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UNDERSTANDING THE DIGITAL NEWSPAPER GENRE: MEDIUM VS. MESSAGE

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Abstract

Over the last two decades, the cultural and cognitive artifacts that information and communication technologies circulate have become entangled with human and technical actors to the point of inseparability. These entanglements are primarily driven by the proliferation and wide adoption of online and mobile technologies. As a result, we discern the migration of previously physical artifacts to the digital realm and a transformation of the relations between users, information, and technology.

A prominent example of the shift from physical to digital is the transformation of the print newspaper genre to the digital newspaper genre. Adopting a sociomaterial approach and building on genre theory, this paper presents an investigation of the nature and emergence of the digital newspaper based on an ethnographic study of a major news and publishing company. We find significant changes in the context, the news offering, and the roles of actors involved with the newspaper artifact – emerging with the introduction and adoption of disparate media. Drawing on the empirical findings, we conclude that the digitization of the newspaper emphasizes the central importance of the medium and transforms the author-reader relations from interaction to intra-action. Hence, the print to digital shift is demonstrated to have profoundly altered the very notion of the newspaper genre.

Keywords: digital artifacts, digital newspaper, sociomateriality, genre theory, digital materiality, digital medium, prosumers, technology mediation.

1 Introduction

The way we consume news has always been changing. News have initially been transmitted by word-of-mouth and, later, the news genre shifted to mass media, such as print newspapers, radio, television, and, finally, the Internet. Many of these changes in the way we consume news can be traced back to the introduction of innovative technologies and wide adoption of newly available media, with the newspaper genre itself having been impacted by technological advances.

Such technological innovations can be seen as disruptive (Christensen, 1997; Sood and Tellis, 2011) as they change behaviors and expectations of the news audience, subsequently forcing news providers to re-develop their news offering. Changes relevant to the newspaper include enhancements to the printing press (Ihlström, 2004), development of personal computers (Eriksen, 1997), introduction of the Internet (Lessig, 2001), and the recent rapid adoption of both mobile devices (Graham and Smart, 2010) and social media (Kaplan and Haenlein, 2010) in delivering content to audiences. The changes have not only altered the way that news is consumed, but also transformed the perception of the genre (Ihlström, 2004) and the way readers engage with (Orlikowski and Scott, 2008) and integrate news into their lives. For example, the Internet drives expectations of easy access to the constantly updated content (Vaughan and Dillon, 2005); this is in contrast to print, where the news could only be "updated" with a regular new edition. In the last decade, the print newspaper has gradually been losing its authority as the single source of newspaper content. Furthermore, we are witnessing the emergence of a distinct digital newspaper genre, manifested in digital artifacts that facilitate the distribution of news content virtually across disparate media (Ihlström, 2004).

In this paper we aim to provide a richer understanding and a theoretical explanation of the transformation from the print to the digital newspaper genre. Especially, we would like to advance the understanding of (i) the nature and emergence of the digital newspaper and (ii) the role of the medium in its emergence. To achieve this research objective, we adopt a sociomaterial perspective and draw from genre theory. We analyze the transformation of the newspaper genre based on an ethnographical study of the news and publishing company MediaNews (a pseudonym). Ultimately, the paper aims to provide a basis for the development of the digital newspaper genre theory and presents an argument for the importance of genre theory in understanding digital artifacts.

The paper is organized as follows: first, we discuss the literature and the theories relevant for our study. Next, we provide an overview of the methodology and how we conducted the ethnographic study. After this, we present the major findings and propose a theoretical framework to interpret the findings and understand the transformation of the newspaper genre. We conclude with implications for theory and practice, and provide suggestions for future research.

2 Literature Review and Theoretical Background

The concept of "genre" has its origins in the ancient Greek concept of "genos" (gender, type). Genre theory predominantly entails the classification and grouping of texts via identifiable shared characteristics (Swales, 1990; Brown and Duguid, 1994; Yates and Sumner, 1997; Askehave and Neilsen, 2005). Building on the works of Bakhtin (1986) and Numberg (1986, 1993), Brown and Duguid (1994, p. 10) define genres as "socially constructed interpretive conventions that bridge the two sides of communication." In other words, genres help us to "navigate the complex worlds of written communication and symbolic activity" (Bazerman, 2000, p. 16), facilitating the transference of information from author to audience in a recognizable form, such as drama, play, comedy, and letter. Traditionally, genres pertained to spoken and printed texts (Askehave and Neilsen, 2005), yet, the transition of text forms to digital environments has transformed the notion of a genre and added context characteristics. For example, a personal email can be considered a digital variant of the (print) letter genre in a digital context.

Jacques Derrida was among the first to argue (in the “The Law of Genre”, 1980) that texts “participate in” rather than “belong to” specific genres. This malleable and context-based genre concept retreats from a static, classifying notion based on characteristic patterns in form and content (Breure, 2001). Derrida’s concept of genre promotes the view that texts cannot be easily classified based on set criteria without an understanding of their context and purpose (Brown and Duguid, 1994; Yates and Sumner, 1997; Breure, 2001; Askehave and Neilsen, 2005) or the nature of the user engagement with the text (Yates and Sumner, 1997). This is especially true for the digital space (Breure, 2001; Askehave and Neilsen, 2005). Hence, the departure from a contextless definition of genre (Askehave and Neilsen, 2005) has facilitated the applicability of the genre concept to a variety of disciplines, including IS.

Drawing from this, the digital newspaper can be viewed as “an evolving genre capable of supporting more than just the presentation of electronic news” (Watters and Shepherd, 1997, p. 7). Adapting the traditional newspaper genre definition, this genre has initially been classified as the “digital broadsheet” (Watters and Shepherd, 1997) or the “e-paper” (Åkesson, 2009) and has been suggested to result from the digitization of information and wide availability of online technologies that enable the rapid global access to news (Åkesson, 2009; Ihlström and Henfridsson, 2005; Lessig, 2001). The traditional newspaper genre is characterized by the interweaving of content within specific physical boundaries, with “news to a significant degree [being] made in the process of being edited into papers and then circulated across a community” (Brown and Duguid, 1994, p. 41). However, despite its similarity to the printed counterpart, early attempts to transfer the print newspaper genre online in the form of digital broadsheet resulted in lower reader engagement, as it showed usability limitations even when combining familiar print-style news presentations with new multimedia elements (Watters and Shepherd, 1997). Recent studies of early digital newspapers (Åkesson, 2009; Ihlström and Henfridsson, 2005; Serm et al., 2006; Hood, 2007; Thurman and Myllylahti, 2009; Graham and Smart, 2010) agree that the failing reader engagement stemmed from the notion that “even if the resulting copy looked like a conventional newspaper, imitating its fold and front page headlines, it [lacked] the social significance that arises from editorial juxtaposition” (Brown and Duguid, 1997, p. 19). Thus, the initial failure of the digital broadsheet has been attributed to a misalignment of content and media. The transition of a paper-based newspaper to the digital form attempted to exploit the new opportunities of the digital medium (electronic access, multimedia) while not changing the assumptions underpinning the paper-based newspaper genre. The current published cases indicate a gap in both in theory and practice of understanding the digital newspaper both as a genre and artifact.

The digital newspaper is a digital artifact that is altering the established print based process of conveying news from authors to audiences. The materiality of digital artifacts has become the subject of debate over the last decade (Suchman, 2007; Orlikowski, 2007; Leonardi, 2010), with authors critiquing the traditional view of materiality as implying tangibility and physicality of “matter” (Orlikowski, 2007; Leonardi and Barley, 2008; Suchman, 2007). In contrast, they argue for the understanding of materiality to be broadened to “represent the practical instantiation and the significance of an artifact” (Leonardi, 2010). Digital materiality, it is argued, is not experienced as the physicality of an object but instead as the constraints and affordances of an IT artifact in practice (Leonardi and Barley, 2008; Orlikowski and Ianco, 2001). For example, a database has no traditional physical matter as it exists purely in the virtual digital realm, however, it is no less ‘material’ than other tangible artifacts (e.g., a physical file), as it allows for the storing, sorting, and processing of information and through these affordances can be viewed as possessing materiality.

Similarly, the materiality of digital newspapers is related to the notion of a “medium” that creates a certain context for the content within the artifact. McLuhan’s “medium” (McLuhan, 1964; Rideout, 2006) can be defined as “any extension of ourselves” or “any new technology” used for conveying a message (McLuhan et al., 1967), or as a means or channel for communication. In addition, McLuhan argued that the medium itself has the potential to carry a message regardless of the content (Rideout, 2006; Andrews, 1995). Thus, the use of a particular device or genre carries a meaning in addition to content, for “the ‘content’ of a medium is like the juicy piece of meat carried by the burglar to distract the watchdog of the mind. The effect of the medium is made strong and intense just because it is given another medium as ‘content’.” (McLuhan, 1964, p. 32).

Furthermore, McLuhan's theory (1967) states that the medium itself can be viewed as having agency. Hence, an artifact has subliminal social effects through the appropriation of the medium and not merely through its contents. However, the theory is limited in its ability to explain the changing nature of digital artifacts, as it is not only medium and content separately but their combination that influences meaning (Rideout, 2006). The notion of the fusion of medium and content has been suggested to have potential to not only explain the difference in meaning derived from the same content via different media, but also to analyze the relationship between author and audience (Rideout, 2006). Hence, we build on this enhanced theoretical view in order to understand the emerging and transforming nature of the digital newspaper as a genre and an artifact, and the relations between actors, content, and medium. We develop this view further by adopting a sociomaterial approach that questions essentialist views of digital artifacts, media and genres and enables an exploration of co-emergence and mutual co-constitution among newspaper genre (digital artifact), media and human actors. While artifacts are defined as "bundles of material and cultural properties packaged in some socially recognizable form, such as hardware and/or software" (Orlikowski and Iacono, 2001, p. 121; Alter, 2003) we cannot assume that these properties are given or fixed (Orlikowski and Scott, 2008).

In order to advance understanding and develop a theoretical explanation of the transformation from the print to the digital newspaper genre and the ongoing co-constitution of the newspaper genre, media and human actors, we conducted an ethnographic study in a news and media company that we describe next.

3 Research Method

In order to explore the emergence of digital newspaper phenomenon and the actors involved within the relevant context we chose to investigate them *in situ* at MediaNews, using ethnographic case study as research method (Geertz 1972, 1979). Ethnography has a long tradition as a field study method in social science and management research (Locke, 2011). The ethnographical method allows for an in-depth analysis and rich understanding of the relations among actors and the role of the medium in the emergence of the newspaper (Conklin, 1968). The first author conducted the ethnography at the MediaNews company for five months, May to September, 2011. The author was involved in work practices and had ongoing exposure to the routines and traditions that constitute the environment within which the digital newspaper emerges. Being informed by a sociomaterial perspective, our ethnographic study does not a priori assume humans (e.g., consumers, authors) and non-humans (e.g., digital and physical artifacts) to be ontologically separate entities. Instead, we have observed them as participants of mutually producing relations in sociomaterial practices of newspaper production and consumption.

MediaNews is a major news and media publishing company in Australia. MediaNews owns over 14 exclusively digital brands and eight major print brands (each of which has a digital offering consisting of a combination of website, mobile site, and tablet and mobile apps). Initially, we studied nine of MediaNews newspapers (print, digital, and hybrid), with one newspaper brand becoming the focus, as it provided the most telling illustration of the transformation of the newspaper genre in practice. This approach allowed for direct and continuous interaction with the newspaper production and consumptions and with the various employees working on the digital newspaper (i.e., designers, producers, digital directors, editors, user experience architects, solution architects, project managers, customer support, and testers) and participation in meetings, projects, workshops, technology integration activities, and other routines and projects. The selected newspaper was offered as a Sunday print edition until it has launched a digital daily offering in 2006. As of 2011, the digital offering consisted of a website and a tablet app, with a mobile-optimized version of the website currently under development. As a result, the newspaper did not have direct competition between channels (digital vs. print), which allowed for the organic emergence of a digital newspaper that was not hindered by the internal competition considerations (i.e., competing daily editions of print and digital).

A wide range of data was collected during the study. For example, participation in project meetings and observation of day-to-day routines is documented in 600+ pages of notes. From the user side, four

user testing sessions were observed and user feedback emails accessed. Email feedback on the new tablet apps (i.e., 15-50 emails per day) were screened and a selection retained for analysis. The interviewees were selected based on their role and insights into the process of digital newspaper production, as well as from prior discussions of the research topic. The rest of the interviews involved readers, who were sourced from outside the company. The readers were selected so that the interviewees presented different age groups and consumption of news via disparate devices, as well as willingness to participate in the study. The interviews lasted approximately one hour and were deliberately semi-structured in order to facilitate discussion and to allow for the conversation to naturally pursue relevant topics of interest. Table 1 gives a full overview of the data collected and used in this study.

Participant Observation	Interviews	Secondary Data
Data analysis of subscription numbers, usage, and reader engagement (14 reports)	Designer	Customer/market analysis on past 5 years (2 docs)
Digital newspaper designs (3 docs)	Front-end Developer	Designs (8 docs)
Discussions notes (50 pages)	Managing Editor	Historical reader engagement reports on past 2 years (3 reports)
Email project correspondence (250 emails)	Mobile Producer (mobile sites)	Innovation workshop idea proposals (5 docs)
Feedback from readers regarding tablet apps (120 emails)	Mobile Producer (tablet)	Marketing campaigns (2 presentations)
Innovation workshop outcomes/discussion (20 pages)	Project Manager (mobile sites)	Product cost/revenue analysis doc
Meeting minutes (150 pages)	Project manager (tablet)	Product specification (16 docs)
Observations notes (600 pages)	Readers (3)	Requirements documentation (8 docs)
Requirements collection and project documentation (6 docs)	Senior Experience Architects (2)	Strategy and company documents (5 presentations and 4 docs)
User testing (3 sessions)	Senior Mobile Producer	Supporting product documentation
User testing results (4 docs)	Senior Mobile Producer (tablet)	Trade press articles and tech blogs posts (48)
Wireframes current projects (6 docs)	Senior Producer	Wireframes (8 docs)
	Senior Project Manager	
	Solutions Architect	

Table 1. Data collection

Due to the nature of the research, the qualitative data analysis began early on during journal writing in the field and continued throughout the interviews and the ongoing secondary data collection process. This provided a richer analysis of the data (Ezzy, 2002), as emerging themes and insights were iteratively analyzed and discussed with participants during the data collection process and subsequently formed the basis for theoretical explanations developed through the formal data analysis phase. The formal data analysis consisted of iterative coding stages, starting with reading and re-reading the interviews and documentation and iteratively creating open and *in vivo* codes, followed by revising, abstracting and grouping the codes until prominent common themes emerged. (Ezzy, 2002). The initial data analysis phase involved over 50 codes that were abstracted to the major themes, as presented in the next section.

4 Findings: Transformation of the Newspaper at MediaNews

Over the past 10 years the scene has changed dramatically in that [major news brands] and other newspapers have jumped into the online market. It's kind of a crowded digital market in the country... [Digital] presents challenges and opportunities as newspaper circulations decline - we would never dream of launching a daily newspaper now. That enabled us to focus our energy on the digital market, which has proven pretty successful. We've built a fantastic audience in the online environment. (Managing Editor)

The Managing Editor is talking about the dramatic transformations of the newspaper genre that have changed and continue to change the news industry, the audience and society at large. Our ethnographical study of the transformation of the newspaper genre in the case of MediaNews reveals three major themes. First, the context in which news are offered to audiences is changing. Second, the

news offering itself is changing in regard to news production, news delivery, and news consumption. Third, the roles of the human and technological actors involved in the production and consumption of the newspaper are changing. Each theme plays a vital role in exposing the emergence of the digital newspaper.

First, the **context of news** is changing. Over the last two decades, MediaNews has experienced disruptive changes in the way that news are produced, presented, and consumed. This is mainly due to the shift to a "digital, online, and mobile" (i.e., digital native) society. This shift is manifested, inter alia, in the transformation of the newspaper genre from printed to digital media. While the newspaper has been offered exclusively via a print medium for nearly two centuries, MediaNews has offered print-based news content for over 60 years. In this long printed newspaper phase, the cultures of journalism and editing have been deeply entangled with publication cycle and print-technical factors (e.g., number of pages or issues). Corporate culture, including shared values and tacit assumptions (Schein 1985) of news companies such as MediaNews, has developed based on routines of news production culminating in the development of a daily print broadsheet (for daily newspapers). These strict routines and long-standing regulations gave the news publishers exclusive authority and expertise in presenting news in the perception by the largely passive audience.

However, the Internet has offered multiple channels and formats through which digital information can be communicated and accessed. As such, the Internet brought about the emergence of the online digital newspaper format for the news industry around the new millennium. Initially, digital broadsheets resembled traditional print formats, however, these early digital forms did not take advantage of the many options that digital technologies offer. Yet, the digital format enabled news companies and readers to experiment with alternative ways to report stories and find information. Over time, the digital newspaper format integrated multimedia content (e.g., interactive Flash maps) and allowed reader contributions (e.g., comments on news articles and integration with social media). Digital news allowed the reader to search for keywords, simultaneously view multiple stories, access article archives, consume news regardless of physical location, and easily change news channels. As such, the reader was no longer constrained by the traditional linear journey of a print newspaper and could engage with content in ways unpredicted by the news companies or the readers themselves. These observations are illustrated by the Digital Director and Mobile Producer:

The thing about the whole engagement and content transformation- the key feature is the ongoing update. That constant connectivity, that's what websites have and that's why we go to them for news- because we know they are, at best, a couple of minutes old. (Digital Director)

The actual engagement with news has changed somewhat, because no longer are users constrained to the desktop experience. So there is a continual engagement with the digital newspaper and it's through all channels. It's not just one channel and it can't ever just be one channel (Mobile Producer)

The emergence of digital newspaper challenged the established traditions of MediaNews in regard to the internal routines and external behaviors, expectations, and attitudes of readers and other stakeholders. These changes created a number of challenges for MediaNews, especially as the shift destabilized traditional primary income sources. MediaNews responded, as many news companies have, by developing a dedicated digital strategy. Yet, it took MediaNews over 15 years to shift from a primarily print to an equally prominent digital newspaper strategy for the given publication (i.e., from the strategy's earliest formulation to the full implementation), arguably caused by the long entrenchment of MediaNews culture with established print routines. MediaNews had numerous iterations of the digital newspaper design, including the selection of the appropriate technologies and methods of content delivery. In fact, the renegotiation of news presentation was the first substantial change to the news genre since the invention of the printing press. MediaNews' current digital strategy has required a move into a 24/7 news supply cycle because the online audience expects constant updates (e.g. global breaking news feeds). Furthermore, MediaNews is moving away from deriving revenue primarily from print ads and sales, and is instead focusing on a digital offering that extends

beyond digital news and into other digital products, such as specialized product websites. Effectively, MediaNews is redefining its identity:

There is more emphasis on the digital side of things as opposed to newspapers, and I think that MediaNews probably sees themselves as not a newspaper company anymore, but more of a technology company, alongside Google and Apple. (Designer)

Our observations of the changing processes and strategies within MediaNews support the notion that the newspaper as a genre has been strongly influenced by this changing context. MediaNews is shifting away from print, continuously attempting to leverage existing technologies and searching for the latest technological means that could help the company to gain a competitive advantage in presenting engaging digital newspaper products. Despite the initial hesitance of MediaNews to embrace the changing media, we have observed a strong drive for the company to expand their digital side.

Second, the **news offering**, that is the value proposition of the MediaNews' newspapers towards the audience, is being transformed. This transformation can be clearly observed through the differences in the content that MediaNews produced over the last decade. We have observed the print offerings to be heavily reliant on both journalistic content and print-technical requirements. Hence, we have found the print offering to be based on the nature of written articles, the added material within the newspaper (e.g., inserts, catalogues, TV guide), the predictability of the format and presentation allowing for a linear reader journey, and an inherent reputation for providing expert opinions. In contrast, we have observed the digital newspaper offering to be focused on the content, variety of information available, reader experience, and design. We have found the digital offering to be constituted by the quality, quantity and reader-tailored nature of news content, the design and layout of the news presentation in the website or app, the usability that allows for a non-linear user journey, and a reputation of providing innovative, media-rich news. However, despite a large proportion of MediaNews journalistic content still being developed for the print format and being re-used for the digital newspaper, there has been an observed shift for media tailored content. Hence, the quality of the content can be considered equal between print and digital, yet the digital offering currently focuses more on the immediacy, relevance, quantity and presentation of content instead of the brand focus of the content itself. In the words of the Senior Product Manager:

There's a kind of basic layer of news and basic information that people are looking for and that's regardless of whatever channel you're on, whether that's printed editions, mobile phone, tablet. So fundamentally you've got that basic layer of information and then on top of that you lay things that are specific to the channel that you're using to distribute that content.

Furthermore, we observed a range of clear dichotomies within MediaNews regarding print newspaper vs. digital newspaper (and the respective parts within the company). The print side is heavily engrained in a journalistic and editorial tradition, while the digital side is focused on experimentation and new consumption possibilities. Furthermore, this dichotomy was found in the different views within MediaNews regarding whether pure “news” (as opposed to “expert opinions”, etc.) can or should make revenue (vs. non-for-profit modes), whether the print tradition should be maintained (vs. setting focus the digital news genre), and whether content should be tailored to a specific medium (vs. separating content and presentation). The conflict between maintaining tradition and driving innovation appears to have not yet been fully resolved, however, with the transformation and consolidation of the inherent conflicts observed as being of significant importance for the newspaper genre. The practice of journalism has been constantly changing and it is through such conflicts and challenges that the practice has been transformed in unpredicted ways.

Journalism will spread it's wings in all sorts of directions, whether it's an aggregator or in the business of creating curated content... a lot of things will come and go and a lot of things will stick for a while and fade away. (Managing Editor)

The current major problem faced by MediaNews is how to generate revenue in the digital realm. Traditionally, print news could be capitalized by selling ads and the physical newspaper itself. Now, a number of strategies have been developed by MediaNews to drive revenue from digital news. These

include pay walls, marketing campaigns, ads, and subscription bundles. While these strategies have been relatively successful in increasing the profitability of the digital side of news, to a degree it still continues to be seen a “poor cousin” to print and has often been neglected in priority of product development: *The newspaper industry hasn't tried very hard to go digital. They've been more or less dragged into it- 'I've got to be there'... They've got to do it, so they're doing it. (Senior Experience Architect)*

While there still is a reluctance of the print side of MediaNews to innovate through emerging media, digital markets are now seen as the future of the business. As a result, MediaNews has included mobile apps and social media features in their digital news offering, which have been heavily promoted in their print counterparts.

Third, the **roles of actors in the news genre** have changed in the transformation of the print newspaper to the digital newspaper. The human and technological actors involved in the production, presentation, and consumption of news have undergone significant interwoven transformations. For instance, MediaNews journalists have changed their newsroom practices to create content for digital products, such as video journalism, moderating user comments and curating multimedia content. The roles of other MediaNews employees involved in the design and production of the digital newspaper have undergone similar transformations. Furthermore, the consumers of news underwent observable changes through their involvement with the digital newspaper. The traditionally passive consumer role changed into a more active “prosumer” role. Consumers are now more actively involved with the newspaper artifact by posting content, commenting, rating, and sharing via social media. For instance in an interview, a reader illustrates how the emerging digital newspaper has changed the role of actors:

I influence the newspaper two fold. I have direct influence on the newspaper company via the channels that they created, such as feedback mechanisms in the web portal or Twitter accounts. And the second is that I rely on search optimization. So when I click on an article, I assume that I'm doing my little bit to help the news company realize what they should be publishing. (A Reader)

Similarly, technology plays an increasingly vital role in the success or failure of a product in engaging the readers. MediaNews largely failed in attracting an audience (and hence revenue) with newspaper format based websites in the early stages of their digital strategy (2001-6). The brand owners identified issues regarding technical components and usability, as well as poor use of the medium, as the reasons for failure. Yet, as the digital market grew in prominence, the role of technology, channels and media came under scrutiny within the company. The digital division has expanded through acquisition of technology assets and expertise (e.g., hiring of usability experts, updating the content management platform) and was able to create a technologically innovative offering that made a significant positive impact on the reception of digital newspapers (e.g., MediaNews was widely recognized for launching one of the first iPad news app on their Australian home market). Initial positive user reviews of the app triggered a positive network effect regarding new users. MediaNews began to place priority on a consumer-integrating strategy that had digital products adhering to audience needs and quickly embracing innovate the digital newspaper technology.

I've been able to greatly influence the direction we've taken, things that we're doing. Of course that's in collaboration with the rest of the team [...]I've talked [with] product manager or product owners within the mastheads themselves. You know, to try to take all those bits and pieces and put them into the final framework of what we are delivering. (Mobile Producer)

The changing roles of people, reflected in the updates and changes to products, altered the relationship between human actors and the digital newspaper artifact. Project managers, user experience architects, developers, testers, business analysts, and digital directors, all stated that they influence and change the digital medium while at the same time it changes them and reconstructed their role. For example, we could observe how new technologies and changed user expectations lead to a new design of the digital newspaper. In this process, the responsible product manager and digital director created a strategy for implementing a new digital newspaper design. In addition, journalists, editors, and readers gave continuous feedback based on ongoing engagement with the product, which lead to continuous iterations of the artifact definition and design. Thus, the consumers and producers of news content, as

well as the technologies that act as a medium between the two, have become intertwined and, as such, have played an equally vital role in the transformation of the digital newspaper.

5 Discussion: The Fusion of Genre, Medium, and Content

This study set out to advance the understanding of the nature and emergence of the digital newspaper genre and the role of the medium in its emergence. As such, the fundamental changes identified above (i.e., change of the context, change of the offering, change of the roles of actors) occurring to the newspaper have transformed the genre. Although this transformation can be discussed from a variety of theory perspectives, we chose to interpret it in regard to two substantive dimensions. The first dimension is the nature of the medium. While the print newspaper genre takes a medium-specific form of the genre, the digital newspaper genre as a digital artifact allows for the development of medium-independent forms of news. The second dimension is the communication and involvement between actors, which are transformed from interaction to "intra-action" (Barad, 2003; Orlikowski, 2007; Orlikowski and Scott, 2008; Suchman, 2003). Thus, these two dimensions define a semiotic square in which the transformation of newspaper genre can be theorized (see Fig. 1).

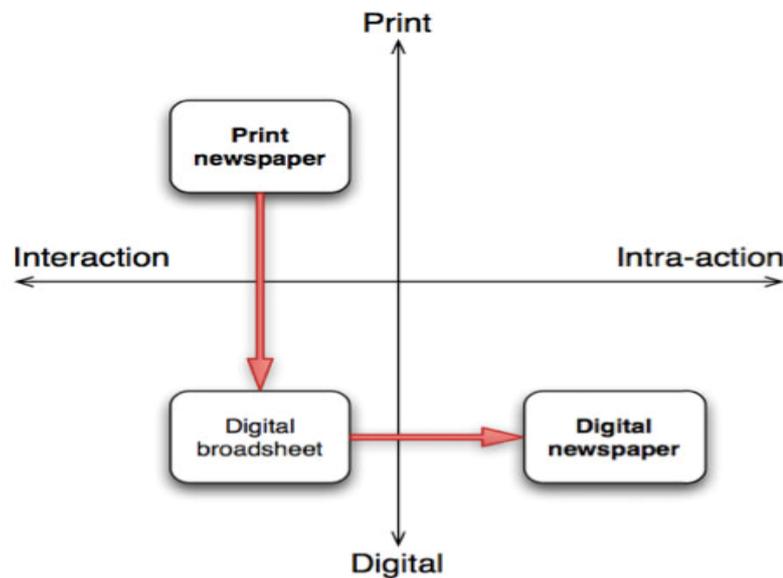


Figure 1: Transformation and changing nature of the newspaper genre

The first dimension refers to **transformation of the newspaper artifact from print to digital**. This transformation is enabled by technological advances, such as the Internet in general and social media (Kaplan and Haenlein, 2010) in particular. Overall, the resulting emergent forms of communication are quite disruptive to the newspaper genre. They change the nature of how news are presented and consumed, the relationships between consumers and producers are redefined, and the way meaning is conveyed through the genre's artifacts is altered. The traditional printed newspaper has been defined as a "socially constructed interpretive convention that bridges two sides of communication" (Brown and Duguid, 1994). Yet, we discern the newspaper genre being re-defined through the digitization of the newspaper artifact that resulted in a deeper entanglement between medium and actors. As a digital artifact is a collection of material and cultural properties in a socially recognized form used to convey meaning (Orlikowski and Ianoco, 2001), the newspaper artifact has logically transformed from the print newspaper to the digital newspaper via the intermediary digital broadsheet. The digital broadsheet seemed inevitable, as it simultaneously embodied the characteristics of print (e.g., style and layout) and digital (e.g., non-linear navigation and accessibility through the mediator of technology). Eventually, the newspaper artifact changed from the digital broadsheet format to the pure digital

newspaper. Ihlström (2004) argued that changes in newspaper genre resulted from the change in communication between author and audience. Through our study, we add to this that *the medium itself is both the driver and the object of change of the newspaper genre and, subsequently, the artifact.*

As such, changes in the digital newspaper artifact have triggered changes in the newspaper genre; changes that in turn transform the newspaper artifacts and the actors that participate in their creation and consumption. Furthermore, McLuhan's (1967) statement that the "the medium is the message" is relevant in the sense that the method of news consumption is dependent on and changes with the context of the users and the medium through which news are presented. For example, MediaNews found that consuming news on iPad was linked to a more in depth prolonged and pleasurable experience, while consumption on a smart phone was reserved for quick, frequent browsing (i.e. 'snacking' of ad-hoc information or breaking news). In fact, the actors engaging with the digital newspaper artifact conveyed a specific message through selecting a specific medium, regardless of the content consumed. While it is a valid assumption that content matters in the communication between author and audience, our research shows that *the medium matters* as well. The medium plays a vital role in conveying a message to the audience and thus is essential in the creation and interpretation of meaning through the digital newspaper genre.

In addition, the notion of news as a reflection on past events to a passive audience changed through the digital newspaper artifact, which is ubiquitous and increasingly allows for the continuous interaction of actors, content, and technologies. In other words, the newspaper in its transition from print to digital is a sociomaterial phenomenon "all the way down" (Orlikowski and Scott, 2008). As a sociomaterial configuration, the *digital newspaper represents the dense, dynamic, and ubiquitous entanglement of the technological and social*, unrestricted by temporal, spatial, and physical boundaries.

The second dimension refers to the **change in nature, that is, from interaction to intra-action, of communication and involvement between the news producers and consumers.** The print newspaper genre is characterized by a rather one-way communication from author to reader. While a print newspaper does not allow feedback (or, restricts this feedback to the odd reader's letter) because the medium itself is restricted to passive interaction, the affordances of new media removed this restraint. Initially, the digital broadsheet replicated the print newspaper in digital form and did not take full advantage of the technological possibilities of the digital medium. Conversely, within the digital newspaper, we discern a multi-directional communication in-between authors, between authors and audience, and within the audience, all via the digital newspaper artifact. In this sense, the digital newspaper genre showcases a sociomaterial fusion of the medium, the content, and the actors. The digital newspaper allows the reader to communicate with the news producers directly and indirectly through reading articles, commenting, providing feedback on the newspaper medium, and sharing the news through social media (e.g., using the newspaper's microblogging account or their own social media channels). While it is the individual's decision to actively participate in the medium, the digital medium enables and encourages this wide participation while the print medium does not. Thus, the increased entanglement of readers, producers, content, and media in the digital newspaper represents a transition from interaction to intra-action (Suchman, 2003) for the newspaper genre. This notion echoes Benkler (2006, 2011) and Von Hippel's (2006) arguments of technology mediated retreat from consumers to prosumers.

6 Conclusion

Adopting a sociomaterial perspective, this study presents a new concept of the digital newspaper genre as a fusion of medium, content, and actors. The study contributes to the body of knowledge concerned with understanding the emergence and transformation of the digital newspaper by taking a genre-theoretical lens on the issue. The theoretical contribution of the study is in extending our knowledge regarding the role of the medium and actors in the emergence and transformation of digital newspapers by providing an argument based in the genre theory. We conclude that the medium is crucial in the transformation of the digital newspaper genre, that is, the medium is both the driver and the object of change. Furthermore, we conclude that the emergence of the digital newspaper genre

represents a transition from interaction to intra-action between heterogeneous actors. Both conclusions account for the dense and dynamic entanglement of the digital and social in this genre.

Our theoretical conclusions are based on an ethnographical study of MediaNews that included several months of observing and participation in projects, meetings, and daily routines of newspaper production. Our empirically findings in the MediaNews case reveal three major themes in changes in the print to digital transition of the newspaper genre: The internal and external context in which news are offered to audiences is changing, the news offering itself is changing, and the roles of the actors involved with newspaper genre are changing.

In addition, this research has implications for practitioners by providing a better understanding of the emergence and transformation of the digital newspaper. Newspaper companies, in particular, need to account for the emerging re-creation of actors' roles regarding both producers and readers. In addition, companies need to reflect on their changing practices implicated in the transition to digital newspaper and changing relationship with readers, whether they are consumers or prosumers. These two elements are crucial in the development of a digital strategy that includes new or adapted practices, organizational forms, business models, and, consequently, their identity as a company. For instance, business leaders in past cases that were most successful in managing their companies transition to and the emergence of the digital newspaper have often moved to the digital side of the dichotomies discussed, through such strategies as by completely separating (often outsourcing) print functions and redefining their journalistic and editorial practices (Carr, 2011).

To further enhance the theoretical understanding of the digital newspaper and digital genres more broadly, we suggest future studies to continue investigating the changes to producers, consumers (prosumers), artifacts, newspaper, content and media that result from their continuous entanglement. The understanding of digital genres as a fusion of medium, content, and actors will offer useful insights that can inform future genre theory studies. Furthermore, it will be interesting to explore the longitudinal changes in the news industry resulting from this fusion. Future research should also include the changing role of consumers (i.e., to prosumers) and the way they play an ever expanding role in the transformation of the digital newspaper artifacts and genre. It is vital to understand that the digital newspaper genre does not seem to be the final news genre to emerge: the genre is further evolving towards a *digital news genre* that has little resemblance to the notion of a newspaper, however may be no less effective in facilitating communication between author and audience. Finally, it will be fruitful and relevant to expand IS research to better understand the nature of and theories regarding the new digital genres as they emerge in the future.

In summary, the study contributes to current understanding of transformation of digital newspapers through genre theory (Ihlström, 2004; Åkesson, 2009; Ihlström and Henfridsson, 2005; Eriksen, 1999; Watters and Shepherd, 1997) as well as to the literature on the increasingly participatory roles of actors, including consumers, in regard to technology artifacts (Benkler, 2007, 2011; Howe, 2009; Whitla, 2009).

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