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Potentials of digital longforms in journalism. A survey among mobile Internet users about the relevance of online devices, Internet-specific qualities, and modes of payment

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ABSTRACT

After two decades of content syndication on legacy media's online platforms, longforms such as scrollytelling, web documentaries, and selective multimedia stories take advantage of Internet-specific qualities. However, due to the high amount of resources needed for the production, media managers are challenged to judge their journalistic and economic potential. Hence, this paper suggests integrating the concept of Internet-specific quality and the relevance of the user's expectations towards quality to focus on potentials of content innovation into media management research. We draw on the relevance of Internet devices within the recipient's media repertoire for background information and the use of digital longforms. Based on the frequency of use, results of a quantitative face-to-face survey representative for German mobile Internet users (n = 248) indicate that stationary and mobile Internet devices are already an inherent part. However, there is a lack of strategic marketing. Not all digital longforms are well known; most recognised is scrollytelling. Second, we draw on the user's expectations on Internet-specific qualities and attitudes towards advertisement and paid content. As our data show, recipients prefer multimedia, selectivity, and intuitive usability, not wishing to become part of the story through interactive and participative features. Furthermore, users are willing to pay for longform journalism that suits their interests, but media companies have to offer single purchase options instead of subscriptions.

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Introduction

The rapid diffusion of Internet-enabled devices[1] has changed media usage behaviour in many countries and led to fundamental transformations affecting the journalistic and the economic pillars of legacy media (Casero-Ripollés & Izquierdo-Castillo, 2015; Cook & Sirkkunen, 2015; Doyle, 2015; Krumsvik, 2012; Nel, 2010; Nel & Westlund, 2012; Stone, Nel, & Wilberg, 2010).

Hence, media managers have to adjust their organisations and consider new media content models (Küng, 2011). However, due to stable processes and structures, a

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principle of inertia in digital strategies can be observed for many established media companies. Legacy media organisations "have been damaged deeply by their inability to find strategic solutions and/or implement the scope of organizational change necessary to master such challenges" (Küng, 2011, p. 45). On the content level, this leads to a lack of adaptation to online media demands (Cook & Sirkkunen, 2015; Nel & Westlund, 2012, p. 747). Media companies often follow a strategy of "repurposing of content" (Erdal, 2009, p. 178) within their online and mobile products. This is accompanied by the fact that there is not much use of Internet-specific qualities (e.g. multimedia or interactivity) and mobile specific qualities (e.g. context sensitivity, intuitive usability) (Wolf, 2014) in digital news journalism (Barnhurst, 2013; Deuze, 2004; Himelboim & McCreery, 2012; Paulussen, 2004; Quandt, 2008b, 2008a; Stark & Kraus, 2008). Consequently, media products presented on new devices and in new situations often do not "address the specific needs and preferences of different audiences" (Ghersetti, 2013, p. 83).

Although brand loyalty to established media companies for online and mobile news is quite high in American and European markets (Newman & Levy, 2014; Wolf & Schnauber, 2015), the willingness to pay for digital news worldwide is rather low (e.g. 12% in France, 7% in Great Britain, 8% in Germany, and 11% in the U.S.A.) (Newman & Levy, 2014). Moreover, online advertising revenues are much smaller than those earned through offline media (Gershon, 2015; Newman & Levy, 2014). To sum up, with a few exceptions, many legacy media companies still find it difficult "to adjust the mainstream media business models for the digital environment" (Cook & Sirkkunen, 2015, p. 63) and to develop sustainable and profitable journalistic online products. One reason for the missing willingness to spend money on online news could be the fact that many products neglect digital media's potentials. Hence, all news competitors offer similar content with few stand-alone qualities (Brandstetter & Schmalhofer, 2014; Cox & Cox, 2002).

With innovative projects like "Snow Fall" (New York Times.com, 2012), "Prison Valley" (Arte.tv., 2010), or "K2" (National Geographic Tablet Magazine, 2013), the advent of "complex stories with outstanding content" (Nakasone, Prendinger, & Ishizuka, 2009, p. 634) can be observed. These products mark a renunciation of primarily news-driven online journalism, changing the focus to digital narrative long-forms. Stories are topic driven and aimed at explaining the context of certain events or developments. We address this phenomenon with the term "background information". Digital longforms take advantage of the platforms' technical potentials for content presentation (multimedia, selectivity, interactivity, participation). They are adapted to the specific usability of online devices (intuitive navigation, playfulness) (Neuberger, 2001; Wolf, 2014). Therefore, they provide a unique "experience traditional platforms of print, radio, or television would not be able to provide alone" (Reid, 2014). In addition, they offer more possibilities to show brand identity than the uniformed news content.

So far, research on potentials of online and mobile journalism is mainly focused on news and daily information (Chan-Olmsted, Rim, & Zerba, 2013; Westlund, 2015; Wolf & Schnauber, 2015). This neglects the fact that background information via longforms has always been one of journalism's basic functions as well (Rühl, 1969). Indeed, longform reporting "was feared to be one of the first casualties of the digital age as the news industry struggled to adjust to falling advertising revenues and the

rise of social media" (Reid, 2014). Although the amount of time, money, and editorial resources for the production of such formats is still high (Dowling & Vogan, 2014), many media companies worldwide have nevertheless started to produce them. The majority of these projects is either produced by established nationwide and regional newspapers (e.g. "NSA Files: Decoded" (The Guardian.com, 2013), "100 Jahre Tour de France" (Zeit.de, 2013)) as well as magazines (e.g. within the tablet apps of Geo Magazine, National Geographic, Wired) or online brands of (often public) broadcasters (e.g. ARTE Webproductions (Arte.tv, 2015), "Bear 71" (NFB.ca, 2012)).

Although many magazines and researchers claim new longforms to be a journalistic and economic chance for the future of journalism (Dowling & Vogan, 2014), in the end, the main factor for success is the user's attention. The article attempts to make a theoretical contribution to the understanding of changing media business from a managerial perspective by integrating the concept of Internet-specific quality and the relevance of the user's quality expectations – which are discussed in journalism research – into media management research and theory. The latter, however, often focuses on conceptual frameworks only including the organisational and the communicator perspective (Mierzejewska, 2011). Hence, in this paper, we concentrate on the potentials of digital longform journalism from a user's perspective. We begin by introducing the subject of digital longforms by separating current prototypes.

To outline perspectives of the use of digital longforms, we then draw on the media repertoire approach. This makes it possible to explore the relevance of online and offline media on the media device level. The repertoire approach considers all media devices regularly used by the audience, based on the television set, the radio set, printed newspapers, printed magazines, stationary Internet devices (computer/laptop), and mobile Internet devices (smartphone, tablet-PC, iPod). Focusing on the growing population of mobile Internet users provides the ideal basis to investigate the group of media users with the potentially broadest device repertoire available and allows insights into the relevance of (rather) stationary and mobile Internet devices for background information.

Due to the variety of media content available, the user's satisfaction with a media product is a key factor for its market success. The decision to select online platforms in general and pay for new formats in particular depends on the certain expectations of their quality (Wolling, 2009). Therefore, we analyse this aspect more closely. Integrating the perspective of the Theory of Subjective Quality Assessments (Wolling, 2009) allows us to look at "quality" based on Internet-specific attributes of content elements and presentation (Schumann, 2013; Wolling, 2004) and not from the more common normative perspective. The latter solemnly focuses on criteria of journalistic professionalism (e.g. objectivity, transparency) which are equally requested no matter which media device is examined (Neuberger, 2012). Further, the theory assumes that the recipient always has certain quality expectations of a media product that can be expressed and judged, even if the product has not been used before (Schumann, 2013). Finally, it is relevant to consider the economic potentials and investigate attitudes towards advertisement and payment modes. To sum up, we aim to describe four crucial factors for media managers' decisions: How common are online media for the reception of background information (RQ1), are users aware of the existence of the

innovative formats described (RQ2), what are their expectations of their Internet-specific quality (RQ3), and do they tolerate advertisement and alternative modes of payment (RQ4)?

Existing research on media repertoires (Dutta-Bergman, 2004; Yuan, 2011) and on expectations of Internet-specific qualities (Mehlis, 2014; Neuberger, 2012) is focused on news reporting. The relevance of online platforms for longform information and their usage have hardly been explored yet (Lassila-Merisako, 2014). As a result, no data are available for Germany, which is (by revenue) the largest market in Europe (Harcourt, 2005) and therefore an important indicator for developments in media business.

Based on a face-to-face survey of German mobile Internet users (n = 248, sample based on representative quotas for age, gender, and education according to Institut für Demoskopie Allensbach, 2013), we identify four different user types with complementary media device preferences for background information that represent specific target groups for digital longforms. Our data indicate a general deficit in marketing for the new formats: Although not all types of longforms are well known, our survey indicates that users have already developed concrete ideas about the integration of Internet-specific qualities and modes of payment. Both sets of information are relevant to media managers and editorial offices in this early state of digital longform production.

Current prototypes of digital longforms

As digital longforms are a rather new phenomenon, similar or equal terms (e.g. multimedia storytelling or interactive story) are used for formats that take advantage of different Internet-specific qualities or provide different narrative focuses. Although it has always been difficult to define and distinguish journalistic formats in practical journalism (e.g. reportage, feature), the variety of options and combinations of specifics in online journalism leads to even more convergent tendencies. Therefore, it is important to structure the new field of digital longforms for a better overview. By exploring international best practice examples and the limited literature basis, we distinguish between three main prototypes of narrative longforms which can only represent a status quo in this evolving market: scrollytelling, selective multimedia story, and web documentary. They all combine different multimedia elements and include certain new formats such as audio slideshows, data visualisation, or 360° photography and they are adapted to the navigation via desktop computer/laptop (by mouse) or via mobile devices (by gestures). Nevertheless, they can be distinguished by the amount of selectivity offered to the user. In addition, they have different focuses that are still influenced by legacy media's core competencies.

Scrollytelling which was mainly influenced by "Snow Fall" (New York Times.com, 2012) combines "storytelling" (referring to the narrative format instead of news reporting) and "scrolling" (referring to the vertical arrangement of the whole story). This format is narrated mainly on a linear basis. The text represents the core of the story and is enriched by multimedia elements in-between. Although a certain structure of chapters is widely used, the producer still suggests one stringent way through the story. Scrollytelling combines "serious in-depth reporting and entertainment by uniting print longform narrative's novelistic technique with cinematic data visualization" (Dowling &

Vogan, 2014, p. 210). All stories have a unique editorial design, mostly using parallax-scrollytelling effects and are often presented as stand-alone websites directly linked to the news homepage and branded with the media company's logo.

Selective multimedia stories are also especially produced for stationary Internet and mobile devices. In contrast to scrollytelling, they are not only navigated by scrolling but often by clicking also (or on mobile devices: tapping and swiping). Like for scrollytelling, the text often represents the key element of the story and is combined with multimedia elements as well as specific layout elements (e.g. Hotspots). The content is more often divided into dossiers. Hence, the selectivity is higher. While parallax effects are common for scrollytelling, selective multimedia stories on mobile devices are often published as apps designed with Adobe InDesign or similar multimedia layout programs. The stories are structured according to a more general editorial design.

Web documentaries, on the contrary, are rather video-based evolving as a "logical extension" (Galloway, McAlpine, & Harris, 2007, p. 336) of linear documentary formats and are mostly produced by public broadcasters (Nash, 2012). They integrate common film or television elements, enriched by "interviews and observational sequences, sound and images collected on location, and commentary either in the form of voiceover or text" (Nash, 2012, p. 198). The first examples were produced in France. Therefore, ARTE is one of the leading TV stations using this format online, but television stations all over the world experiment with this digital longform. Web documentaries are characterised by a high level of non-linearity and selectivity due to the combination of different videos that represent the narrative core. They are enriched by other media elements (e.g. texts, pictures, and graphics) and interactive elements (e.g. chats), often navigated by mouse-over effects.

The relevance of online media within the media device repertoire

Examining the potentials of digital longforms, first of all, requires a closer look at the relevance of online media devices for narrative information within the user's media repertoire (Hasebrink & Popp, 2006). Due to a diversification of media technologies today's users are able to constantly choose from a large number of media options in order to access digital forms of journalism (Taneja, Webster, Malthouse, & Ksiazek, 2012; Yuan, 2011). Users "select among media platforms and content providers many times a day, building stable media usage patterns which consist of regularly used media devices" (Wolf & Schnauber, 2015, p. 761). Hence, it is only possible to develop an understanding of the role and importance of Internet-enabled devices by considering all devices and media sets.

For many countries market data, for example, the Digital News Report, confirm an increasing relevance of online devices within the media repertoire for news and information purposes. Lately, this development has been accompanied by a rapid diffusion of mobile devices used in order to gain access to journalistic content. A growing number of people in many countries already uses at least two digital devices a week to access news (Newman & Levy, 2014). Similar trends can be observed for the German market: 80% of the population aged 14 and above use the stationary Internet, in the young group (14–19 years) the rate has already reached 100%. Furthermore, 55% of all onliners in Germany access the Internet via mobile devices. Once again, the rate

for young users is even higher (14–19 years: 81%) (Frees & Koch, 2015; Koch & Frees, 2015). Moreover, almost all mobile Internet users receive news on mobile devices (96%) and computers/laptops (91%), accompanied by the television set (86%). Less than two thirds use the radio set (65%) and newspapers (62%) (Wolf & Schnauber, 2015).

Recent data show that a growing number of recipients makes use of mobile Internet-enabled devices (especially tablet-PCs, but also smartphones) in a rather stationary way – for example, at home. Furthermore, people have started to replace desktop computers or laptops by tablet-PCs (Newman & Levy, 2014; Tomorrow Focus Media, 2013). Therefore, the use of mobile media is growing out of its limitation to niches and interstices (Dimmick, Feaster, & Hoplamazian, 2011; Westlund, 2015).

However, even if online devices are used for narrative longform information, this does not necessarily lead to an acknowledgement and use of new storytelling formats. Although some authors already point to the user's interest in digital longform journalism (Dowling & Vogan, 2014; DVorkin, 2012; Lassila-Merisako, 2014), there is virtually no empirical data. There are no studies including the German market so far either.

To sum up, little is known about the relevance of online devices for longform journalism. Hence, we ask the first two research questions:

RQ1: Do mobile Internet users integrate online devices into the media repertoire for background information?
RQ2: Are users already aware of the new digital longforms?

Focusing on user's expectations

Awareness is just one indicator to describe the current potentials of scrollytelling, web documentaries, and selective multimedia stories. Users have to experience added value in order to integrate new formats into their own online media repertoire (Wolling, 2009). Although easy-to-use open source software has started to spread, data for Germany report that financial resources for the production are still very high (Godulla & Wolf, 2015). Especially in economically challenging times for legacy media brands (Nel, 2010) prestige effects for innovators might not be sufficient in the long run (Dowling & Vogan, 2014). For this process, the format's quality plays an essential role (Palmgreen & Rayburn, 1985; Wolling, 2009), making it necessary to know what "quality" is about from the user's point of view.

User expectations of Internet-specific quality

Existing research on the quality of journalistic products created for stationary and mobile Internet devices often focuses on products and producers. Therefore, it relates to quality judgments from a professional point of view (Gladney, Shapiro, & Castaldo, 2007; Neuberger, Nuernbergk, & Rischke, 2009). This research on media quality mainly discusses normative criteria (e.g. periodicity, actuality, universality, variety, independence, truth, or credibility) in order to describe values of professional journalism that matter for audiences (Costera Meijer, 2013; Urban & Schweiger, 2014; Vultee, 2015).

Every new media technology offers a specific portfolio of technical options that allows "new media formats that both add to and modify what went before" (Parry, 2011, p. 23). Existing concepts and categories for media quality have to be adapted to the specifics of digital communication. For stationary Internet and mobile Internet devices, certain qualities only grow out of new technical potentials; this includes multimedia options, which allow the combination of text, photo, audio, video, graphic, and animation (Deuze, 2004; Meier, 2003; Quandt, 2008a). In addition, interactivity (hyperlinking, forwarding), and participation (feedback, comments, user-generated content) are possible. A further dimension is selectivity, which offers options for non-linear content that allows users to choose different paths through a longform (Deuze, 2004; Meier, 2003; Quandt, 2008a). Nevertheless, they are predefined by the producer and therefore have to be distinguished from interactivity or participation (Neuberger, 2001).

Due to computer-mediated communication, utility and usability aspects are of high importance. On the one hand, this requires the functionality without errors and, on the other hand, the navigation and a layout that has to be adapted to mouse interaction or gestures (Bucher, 2000; Kincl & Štrach, 2012; Meier, 2003; Neuberger, 2001). Furthermore, many authors add the relevance of user experience and playful interaction design (Coursaris, Swierenga, & Pierce, 2010; Ham et al., 2006; Tan & Chou, 2008; Wolf, 2014).

To define Internet-specific quality, we draw on the perspective of the Theory of Subjective Quality Assessments on Media Selection that interprets media quality from a non-normative point of view: "Qualities" are seen as specific aspects of content and form – "features of the media product" (Wolling, 2009, p. 85) – being relevant for the media user's decision to select the content and use it (regularly) (Wolling, 2009). The term therefore does not only include journalistic quality. Instead, it can also be used for Internet-specific quality. Besides, the concept assumes that recipients have assessments "even at the earliest state of selection" (Wolling, 2009, p. 85), for example, before consuming a media product for the first time. These expectations "can be perceived and judged" (Schumann, 2013, p. 72) as well as articulated (Wolling, 2004).

However, the technological potential of the innovation only offers options. Not all qualities may necessarily be relevant for the recipient. Usage patterns are formed by similar products used on these devices and they evolve during the process of social shaping (Boczkowski, 2004; Katz & Aakhus, 2006; Lievrouw & Livingstone, 2002; Pape, Karnowski, & Wirth, 2008; Vesper, 1998), influencing the audience's expectations. This makes it necessary to focus on a more user-centred perspective (Picone, Courtois, & Paulussen, 2014).

Lately, a growing number of authors try to integrate the user's perspective, asking how recipients judge online content. Drawing on normative criteria, it can be stated that "traditional" aspects of content quality matter for online and mobile journalism (Dahinden, Kaminski, & Niderreuther, 2004; Neuberger, 2012; Urban & Schweiger, 2014). The user's quality expectations have been researched in different media contexts (Mehlis, 2014, for online news; Schumann, 2013, for games; Wolling, 2002, 2004, for television and radio news).

To sum up, existing research related to the relevance and use of online and mobile specific qualities is almost always aimed at analysing news (Mehlis, 2014) and criteria

focusing on the journalistic professionalism (content quality) (Neuberger, 2012; Wolling, 2002). Therefore, items and results cannot be fully transferred to new narrative longforms. Furthermore, regardless of the device the user's expectations on journalistic professionalism seem quite stable (Neuberger, 2012). No significant differences are to be expected between news- and story-based journalism for the relevance of content quality. This leads to the third research question:

RQ3: What do (potential) users expect from digital storytelling formats?

Attitudes towards advertisement and payment modes

Considering the potentials also includes assessments of sustainable revenue models. As online news is widely used, the crucial problem of legacy media can be seen in "the abundance of free online content and the inability of news business to produce a feasible formula for generating income for their online activity" (Casero-Ripollés & Izquierdo-Castillo, 2015, pp. 42–43). The lack of profitability is caused by both, the user's missing willingness to pay for digital news (Newman & Levy, 2014) as well as the reluctance of advertisers to invest the same amount of money online so far (Gershon, 2015). Besides the general absence of paid content options in online journalism (Godulla, 2015), one main reason for the user's refusal to spend money on digital news could be the absence of added value (Brandstetter & Schmalhofer, 2014; Breunig, 2005; Ghersetti, 2013, p. 83). A broad body of research in many countries concludes that online and mobile news journalism has not taken advantage of Internet-specific qualities for years (Barnhurst, 2013; Himelboim & McCreery, 2012; Paulussen, 2004; Quandt, 2008b; Stark & Kraus, 2008).

Although many countries have been experimenting with hard or metered paywalls in the last few years, research indicates a lack of openness to the variety of digital revenue models so far (Kramp & Weichert, 2012; Nel, 2010; Nel & Westlund, 2012). Media organisations in Germany mostly still rely on traditional pillars, focusing on advertising (Godulla, 2015; Neuberger et al., 2009). Direct user payment is not established (Meier, 2009; Rademacher & Siegert, 2007) on a broad base. Most journalistic websites (85%) and apps (61%) offer content for free (Godulla, 2015; Wolf, 2014). If paywalls are installed, German media companies do not, on the whole, take advantage of the range of options that could vary between different forms of subscription, micro payment models for parts of the digital product (including freemium concepts), or single purchase, and could also include different forms of donation, social payment or crowdfunding (Casero-Ripollés & Izquierdo-Castillo, 2015). For example, independent digital media producers already offer digital longforms that can be paid for through single purchase or subscription (Dowling & Vogan, 2014).

Being aware of the difficulties in asking users directly about their willingness to pay for media content (Breidert, Hahsler, & Reutterer, 2006; Miller, Hofstetter, Krohmer, & Zhang, 2011), it is nevertheless important to get to know users' attitudes towards different revenue models. Hence, we ask the fourth research question:

RQ4: Which modes of advertisement and payment do users prefer for digital longforms?

Method and data

To examine the relevance of online devices for background and narrative information, the awareness of digital longforms (scrollytelling, web documentaries, and selective multimedia stories), as well as the users' expectations and their attitudes towards advertisement and payment modes, we conducted a quantitative face-to-face survey (n = 248, field period was 3–27 June 2014) among mobile Internet users in Germany aged 16 and above.[2] The sample consists of representative quotas for age, gender, education (Institut für Demoskopie Allensbach, 2013). The standardised face-to-face interviews were mainly conducted in one region of Germany, but the sample includes participants from rural and metropolitan areas. An average standardised interview took 77 min, including periods where participants had time to use three selected prototype formats for a scrollytelling story, a web documentary (both on a laptop), and a selective multimedia story (on a tablet-PC).[3] The sample represents the population's parameters of mobile Internet users quite well. Due to adoption processes, mobile Internet users still differ from the general population in terms of age, gender, and education (Table 1).

Questionnaire

Media repertoire for background information on the device level

Users stated which online devices they possess and the frequency of use for each media device – television set, radio set, printed newspaper, printed magazine, computer (desktop computer, laptop, netbook), and mobile device (smartphone, tablet-PC, e-reader, Internet-enabled MP3-player). The frequency was measured by the number of days in an average week the medium was used to gain access to background information. "Background information" was explained by the interviewer as defined in this paper as information that is not actuality-driven news, but information that explains the context, connection, or background of certain events or developments. The definition was explained by examples, if necessary. Furthermore, the relevance of Internet-enabled devices for certain topics of background information was measured ("criminality and catastrophes", "culture", "economics and finance", environment, nature, and animals", "fashion and beauty", "house and gardening", "media", "medicine, health, and psychology", "politics and society", "science and technology", "service", "sports", "stars", "travel and tourism").

Table 1. Sample of the survey.

	Sample (n = 248)
Gender (male)	55
Education	
Low	24
Medium	42
High	34
Age	
16–29	38
30–54	50
55–69	10
70 and above	2

Values are percentages

Table 2. Most important topics and platforms for background information.

	Importance[a]	Top-3 platforms		
Topics	mean (SD)	Desktop computer/laptop	Mobile device	Television set
Politics and society	3.4 (1.2)	44	16	30
Travel and tourism	3.4 (1.2)	73	14	9
Sports	3.3 (1.5)	48	23	22

n = 248. [a]Scale: 1 = "absolutely not interested in" to 5 = "absolutely interested in", values are percentages.

Awareness of digital longforms

The interviewees had time to use three prototypes for scrollytelling, web documentary (on the laptop) and selective multimedia story (on the tablet-PC) and were asked afterwards whether they had used a similar story before ("Have you used the shown story or a similar one in the internet/on mobile devices before?").

Expected Internet-specific qualities

Consistent with other studies, the expected Internet-specific qualities were operationalised by existing items for online and mobile news. We included the dimensions utility, multimedia, linking, interactivity, participation, selectivity, and usability (Mehlis, 2014; Wolf, 2014). In total, the interviewees rated 29 items on five-point Likert-scales (Table 2). For all formats all scales were reliable (all Cronbach's alphas between .71 and .89[4]). In addition, they evaluated new specific elements within the stories (non-linearity, data journalism, 360° photography, hotspots, and audio slideshows; "In the example shown you have seen [xxx] as a new specific element. Have you used something like that before? How much do you like this option?").

Attitudes towards advertisement and payment modes

The users' attitudes towards revenue models were measured by their willingness to pay, the amount of money they would spend on a single story, their attitude towards different revenue models (single purchase, subscription, unlimited access, test versions), and advertisement (disturbance, advertisement in free content, topic related advertisement). (Question: "Earlier you told me that you are especially interested in (…) [enter personally preferred topic]. Would you spend money for a scrollytelling story/web documentary/selective multimedia story about (…) [enter personally preferred topic]?").

Socio-demographics

In order to ensure the interviewers followed the quotas, age, gender, and education were surveyed.

Results

Media repertoires for background information on the device level

In order to answer RQ1, we describe key facts of German mobile Internet users' media repertoire for background information. The great majority of the sample owns smartphones (94%), followed by laptops/netbooks (80%). Only half of the mobile Internet users still have a desktop computer (52%).

It is important to know how frequently media devices are used for background information. On average, the sample shows a broad media repertoire consisting of five (out of six) media devices used for background information. Furthermore, mobile Internet users stated that they consume background information on more than six days a week on average (mean = 6.3, SD = 1.1). To access this kind of information most participants use the television set (96%), followed by the stationary Internet via desktop computer/laptop (94%), and the mobile Internet via mobile devices (90%).[5] Less important (although on a high level) are printed magazines (88%), printed newspapers (82%), and radio set (76%).

Based only on persons who use a platform at least once a week, background information is, on average, most frequently consumed on mobile devices (m = 4.2 days per week, SD = 2.6), followed by the television set (m = 4.1, SD = 2.0), and desktop computers/laptops (m = 3.8, SD = 2.1). Printed newspapers (m = 3.6, SD = 2.3), the radio (m = 3.0, SD = 2.6), and printed magazines (m = 2.0, SD = 1.6) are not only the least used platforms, but also the ones with the lowest usage frequency. This stands in line with the fact, that desktop computers/laptops, mobile devices, and the television set are most important for the majority of domains of background information. Considering, for example, the three most relevant topics, both online devices are always among the top three (Table 2).

In the next step, we were interested in patterns of combination of devices among mobile Internet users. This makes it possible to identify specific target groups for digital longforms. Therefore, we conducted a hierarchical cluster analysis (using SPSS 21, ward; similarity measure: squared Euclidean distance) based on the frequency a device is used in an average week. Due to agglomeration schedule and the "elbow" criterion, we identified four different clusters within the sample. Table 3 provides an overview about specifics considering age, gender, and education.

The second biggest group within the sample is cluster 1 (26%). These users mainly rely on offline media platforms for background information, combined with a regular usage of the stationary Internet. Mobile devices, however, are of lower importance to them. While they do not differ significantly in gender and education from the rest of the

Table 3. Media user types among mobile Internet users – frequency of use (based on the number of days a week).

	Cluster 1 (n = 64)	Cluster 2 (n = 42)	Cluster 3 (n = 56)	Cluster 4 (n = 86)	Total sample (n = 248)
Frequency of use					
Television set	4.8^{h} (1.8)	2.6^{l} (1.3)	3.3^{l} (2.0)	4.9^{h} (1.7)	4.1 (2.0)
Radio set	4.6^{h} (2.3)	0.5^{l} (0.6)	1.1^{l} (1.1)	4.4^{h} (2.2)	3.0 (2.6)
Printed newspaper	5.0^{h} (2.1)	3.5 (2.1)	1.0^{l} (1.3)	4.4^{h} (2.3)	3.6 (2.3)
Printed magazine	2.6^{h} (1.9)	1.1^{l} (0.9)	1.5^{l} (1.2)	2.3 (1.5)	2.0 (1.6)
Desktop computer/ laptop	3.5 (1.8)	2.5^{l} (1.5)	4.2 (2.1)	4.4^{h} (2.3)	3.8 (2.1)
Mobile devices	1.4^{l} (1.3)	2.2^{l} (1.6)	5,7^{h} (1.6)	6.2^{h} (1.3)	4.2 (2.6)
Socio-demographics					
Age	47.8^{h} (13.2)	35.0 (15.1)	28.5^{l} (13.9)	35.9 (13.0)	37.2 (15.2)
Male (in %)	44	52	59	62	55
High education[a] (in %)	23	33	39	38	34
% of total sample	*26*	*17*	*23*	*35*	

n = 248. Values are means and standard deviation. Hierarchical cluster analysis (Ward; similarity measure: squared Euclidean distance). ^{h}above the sample mean; ^{l}below the sample mean, based on t-tests for one sample, $p < .05$. [a]high education: (Fach-)Abitur, comparable to high school – low education: Hauptschule/Mittlere Reife, comparable to middle school.

sample, this group of legacy focused mobile Internet users is older than the sample mean. Their counterpart can be found in cluster 3 which unites the biggest part of the sample (36%): This significantly younger cluster mainly consumes background information online, especially on mobile devices. Compared to the average means, all offline platforms are rarely used. The smallest amount of users can be grouped to cluster 2 (17%). This rather media abstinent user type is specified by a low frequency of use for all platforms but printed newspaper and does not differ in socio-demographics from the rest of the sample. On the contrary, members of cluster 4 can be considered as heavy media users. Average means are above the sample mean for all platforms but newspaper.

Looking at the role of online devices within the clusters reveals differences between the stationary and the mobile Internet. While access to background information with a desktop computer/laptop is an essential part of the device selection for all mobile Internet users except for rather media abstinent users (cluster 2), mobile devices are still a medium only online affine (cluster 3) or heavy users (cluster 4) rely on frequently.

Besides the number of days a week interviewees also stated if they used online platforms more than once a day for background information. While more than one third (35%) uses the computer/laptop several times a day, mobile devices are a constant companion for background information for the majority (63%). Significant differences between the four clusters are only obvious for mobile devices ($p < .001$, $\chi^2 = 71.08$, Cramer-V = .309). While the great majority of online affine users in cluster 3 (89%) and heavy users in cluster 4 (76%) uses mobile devices several times a day for background information, only half of the media abstinent in cluster 2 (52%) and 30% of legacy media focused in cluster 1 show this behaviour.

After giving an overview about the general platform repertoire and specific combination within the sample, the next section looks more closely at the awareness of digital longforms.

Awareness of digital longforms

The awareness of web documentaries, scrollytelling, and selective multimedia stories among mobile Internet users varies (RQ2). Although 42% are aware of scrollytelling (the most common new format), web documentaries (24%), and selective multimedia stories (17%) are less familiar (Table 4). However, online users (cluster 3) are better informed about new concepts for digital storytelling. More than half of them (59%) have already used scrollytelling (web documentaries: 36%, selective multimedia stories: 27%).

Considering new elements which are integrated into the digital longforms, data journalism (41%), 360° photography (47%), and hotspots (50%) are quite well known in general as well as in all clusters, while audio slideshows (17%) and the option to let the author read a text aloud (22%) are not very common. Only heavy users (cluster 4) have more knowledge about this particular option (31%). This, however, is also the option users appreciate the least. All other new elements are highly appreciated regardless of which cluster the user belongs to (Table 4).

Table 4. Knowledge and usage of new formats and specific elements.

	Used before %	Rating of elements[a] mean (SD)
Web documentary[b]	24	
Choose topics/parts of the story myself[c]	29	4.3 (0.8)
Scrollytelling[b]	43	
Data journalism[c]	41	4.2 (0.9)
Selective multimedia story[b]	17	
Text read by the author[c]	22	3.6 (1.2)
Hotspots[c]	50	4.4 (0.8)
360° photos[c]	47	4.5 (0.7)
Audio slideshows[c]	17	4.0 (1.0)

n = 248, [a]Scale 1 = "I don't like it at all" to 5 = "I like it very much". [b]Question: Have you used the shown story or a similar one with your desktop computer/laptop/your mobile device before? [c]Question: In the example shown you have seen […] as a new specific element. Have you used something like that before? How much do you like this option?

Expected Internet-specific qualities

In this section, we focus on expectations of the Internet-specific quality of digital longforms (RQ3). After allowing participants to use all three prototypes, they were asked to rate indicators for the dimensions utility, multimedia, linking, interactivity, participation, selectivity, and usability.

The data show differences in the relevance of the dimensions: In general, it can be stated that an error-free utility and an intuitive usability are of high importance for all three digital longforms. Besides, multimedia combinations and selectivity are especially appreciated as added value. Moreover, videos are expected to be an essential part, while graphics are rather accepted for scrollytelling stories than for other formats. Most of all, the combination of different multimedia elements is expected for all longforms. For several aspects, users expect different focuses in multimedia integration from the three formats (Tables 5 and 6). For the essentially video-based web documentaries text is rated less important than for scrollytelling and multimedia stories. Due to the high resolution of tablet-PCs' displays, interviewees expect pictures and videos of high quality especially in selective multimedia stories. The selective options are more important for web documentaries than for the other two mainly linear formats. Qualities considered to be of minor importance do not show significant differences between the average means for the three formats. The potential to integrate internal and external links into the stories is of average importance for users. All aspects of interactivity (forwarding, recommending) and participation (feedback, voting, comments, integration of user generated content) are of lower relevance.

Regarding the different clusters, the answers of legacy media focused users (cluster 1) are most interesting, because they revealed significantly different preferences for several items. They are less keen on multimedia combinations (m = 3.9, SD = 1.0) than online focused users (m = 4.3, SD = 0.9; $p < .05$). In addition, their expectations of interactivity differ from all other clusters: They neither expect chats (m = 1.7, SD = 0.9; $p < .01$) and links to social networks (m = 1.5, SD = 0.8; $p < .001$) nor the ability to send recommendations to friends on social networks (m = 1.5, SD = 0.9; $p < .001$). In addition, mobile Internet users focused on legacy media are less interested in user generated content (m = 1.8, SD = 1.0; $p < .01$) as well as the opportunity to give

Table 5. Expectations on Internet-specific qualities part I.

	Web documentary	Scrollytelling	selective multimedia story
Utility			
Operates reliably and runs stably	4.8 (0.5)	4.7 (0.5)	4.8 (0.5)
Loads and starts quickly	4.7 (0.6)	4.6 (0.6)	4.7 (0.6)
Reacts without delay on input, for example, scrolling	4.6 (0.6)	4.7 (0.6)	4.7 (0.5)
Shows content of high technical quality, for example, high-definition photos or videos[1]	4.3 (0.8)	4.2[a] (0.8)	4.5[b] (0.8)
Multimedia			
Integrates text[2]	3.7[a] (1.0)	4.2[b] (0.8)	4.1[b] (0.9)
Integrates photo[3]	4.2[a] (0.9)	4.4[b] (0.7)	4.5[b] (0.7)
Integrates audio[4]	3.6[a] (1.1)	3.2[b] (1.1)	3.8[a] (1.0)
Integrates video[5]	4,3[a] (0.9)	3.8[b] (1.0)	4.1[a] (0.8)
Integrates graphics[6]	3.5[a] (1.0)	3.9[b] (0.9)	3.6[a] (1.0)
Integrates animations	3.3 (1.1)	3.2 (1.0)	3.2 (1.1)
Combines text, photo, audio, video, and graphic	4.1 (0.9)	4.1 (0.9)	4.2 (0.8)
Linking			
Offers links to other sites related to the topic	3.1 (1.1)	3.2 (1.1)	3,0 (1.1)
Links on other content to the same topic within the media product	3.0 (1.1)	3.0 (1.0)	3.0 (1.1)
Suggests other content on cross-media platforms published by the brand (e.g. the printed newspaper)	2.8 (1.1)	2.8 (1.0)	2.8 (1.1)

$n = 248$. Question: If you would use a journalistic story again that – similar to the story you used before – is produced as a web documentary, how important are the following aspects for you? One-way analysis of variance (ANOVA), [1]$F(9.909/469.494) = 479.402$, $p < .001$; [2]$F(31.876/592.102) = 623.978$, $p < .001$; [3]$F(16.626/427.628) = 444.254$, $p < .001$; [4]$F(43.523/845.221) = 888.744$, $p < .001$; [5]$F(26.747/582.866) = 609.613$, $p < .001$; [6]$F(18.374/676.034) = 694.409$, $p < .001$; Values with different superscripts differ significantly, $p < .05$ (Bonferroni).

Table 6. Expectations on Internet-specific qualities part II.

	Web documentary	Scrollytelling	Selective multimedia story
Interactivity			
Integrates interpersonal communication like a forum or chat for the topic	2.1 (1.0)	2.1 (1.0)	2.0 (1.0)
Links on social network profiles of the brand, for example, on Facebook or Twitter	2.1 (1.2)	2.1 (1.1)	2.0 (1.1)
Allows me to forward the story or a links to it to friends via e-mail	2.2 (1.1)	2.2 (1.1)	2.1 (1.1)
Allows me to recommend the story to friends via social networks	2.1 (1.2)	2.1 (1.2)	2.1 (1.2)
Participation			
Allows me to give feedback or rate the story	2.3 (1.1)	2.5 (1.1)	2.3 (1.1)
Offers votings or polls	2.2 (1.1)	2.2 (1.1)	2.1 (1.0)
Allows me to comment	2.3 (1.1)	2.3 (1.1)	2.3 (1.1)
Integrates user-generated content (e.g. video)	2.2 (1.1)	2.3 (1.0)	2.2 (1.0)
Selectivity			
Allows me to choose different ways through the story[7]	3.8[a] (1.0)	3.4[b] (1.1)	3.5[b] (1.0)
Can be watched in any order[8]	4.0[a] (0.9)	3.7[b] (1.0)	3.7[b] (1.1)
Usability			
Is clearly arranged	4.8 (0.5)	4.7 (0.5)	4.7 (0.5)
Is attractively designed	4.7 (0.6)	4.6 (0.6)	4.6 (0.7)
Is easy to use	4.6 (0.6)	4.5 (0.7)	4.6 (0.7)
Is easy to navigate with the mouse/gestures[9]	4.6[a] (0.6)	4.6 (0.7)	4.4[b] (0.8)
Shows me where I am within the story	3.9 (1.1)	3.9 (1.0)	3.8 (1.0)

$n = 248$. Question: If you would use a journalistic story again that – similar to the story you used before – is produced as a web documentary, how important are the following aspects for you? One-way ANOVA [7]$F(20.851/754.186) = 775.037$, $p < .001$; [8]$F(20.197/768.623) = 788.821$, $p < .001$; [9]$F(4.874/357.783) = 362.658$, $p < .01$. Values with different superscripts differ significantly, $p < .05$ (Bonferroni).

feedback (m = 2.0, SD = 1.0; $p < .01$), but more interested in providing comments (m = 2.9, SD = 1.1; $p < .01$) than media abstinent users (cluster 4) (m = 2.4, SD = 0.8; m = 2.7, SD = 1.1; m = 2.7, SD = 1.2).

Attitudes towards advertisement and payment modes

Finally, we focus on mobile Internet users' attitudes towards payment modes and advertisement in the context of the three longforms (RQ4). Percentages of the users' willingness to pay for a story range from 44% for selective multimedia stories over 38% (web documentary) to 25% for scrollytelling. Heavy users (cluster 3) show higher rates: 56% of them are willing to pay for selective multimedia stories, half of them for web documentaries, and 36% for scrollytelling. Online focused participants (cluster 2) show a lower willingness to pay for web documentaries (30%) and scrollytelling (18%). However, a much higher amount of this group would spend money on selective multimedia stories (46%).

The average price users would be willing to pay for one story dealing with a topic they are interested in is quite high: Average means sum up to 2.82 euro for web documentaries (SD = 2.4), 2.70 euro for selective multimedia stories (SD = 2.0), and 2.25 euro for scrollytelling (SD = 2.5). There are no significant differences between the clusters.

The data do not show significant differences between the clusters either with regard to modes of payments. The average means indicate, that mobile Internet users are not willing to subscribe for a whole online product (e.g. the website or the mobile magazine) if they are interested in one particular longform project (Table 7). Instead, average means point out preferences for single purchase options and micro payment options which should allow users unlimited access to the content they bought with no temporal or local restrictions. Options to preview parts of the story for free, for example, by viewing a trailer, are considered to be convenient. Advertising, on the contrary, cannot be mentioned as an alternative way to finance the projects, especially not in a combination with paid content. An advertisement is at most tolerated if it is related to the topic of a story or if the content is offered for free.

Table 7. Preferred payment and attitudes towards revenue models and advertising.

Items	Web documentary	Scrollytelling	Selective multimedia story
Paid content			
When I pay for a story, I want access to it without temporal limitation	4.8 (0.6)	4.8 (0.5)	4.9 (0.6)
To use an interesting story, I am willing to subscribe and pay for the whole media product	1.6 (1.0)	1.6 (0.9)	1.8 (1.3)
I want to be able to buy an interesting story on its own	4.4 (0.9)	4.4 (1.0)	4.5 (1.0)
Before I pay for a story, I want to use a part of the content for free (e.g. test version, trailer)	4.6 (0.7)	4.5 (0.8)	4.5 (0.9)
Advertising			
Advertisements disturb me	4.2 (1.1)	4.1 (1.1)	4.3 (1.1)
To get the story for free, I accept advertisements	3.6 (1.1)	3.7 (1.1)	3.6 (1.1)
When a story contains advertisements, it should be related to the story's topic	3.4 (1.3)	3.3 (1.4)	3.5 (1.5)

n = 248. n.a., item not available; Values are means and standard deviation. Scale 1 = "doesn't match at all" to 5 "absolutely matches".

Discussion

The research on mobile Internet users presented in this paper was focused on the media repertoire for background information and on the relevance of online media at the device level as well as the awareness of digital longforms, expectations of Internet-specific quality, modes of payment, and advertisement at the content level. We were in a position to answer the four research questions by presenting a quantitative face-to-face survey based on representative quotas for age, gender, and education for German mobile Internet users.

First, our data indicate that mobile Internet users integrate online devices into their media repertoire for background information (RQ1). This is supported by the results that desktop computers/laptops, mobile devices (as well as the television set) are the most important platforms by usage percentages, usage frequency as well as for most topics. However, the study also offers results that should be kept in mind when discussing complementary or substitutional effects of online and offline media usage (Taneja et al., 2012; Yuan, 2011): There are obviously differences between news usage and longform usage, because, compared to studies on the information repertoire referring to news, legacy media are currently still more important for background information. A more practical implication for media managers was revealed by the cluster analysis. The growing group of mobile Internet users should not be considered as a homogenous group, as there are still users among them who are mainly focused on legacy media (cluster 1) or rather media abstinent users (cluster 4) in the context of background information. Hence, marketing activities in this early market phase should focus on online affine users (cluster 2) as well as heavy users (cluster 3) – and therefore not only be promoted within online products. Due to the fact that mobile Internet users in general and especially heavy users integrate many platforms into their background information repertoire, it could be helpful for media managers to stronger rely on cross-media strategies to promote the new products within offline media.

In fact, the survey shows a lack of marketing in general focusing on raising awareness of digital longforms (RQ2): All users are most familiar with scrollytelling, and least familiar with selective multimedia stories. This could be due to still lower usage of tablet-PCs.

Furthermore, mobile Internet users have developed certain expectations of the Internet-specific qualities of digital longforms. The survey shows clear preferences for those qualities that have to be planned and produced by the media companies, for example, the combination of multimedia elements or selective options to navigate through a story. This underlines the need for cooperation between reporters, designers, and technicians for this rather complex new media format. In contrast to other forms of online and mobile content (Boczkowski & Mitchelstein, 2012), interactivity and participation are of lower importance for digital longforms. Hence, to sum up, for digital background information users rely on the media companies' competences on content production and presentation, but do not wish to become producers themselves as part of the story narrative.

Moreover, data state that, uninfluenced by platform preferences, quite a high number of users is willing to spend money on digital longforms (RQ4) – especially compared to the low rates stated by other studies for online news (Newman & Levy, 2014). Heavy users (cluster 3) are particularly worthy of attention: More than half of them are willing

to pay for selective multimedia stories, half of them for web documentaries, and 36% for scrollytelling. Online focused users (cluster 2), on the contrary, seem to be used to free access to journalistic content. To support the user's general openness to payment, editorial offices should further offer flexible modes of payment which include single purchase options instead of subscriptions. Nevertheless, it has to be kept in mind that the measurement of the willingness to pay and the prices are hypothetical and the values we compared them to derive from different studies and samples.

Our study faces some further limitations. The sample is based on quota representative for three socio-demographic factors (age, gender, and education) and interviews were mainly conducted in one region of Germany. However, we do not consider this to be a major problem due to the fact that the observed region contains rural and urban areas in a spread which is quite representative for the rest of the country.

To sum up, the study provides important insights into the emerging field of digital background information by longforms, which has rarely been researched yet. How, where, and when web documentaries, scrollytelling, and selective multimedia stories are used has to be further investigated to help media managers to strategically elaborate on content models besides "something for everyone" (Küng, 2011, p. 53). Hence, by integrating the media repertoire approach and the user-orientated perspective on media quality as presented in this paper into media management theory, changing strategic environments can be understood more easily (Porter, 1980, 1985). Complex and unique formats of online and mobile journalism provide a positive user experience and added value. In doing so, they offer great potentials for legacy media to concentrate on unique and relevant content models that lead to a valuable and potentially future-proof digital brand identity.

Notes

1. In this paper, we distinguish between two main forms of Internet-enabled devices: stationary Internet devices include computer and laptop/netbook and allow access to the stationary Internet; mobile Internet devices include smartphones, tablet-PCs, iPods, and e-readers that allow access to the mobile Internet. As some mobile devices, for example, certain iPods, do not offer connectivity to the mobile Internet, we refer to the term Internet-enabled devices. Furthermore the two forms of Internet devices offer different specifics (e.g. context sensitivity based on the mobile network, which is not possible for stationary Internet access).
2. Selection criterion for the sample was based on mobile Internet usage within the last 2 weeks by mobile device (smartphone, tablet-PC, Internet-enabled MP3-player, or e-reader).
3. The prototypes shown during the interview contain characteristic elements for each type of format and are produced by the digital brands of a newspaper (scrollytelling), a public broadcaster (web documentary), and a magazine (selective multimedia story). For a scrollytelling longform "100 Jahre Tour de France" [100 years of Tour de France] (Zeit.de, 2013) was used. Its core is a text and it follows a mainly linear structure, divided into chapters. Different elements are added, such as slideshows, videos, and data animation. The selective multimedia story "Die Wand des Himmels" [The Wall of Heaven] (Geo Tablet Magazine, 2013) was produced for a tablet magazine. Its core is still text, however, the linear structure is disrupted by selective slideshows and hotspots. Furthermore, the story includes elements such as an audio version (read by the author) and an audio slideshow. For a web documentary, we used "Argentinien – das schönste

Land der Welt" (Argentina – the most beautiful country in the world) (Arte.tv., 2011). Following the definition of prototypes, it is the most selective story. Different videos can be selected from a central menu where no order is proposed. The videos are enriched by text. In addition, interactive (sharing) and participative (comments) elements are integrated.

4. Two items of the original questionnaire for the dimension "usability" have been dropped due to Cronbach's alpha test: "… offers a search function" and "… offers a tutorial".
5. All respondents generally use the mobile Internet (selection criterion). But 6% do not use mobile devices to gain access to background information.

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References

Arte.tv. (2010). *Prison Valley*. Retrieved March 28, 2016, from http://prisonvalley.arte.tv/?lang=de

Arte.tv. (2011). *Argentinien – das schönste Land der Welt*. Retrieved March 28, 2016, from http://argentina.arte.tv/de/#/introduction

Arte.tv. (2015). *Webproductions*. Retrieved March 28, 2016, from http://www.arte.tv/sites/fr/webdocs/

Barnhurst, K. G. (2013). Newspapers experiment online: Story content after a decade on the web. *Journalism*, *14*(1), 3–21. doi:10.1177/1464884912448898

Boczkowski, P. J. (2004). The mutual shaping of technology and society in Videotex Newspapers: Beyond the diffusion and social shaping perspectives. *The Information Society*, *20*(4), 255–267. doi:10.1080/01972240490480947

Boczkowski, P. J., & Mitchelstein, E. (2012). How users take advantage of different forms of interactivity on online news sites: Clicking, e-mailing, and commenting. *Human Communication Research*, *38*(1), 1–22. doi:10.1111/j.1468-2958.2011.01418.x

Brandstetter, B., & Schmalhofer, J. (2014). Paid content. *Journalism Practice*, *8*(5), 499–507. doi:10.1080/17512786.2014.895519

Breidert, C., Hahsler, M., & Reutterer, T. (2006). A review of methods for measuring willingess-to-pay. *Innovative Marketing*, *2*(4), 8–32.

Breunig, C. (2005). Paid Content im Internet – ein erfolgreiches Geschäftsmodell?: Marktchancen kostenpflichtiger Onlineinhalte [Paid content online – a successful business model? Market chances of paid content online]. *Media Perspektiven*, (8), 407–418.

Bucher, H.-J. (2000). Publizistische Qualität im Internet: Rezeptionsforschung für die Praxis [Journalistic quality online: Reception studies for the practice]. In K.-D. Altmeppen, H.-J. Bucher, & M. Löffelholz (Eds.), *Online-Journalismus. Perspektiven für Wissenschaft und Praxis* (pp. 153–172). Wiesbaden: VS Verlag für Sozialwissenschaften.

Casero-Ripollés, A., & Izquierdo-Castillo, J. (2015). Between decline and a new online business model: The case of the Spanish newspaper industry. *Journal of Media Business Studies*, *10*(1), 63–78. doi:10.1080/16522354.2013.11073560

Chan-Olmsted, S., Rim, H., & Zerba, A. (2013). Mobile news adoption among young adults: Examining the roles of perceptions, news consumption, and media usage. *Journalism & Mass Communication Quarterly*, *90*(1), 126–147. doi:10.1177/1077699012468742

Cook, C., & Sirkkunen, E. (2015). What's in a Niche? Exploring the business model of online journalism. *Journal of Media Business Studies*, *10*(4), 63–82. doi:10.1080/16522354.2013.11073576

Costera Meijer, I. (2013). Valuable journalism: A search for quality from the vantage point of the user. *Journalism*, *14*(6), 754–770. doi:10.1177/1464884912455899

Coursaris, C. K., Swierenga, S. J., & Pierce, G. L. (2010). Effects of aesthetics and playfulness on web usability – an empirical investigation. In *AMCIS 2010 Proceedings* (pp. Paper 549). Retrieved from http://aisel.aisnet.org/amcis2010/549

Cox, D., & Cox, A. D. (2002). Beyond first impressions: The effects of repeated exposure on consumer liking of visually complex and simple product designs. *Journal of the Academy of Marketing Science*, *30*(2), 119–130. doi:10.1177/03079459994371

Dahinden, U., Kaminski, P., & Niderreuther, R. (2004). Content is King: Gemeinsamkeiten und Unterschiede bei der Qualitätsbeurteilung von Online-Zeitungen aus Angebots- und Rezipientenperspektive [Content is king: Similarities and differences of quality judgements for online newspapers from content and reception perspective]. In K. Beck, W. Schweiger, & W. Wirth (Eds.), *Gute Seiten - schlechte Seiten. Qualität in der Onlinekommunikation* (pp. 103–126). München: Reinhard Fischer.

Deuze, M. (2004). What is multimedia journalism? *Journalism Studies*, *5*(2), 139–152. doi:10.1080/1461670042000211131

Dimmick, J., Feaster, J. C., & Hoplamazian, G. J. (2011). News in the interstices: The Niches of mobile media in space and time. *New Media & Society*, *13*(1), 23–39. doi:10.1177/1461444810363452

Dowling, D., & Vogan, T. (2014). Can we "Snowfall" this? *Digital Journalism*, *3*(2), 209–224. doi:10.1080/21670811.2014.930250

Doyle, G. (2015). Re-invention and survival: Newspapers in the era of digital multiplatform delivery. *Journal of Media Business Studies*, *10*(4), 1–20. doi:10.1080/16522354.2013.11073569

Dutta-Bergman, M. J. (2004). Complementarity in consumption of news types across traditional and new media. *Journal of Broadcasting & Electronic Media*, *48*(1), 41–60. doi:10.1207/s15506878jobem4801_3

DVorkin, L. (2012). *Inside Forbes: How Long-Form Journalism Is Finding Its Digital Audience*. Retrieved March 28, 2016, from http://www.forbes.com/sites/lewisdvorkin/2012/02/23/inside-forbes-how-long-form-journalism-is-finding-its-digital-audience/

Erdal, I. J. (2009). Repurposing of content in multi-platform news production. *Journalism Practice*, *3*(2), 178–195. doi:10.1080/17512780802681223

Frees, B., & Koch, W. (2015). Internetnutzung: Frequenz und Vielfalt nehmen in allen Altersgruppen zu: Ergebnisse der ARD/ZDF-Onlinestudie 2015 [Internet usage: Frequency

and variety are growing in at all ages: Results of the ARD/ZDF- online study 2015]. *Media Perspektiven*, (9), 366–377.

Galloway, D., McAlpine, K. B., & Harris, P. (2007). From Michael Moore to JFK reloaded: Towards a working model of interactive documentary. *Journal of Media Practice*, *8*(3), 325–339. doi:10.1386/jmpr.8.3.325_1

Gershon, R. A. (2015). Digital media innovation and the Apple iPad: Three perspectives on the future of computer tablets and news delivery. *Journal of Media Business Studies*, *10*(1), 41–61. doi:10.1080/16522354.2013.11073559

Ghersetti, M. (2013). Still the same? *Journalism Practice*, *8*(4), 373–389. doi:10.1080/17512786.2013.813201

Gladney, G. A., Shapiro, I., & Castaldo, J. (2007). Online editors rate web news quality criteria. *Newspaper Research Journal*, *28*(1), 55–69.

Godulla, A. (2015). Mehr als „lousy pennies"? Etablierte vs. Alternative Geschäftsmodelle im Online-Journalismus [More than "lousy pennies"? Established vs. alternative business models in online journalism.]. In R. Hohlfeld, T. Knieper, & O. Hahn (Eds.), *Schriftenreihe der Deutschen Gesellschaft für Publizistik- und Kommunikationswissenschaft: Vol. 42. Digitale Öffentlichkeit(en)* (1st ed.). Konstanz: UVK.

Godulla, A., & Wolf, C. (2015). Journalistische Langformen im Web: Produktionsbedingungen und Markteinschätzung. Eine quantitative Kommunikatorbefragung zu Scrollytelling, Webdokumentationen und Multimediastorys [Journalistic longforms in the web: Production and market outlook. a quantitative survey among communicators about scrollytelling, web documentaries, and multimedia stories]. *Media Perspektiven*, (11), 526–532.

The Guardian.com. (2013). *NSA Files: Descoded: What the revelations mean for you*. Retrieved March 28, 2016, from http://www.theguardian.com/world/interactive/2013/nov/01/snowden-nsa-files-surveillance-revelations-decoded

Ham, D.-H., Heo, J., Fossick, P., Wong, W., Park, S., & Bradley, M. (2006). Conceptual framework and models for identifying and organizing usability impact factors of mobile phones. In J. Kjeldskov & J. Paay (Eds.), *OZCHI 2006. Conference proceedings* (pp. 261–268). New York, NY: ACM Press.

Harcourt, A. (2005). *The European Union and the regulation of media markets. European Policy Research Unit series*. Manchester, NY: Manchester University Press; Distributed exclusively in the USA by Palgrave.

Hasebrink, U., & Popp, J. (2006). Media repertoires as a result of selective media use. A conceptual approach to the analysis of patterns of exposure. *Communications*, *31*(3). doi:10.1515/COMMUN.2006.023

Hasebrink, U., & Schmidt, J.-H. (2012). *Informationsrepertoires der deutschen Bevölkerung: Konzept für eine regelmäßig durchzuführende bevölkerungsrepräsentative Befragung im Rahmen des Vorhabens „Erfassung und Darstellung der Medien- und Meinungsvielfalt in Deutschland"*. [Information Repertoires of German Citizens: Concepts for a Regularly Conducted Representative Survey within the Project "Recording and Repersenting the Plurality of Media and Opinion in Germany] Arbeitspapiere des Hans-Bredow-Instituts: Vol. 24. Hamburg: Hans-Bredow-Inst. für Medienforschung an der Univ. Hamburg Verlag.

Himelboim, I., & McCreery, S. (2012). New technology, old practices: Examining news websites from a professional perspective. *Convergence: The International Journal of Research into New Media Technologies*, *18*(4), 427–444. doi:10.1177/1354856511429648

Institut für Demoskopie Allensbach. (2013). *ACTA 2013: Allensbacher Computer- und Technikanalysen* [ACTA 2013: Allensbach's computer and technology analysis]. Allensbach am Bodensee: Dräger + Wullenwever.

Katz, J. E., & Aakhus, M. A. (2006). *Perpetual contact: Mobile communication, private talk, public performance* (4th ed.). Cambridge: Cambridge University Press.

Kincl, T., & Štrach, P. (2012). Measuring website quality: Asymmetric effect of user satisfaction. *Behaviour & Information Technology*, *31*(7), 647–657. doi:10.1080/0144929X.2010.526150

Koch, W., & Frees, B. (2015). Unterwegsnutzung des Internets wächst bei geringerer Intensität: Ergebnisse der ARD/ZDF-Onlinestudie 2015 [Mobile usage of the internet is growing by low intensity: Results of the ARD/ZDF-online study 2015]. *Media Perspektiven*, (9), 378–382.

Kramp, L., & Weichert, S. (2012). *Innovationsreport Journalismus: Ökonomische, medienpolitische und handwerkliche Faktoren im Wandel* [Innovation report jouranlism: Changing factors of media economics, media policy, and practice]. Bonn: Friedrich-Ebert-Stiftung. Retrieved from http://library.fes.de/pdf-files/akademie/08984.pdf

Krumsvik, A. H. (2012). Why old media will be founding journalism in the future. *Journalism Studies*, *13*(5–6), 729–741. doi:10.1080/1461670X.2012.664331

Küng, L. (2011). Managing strategy and maximizing innovation in media organizations. In M. Deuze (Ed.), *Managing media work* (pp. 43.56). Thousand Oaks, CA: SAGE.

Lassila-Merisako, M. (2014). Story first – publishing narrative long-form journalism in digital environments. *Journal of Magazine & New Media Research*, *15*(2), 1–15.

Lievrouw, L. A., & Livingstone, S. (Eds.). (2002). *Handbook of new media: Social shaping and consequences of ICTs (Reprint)*. London: SAGE.

Mehlis, K. (2014). Von der Sender- zur Nutzerqualität: Entwicklung einer mehrdimensionalen Skala zur Messung der Qualität von Online-Nachrichtenangeboten aus Publikumssicht [From sender to user quality: Development of a multidimensional scale to measure the quality of online news from the audiences' perspective]. In W. Loosen & M. Dohle (Eds.), *Journalismus und (sein) Publikum* (pp. 253–271). Wiesbaden: Springer Fachmedien Wiesbaden.

Meier, K. (2003). Qualität im Online-Journalismus [Quality in online journalism]. In H.-J. Bucher & K.-D. Altmeppen (Eds.), *Qualität im Journalismus. Grundlagen, Dimensionen, Praxismodelle* (1st ed., pp. 247–266). Wiesbaden: Westdt. Verlag.

Meier, K. (2009). Journalismus in Zeiten der Wirtschaftskrise: Neun Thesen zum Strukturwandel der Medien [Journalism in times of economic crisis: Nine thesis on the structural chance of media]. *Journalistik Journal*, *12*(1), 72–75. Retrieved March 28, 2016, from http://journalistik-journal.lookingintomedia.com/?p=269

Mierzejewska, B. I. (2011). Management in theory and practice. In M. Deuze (Ed.), *Managing media work* (pp. 13–30). Thousand Oaks, CA: SAGE.

Miller, K. M., Hofstetter, R., Krohmer, H., & Zhang, Z. J. (2011). How should consumers' willingness to pay be measured? An empirical comparison of state-of-the-art approaches. *Journal of Marketing Research*, *48*(1), 172–184. doi:10.1509/jmkr.48.1.172

Nakasone, A., Prendinger, H., & Ishizuka, M. (2009). ISRST: Generating interesting multimedia stories on the web. *Applied Artificial Intelligence*, *23*(7), 633–679. doi:10.1080/08839510903205423

Nash, K. (2012). Modes of interactivity: Analysing the webdoc. *Media, Culture & Society*, *34*(2), 195–210. doi:10.1177/0163443711430758

National Geographic Tablet Magazine. (2013). K2. (4).

Nel, F. (2010). Where else is the money? A study of innovation in online business models at newspapers in Britain's 66 cities. *Journalism Practice*, *4*(3), 360–372. doi:10.1080/17512781003642964

Nel, F., & Westlund, O. (2012). The 4C'S of mobile news: Channels, conversation, content and commerce. *Journalism Practice*, *6*(5–6), 744–753. doi:10.1080/17512786.2012.667278

Neuberger, C. (2001). *Journalismus im Internet. Theoriekontext und empirische Exploration* [Journalism in the Internet. Theoretical Context and Empirical Exploration] (unveröffentlichte Habilitationsschrift). Universität Eichstätt-Ingolstadt, Eichstätt.

Neuberger, C. (2012). Journalismus im Internet aus Nutzersicht: Ergebnisse einer Onlinebefragung [Journalism in the internet from the user's perspecitve: Results of an online survey]. *Media Perspektiven*, (1), 40–55.

Neuberger, C., Nuernbergk, C., & Rischke, M. (2009). Crossmedialität oder Ablösung? Anbieterbefragung I: Journalismus im Übergang von den traditionellen Massenmedien ins Internet [Cross-media or detachement? Producer survey I: Journalism in transition from traditional mass media to internet]. In C. Neuberger, C. Nuernbergk, & M. Rischke (Eds.),

Journalismus im Internet. Profession - Partizipation - Technisierung (1st ed., pp. 231–268). Wiesbaden: VS Verlag für Sozialwissenschaften.

New York Times.com. (2012). *Snow Fall: The Avalanche at Tunnel Creek*. Retrieved March 28, 2016, from http://www.nytimes.com/projects/2012/snow-fall/#/?part=tunnel-creek

Newman, N., & Levy, D. A. L. (2014). *Reuters Institute Digital News Report 2014: Tracking the futre of news*. Retrieved March 28, 2016, from https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Reuters%20Institute%20Digital%20News%20Report%202014.pdf

NFB.ca. (2012). *Bear 71*. Retrieved March 28, 2016, from http://bear71.nfb.ca/#/bear71

Palmgreen, P., & Rayburn, J. D. (1985). An expectancy-value approach to media gratifivations. In K. E. Rosengren, L. A. Wenner, & P. Palmgreen (Eds.), *Media gratifications research. Current perspectives* (pp. 61–72). Beverly Hills, CA: Sage Publications.

Pape, T. von, Karnowski, V., & Wirth, W. (2008). Die Mobile Phone Appropriation-Skala (MPA-Skala): Konstruktion und Evaluation. In J. Matthes, W. Wirth, & G. Daschmann (Eds.), *Die Brücke zwischen Theorie und Empirie:. Operationalisierung, Messung und Validierung in der Kommunikationswissenschaft* (pp. 96–127). Köln: Halem.

Parry, R. (2011). *The ascent of media: From Gilgamesh to Google via Gutenberg*. Boston, MA: Nicholas Brealey Publishing.

Paulussen, S. (2004). Online news production in flanders: How flemish online journalists perceive and explore the internet's potential. *Journal of Computer-Mediated Communication*, *9*(4), 00. doi:10.1111/j.1083-6101.2004.tb00300.x

Picone, I., Courtois, C., & Paulussen, S. (2014). When news is everywhere. *Journalism Practice*, *9* (1), 35–49. doi:10.1080/17512786.2014.928464

Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York, NY: Free Press.

Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York, NY: Free Press; Collier Macmillan.

Quandt, T. (2008a). (No) News on the world wide web? *Journalism Studies*, *9*(5), 717–738. doi:10.1080/14616700802207664

Quandt, T. (2008b). Neues Medium, alter Journalismus? Eine vergleichende Inhaltsanalyse tagesaktueller Print- und Online-Nachrichtenangebote [New medium, old journalism? A comparative content analysis of daily print and online news products]. In T. Quandt & W. Schweiger (Eds.), *Journalismus online - Partizipation oder Profession?* (pp. 131–155). Wiesbaden: VS Verlag für Sozialwissenschaften.

Rademacher, P., & Siegert, G. (2007). Neue Erlösformen für Publikumszeitschriften - Kaufpreis und Medienmarke als Erfolgsfaktoren für Paid Content [New forms of revenue for printed magazines – copy prize and media brand as success factors for paid content]. In M. Friedrichsen & M. F. Brunner (Eds.), *Perspektiven für die Publikumszeitschrift* (pp. 483–502). Berlin, Heidelberg: Springer.

Reid, A. (2014). *How the BBC approaches longform, immersive storytelling*. Retrieved March 28, 2016, from https://www.journalism.co.uk/news/how-the-bbc-approaches-longform-immersive-storytelling/s2/a557573/

Rühl, M. (1969). *Die Zeitungsredaktion als organisiertes soziales System* [The newspaper's editorial office as organized social system]. Bielefeld: Bertelsmann.

Schumann, C. (2013). Player-centered game design: Expectations and perceptions of social interaction in RPG and FPS as predictors of rich game experience. In T. Quandt & S. Kröger (Eds.), *Routledge studies in European communication research and education: Vol. 3. Multiplayer. The social aspects of digital gaming* (pp. 70–84). London: Routledge.

Stark, B., & Kraus, D. (2008). Crossmediale Strategien überregionaler Tageszeitungen: Empirische Studie am Beispiel des Pressemarkts in Österreich [Cross-media strategies of nationwide newspapers: An empirical study of the Austrian press market]. *Media Perspektiven*, (6), 307–317.

Stone, M., Nel, F., & Wilberg, E. (2010). *Wold newspaper future and change study 2010*. Paris: World Association of Newspapers and News Publishers.

Tan, F. B., & Chou, J. P. (2008). Computer Interaction, the relationship between mobile service quality, perceived technology compatibility, and users' perceived playfulness in the context of mobile information and entertainment services. *International Journal of Human-Computer Interaction*, *24*(7), 649–671. doi:10.1080/10447310802335581

Taneja, H., Webster, J. G., Malthouse, E. C., & Ksiazek, T. B. (2012). Media consumption across platforms: Identifying user-defined repertoires. *New Media & Society*, *14*(6), 951–968. doi:10.1177/1461444811436146

Tomorrow Focus Media. (2013). *Mobile Effects 2013-1: A Part of Our Lifes - Mobiles Internet begleitet den Alltag*. Retrieved March 28, 2016, from http://www.tomorrow-focus-media.de/uploads/tx_mjstudien/TFM_Mobile_Effects_2013-01.pdf

Urban, J., & Schweiger, W. (2014). News quality from the recipients' perspective: Investigating recipients' ability to judge the normative quality of news. *Journalism Studies*, *15*(6), 821–840. doi:10.1080/1461670X.2013.856670

Vesper, S. (1998). *Das Internet als Medium: Auftrittsanalysen und neue Nutzungsoptionen* [The internet as a medium. Analysis of websites and new usage options]. Bardowick: Wissenschaftler-Verlag.

Vultee, F. (2015). Audience perceptions of editing quality. *Digital Journalism*, 1–18. doi:10.1080/21670811.2014.995938

Westlund, O. (2015). News consumption in an age of mobile media: Patterns, people, place, and participation. *Mobile Media & Communication*, *3*, 151–159. doi:10.1177/2050157914563369

Wolf, C. (2014). *Mobiler Journalismus: Angebote, Produktionsroutinen und redaktionelle Strategien deutscher Print- und Rundfunkredaktionen (1. Aufl.)* [Mobile Journalism: Products, Production Routines, and Editorial Strategies of German Print and Broadcasting Organisations] *Schriftenreihe "Aktuell. Studien zum Journalismus": Vol. 8*. Baden-Baden: Nomos.

Wolf, C., & Schnauber, A. (2015). News consumption in the mobile era. *Digital Journalism*, *3*(5), 759–776. doi:10.1080/21670811.2014.942497

Wolling, J. (2002). Aufmerksamkeit durch Qualität? Empirische Befunde zum Verhältnis von Nachrichtenqualität und Nachrichtennutzung [Attention through quality? Empirical results on the relationship of news quality and news usage]. In A. Baum & S. J. Schmidt (Eds.), *Schriftenreihe der Deutschen Gesellschaft für Publizistik- und Kommunikationswissenschaft: Vol. 29. Fakten und Fiktionen. Über den Umgang mit Medienwirklichkeiten* (pp. 202–216). Konstanz: UVK-Verl.-Ges.

Wolling, J. (2004). Qualitätserwartungen, Qualitätswahrnehmungen und die Nutzung von Fernsehserien: Ein Beitrag zur Theorie und Empirie der subjektiven Qualitätsauswahl von Medienangeboten [Quality expectations, quality perceptions, and the usage of television series: A contribution to theory and empiricism of the subjective quality selection of media products]. *Publizisitk*, *49*(2), 171–192.

Wolling, J. (2009). The effect of subjective quality assements on media selection. In T. Hartmann (Ed.), *Media choice. A theoretical and empirical overview* (pp. 84–101). New York, NY: Routledge.

Yuan, E. J. (2011). News consumption across multiple media platforms. *Information, Communication & Society*, *14*(7), 998–1016. doi:10.1080/1369118X.2010.549235

Zeit.de. (2013). *100 Jahre Tour de France*. Retrieved March 28, 2016, from http://www.zeit.de/sport/tour-de-france.html