
Conclusion

The book 'Leveraging mobile media. Cross-media strategy and innovation policy for mobile media communication' analyzes the influence of mobile communications as an emerging distribution channel for the provision of media content and services on the media industry. It takes two different viewpoints on potential levers for the developments of the media industry and mobile media: from a corporate strategy point of view it assesses the potentials for an **extension of cross-media strategies**; from a public policy point of view the book investigates **demands and requirements for an innovation policy** that fosters innovation in mobile media markets and comprises three central elements: competition policy, consumer protection and privacy, and intellectual property rights.

The discussion about the extension of cross-media strategies is based on the analysis of the **social use of mobile communications**. It acknowledges the technological opportunities and constraints of mobile personal devices and next generation wireless networks. Within this framework, it develops a demand-oriented federated approach towards the integration of mobile media with existing cross-media strategies by asking how to translate the social use of mobile communications into competitive strategy for media companies.

A **user-driven innovation paradigm** underlies the discussion of the design of innovation policies for mobile media. It asks how to foster user-driven innovation and aims at identifying potential bottlenecks and leverages for mobile media development.

1

Summary of the major findings

Mobile media markets offer a number of **incentives for media companies** to enter or expand their engagement within them. Paid content revenues, which are obtained straight from the user offer interesting revenue potential for mobile media as do licensing revenues in the context of multiple content utilization strategies. Licensees can be mobile operators, handset manufacturers, or emerging mobile content players. Yet, the uncertainty over customer demand remains high. In order to overcome **barriers of uncertainty**, a user-oriented approach to innovation development that is based on the social use of media and ICTs and user innovation networks as an emerging innovation paradigm in network-oriented societies is suggested.

The constraints of mobile devices and the numerous technological, economic, and political challenges of the migration to next generation networks do not suggest a near-term provision of mass media content delivered to mobile handsets. However, the new characteristics of the mobile communications system such as connectivity, location flexibility, and the hybridization of the public and the personal sphere offer a number of emerging usage contexts and usage reasons. Contrary to many expectations, the stationary use of mobile communications is a strong reason for usage due to the direct connection to a person, not to a location. But also mobile and captive user situations lend themselves to the use of mobile media.

The social use of mobile communications, predominantly among young people, is closely connected with the construction of a mobile identity in social networks. The self-identity construct of GIDDENS (1991) is used to analyze the creation of self-narratives with the support of SMS and MMS messaging services and potentially with more advanced mobile media offers. But also the impulsive access to trusted media brands offers new opportunities for media companies. However, an insurance model of mobile media delivery that only disrupts mobile users in cases of breaking news or emergencies may be an alternative to consider in opposition to attempts to build new habituation patterns for mobile media, e.g. via the daily SMS or MMS media content delivery.

Cross-media strategies, classified into mobile marketing support, market development, and market diversification of cross-media strategies, can extend their scope with new mobile content and services. Four new mobile media categories are developed: interpersonal communication, interactive play, information search, and collective participatory mobile media. These mobile media categories can become integrated into existing cross-media strategies via the creation of meta-narratives. The main functions of mobile media in an integrated approach relate to either micro-coordination, using the mobile phone as a remote control device, or relationship management within social networks. Social networks can serve as complementors in media companies' mobile media value net. In this scenario, mobile users evolve into distributors of mobile media offers when it fits their lifestyle choice and when it supports their self-narrative creation in their social networks. Further, cross-media strategies can develop into cross-network strategies when media companies begin to deliver one service across a variety of (wireless) networks including cellular, wireless LAN, and digital broadcast networks. Network choice can be based on consumer preferences and can be executed via a personal router.

The profitability of mobile media offers is a challenging issue for media companies since many players in the mobile media value net contribute to the value creation process and, therefore, want to be compensated. In the negotiations for revenue sharing models between mobile operators and media companies, however, there may be a shift in bargaining power towards media companies due to their competencies in attracting mass audiences with their strong media brands; moreover handset manufacturers who are fiercely competing for differentiation increase the demand for mobile media. Mobile operators face increasing compe-

tition for mobile data revenues from MVNOs in cellular networks, through WLAN providers and due to DVB-H developments. Media companies, on the other hand, can exploit their brand strengths to attract mass audiences and signal credibility and orientation.

Innovation policy for mobile media that intends to strengthen **bottom-up innovation approaches and user-driven innovations** fosters user choice and is intended to build user experimentation with mobile media. This policy approach will require **open access policies** to mobile platforms, portals, and content, for example with regard to open access to handsets without new SIM lock policies; free choice of the mobile portal; and opportunities to forward, contextualize or manipulate mobile content. Pricing of mobile data in retail markets is an essential precondition for the extent of user experimentation. In that context it is helpful that interconnection charges in wholesale markets, e.g. in the mobile termination and international roaming markets, may become subject to regulatory intervention. Regulation of 2G termination rates may potentially foster 3G mobile data innovation. Media companies should be interested in low interconnection charges since it increases their potential profit margins.

The design of new spectrum regimes, such as an increase in frequencies dedicated to unlicensed spectrum that allows user-controlled environments as well as more flexible use of licensed spectrum via secondary spectrum markets, provides more choice for media companies to decide on the vertical integration of their mobile media engagements. Yet, in the **design of potential mobile media innovation commons**, intellectual property rights become the most essential lever for media companies. Patenting and licensing policies in the upstream mobile media value chain and DRM policies in the downstream mobile media value chain are key to further mobile media development. Flexible use of mobile media may become beneficial for media companies when they consider customer profitability across different media. Media companies will face new opportunities for cross-media audience flows and cross-media revenue flows when they take advantage of network externalities from their customers' social networks and allow for multi-device use and sharing of media content by **loosening mobile SIM lock measures and mobile DRM requirements**. Also if mobile communications' main function within an integrated cross-media approach refers to micro-coordination, an open and flexible approach to mobile intellectual property rights will be in the interest of media companies.

In the search of answers about the design of cross-media strategies and innovation policy for leveraging mobile media there are even **more questions that are emerging**. For instance:

Cross-media profitability: Mobile media offers will only stay (or become) an interesting strategic option when they lead to an increase in profitability. The suggested cross-media integration demands to start assessing cross-media profitability rather than a separate view about the profitability of one media channel only. This may pose organizational challenges to media companies, for example

when profit centers in their management structure are organized according to specific media channels.

Parallel media usage behaviour: Mobile media can be used in parallel to watching television or surfing online media content. Next to this time budget dimension, parallel media use can refer to using multiple parts of a media brand meta-narrative, i.e. using a TV programs SMS chat while watching the program. Parallel use of mass media as well as parallel use of mass media and interpersonal communications is an interesting field of media use that still needs some basic research.

Cross-network service models: The idea of seamless media delivery possibilities using complementary strengths of fixed and wireless networks is compelling. Yet, many open questions remain such as who may become a cross-network ISP; payment contracts in the case of delivery failures across networks; DRM system design and content usage rights across networks; privacy issues in the case of personal automated agents; and intended media breaks as potential security components.

IPR and privacy policies: Media companies' quest to secure control over their mobile content raise a number of public policy concerns including the design of mobile DRM systems. Particularly in the case of mobile media there are a variety of opportunities to monitor users, via the data generated by mobile operators, e.g. information on location and on purchased mobile content items, or via the DRM system. Thus, the question emerges about how media companies should deal with these concerns in the light of their interest to broker this information to advertisers. The design of appropriate privacy policy issues is an important issue in the long run since mobile users may boycott or abandon mobile content services when they lead to nuisance and privacy intrusion.

Many more questions regarding mobile media provision arise concerning technological issues such as **battery power as a new bottleneck** of mobile devices, or challenges of voice-based navigation; economic issues such as the need for more research on **mobile information economics** and their characteristics and specific traits in relation to other digital media; social issues such as mobile media use by **users who actively choose not to use the Internet**; policy issues such as **licensing policies** of upstream industry development that affect media companies business models; or questions on sector-specific versus convergence regulation and the design of institutions for mobile media regulation.

This book has suggested in various chapters that the mobile phone will evolve into a **remote control and steering device for media consumption** in cross-media offers and that mobile media design should focus the social appropriation of mobile phones into everyday life. This approach implies that assumptions about mobile users browsing the Internet or watching videos via mobile phones are common misconceptions by mobile operators. Yet, mobile users in the next dec-

ade may in fact do similar things but in different ways than anticipated. In Germany, one potential analogy to UMTS development may be the rise, development, and decay of BTX. Introduced in 1977 at the IFA Berlin and commercially launched in 1980 some economic historians characterize the technology that combined telephone and TV sets as the 'dress rehearsal' for online shopping, tele-banking, chat, and e-mail. If nothing else it suggests that it will be worthwhile to follow the developments of hybrid mobile media services.

2

Outlook

Changes in the media are reflected by changes in society when the frontiers of the media are shifted and vice versa.¹⁾ The greater context of the development of the media under the influence of mobile communications, thus, has to ask for the interrelationships between changes in media and society (S-2.1). It also has to consider what the discussed media economic, media managerial, and media political arguments on the provision of mobile media may imply for the direction of future research agendas (S-2.2).

2.1

Mobile media and its discontents: towards a nomadic society?

Arguments on the implications of mobile media on our changing society are controversial. Some scholars argue that we have become nomads again. SLOTERDIJK (2001) emphasizes that a **neo-nomadic society** is not about the commute between summer and winter pastures, but about access options. Thinking in categories of portfolios and stock is migrating to a new thinking in categories of options.²⁾ GROEBEL (2005) also envisions the emergence of an **option society** under the influence of mobile communications and mobile media.³⁾ HORX (2001) depicts a nomadic society in which people increasingly spend time in transitory buildings and spaces such as airport lounges, train stations, or means of transportation.⁴⁾ LÉVY (1997), on the other hand, postulates that nomadism today is characterized by the changes of scientific, technological, economic, and mental landscapes that arouse movement even when people are not moving; in his understanding of nomadism, the space of today's nomads is not geographic territory but the **space of knowledge, skills, and thoughts**, they are not following herds but the evolution of mankind, and they reinvent themselves as collective.⁵⁾ Regardless of this variety of visions on societal development and the notion of a nomadic society one potential analogy to nomads may become essential for the provision of mobile media: nomads are leaving traces of their movements:

1) See Silverstone (1999), p. 146; McQuail (2000), pp. 4.

2) See Sloterdijk (2001), pp. 199.

3) See Groebel (2005).

4) See Horx (2001), p. 105.

5) See Lévy (1997), pp. 10.

animal traces of herds that are moving from water hole to water hole, from one fertile area to the next.⁶⁾ Wireless nomads are leaving **digital traces of their movements** as well, in cyberspace but increasingly also in the real world. Privacy and data protection concerns become increasingly evident as wireless nomads do not have a choice to blur their traces. The influence of mobile media on the evolution of society does not indicate revolutionary changes, but can be seen in the general evolution of the information society; yet, a more profound analysis of societies' potential discontents is needed that abstracts from simple analogies to nomadism.

2.2

Future research agenda

The analysis of the development of mobile media may pave the way for a **broader discussion of digital media economics and the political economy of digital media**. The economics of digital media delivery can differ substantially for different fixed and wireless networks and affect media design, creation, and production, media bundling and pricing, and media distribution from a supply-side perspective and media selection, adoption, and consumption from a demand-side perspective.

Emerging fertile research areas for media economics lie in a stronger integration of New Institutional Economics (NIE), industrial dynamics, and political economy. Under the assumption of asymmetric information distribution NIE analyses transaction costs, principle agent relationships, and the design of contracts.⁷⁾ For media economics, these aspects are relevant for further analysis of media firm's hierarchical design under the influence of digitisation as well as market transaction processes in the media industry that is dynamically shaped by digitisation and network economics.⁸⁾ Media industry evolution can be assessed using new research frameworks from **industrial dynamics** such as the systems of innovation framework. In the research tradition of evolutionary economics this framework strives to overcoming initial discussions on converging industries and offers the analysis of organizations and institutions instead.⁹⁾ Emerging policy developments in media as well as telecommunication policy can benefit from the contributions of **political economics**. This research area deals, among other things, with questions on the extent and type of public good provision, the size and form of redistributive programs, or comparative politics in democratic institutions.¹⁰⁾ For the analysis of digital media economics the focus shift to the political economy offers a fresh look on the tension between the provision of private and public media goods; financing media productions and

6 See Lévy (1997), p. 176

7 See for example Picot, Reichwald, and Wigand (2003).

8 See for example Zerdick et al. (2004).

9 See for example Edquist (2003b); Malerba (2004).

10 See for example Persson and Tabellini (2002). Kiefer also suggests to further integrate insights from political economy into media economic research frameworks, see Kiefer (2001), pp. 38.

allocating rights to access and usage; and the role of the media in a democratic society.

Whereas competitive strategy has found repercussions in the evolving media economics and media management literature¹¹⁾ and contributes to sharpen the outlines of this academic field, the aforementioned areas of economic research still offer many opportunities for media economics to find greater acceptance and they can contribute to **leveraging media economics** as an essential discipline in both media communications as well as economics and business management. The analysis of mobile media in this book at the intersection of media economics, media management, and media and telecommunication policy may offer a modest approach in aligning some elements of these academic fields. Yet, the related research space is wide open and offers a broad, interesting, and challenging array of research questions on the development of the media.

11) See for example Sjurts (1996); Goldhammer and Zerdick (1999); Meckel (1999); Schumann and Hess (1999b); Karmasin and Winter (2000b); Wolf and Sands (2000); Siegert (2001); Hass (2002); Zerdick et al. (2000); Mueller-Kalthoff (2002b); Picard (2002); Zerdick et al. (2004).

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Abbreviations

2G	Second Generation Mobile Network or Service
2.5G	Second Generation Enhanced Mobile Network or Service
3G	Third Generation Mobile Network or Service
3GPP	Third Generation Partnership Project
ACA	Australian Communications Authority
ARPU	Average Revenue Per User
ASP	Applications Service Provider
BTX	Bildschirmtext
CDMA	Code Division Multiple Access
CLI	Calling Line Identification
CPP	Calling Party Pays
CRS	Customer Reservation System
DRM	Digital Rights Management
DVB-H	Digital Video Broadcasting-Handheld
DVB-T	Digital Video Broadcasting-Terrestrial
EPG	Electronic Program Guide
ETSI	European Telecommunications Standards Institute
EDGE	Enhanced Data Rates for GSM Evolution
FCC	Federal Communication Commission
FOMA	Freedom of Multimedia Access
GDP	Gross Domestic Product
GPRS	General Packet Radio Service
GPS	Global Positioning System
GSM	Global System for Mobile Communications
GRX	GPRS Roaming Exchange
HLR	Home Location Register

HSCSD	High Speed Circuit Switched Data
HTML	Hypertext Markup Language
ICT	Information and Communication Technology
IEEE	Institute of Electrical and Electronics Engineers
IM	Instant Messaging
IMEI	International Mobile Equipment Identity
IMT-2000	International Mobile Telecommunications, Third Generation of Standards Approved by ITU
IP	Internet Protocol
IPR	Intellectual Property Rights
IPv6	Internet Protocol Version 6
ISP	Internet Service Provider
ITU	International Telecommunication Union
IWF	InterWorking Function
LAN	Local Area Network
MCF	Mobile Content Forum
MMS	Multimedia Messaging Service
MPHPT	Ministry of Public Management, Home Affairs, Posts and Telecommunications (Japan)
MNO	Mobile Network Operator
MPEG	Moving Pictures Experts Group
MVNO	Mobile Virtual Network Operator
NAT	Network Address Translator
NIE	New Institutional Economics
ODTR	Irish Office of the Director of Telecommunications Regulation
OFTEL	Office of Telecommunications (UK)
PAN	Personal Area Network
PDA	Personal Digital Assistant
PKI	Public Key Infrastructure
QoS	Quality of Service
RegTP	Regulatory Authority for Telecommunication and Posts, Germany
RPP	Receiving Party Pays
SIM	Subscriber Identity Module
SMP	Significant Market Power
SMS	Short Message Service

TLD	Top Level Domain
TV	Television
UMTS	Universal Mobile Telecommunications System
VJ	Video Jockey
VoIP	Voice over IP
WAN	Wide Area Network
WAP	Wireless Application Protocol
WiFi	Wireless Fidelity
WHO	World Health Organization
WIM	WAP Identity Module
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

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