post their videos on the Internet. Bruns holds that “(...) media innovation is now a matter

for established media organizations, for emerging developers and entrepreneurs, and for loose communities of everyday users alike (...)” (2014, p. 23) This observation is particularly relevant in the distribution and delivery part of the value chain, as for the first time in media history professional and non-professional content is technically delivered on the same platform. Conflicts of neutrality in accessing these platforms are likely to occur (for the discursive genealogy of the term network neutrality see Kimball, 2013; for a history of such conflicts see Allen-Robertson, 2013). Moreover, technologies such as terrestrial and satellite transmission still serve – and will serve in the foreseeable future – as important distribution channels. One research field concerns the integration of these channels and the Internet for the benefit of users.

Research questions include: What new ways of distributing can be developed and identified, with what potential for conflicts between different types of content providers? What regulatory framework is required to ensure equal access to the Internet for both providers and users? How can potential bottlenecks in the network distribution of content be identified and avoided, including more efficient compression technologies? How can the various distribution channels – from broadcast to Internet

– be integrated into a universe which serves best the needs of users with regard to service quality?

CIS fifth level of research: usage/user experience

Changes to the communication environment start from various ends. One of them is changing usage behavior, usage patterns and media appropriation by the people. CIS are requested to monitor carefully these ongoing changes, controlling for age groups, gender, Internet and computer usage skills, arising (or closing) knowledge gaps and digital divides, preferred content, usage during times of the day and at different locations with different devices, proportion in the usage of push and pull content, etc. Such a research agenda widely duplicates audience and readership research in incumbent communication studies. However, innovation might be sought to develop new and more reliable methods of research which focus more strongly on actual behavior, rather than on survey data. Special focus should be on longitudinal studies to better understand changes and developments.

Research questions include: What is the preferred usage of content, classified according to population segments? What is the usage interplay between broadcast and print content on the one hand and Internet-delivered content on the other? What new usage patterns develop over time in various

segment of society? How does the composition of media content that is used both online and offline change over time (changes in the media usage repertoires)? In what way does the abundance of pull-content on the Internet change the usage patterns? How does the usage of content which is closely related to democratic values (such as news) develop over time and which are the preferred channels in different segments of society? What new cleavages in knowledge and skills arise over time (knowledge gaps, digital divides)?

WHAT NEEDS TO BE DONE?

To work on all these research questions CIS require efforts well beyond the capacity of single research institutions such as University institutes, University research centres or company R&D sections. Co-operation and networks seem to be an appropriate way to organize research endeavours in the vast field of CIS. Over the planet, a number of highly qualified, but in most cases issue-driven, research centres have been established. Within social sciences, Fagerberg and Verspagen (2009, p. 218) identified no less than 136 research units focusing on innovation in 2007. To be sure, not all of them deal primarily with media and communication. But all over the planet such research institutions are loosely organized as *Network of Internet and Society Centers* (NoC). The global scale of this network reflects well the borderless character of the communication infrastructures.

But research carried out by experts in digital technology and their social implications is not sufficient to cope with the far-reaching consequences of communication innovation. Graham Murdock consistently reminded us that “(...) focusing on digitalization reproduces the media-centrism that has limited communication scholars’ ability to build bridges with disciplines beyond the social sciences

and humanities. It is unhelpful even as an approach to technological innovation. There are two other major sites of innovation that need to be included in an analysis of contemporary change; biotechnologies and materials.” (2004, p. 21) Research clusters, thus, should be open to interdisciplinary research in order to overcome such media-centrism. It goes without saying that telecommunication as well as human centred research (such as, for example, Human Computer Interaction [HCI]) needs to be part thereof.

CONCLUSIONS

Communication innovation studies (CIS) are based on a number of settings which should help to focus research activities on those areas which are important for a democratic public sphere in the digital age. Among these settings are:

First: Innovation is defined as ideas or solutions which are new and superior to the status-quo ante. They might or might not diffuse into markets of societies at large. This setting is in conflict with the scholarly definitions, which hold that any idea successfully applied is considered an innovation. By including improvement and excluding successful market diffusion, different ideas and solutions qualify as innovations and fewer are lost along the way.

Second: Innovation and crisis are two sides of the same coin. Innovation can both terminate and create crises. Crises might lead to innovation, but also to the decay of communication structures. CIS take into account that power is one of the most important forces which determines the destiny of crises and innovations. Technology is not the essential driver. Following Raymond Williams, “it is the power that specific social groups have that is important in determining the ‘pace and scale’ of the intended technological development (...)” (quoted

in Lister et al. 2003: 81) Neglecting power relations would mean to dismiss the most promising explanatory factor from the analysis. Power makes or breaks innovation.

Third: CIS as one emerging discipline within social sciences follow their own research agenda which is normative in nature. Innovation is analyzed from the perspective of the democratic public sphere in the Internet age. CIS, therefore, undertake interdisciplinary research on communication innovation to evaluate and measure improvements or deteriorations of democratic values such as freedom, equality, diversity, solidarity and participation. By this research focus, CIS are set apart from industry research which is focused on commercial success of innovation.

To cope with the wide array of emerging CIS research questions, interdisciplinary global networks of concerned research centres are the most appropriate organisational structure.

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While writing this text, sunshine disappears suddenly and tropical rains pour down. Dark clouds hang deep and the Southern sea changes colours dramatically from shades of light blue and green to dark grey. The cottage is well built and the small terrace is great shelter while working and thinking. This was made possible by the generosity of my University which allowed me for one semester to allocate my time to research, rather than to teaching and administration. I decided to spend some of my research time at the Southern sea. A great choice

REFERENCES

- Allen-Robertson, J. (2013). *Digital Culture Industry. A History of Digital Distribution*. Basingstoke, New York: Palgrave Macmillan.
- Barnett, S. (2009). Media ownership policy in a recession: redefining the public interest. *Interactions: Studies in Communication and Culture*, 1(2), 217-232.
- Bruns, A. (2014). Media Innovations, User Innovations, Societal Innovations. *Journal of Media Innovations*, 1(1), 13-27.
- Carpentier, N. (2011). *Media and Participation. A site of ideological-democratic struggle*. Bristol, Chicago: Intellect.
- Chadwick, A. (2013). *The Hybrid Media System. Politics and Power*. Oxford: Oxford University Press.
- Christians, C. G., Glasser, T. L., McQuail, D., Nordenstreng, K., & White, R. A. (2009). *Normative Theories of the Media. Journalism in Democratic Societies*. Urbana, Chicago: University of Illinois Press.
- Consalvo, M., & Ess, C. (2013). Introduction: What is "Internet Studies"? In M. Consalvo & C. Ess (Eds.), *The Handbook of Internet Studies* (pp. 1-8). Chichester: Wiley-Blackwell.
- Cunningham, S. (2013). *Hidden Innovation. Policy, Industry and the Creative Sector*. St. Lucia: University of Queensland Press.
- Curran, J. (2010). The Future of Journalism. *Journalism Studies*, 11(4), 464-476.
- Dodgson, M. & Gann, D. (2010) *Innovation: A Very Short Introduction*. Oxford: Oxford University Press.
- Dogrueel, L. (2014). What is so Special about Media Innovations? A Characterization of the Field. *Journal of Media Innovations*, 1(1), 52-69.
- Downing, J. D. (2011). Media Ownership, Concentration, and Control. The Evolution of Debate. In J. Wasko, G. Murdock & H. Sousa (Eds.), *The Handbook of Political Economy of Communications* (pp. 140-168). Chichester Blackwell.
- Doyle, G. (2002). *Media Ownership. The economics and politics of convergence and concentration in the UK and European media*. London, Thousand Oaks, New Delhi: Sage.
- Fagerberg, J., & Verspagen, B. (2009). Innovation studies-The emerging structure of a new scientific field. *Research Policy*, 38(2), 218-233.
- Gripsrud, J., & Moe, H. (2010). The Digital Public Sphere. Challenges for Media Policy. Introduction. In J. Gripsrud & H. Moe (Eds.), *The Digital Public Sphere. Challenges for Media Policy* (pp. 9-19). Göteborg: Nordicom.
- Habermas, J. (1973). *Legitimationsprobleme im Spätkapitalismus [Legitimacy issues in the era of Late Capitalism]*. Frankfurt/Main. Suhrkamp.

- Hindman, M. (2009). *The Myth of the Digital Democracy*. Princeton and Oxford: Princeton University Press.
- Karmasin, M., Rath, M., & Thomaß, B. (Eds.). (2013). Normativität in der Kommunikationswissenschaft. [Normativity in Communication Studies] Wiesbaden: VS Verlag für Sozialwissenschaften.
- Kimball, D. (2013). What we talk about when we talk about net neutrality: a historical genealogy of the discourse of ‚Net Neutrality‘. In Z. Stiegler (Ed.), *Regulating the Web. Network Neutrality and the Fate of the Open Internet* (pp. 33-48). Plymouth: Lexington.
- Lasswell, H. D. (1948). The Structure and Function of Communication in Society. In L. Bryson (Ed.), *The Communication of Ideas* (pp. 37-52). New York: Cooper.
- Lister, M., Dovey, J., Giddings, S., Grant, I., & Kelly, K. (2003). *New media: a critical introduction*. London: Routledge.
- Mansell, R. (2012). *Imagining the Internet. Communication, Innovation, and Governance*. Oxford: Oxford University Press.
- Mansell, R. (2004). Political economy, power and new media. *New media & society*, 6(1), 96-105.
- McChesney, R. (2013). *Digital Disconnect. How Capitalism is Turning the Internet Against Democracy*. New York: New Press.
- McQuail, D. (2013). *Journalism and Society*. London, Thousand Oaks, New Delhi, Singapore: Sage.
- Meier, W. A. (2007). National and Transnational Media Ownership Concentration in Europe: A Burden for Democracy? In W. A. Meier & J. Trappel (Eds.), *Power, Performance and Politics: Media Policy in Europe* (pp. 75-103). Baden-Baden: Nomos.
- Murdock, G. (2004). Past the Posts. Rethinking Change, Retrieving Critique. *European Journal of Communication*, 19(1), 19-38.
- Papacharissi, Z. (2010). *A Private Sphere. Democracy in a Digital Age*. Cambridge, Malden: Polity.
- Perez, C. (2009). Technological revolutions and technological paradigms. *Working Papers in Technology Governance and Economic Dynamics* (Available Online: <http://hum.ttu.ee/wp/paper20.pdf>).
- Porter, M. E. (1998 [1985]) *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.
- Schumpeter, J. (1976) [1942]. *Capitalism, Socialism and Democracy*. 5th edition. London: Allen and Unwin.
- Stoneman, P. (2010). *Soft Innovation. Economics, Product Aesthetics, and the Creative Industries*. Oxford: Oxford University Press.
- Storsul, T., & Krumsvik, A. H. (2013). What is Media Innovation? In T. Storsul & A. H. Krumsvik (Eds.), *Media Innovations. A Multidisciplinary Study of Change* (pp. 13-26). Gothenburg: Nordicom.
- Thomass, B. (2011). Deficits and Potentials of the Public Spheres. In J. Trappel, W. A. Meier, L. d’Haenens, J. Steemers & B. Thomass (Eds.), *Media in Europe Today* (pp. 119-133). Bristol: Intellect.
- Thompson, J. B. (2012). The Metamorphosis of a Crisis. In M. Castells, J. Craca & G. Cardoso (Eds.), *Aftermath. The Cultures of the Economic Crisis* (pp. 59-81). Oxford: Oxford University Press.
- Trappel, J., Nieminen, H., & Nord, L. W. (Eds.). (2011). *The Media for Democracy Monitor: A Cross National Study of Leading News Media*. Gothenburg: Nordicom.
- Trappel, J. (2014). What Media Value? Theorising on Social Values and Testing it in Ten Countries. In G. F. Lowe & F. Martin (Eds.), *The Value of Public Service Media*. RIPE@2013 (pp. 125-142). Gothenburg: Nordicom.

- van Dijk, J. (2009). One Europe, digitally divided. In A. Chadwick & P. N. Howard (Eds.), *Routledge Handbook of Internet Politics* (pp. 288-304). London, New York: Routledge.
- van Dijk, J. (2012). The Evolution of the Digital Divide. The Digital Divide turns to Inequality of Skills and Usage. In: (Hg.): . In J. Bus, M. Crompton, M. Hildebrandt & G. Metakides (Eds.), *Digital Enlightenment Yearbook 2012* (pp. 57-75). Amsterdam: Ios Press.
- Wieviorka, M. (2012). Financial Crisis or Societal Mutation? In M. Castells, J. Craca & G. Cardoso (Eds.), *Aftermath. The Cultures of the Economic Crisis* (pp. 82-104). Oxford: Oxford University Press.