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# Ambidexterity under Digitalization

## *A Tale of Two Decades of New Media at a Swedish Newspaper*

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The digitalization of the newspaper industry represents a significant challenge for incumbent companies to engage new technologies. Many companies in the industry have had to seek new markets through digital technologies to survive. This paper explores how one of the largest Swedish newspapers, Aftonbladet, has strategically embraced new media and new markets. We report a decade of engaged scholarship based on interviews and archival analysis that covers 20 years of strategic acts at the company. We consider this effort as a case of organizational ambidexterity under digitalization. The analysis seeks to extend theoretical understanding of the interrelationships between strategic intent and technological choice. The paper contributes to the understanding of ambidexterity under digitalization by theoretically framing it in terms of strategic acts. The research suggests that digitalization implies a more complex ambidexterity interrelationship between old and new markets and technologies. As digitalization enables the loosening of previously tight couplings, the clear theoretical distinction between old and new, and critically, the unproblematic transition, is brought into question. The paper suggests replacing the notion of an orderly shift from the old to the new with ambidexterity under digitalization as a duality of both old and new undergoing continual reconfiguration.

Keywords: Digitalization, Organizational Ambidexterity, Strategy, News Publishing, New Media

## 1. Introduction

Long-term survival is one of the most serious issues for any organization to deal with. In the literature, survival has been directly associated with the ability of the organization to adapt to environmental change. It has been particularly argued that a balanced approach must be adopted when seeking to shift from an existing market situation to a fundamentally different one, requiring change of the overall strategy for success and/or the very nature by which the organization operates. Grounded in March's (1991) characterization of organizational learning, ambidexterity describes the challenges of concurrently *exploiting* existing markets and technologies to make the most of what works now, while at the same time *exploring* new markets and new technologies as the organization seeks to benefit from important future opportunities. Organizations that are able to master such feat of simultaneously looking down and ahead are deemed to be ambidextrous (O'Reilly III and Tushman, 2004; O'Reilly III and Tushman, 2013).

The widespread digitalization of business environment raises the issue of how to make sense of the impact of digitalization on organizational survival efforts and how to carefully manage the associated transitions. A common theme embedded in terms such

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<sup>1</sup> Carina Ihlström Eriksson passed away before this article was completed, on October 11<sup>th</sup>, 2017.

as digital innovation, digital disruption, digital convergence, and digital transformation, is that the abilities of different companies to compete when digitalization alters the dynamics of core technologies and core markets shift. This can, for example, be characterized in terms of loosening the coupling of elements previously tightly coupled, resulting in more open-ended possibilities for recombination and reprogramming of elements, and reorganization of activities (Tilson et al., 2010; Yoo et al., 2012; Kallinikos et al., 2013).

This paper explores ambidexterity in transition to a digital business environment within a large media organization — the Swedish newspaper Aftonbladet. The specific aim is to explain the pattern of ambidexterity under digitalization with a theoretical stance towards the strategic choices and ability to carry these choices through by using new technologies (Marabelli and Galliers, 2017). A great deal of research has been devoted to the study of organizational ambidexterity, as for example reviewed in a special issue of *Academy of Management Perspectives* (Birkinshaw and Gupta, 2013; Junni et al., 2013; O'Reilly III and Tushman, 2013). However, the specifics of digitalization do not appear at the level of theoretical constructs. This is despite of the essential role of new technologies in the formulation of the strategic imperative for organizations to become ambidextrous. More generally, whilst anchored in the normative assumptions of an orchestrated transformation from old towards new, little or no research has sought to formulate the process of how organizational and technological choices are imbricated.

Strategic actions concerning a managed transition from old to new technologies form the core of organizational ambidexterity. Therefore, this paper studies the strategic acts that are used as a response to the challenges a news organization faces when seeking to migrate from paper-based to digital business arrangements. We explore two of the core assumptions implicit in the ambidexterity literature: the importance of technology as a core-element and the managed transition from one state to another in the shift from the old to the new. This is achieved by addressing the following question: *How can the process of organizational ambidexterity under digitalization be characterized?*

The media industry is particularly susceptible to the effects of digitalization, which affect the whole chain of production, distribution and consumption of media. The transition from old to new media not only serves as an excellent case of the ambidexterity challenge; it specifically also provides a case for the investigation of organizational ambidexterity under digitalization. We investigate a large Swedish newspaper's 20-year long process aimed at migrating from a traditional print-based newspaper to a digital media company. This is done through secondary analysis of a large corpus of material collected over the past ten years in action research projects with the newspaper. The material covers a 20-year span of the newspaper's attempts to shift from a print-based news organization towards a new digital media company.

The paper contributes to the theoretical understanding of organizational ambidexterity under digitalization by analyzing the longitudinal process of Aftonbladet seeking to apply digital technologies and new organizational arrangements through a series of strategic acts. As a result, we suggest a re-evaluation of ambidexterity under digitalization. Instead of a clear distinction between structural ambidexterity at the organizational level and contextual ambidexterity at the level of individuals, we suggest a more complex organizational view in which ongoing relationships between the old and the new imply constant balancing between a variety of elements that need to be recombined in new ways. Rather than forming an orderly transition in which there is a state to be moved from and one to be aimed for, e.g. from paper format to digital (a dualism), ambidexterity is seen as a duality where the old and the new are mutually

defined and constitute each other. The resulting shifts comprise of a complex mix of contextual triggers, strategic acts, as well as both organizational and technological changes. Finally, as the case of USA Today was included in O'Reilly and Tushman's (2004) original HBR paper on organizational ambidexterity, we have a means of directly comparing between the application of the theoretical constructs across two similar domains.

The paper is structured as follows. Section 2 outlines research on organizational ambidexterity and the digitization of the news industry. Our chosen research approach is presented and discussed in Section 3. Section 4 presents the analysis of 20 years of strategic acts on digitalization within Aftonbladet. Section 5 discusses the findings and outlines our contributions, and Section 6 concludes the paper.

## **2. Research on Ambidexterity and the Digitalization of News**

### ***Organizational Ambidexterity***

The organizational processes involved in the exploration of new possibilities and the exploitation of current practices are quite different and impose resource allocation challenges (March, 1991). Furthermore, adaptive processes tend to favour the latter over the former and as such can be short-term effective, but destructive in the long-term (March, 1991, p.85). The discussion of trade-offs in organizational learning processes between exploitation and exploration, and the necessity of concurrently pursuing both, has been formulated as the problem of organizational ambidexterity (Tushman et al., 1996).

A significant body of literature over the past two decades has approached the study of organizational ambidexterity as the ability to concurrently meet contradictory environmental and technological demands and can be summarized as; “*The ability to simultaneously pursue both incremental and discontinuous innovation [...] from hosting multiple contradictory structures, processes, and cultures within the same firm*” (Tushman et al., 1996, p.24). Since the mid-90's, a large number of quantitative and qualitative studies have explored a great variety of aspects of organizational ambidexterity, showing that ambidexterity increases firm performance especially when firms are experiencing environmental uncertainty. This is also the case for large firms with ample resources (O'Reilly III and Tushman, 2013). Ambidexterity has been explored in a diverse range of research projects, for example; formulating the structural ambidexterity perspective (O'Reilly III and Tushman, 2004); exploring the reliance on individual discretion in achieving ambidexterity (Birkinshaw and Gibson, 2004; Gibson and Birkinshaw, 2004); defining effective team mechanisms for achieving organizational ambidexterity (Jansen et al., 2009); challenges for product design balancing existing and new capabilities (Andriopoulos and Lewis, 2010); linking ambidexterity to firm performance (He and Wong, 2004); and exploring the organizational ambidexterity of concurrent business models (Markides, 2013).

Several papers review the body of research in organizational ambidexterity. Raisch et al. (2009) discuss the issue of ambidexterity through integration or differentiation; what level ambidexterity occurs at; whether the organization needs to assume a static or dynamic perspective; and how ambidexterity relates to internal and external processes. Junni et al. (2013) discover in their meta-analysis strong ambidexterity-performance relationships in non-manufacturing industries and at higher levels of organizational analysis. Birkinshaw & Gupta (2013) chart the evolution of ambidexterity research and

call for greater focus. O'Riley & Tushman (2013) echo this call for clarity and suggest that the concept is more closely linked to the long-term survival of the firm and to the actions taken by firms and managers when facing such threats. They summarize the ambidexterity literature in terms of three proposed kinds of ambidexterity: 1) Sequential ambidexterity where exploration and exploitation take turns and can be characterized as punctuated structural changes; 2) structural ambidexterity where both exploitation and exploration are simultaneously sought through structural arrangements where different sub-units, competencies, systems, incentives, processes and cultures are assigned different responsibilities (O'Reilly III and Tushman, 2008); and 3) contextual ambidexterity (Gibson and Birkinshaw, 2004) where the resolution of the tension between exploitation and exploration is delegated to individuals within the organization.

While a wide range of research has applied the concept of ambidexterity – sometimes beyond the useful scope of the concept (Birkinshaw and Gupta, 2013) – it can be argued that the core of this concept is directly related to overall firm performance and ultimately is a matter of firm survival (O'Reilly III and Tushman, 2013). O'Reilly & Tushman (2013, p.17) further argue that the most appropriate theoretical frame from which to investigate organizational ambidexterity is that of dynamic capabilities, thus rendering the issue as: *“reflected in a complex set of decisions and routines that enable the organization to sense and seize new opportunities through the reallocation of organizational assets”*.

The body of literature on organizational ambidexterity has so far investigated the issue of organizational digitalization only in a fairly limited sense (Tilson et al., 2010). Tripsas (2013) studies Fuji and Polaroid's different responses to the threat of digitalization and documents the damaging impact of Polaroid's inability to escape an existing identity of a producer and distributor of boxes. Gilbert (2005) studies resource and routine rigidity in eight newspapers faced with the threat of digital news distribution back in the early 2000's. He found that despite the perception of an imminent strategic threat led to the mobilization of resources, the newspapers were not able to effectively use these resources due to routine rigidity with ineffective allocation of resources between the old and new business areas and lack of experimentation. Gilbert points out that outside influence was the main instigator of structural changes. O'Reilly & Tushman (2013, p.332) discuss this study and make comparisons with their study of digitalization at USA Today (O'Reilly III and Tushman, 2004). They point out that the leadership challenge in allocating resources between the new and the old is a critical ambidexterity challenge seldom researched. They further point out that their study of USA Today's transition from paper-only to also include web-based news distribution illustrates different structural arrangements between the old and the new business areas.

### ***Studies on Newspaper Industry***

Newspapers, as we know them today, have been printed on paper since the beginning of the seventeenth century. Since the Second World War, the global print newspaper market has been stable and, except for the evening press, very few new newspapers have been established or shut down. In fact, the newspaper industry has up until recently existed in an undisturbed business environment and has been very profitable over time compared to other industries (Picard, 2006). However, during the past few decades, newspapers all over the world have experienced a decrease in print circulation and a decline in advertising revenues, as readers and advertisers are turning to digital media (Picard, 2006; Christensen et al., 2012; Weber and Monge, 2017).

Newspaper production was traditionally divided into specific departments and news

production roles. However, digitalization of the newspaper industry has led to notable changes in such organizational structures and production processes. Since the start of digital publishing in the mid-90s, many newspaper organizations have continuously re-organized in order to integrate digital publishing into their core news publication. Many newspapers initially chose to organize their online activities separately from the printed news/editorial and advertising departments, and then gradually integrating digital activities into the traditional print departments. Moreover, as new digital technology and media emerged, 'print' and 'digital' developed into umbrella terms, where 'digital' included media such as TV and radio, e-commerce initiatives, and later social media and mobile applications, whereas 'print' included the traditional printed newspaper media. At the same time, the production processes and the organization of newsrooms have changed (Cottle and Ashton, 1999; Dupagne and Garrison, 2006). From having specific roles and assignments, the introduction of digital multimedia has brought new roles within newspaper organizations, as new production systems, increase of publication formats for different platforms, introduction of the podcast, web-TV, and other interactive features have called for additional skills. For example, traditional roles such as editor, reporter, journalist, photographer, designer, and advertising sales personnel, now work alongside social media managers, big data analysts, and TV reporters, to name a few. As an example, Grafström & Windell (2012) study the changing media landscape where novel actors, such as professional bloggers, are incorporated into existing news production processes. In sum, the convergence of technology, media and organization brought by digitalization has changed the news production as well as the culture in the newsroom (Dupagne and Garrison, 2006; Erdal, 2007).

Many newspapers have not been able to explore new digital businesses at a pace required for the transition from a print based to a digital business. They have not ignored the importance of digital technology altogether, but the transition has been too slow (Weber and Monge, 2017). Some scholars argue that this is due to the industry being infatuated with its historical success, which has consequently resulted in an inertia in exploring digital business (see e.g. Boczkowski, 2005; Picard, 2006). Several scholars have begun exploring this inertia and identified ways in which newspaper organizations can overcome it and exploit these new opportunities. Gilbert (2005) studies the inertia by exploring digital opportunities across eight newspaper organizations in terms of resource- and routine rigidity. He suggests that they bring in management with experiences from other industries, as well as to separate new ventures, as ways of resolving the inertia. Moreover, as pointed out by O'Reilly & Tushman (2004) in the study of USA Today, a newspaper organization's capability to exploit the opportunities afforded by digital publishing depends on its ability to reinvent itself in parallel with exploiting the incumbent print business. Christensen et al. (2012) provide similar conclusions based on an analysis of the newspaper industry, suggesting that the industry must re-invent itself in order to survive. According to a study of the digitization of media (Appelgate et al., 2012), the pace of change in the digital business makes it very challenging to compensate for the declining revenues from print media with new digital business.

Digital publishing persistently requires new shifts in technological expertise and competence across a variety of new areas. This digital force continuously disrupts the fundamentals underlying newspaper business models, and challenges the culture and core identity of newspaper organizations (Åkesson and Ihlström Eriksson, 2009). The current pace of digitalization is faster than anyone could have originally anticipated (Christensen et al., 2012). Despite this, even though newspapers have been under

disruptive change since the mid-90s, they are still struggling with the strategic challenges of digitalization and long-term transformation (Weber and Monge, 2017).

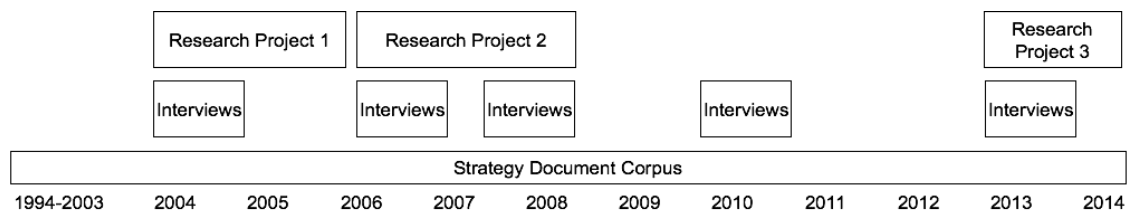
### 3. Researching 20 Years of News Digitalization

Our study is a response to the call for new approaches studying the dynamic evolution of ambidextrous organizations (Raisch et al., 2009, p.27-28). We have studied the dynamic evolution of an ambidextrous organization through ongoing data collection, rather than the traditional survey approach, which is less suitable as it relies too heavily on respondent recollections if used as the only source. Our study can thus be viewed as a longitudinal case study of the new media strategy-making process within Aftonbladet, much in a similar manner as Burgelman’s (2002) study at Intel. At the same time, our study forms a part of a much broader effort involving action research elements across a number of newspapers across Sweden, UK, USA and Japan.

Our study is a longitudinal case study of organizational change (Glick et al., 1990; Pettigrew, 1990; Van de Ven and Huber, 1990) and digitalization with elements of engaged scholarship (Van De Ven, 2007). The research covers a variety of action research styles (Mathiassen et al., 2012), with the current publication aiming at contributing to the theory development on the relationships between digital innovations and organizational ambidexterity. The study of Sweden’s largest tabloid newspaper, Aftonbladet spanned from 1994 to 2014. Aftonbladet was one of the first newspapers to have an online presence and have since then become the dominant digital newspaper readers with 4.889.000 mobile readers per week, 3.297.000 weekly web site readers, 883.000 web-TV viewers, and a daily paper edition of 584.000 copies per day. The total daily reach in digital media is 41% of the Swedish population between 16 and 80, and the total reach for print is 7% of the same age group. (Source: Orvesto November 2017).

#### Data Collection

Three primary data sources are illustrated in Figure 1: (1) *three large action research projects* where Aftonbladet participated, (2) *interviews* with top management at Aftonbladet that were conducted between 2004–2014, and (3) a *document study*, including internal strategy documents, blogs and public statements covering the duration of the study from 1994 to 2014. The use of multiple sources allowed us to triangulate themes and validate the findings regarding strategic acts over a 20-year period.



**Figure 1.** Overview of data sources

#### (1) Research projects

Aftonbladet participated in three different research projects together with 7–9 other newspapers. In all projects, participants from the different newspapers participated in working group meetings on a regular basis (see Table 1) discussing various topics relevant for the digital journey of newspapers. The participants in these working groups

were from top management as well as from operational staff from different departments and functions. In these research projects the first and third authors were actively engaged in strategic discussions, digital design experiments, exploration of new digital business opportunities, and user-tests. All project activities were documented in detail with audio recordings, video recordings, observation protocols, meeting notes and by archiving of company documents.

## (2) Interviews

The data from interviews with Aftonbladet staff is the primary data source in this study. Every other year since 2004, the first and third authors conducted highly focused semi-structured interviews with top-management. These interviews were conducted as part of research projects, supplemented with additional interviews between projects. The goal with these interviews was to understand the strategizing of digital news media at different points in time. When interviewing, protocols with key-questions were followed and repeated through the 10 years with the inclusion of specific questions relating to project goals. Furthermore, some of the respondents gave detailed descriptions of the digital journey of Aftonbladet since 1994, as they were part of the journey from the beginning. All in all, 13 interviews were conducted (see Table 1). There were three different CIOs during this time period, and some of the respondents were interviewed several times. Each interview lasted between one to two hours, and in some cases, they were longer and turned into more informal conversations. All interviews were recorded and transcribed.

## (3) Document study

The annual reports of Aftonbladet also constitute an essential part of the data corpus for this paper. In addition, we were given access to internal strategy documents covering the period from 1994 to 2011, as well as internal staff information concerning new strategic initiatives, new policies, and educational material for digital competence development. Public statements have supplemented the internal documents. Aftonbladet has continuously published news on their digital ventures in the form of news articles, blogs, tweets, etc. A collection of these were used to verify the timing of key events.

## ***Analysis Approach***

Longitudinal data can be seen as a particular kind of process data. We have focused on understanding the twenty-year long process of digitalization in terms of primary strategic events (Langley, 1999). The focus is on primary strategic events when Aftonbladet engaged in a process of exploring digital strategies through, for example, significantly investing in digital technology to deliver content to news consumers. The study of Aftonbladet represents a similar challenge to Brix's (2017) longitudinal study of organizational innovation. However, our study focused on strategic acts at the organizational level, and also placed technological transformation at the core, rather than organizational learning.



	#	Respondent role(s)	Occations
INTERVIEWS	A	Editor in Chief - digital	2004; 2006
		Head of New Media	2008; 2010
	B	Head of Layout	2004; 2006
	C	CIO (1)	2006
	D	Sales Director	2010
	E	CIO (2)	2010
	F	Editor in Chief - paper	2010
	CIO (3)	2012; 2013	
	G	Marketing Director	2013
WORKING GROUPS	A	Editor in Chief - digital	2004; 2005x2; 2006x2
	B	Head of Layout	2004; 2005x3; 2006; 2007x5; 2008x11
	H	Head of Editions and Analysis	2004
	I	Head of Editorial Development	2004
	J	Manager Commercial Services	2006; 2007x4
	K	Head of Mobile Service Development	2006; 2007x4
	L	Technical Coordinator	2007x3; 2008x6
	M	System Administrator	2007x3; 2008x6
	N	Creative Director	2013x4, 2014
	O	Business Director	2013x3
	P	Sales Director	2013x3
Q	Head of Online products	2013	

**Table 1.** Interviews and working group discussions

The analysis of the process data follows the general principles of temporal bracketing (Langley, 1999). Temporal bracketing allows identifying patterns of events and activities, recurring over time within the same case history (Langley et al., 2013). This permits to analyze the procedural dynamics in the form of phases and enables the identification of theoretical mechanisms over time. In our study, we have analyzed the procedural dynamics over the 20-year period as strategic acts and remedial activities and the triggering mechanism behind these acts and activities, organized in six phases of digitalization.

First, we thoroughly familiarized ourselves with the collected data. By employing a process of comparison among the documents, interview transcripts, and recordings of group meetings, we sought to identify distinct phases (here episodes) of Aftonbladet's 20-year digital journey. In this process, we used open coding to identify key events based on digital strategic initiatives at Aftonbladet aimed at engaging the newspaper further in the distribution of digital news. The key events were organized chronologically between 1994 and 2014. The chronologically organized material was then divided into episodes of digitization based on the changes in digital strategy. This yielded six strategic episodes of particular significance for the transition from paper-based to digital news distribution: 1) the Internet episode, 2) media house episode, 3) print and digital divide episode, 4) experimenting with digital media episode, 5) the digital first episode, and 6) the transformation episode.

The second step of analysis was done to uncover the reoccurring pattern of events and activities, and to identify triggering mechanisms recurring over time within each of the six episodes. This step involved analyzing the relationships between the exploitation of and exploration by examining the key triggering events for strategic acts, the associated organizational and technical challenges, and the remedial actions of abandoning or accumulating digital initiatives. This process resulted in 21 triggering events (see Table

2), and the identification of the recurring pattern of abandoning and accumulating remedial actions over time (see Figure 2).

#### 4. Digital Strategic Acts at Aftonbladet

This section presents the 20-year digital journey of Aftonbladet through six phases that emerged from our analysis. We refer to the respondents with the letters assigned in Table 1 as (A), and we refer to the 20 triggering events that were identified in numeric order as {1}. Finally, in Table 2 we summarize the analysis of triggering events, strategic acts, organizational/technological challenges and remedial actions.

##### **Phase 1: Internet (1994-1998)**

The digital journey of Aftonbladet started in 1994. Aftonbladet was contracted to produce a teletext TV feed for a TV company {1}. Aftonbladet decided to take the opportunity to explore digital publishing, but the existing distribution technology did not support digital distribution. With the aid of an IT consultant, Aftonbladet took action to design software that could convert these teletext feeds into web pages. During this period, the executive steering board went on a business trip to the USA, and was introduced to a new technology - the Internet. The news director observed that electronic news was an upcoming trend and was convinced that the Internet was the future of news publishing, and subsequently managed to persuade the editor-in-chief to start experimenting with on-line publishing {2}. As a result, the teletext system was rebuilt to support web protocols. A small group of six people loosely organized worked with an online edition of the printed culture section, and on the 25th of August 1994 the first online edition of the culture section was published. One of the initial online editors said: *“We realized very early that if the Internet was good for anything, it was for news publishing”* (A). In January 1995, Aftonbladet launched its first regular online news service.

In the summer of 1995, the teletext contract was terminated by the TV company {3}. As a consequence, Aftonbladet lost the budget to produce content for the online edition, and the news site was shut down. After the summer Aftonbladet decided to start up the news site again. Two of the online news editors pushed for web publishing and were allocated a modest budget {4}. The Aftonbladet spirit was to try, evaluate, and learn. One of the online editors at the time described their experimental approach: *“We made a lot of mistakes but reacted quickly, we did a lot of things right as well, and kept those. We built up our competence and our online organization organically.”* (A). This organic growth was also reflected in how staff was recruited from the print part of the organization. Recruitment was based on identifying individuals with interests in and curiosity about web publishing.

By 1996, digital technology had advanced to support web-TV {5}. Aftonbladet decided to experiment with web-TV, but the publishing system did not support this technology, and the system was therefore expanded with web-TV technology. The first web-TV clip was shown in 1996 announcing the Nobel Prize winner of literature. In 1997, daily web-TV of sport news were published. At the time, the online edition was not profitable, and it was not accepted as serious journalism within Aftonbladet’s editorial organization. However, by 1996 the online audience was increasing radically and this gave hope of attracting advertisers {6}. Aftonbladet decided to capitalize on web advertising, and rebuilt the web system to support digital advertising. A sales manager for advertising was recruited from the print organization. This was the start of selling online advertising.

In 1997, a sports company placed the first large online advertising order. The audience's interest for web-TV was, however, low due to limited technological capacity {7}. The Internet infrastructure did not enable high quality web-TV presentation at the time, and Aftonbladet therefore reduced their web-TV efforts. As the advertising revenues were increasing at the end of 1997 {8}, the board of directors recognized digital distribution as a future opportunity. Digital distribution was further explored and to increase the capacity of digital distribution, new technologies and competencies were mobilized through acquisition of small and specialized tech-companies.

### ***Phase 2: Media House (1998-2000)***

As a response to the advancement of digital technology and as an opportunity to offer a range of publication channels {9}, Aftonbladet formulated a new strategy in 1998. This was the start of the media house strategy, and for the first time, online publishing was formally included along with print publishing in the main strategy.

The strategy was to publish news in multiple channels. It included the creation of an advertising-based online version of the printed newspaper, building on the same business model as the print version. The news director explained why it was so important to have an explicit strategy for online publishing: *“I knew from the start that online is special but I had to fight for it. The online Aftonbladet was not considered to be serious and the attitude in the organization was very conservative. Some journalists even claimed that their texts could not be published online, only in print. We, the group that worked online, were regarded as tech-freaks and playboys. There was a lot of resistance from the print side. Therefore, it was really important to have the online operation formally included in the overall strategy of Aftonbladet.”* (A).

From 1998 to 2000 online advertising sales increased substantially. The most important group of advertising customers were start-up IT companies, but the online audience was also growing in numbers. To realize the new strategy, and to develop the online news site further, Aftonbladet needed to mobilize new competencies. The existing technology and competencies were not aligned for a unified distribution due to separate production arrangements. The most important source of a unification was through the acquisition of startup technology companies with important digital competencies. Gradually, the general attitude towards on-line publishing within Aftonbladet became more positive. This led the online editor-in-chief to make efforts to integrate the print and online editorial departments. This was, however, an unsuccessful effort due to internal competition and imbalanced resource allocation between print and digital. His reflections on the imbalance between the allocation of editorial resources between paper-based and digital publishing led to the recommendation for the board of directors to separate completely the online newspaper and print newspaper into two independent companies, arguing that both would benefit from such a separation.

### ***Phase 3: Print and Digital Divide (2000-2003)***

In the year 2000, Aftonbladet separated print and digital into two independent organizational units: Aftonbladet and Aftonbladet Digital Media. This decision was taken in order to prioritize the exploration of the online newspaper, which had struggled with the inertia in the print organization. A new managing director and an editor-in-chief were recruited from the print organization. Both had long and extensive experience from print. The fact that two experienced members from the print organization were leading the new digital company changed print staff attitude. The online audience was now

growing, and the online advertising revenue was also increasing rapidly. As a result, the online newspaper was prioritized and resources were put into recruiting new competencies. Within six months the staff had doubled in the digital media unit.

In the second half of 2000, the dot-com bubble burst {10}. This period is referred to as “the black hole” at Aftonbladet. Turnover was cut in half from one month to the next. In October 2000, 80% of the online advertising business was lost. It was a catastrophic situation, since advertising was the only source of revenue for the digital media unit. The course of events did not follow the logic in the print business model, and the digital media unit lost control. *“In my experience from print, the logic was that if circulation increases, advertising revenues go up and more resources can be allocated to improve journalism. It seemed that we were totally out of control. Our most important advertisers just vanished into a black hole”* (D). The Aftonbladet executive board considered abandoning Aftonbladet Digital Media, since the digital business did not work under existing conditions. After intensive lobbying by the managing director and editor-in-chief, the executive board decided to give the digital unit another chance, and separated the companies completely into two sub-companies.

The online audience continuously increased, and Aftonbladet.se was the most visited website in Scandinavia both in numbers and frequency. Even so, advertising revenues did not pick up. *“It was a total nightmare, we did not know if we would survive from one month to another. It was the worst experience of my entire career”* (J). In early 2001, the company was still losing money and advertising revenues were cut in half again. Still believing strongly in digital news distribution, management took the decision to cut down on everything but staff in order to survive. This was a contrast to other media companies during the same time that were radically cutting staff. *“We terminated all contracts with external firms, froze all costs like lunches, taxi fares etc. We did everything to be able to keep the staff and to be able to keep up the journalism. We can thank the executive steering board for believing in us. I am convinced this strategy saved the company”* (A).

In late 2001, there was a turning point and advertising started to pick up again. Even so, 2001 and 2002 were two years of losses; Aftonbladet Digital Media was first profitable again in 2003. At this point, there was little interaction between the print and the digital media companies.

#### **Phase 4: Experimenting with Digital Media (2003 – 2008)**

When Aftonbladet Digital Media was profitable again they formulated a strategy to become the largest digital news publisher in Sweden. New mobile broadband and improved capacity of devices etc. offered a range of new technical opportunities for digital publishing {11}. The company decided to advance their experimentation with digital media and the digital publishing system was further developed to support the new opportunities. The company engaged in experiments with new digital platforms such as digital TV broadcast and mobile services. Aftonbladet.se doubled in traffic between 2003 and 2004. Aftonbladet Digital Media expanded and started to seek new business models and partnerships.

During this period, many new value added digital services were launched. Aftonbladet started to sell exclusive journalistic content in pdf format that was developed into a bundled added value service called PLUS. They also started a dating site, but it did not attract a sufficient audience and was subsequently closed. In 2003, Aftonbladet Digital Media succeeded with the first profitable paid content service, a weight-loss club.

However, it was not a success from start: it took about two years until the service became profitable.

The strategic priority was to build up traffic by developing digital journalism. At the time, the digital competition was increasing. Aftonbladet Digital Media decided to speed up the development and started small entrepreneurial units with a focus of being number one in Sweden in each of them. In 2004, a decision to strongly develop web-TV was taken. A dedicated web-TV department with a full-time manager and 15 people was set up. In 2006, Aftonbladet also started a national digital broadcast TV channel. The idea was to make a TV version of the newspaper. This initiative was a failure. *“We were not first, and not the largest. We underestimated our lack of competence for TV production. It did not attract viewers and not advertisers either”* (I). The TV channel was shut down after a year.

Aftonbladet continued with the strategy to develop new digital businesses. In 2003, they joined a consortia arranged by the Swedish Newspaper Association to explore the potential of e-paper publishing {12}. E-paper was regarded as a potential future replacement of print paper technology, with the vision that online and print newspapers would converge over time. *“I think it is at least five or six years before we have that, but we must start to think about what it means for the print as well as for the online business models already now”* (A). The separated arrangements of print and digital publishing technology did not allow for hybrid publication. To explore the potential, Aftonbladet decided to start experimenting with a print-digital hybrid e-newspaper design, and with technological solutions for e-newspaper distribution. The e-paper technology was however not developed enough for Aftonbladet to launch an e-newspaper at this point. At the time, free printed newspapers were challenging the market. Aftonbladet decided to use the design prototypes from the e-newspaper initiative to print a free newspaper in A4 format named Punkt.se {13}. In the free newspaper, a selection of the online news was published together with some new material in the three largest cities in Sweden. The free newspaper was not a success but it nevertheless disturbed the market. The main owner of Aftonbladet bought 35 % of Metro/Sweden and shut the free newspaper down in May 2008.

In 2005, the printed newspaper circulation was declining steadily and the trend continued by 5-7% decline per year. Print was still the major revenue source but the online version had a larger audience in numbers. Given the increased competition in digital media, the declining print circulation, and the audience movement to digital {14}, Aftonbladet started to ask how the shift from print to digital could be implemented. *“The money is in print, but the future is in the digital. The challenge is to charge for content online and to attract the advertisers”* (A). The strategy was to uphold the revenues from print for as long as possible. Aftonbladet decided to increase interactivity to gain competitive advantages in digital media and implemented technological support for blogs, chat, comments and so on in the publishing system.

### **Phase 5: Digital First (2008-2010)**

In 2008, a new strategy to aggressively focus the digital business was formulated. At the time, digital TV was de-regulated in Sweden {15} and Aftonbladet therefore decided to integrate digital TV into their multi-channel strategy. A separate TV company was started and technological support as well as digital TV rights were acquired. The TV-company was, however, suffering from great losses, as the TV-channel did not attract an audience {16}, and the TV initiative was abandoned.

At the time, the advertising market was suffering and the print circulation was declining {17}. This was the start of a long-term digital transformation strategy to re-balance, integrate and prioritize digital publishing. The technological arrangements did not support the strategy, with the insufficient integration of print and digital publishing systems. Aftonbladet took action by forming a technical group to lead a print-digital integration process.

The revenues from print and advertising were now rapidly declining and the growth of the digital business was very slow {18}. Aftonbladet decided to advance to a digital-first strategy and to innovate digital media, with the goal of obtaining a 50/50 portion of revenues from print and digital. The current arrangement of two sub-companies and the separated technological arrangements were regarded to hinder innovation and development. Furthermore, these arrangements had created a tension between print and digital with the consequence that the repertoire of competences was not fully used and synergy between digital and print was inert. It was also very difficult to re-allocate resources between print and digital. Digital publishing was now considered to be mature and strong enough to be integrated with print, and the print and digital companies merged into one company again in 2009. A new organizational structure was formed to create an innovative organization that could explore the digital market and still exploit print.

Many operations at Aftonbladet were centralized and coordinated, apart from the editorial departments. The strategy was to gradually move the center of gravity from print to digital media. *“I believe the digital revolution has barely started. The media market will be fundamentally reshaped in a way that is very difficult to predict but most definitely will be dramatic. The staff must be able to do business as usual as well as to be entrepreneurs and develop both for digital and print.”* (F). To be able to accomplish this, there was a need to change the culture and attitude to digital media in the organization, and hence a change process was initiated. All staff was equipped with an iPhone in 2009. *“Everybody needs to be part of the digital world in this company”* (F). A big educational initiative was initiated with 380 employees taking a 6 months long educational program to be updated on digital media and digital business development. The purpose was explained as: *“We are increasing the competence but also creating a new mind set, we are a new newspaper now, we need a new identity. We need to have the most skilled staff on digital, and we need to have the most innovative staff”* (E).

In addition, thirteen change leaders were appointed to stimulate new ideas. From 2008-2010 the mobile site traffic increased by 700 %. This was partly a result of mobile operators offering flat data rates and because Aftonbladet had invested heavily in making the mobile services attractive. Aftonbladet launched about 80 new mobile apps, some successful and others abandoned. In 2010 Aftonbladet had implemented the digital first strategy.

### **Phase 6: Transformation (2010-2014)**

In 2010, the media industry was under radical transformation {19}. Aftonbladet advanced the digital first strategy and formulated a forceful transformation strategy to move from print to digital. The strategy was to optimize the print business and develop the digital business to be independent of print. *“We need to re-organize to prepare for future challenges... When we reach a point where we can treat print as any other distribution channel we have succeeded with the transformation. When digital is independent.”* (E). To accomplish the goal the print and digital media editorial departments were integrated. The organization for technical development was coordinated for both print and digital media in a development strategy group. This

reflected the idea that technical development decisions would be best made by experts rather than by top management. The purpose was to increase innovation potential and to diffuse competence within the organization. This new organization led to cross-fertilization between print and online. For example, the PLUS services from online were printed as magazines, and a printed fashion magazine started to publish online.

At the time, mobile technology advanced with smart-phones, tablets, etc. The competition in the mobile market increased drastically {20}. From 2010 Aftonbladet therefore decided to implement a new mobile strategy. A lot of development efforts were put into the mobile platform, and in January 2010 the new mobile news service Latest News was launched. The mobile traffic increased and after six months there were 400.000 unique users. Aftonbladet also started to develop the print business and invested in new printed magazines. Print business was however continuously declining, and in 2011 Aftonbladet cut 20% of staff. *“The printed newspaper is a very fine product, but sooner or later we need to acknowledge the fact that we have 1 million readers in print and 2 million in digital media”* (F). Aftonbladet put further effort into paid content in mobile and tablets. The strategy was to attract reader revenues, but also to start build up customer data. To buy a single copy, or to subscribe, the reader had to register. This customer data was considered to be an important asset for future business.

After the cost cuts in 2011 Aftonbladet’s financial results improved in 2012. A major event was when the online advertising revenues exceeded the revenues from print. Print advertising revenues were declining while digital advertising revenues were increasing. Mobile advertising was now taking off and revenues had increased threefold since 2011. The exploration of digital media was still Aftonbladet’s top-priority. Aftonbladet partnered with a variety of organizations in order to improve the diffusion of mobile services, e.g. with Nokia that had the Aftonbladet apps pre-installed in all Nokia smartphones. In 2012, the mobile traffic reached all-time high. A lot of effort was also put into web-TV in cooperation with external companies. These companies were brought into Aftonbladet’s offices in order to create a tightly coordinated creative environment. This was an initiative to keep up the innovation speed needed in digital environments. *“If we would keep on building up everything in-house we would not be moving fast enough. We would soon be out of business.”* (N).

The printed newspaper circulation continued to decrease. By now, it had decreased from 444.000 copies per day in 2004 to 161.000 in 2013. The pressure to manage the transition to digital news distribution increased. Aftonbladet worked on expanding digital advertising and improving the digital user experience. As web technology advanced to support streaming media {21}, Aftonbladet seized the opportunity to gain market share from TV-advertising. Investments were made to build a system for streaming web and mobile TV, and set up live TV-studios. Professional live TV competence was recruited. Aftonbladet now started live web-TV and reached 1.5 million viewers online and 600.000 viewers per week on mobile platforms. The web-TV department now had 50 people, and three TV studios. Aftonbladet started to cooperate with the major competitor also on web-TV with the strategy to build up a confidence among advertisers for traditional newspapers as a modern marketing channel.

In mid-2013 Aftonbladet had 3.2 million unique mobile users. At this point the mobile traffic had increased with 70% in the last three years. In October 2013, Aftonbladet started with an offensive move into the local mobile advertising market. In 2013 Aftonbladet had the largest audience of all Swedish newspapers in all channels (print, online and mobile). In 2014, Aftonbladet’s online news site reached 1.6 million readers per day and the mobile site had a reach of about 1.5 million. Aftonbladet continued to

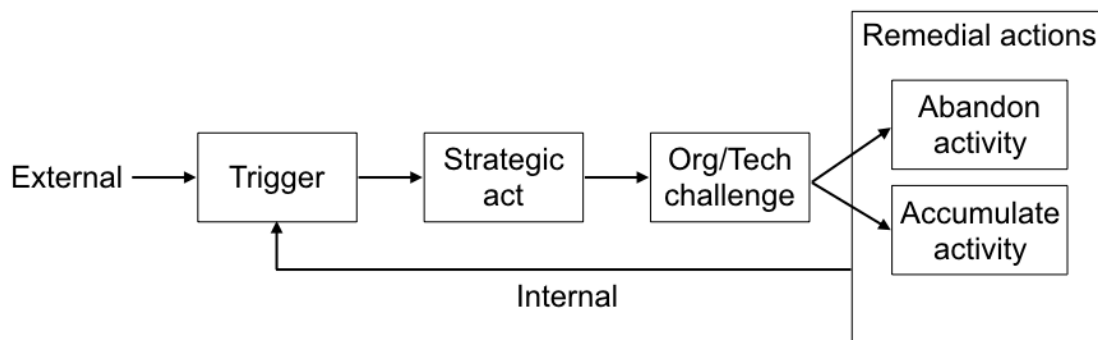
develop their digital business with new services. In 2014, a sharp step towards the digital transformation strategy was taken.

The purpose was twofold; to reduce the anxiety about digital publishing among the print staff, and to prepare the organization for the digital transformation strategy. *“We are increasing the competence but also creating a new mind set, we are a new newspaper now, we need a new identity. We need to have the most skilled staff on digital, and we need to have the most innovative staff”* (E).

A new innovation structure was also formed to stimulate the digital transformation process, and to assist management in identifying potential “golden eggs”. This was the start of a new strategy, which stipulated a transformation to an entirely digital publishing company.

## 5. Ambidexterity Under Digitalization

Our research explores the challenges of ambidexterity under digitalization through studying how a large Swedish newspaper for 20 years struggled to transition from old paper-based media to new digital media. Figure 2 provides a conceptual overview of the process studied. The analysis raises important questions on how to theoretically frame organizational ambidexterity when the attempted transition involves significant digitalization of the business. In this section, we discuss the findings and draw theoretical implications for the understanding of organizational ambidexterity under digitalization.



**Figure 2:** The re-occurring pattern of ambidexterity under digitalization in the case

Figure 2 outlines the pattern of the process uncovered in the analysis in terms of triggers leading to strategic acts, organizational and technological challenges, and remedial actions. A trigger can be external or internal. An external trigger is, for example, the advent of new technological advancements or changes in markets. An internal trigger is, for example, a new digital initiative made by an internal change agent or a particular management decision. Strategic acts are initiatives responding to digital triggers. These acts are associated with organizational and technical challenges. Finally, remedial actions result either in the abandonment or the accumulation of digital initiatives. These actions can, in turn, become internal triggers. This re-occurring pattern appearing over the 20-year long struggle at Aftonbladet uncovers a process where the old and the new are balanced in continuous reconfigurations, rather than an orderly transition from the old to the new.

When faced with such challenges, long-term organizational absorption of environmental change requires reaction- and implementation speed (Schmitt and Klarner, 2015), both of which were evident from the timely and rapid measures adopted by Aftonbladet. The creative synthesis of competing and paradoxical concerns can lead to creative solutions



(Gaim and Wählin, 2016), and Aftonbladet did reach a number of such solutions over the 20-year period studied. However, a comprehensive grasp of the future market based on digital technologies remained elusive. The newspaper continues to draw on declining revenues from the distribution of a printed newspaper, while increasing the breadth and depth of the digital service. It may be argued that this shift constitutes a transition, and that it simply has not yet been completed. However, looking beyond the surface reveals complex and shifting interactions between organizational and technological elements, relating to paper-based and digital revenue streams.

The study adds to previous longitudinal studies of organizational ambidexterity. As such, the paper provides further evidence in response to the calls for both longitudinal studies of ambidexterity (Jansen et al., 2008; Cao et al., 2009; Carmeli and Halevi, 2009), and the need for new in-depth case-based approaches to the study of the dynamics of ambidextrous organizations (Raisch et al., 2009, p.27-28). It also adds to the existing body of work on the digitalization of the media industry, where work on strategic acts (Weber and Monge, 2017), and organizational transformation (Gilbert, 2005) has yet to embrace the notion of organizational ambidexterity, beyond the initial analysis by O'Reilly & Tushman (2004). However, our analysis also raises some important questions on how to theoretically frame organizational ambidexterity when the attempted transition involves significant digitalization of the business.

	ID #	Period	Trigger	Strategic Act	Organizational/Technical Challenge	Remedial Actions
PHASE 1	1	93/94	Contracted to produce TV3 teletext feed	Decides to explore digital publishing based on teletext	Does not have digital distribution mechanism	Contracts an external consultant to build digital feed
	2	94	Pre-web Internet interest from a US study trip	Decision to experiment with online publishing	No support for web protocols	Rebuilds teletext system to support pre-web publishing
	3	95	TV3 cancels contract for teletext feed	Web publishing not allowed to incur additional costs	Web system has insufficient capacity and lack of resources	Closes down web publishing due to lack of resources
	4	95	Internal change agents push for web publishing	Renewed interest in web publishing	Web system and web-competence incomplete	Mobilizes human/technical resources needed for web publishing
	5	96	Web technology advances to support TV	The online editor decides to experiment with web-TV	The system does not support web-TV publishing	Incorporates support for web-TV in publishing system
	6	96	Web audience growing	Capitalize on web advertising	Web system does not support advertising	Develops advertising support in web system
	7	97	Audience interest in web-TV is low	Reduced web-TV priority	Infrastructure has limited capacity for web-TV presentation	Reduces web-TV efforts
	8	97	Digital distribution is internally recognized as an opportunity	Digital distribution included as part of company's main strategy	Existing tech. and org. arrangements provide limited competence and capacity for digital distribution	Acquires several small technology companies
PHASE 2	9	99	Advancement of digital technology offers a range of publication channels	Company strategizes multi-channel publishing and decides to become a media house	Existing technology does not support unified distribution	Separates print and digital functions organizationally as well as technologically
PHASE 3	10	00	Dot com crash dramatically reduces advertising	Management considers whether or not to close digital publishing with possible layoffs	The digital arrangements do not support the business model. Associated loss of technical competencies	Digital division placed into separate company, and company implements lower level of ambition for print
PHASE 4	11	03	Mobile and broadband offer new technical opportunities	Strategy formed to explore digital distribution	Digital publishing system incomplete for new technological opportunities	Acquires new technology and establishes an experimental approach
	12	05/06	New e-paper screen technology emerges	Experiments with e-newspaper as a print-digital hybrid	Limitations due to separate arrangement of org. and tech.	Abandons e-newspaper initiative
	13	07/08	Free newspapers challenge the market	Decides to print free newspaper to disrupt the market	Designs a printed newspaper in A4 format	Prints free newspaper based on e-newspaper prototypes
	14	08	Increased competition in digital business	Decides to increase interactivity of digital news	Existing technology has limited support for interactivity	Develops support for blogs, video uploads, comments etc.
PHASE 5	15	09/10	Digital TV de-regulated in Sweden	Decides to integrate digital TV into multi-channel strategy	Existing technology portfolio does not support digital TV	Acquires TV rights, starts a digital TV channel and web TV
	16	10	Market rejects the newspaper's digital TV channels	Preserves resources	The technological arrangements does not enable digital TV	Abandons digital TV and web channels
	17	10	Print circulation and advertising revenues declining	Digital transformation strategy to rebalance digital	Digital and print technology insufficiently integrated	Forms technical group to integrate print and digital
	18	10/11	Rapidly declining print revenue – slow progress in digital business	Strategy to obtain 50/50 revenue split between print and digital	Separation of print and digital oppose re-balancing revenues	Merges print and digital into one company
PHASE 6	19	12	Radical digital transformation in media industry	Strategy for an organizational identity shifts from print to digital	Existing arrangements hinder a digital first strategy and -mindset	New investments in technology, education, and innovation
	20	13/14	Mobile technology advanced with smart-phone, tablets etc.	Formulates mobile strategy	Technology capacity does not support extraction of rent	Development efforts put into mobile platform
	21	13	Web technology advanced to support streaming TV	Seizes opportunity to gain TV-advertising market shares	Streaming tabloid TV is not supported	Builds a system for streaming TV

**Table 2. Strategic acts and remedial activities at Aftonbladet over 20 years of digitalization. All triggers are external, except {4} and {8}, explicitly marked as internal.**



## ***Ambidexterity and Technology***

Ambidexterity combines the distinction in organizational learning between the “*exploration of new possibilities and the exploitation of old certainties*” (March, 1991, p.71), and the normative assumption that organizational transformation will require these processes to take place concurrently. While March focuses on learning, O’Reilly & Tushman (2004) focus on organizational transformation and survival.

We initially found a relevant conceptual alignment between the core notions within the literature on ambidexterity and the challenges facing Aftonbladet. The existing arrangement relying on the printing and distribution of newspapers is a good representation of the existing technology markets that the organization sought to *exploit*. The various aspects of digitalization of news distribution represent new technological opportunities and markets that *exploration* aimed at bringing to the organization – a process combining the exploitation of mature markets and technologies and making long-term gains through the exploration of new markets and technologies (O’Reilly III and Tushman, 2013). For Aftonbladet, successful digital transformation is a matter of the firm’s long-term survival. The case is, therefore, aligned with O’Reilly & Tushman’s (2013) call for organizational ambidexterity research to place a concern for overall firm performance and ultimately survival at the centre. In addition, the digitalization of news distribution forms one of the core cases in O’Reilly & Tushman’s (2004) seminal HBR paper, in which they discuss the case of USA Today in some detail and revisit in (O’Reilly III and Tushman, 2013). However, they primarily analyze the case as one of improper organizational design. In this respect, the story resembles a subset of the Aftonbladet story with organizational separation between print and digital, followed by subsequent merger. As the twists and turns of digital technologies present a series of challenges, complex organizational and technological re-arrangement may be critical, but not necessarily sufficient. Christensen et al. (2012) suggest a number of strategic acts to meet the challenges of digitalization. However, despite trying all of these suggestions, Aftonbladet still found itself struggling to meet the digitalization challenges.

Ambidexterity writings state that the old and the new are anchored in technological reality, yet the perspective has generally not theorized the role of technology in the transition. The ambidexterity challenge is one formulated in terms of the uncertainties and risks related to the overall distinction in the ambidexterity literature between old technologies and -markets on the one hand, and new technologies and -markets on the other. Our analysis leads us to challenge two aspects of this; firstly, the notion of an orderly transition from the old to the new, and secondly, the role of digitality and technology. In the following, we discuss these two concerns.

The analysis of Aftonbladet illustrates the role of digitality as significant when the technology under consideration is digital and the digital transformation of the business involves the digitization of its core product – news. Aftonbladet’s long series of strategic acts analyzed across a period of two decades clearly demonstrates a persisting series of concurrent efforts to simultaneously exploit and explore. Despite wave after wave of different digital disruptions, the newspaper continued being reliant on printed paper as an important distribution mechanism and source of income, even as some attempts at generating income from digital distribution channels were successful. As argued by Gilbert (2005), based on his early 2000s study, the first-wave digitalization of news through newspaper websites provided a great sense of urgency to release organizational resources. However, his study also showed that routine inertia implied that the additional resources were not effectively deployed. We found the same to be true for Aftonbladet.

Within a large and well-established newspaper organization, the small revenue streams from digitalization were not enough to orchestrate an orderly structural ambidextrous transition from the old physical to the new digital, even combined with a decline in revenue stream from newspaper sales. This could be because the loss in sales revenue was initially only slowing down and not seen as a real threat yet. Additionally, even though some resources were put into digital initiatives from the start, the culture and the attitudes towards the new digital initiatives in the organization slowed down the digital initiatives. However, considering the developments further on in terms of Gilbert's (2005) characterization of barriers to change, Aftonbladet can neither be characterized in terms of resource-, nor in terms of routine rigidity. The 20 years of strategic acts can be characterized in terms of significant experimentation and change. The newspaper engaged in radical innovation both in the organization of editorial activities, as well as of the ways in which technologies were used to reach the market, while at the same time integrating these changes around existing print-based distribution.

Drawing on Weber & Monge's (2017) study of newspaper adoption of hyperlinked web-pages, we argue that Aftonbladet has throughout the years demonstrated the best practice of flexibly adopting various web-technologies as an essential strategic initiative to adapt to the challenges imposed by digitalization. However, compared with Weber & Monge's (2017) relatively restrictive focus on one particular digital news practice, our study demonstrates the more significant organizational and technological changes to adopt and accommodate other strategic initiatives. Examples of these initiatives include several waves of reorganization across the paper-based and digital news divide and the engagement with, as well as the acquisition of, external firms in order to form innovation networks.

Not only did Aftonbladet engage in a range of emerging digital technologies in order to understand how to best utilize these initiatives, the organization also appreciated the foundational challenge of tackling the digital transformation. Tripsas (2013) analyzes the importance of culture when a large organization is faced with the challenge of migrating from old to new markets and technology under digitalization. In her study of the camera industry transition from film-based to digital cameras, Tripsas (2009; 2013) shows the importance of the organizations understanding of the essential challenge – here that a digital photo company must focus on software rather than film. For Aftonbladet such a relatively clear process as shifting from film to software was not possible. The organization was engaged in a lengthy process of both modular and architectural innovation (Henderson and Clark, 1990) with the complexity of running of the existing print-based business and a variety of digital arrangements in parallel.

Aftonbladet has spent the last two decades aiming at erratically moving targets. The previously tight coupling of news to the newspaper, and to the space sold for advertisement, was not immediately challenged by the newspaper's decision in 1994 to post a subset of articles on their newspaper website. However, the technological development and the associated impact of the digitizing of news have shifted considerably over the two decades. Strong forces have shaped digital news distribution, such as; the uncoupling of the news from paper, the introduction of a diversity of distribution technologies, the extensive use of meta-tags, the ability to blur the boundary between news professionals and –amateurs in ever more distributed production and dissemination arrangements. Blogging is one such example of highly distributed production and distribution of news and other editorial content (Vaast et al., 2013). Throughout a twenty-year period, Aftonbladet is still heavily reliant on paper-based publishing. More importantly, the continuous reconfigurations and shifts in digital

publishing imply strategic challenges of continuously seeking to integrate the old *and* the new, instead of a steady and controlled process of shifting *from* the old *to* the new.

The writings on ambidexterity emerge from an organizational discourse and emphasize the case of structural ambidexterity and the structural arrangements in decision making concerning the exploitation and exploration of the senior management's role. This is, in the case of contextual ambidexterity, shifted to the perspective of individual employees. Technology has, from both perspectives of ambidexterity, an important empirical role, but only a walk-on part theoretically, much as in management research in general (Scott and Orlikowski, 2013). Technology facilitates new market engagements, but typically no theoretical distinctions are made between the varying roles between different categories of technologies (Orlikowski and Iacono, 2001).

The lack of theoretical concern for technology in ambidexterity writings can be argued as theoretically problematic, given that technology forms a core foundation for the whole argument of transitioning from old to new in order to engage with emerging markets. We would further argue that the lack of technology conceptualization is a doubly-problematic concern when the processes studied involves digitalization of the main objects and processes that define the business. Digitizing core objects and processes can result in previous tight couplings being rendered more flexible and thereby subjective to generative recombination and rearrangement (Tilson et al., 2010). The following section will explore the notion of linear progression and the theoretical role of digitality within the ambidexterity argument in order to theoretically frame digital technology in the quest for an ambidextrous organizational transformation from the old to the new.

### ***Continuous Waves of Digitalization***

The first observation concerns the structural linkages and couplings in the existing paper-based distribution arrangement. Printing news on paper establishes tight couplings between the storage formats for the news (paper), the production mechanism (the newspaper and its large printing press), and the distribution arrangement (vans, kiosks, and newspaper delivery boys and girls). Over time, organizational practices and new technologies have nudged each other along in complex processes of institutionalization (Orlikowski, 1992). The digitalization of the newspaper production during the 1980s caused significant organizational changes and industrial conflict as established internal arrangements of roles and responsibilities were challenged (Driver and Gillespie, 1992). While such change may have enabled new products and enhanced firm performance, and thereby ability to compete, it did not significantly alter its engagement with the market.

Hagel & Singer (1999) characterize the strategic discussions within large firms as the unbundling of three different parts of the firm in order to more effectively engage with the market. They argue that companies inherently contain three separate types of operations demanding three different types of competition arrangements: 1) product innovation allowing for premium pricing and large market share if executed at *speed*; 2) infrastructure management demanding economies of *scale* due to the large volume required for low unit cost, and 3) customer relationship management demanding economies of *scope* as customer acquisition demands an extending and deepening of the relationship with each customer. Hagel & Singer (1999) discuss this unbundling in terms of strategic decisions for companies to engage in as a means to the end of obtaining competitive advantage.

The digitization of the core product, news, represents a fundamental challenge in the

engagement with the market. The transition experienced during the past 20 years has neither been an orderly process of concurrently exploiting the old and exploring the new as promoted by O'Reilly and Tushman's (2004), nor one following Hagel & Singer's (1999) suggestion for organizations to unbundle their core functions to better optimize towards the market conditions. In this context, the core characteristics of the processes involved can be characterized as one of activities being forcefully unbundled for then to be re-bundled by others, as formerly tightly coupled relationships between the production process, storage, and distribution of news become digitally loosened (Tilson et al., 2010). It is a transformation where even the most organized strategic acts do not secure a successful transition from old markets and technologies to new ones. Such normative assumption of an orderly and successful transformation in order to secure the survival of the organization can only be valid if the organization either: A) manages to keep at least some of the core couplings that secure its control over the flow of revenue; or B) if this is not feasible, then manages to establish new strong couplings securing control over revenue. In the case of news digitization, the previously tight couplings between storage format, production mechanism, and distribution arrangement are recast. Digitalized news can be stored, reproduced and transmitted on any medium that will display bits and bytes, and thus the situation invites the potential of radical reshaping of the institutional arrangements around whoever has the ability to capture revenue from parts of the news process (Tilson et al., 2010).

It is helpful to compare the digitization of news to the transformation of the music business, an industry that has seen four waves of digital transformations within the past 25 years. The first wave was the digitization of music onto CDs, leading to a prolonged period of revenue growth, and essentially reinforced the existing arrangements (Tilson et al., 2013). The next wave of change appeared as the previous tight couplings between vinyl and intellectual property broke as cheap storage, fast Internet sharing, and MP3 compression enabled consumers to self-serve music (Goldsmith and Wu, 2006). A subsequent wave of transformation re-established some couplings through music download purchases, primarily through Apple and Google. A fourth wave of digital transformation, however rapidly followed. Here, Spotify and other music streaming services shifted consumer focus away from downloading to streaming.

The digitization of news has not resulted in as radical and swift a process as is the case of music, although early digitization of news on the open world wide web managed to alter consumer expectations of having access to news without having to pay for subscriptions. The changes have been slower for news organizations mainly because consumers have not abandoned printed news at the same speed as they abandoned purchasing music on vinyl, CDs and then, more recently, shifting from downloads to streaming. However, in essence the digital distribution of news has seen a range of disruptions from the loosening and recasting of couplings with only late arrival of convincing revenues. While the disruptions to the music industry saw a range of new entrants establish new couplings, for example Napster capturing a large consumer base and Apple securing crucial contracts with the publishers, news publishing has only recently experienced outside organizations seeking to establish new couplings.

Ambidexterity under digitalization clearly demonstrates that the transition can reshape the existing configuration of firms and their relative power to leverage their position. This is particularly prevalent when digitization affects the core of the business, such as in the news and music businesses. Both industries have seen new entrants challenging long-established positions of incumbents. As such, the underlying assumption of the ambidexterity argument of firm survival is upheld. The state of the newspaper print

revenue and the consolidation of the industry is a clear sign of this. However, ambidexterity under digitalization challenges the core assumption of an orderly and managed transition from the old to the new. In the case of news digitization, new, complex, and continuously changing relationships can be forged, broken and reshaped between the news produced digitally, and then reordered and packed across multiple means of distribution. Due to the reflexivity and self-referentiality of digital technologies: “*Digital objects can only be accessed, assembled and acted upon by other digital objects*” (Kallinikos et al., 2013, p.366). This implies an open-ended space for recombinatorial possibilities where past boundaries are transcended and increasing granularity of the core elements of a digital business can result in new combinations. The first waves of digitization of music originally did not significantly benefit from this as the industry-control over rights enforced the sale of songs as bundled albums on CDs. However, Apple’s slogan for their iTunes app; “Rip, Mix, and Burn”<sup>2</sup> kicked off a turn of events leading to individual songs being sold with the fixed price of 99¢, and personalized Spotify song compilations being produced to each individual user weekly based on their past listening preferences.

Understanding the challenges of digitization within news must also be linked to the industrial changes within the advertisement business where the transition from printed advertisement over web-based advertisement as well as mobile- and social media adverts, has led to a significant restructuring and re-direction of revenue. In the case of Aftonbladet, the rise in banner-ads during the “dot-com boom” around 2000 provided a new source of revenue, despite its dramatic fluctuations. Since then, a complex semi-autonomous algorithmic ecosystem has emerged re-configuring and re-bundling connections between news organizations, advertisers, and customers, thus drawing market-maker power away from news organizations and funneling it towards the underlying digital media firms controlling search and auctions, i.e., Google on the web-based platform (Lindskow, 2016; Hedman et al., Forthcoming). Boland et al. (2007) characterize the positive reinforcement of digital technologies, supporting such wakes of innovation as in the case of 3-D representations. In the case studied in this paper, we also observed unpredictable wakes of innovation. However, while the organization at each turn seemed to deal with the challenges and opportunities in a pro-active manner, the end-result was less positive and can be more accurately described as wakes of disruption.

A significant number of strategic acts at Aftonbladet during the two decades of changes to organizational arrangements and responsibilities did not fundamentally resolve the problem of providing a sustainable business without print news. Whereas some businesses may digitize both operational processes and the core objects of their commercial activities, others may only digitize the former and not the latter. In the case of Apple, for example, while their core services heavily rely on the generative possibilities of digital platforms (Eaton et al., 2015; de Reuver et al., 2018), the company has maintained significant control and revenue through the associated hardware, e.g., smartphones, computers, tablets, etc, thus providing tight couplings between the digital and the physical. The series of strategic acts engaged by Aftonbladet can be interpreted as attempts to forge new couplings that would enable reliable revenue streams to take over from the already established coupling of the digital news away from the operational process of news-making, instead to the physical paper.

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<sup>2</sup> <https://www.youtube.com/watch?v=4ECN4ZE9-Mo>



Our case challenges the dualism of organizational ambidexterity stipulating an orderly progression from the old to the new through concurrent juggling of exploration and exploitation. The results challenge the strict division between the old and the new, and instead points towards more complex interactions between the two. The rapid changes of technological and organizational reconfigurations provide a series of iterations where the new of today becomes the old of tomorrow, while at the same time, much of today's old may remain old for some time. These complex interrelationships then suggest that the relationship is better described as a duality whereby the existing and the new define one another (Farjoun, 2010). The complex patterns of possible organizational actions when processes, and their resulting outcomes, are digitized, will further enable the re-configuration of couplings, as was clearly demonstrated in our case. However, contrary to the perspective of strategic proactive unbundling offered by Hagel & Singer (1999), organizational ambidexterity under digitalization points less towards a controlled proactive process and more towards a perilous process containing a mixture of proactive decisions and reactive responses to external threats. This observation of organizational survival concurs with the existing ambidexterity literature. The perspective of organizational ambidexterity can, however, be informed by discussions based upon wakes of unbundling and re-bundling through digitization loosening of previously tight couplings.

In terms of infrastructure ownership, an individual newspaper typically owns its own means of production, and is therefore able to control the legacy aspect of changes to its business arrangements. In the case of Aftonbladet, this could be seen when the newspaper decided to compete head-on with free newspapers by producing one as well. In some ways, this is similar to the changes in the mobile telecommunications industry, where the smartphone forced mobile operators to change their business arrangements from mainly charging customers to use voice and SMS, to customers specifically paying for high data-use and roaming (Herzhoff, 2011; Aijaz et al., 2013). The mobile operators controls the critical part of the data journey from the base station to the handset and, similarly, the newspaper controls the last part of the news journey once it is printed on paper or locked behind a digital pay- or subscription wall. Another parallel that can be drawn is between the news and music industries as the wholesale digitization of CDs led to a loss of control over distribution due to music piracy which led to a subsequent shift in power from the rights holders to the digital platforms (de Reuver et al., 2018) controlled by Apple, Google, Spotify, Amazon, etc. This is comparable to the situation the news industry is faced with – the un- and re-bundling of control to a variety of participants such as smartphone platform owners, news aggregators, advertisement auctions, and social networks, in addition to consumer pressure to provide news free of charge. This is a significant source of uncertainty and challenges. As for the digital platforms, the loosening of formally tight couplings could be re-coupled inside arrangements establishing architectural control points (Baldwin and Woodard, 2009; Pagani, 2013) based on open internet-protocol infrastructures (Kazan et al., 2018). As these structural arrangements can re-configure control, they can also impose continuous strategic challenges for the attempts to instantiate an orderly transition from old technologies and –markets to new ones.

## 6. Conclusion

This paper reports on a 10-year longitudinal engaged research project with Aftonbladet, one of Sweden's major newspaper organizations. The research is an inquiry into the organization's 20-year struggle with ambidexterity under digitalization, where they have

sought to shift from an old paper-based technology to new media based on a variety of digital technologies and markets. The case offers a good example of organizational ambidexterity, especially because it fulfills the primary topic of the organization's long-term survival, raised by O'Reilly & Tushman (2013), as a core concern. The paper contributes by considering ambidexterity as a way for the organization to engage in adapting strategic goals towards the available technological arrangements. As such, we attempt to address the lack of attention within management research to the role of technology in organizational life (Zammuto et al., 2007; Orlikowski and Scott, 2008), as well as the organizational ambidexterity literature in particular.

The paper questions the assumption within organizational ambidexterity of a clearly definable progression towards a future state of new technology and new markets through careful management of the concurrent process of exploitation and exploration. In the case of ambidexterity under digitalization, this is a problematic assumption. Changing situations imply shifting and complex interrelationships between arrangements. Previously tight couplings between content, its production, and distribution arrangements are loosened. Such loose couplings can lead to unexpected shifts and turns in what constitutes the new markets and technologies. We suggest considering the ambidexterity challenge under digitalization as one where the old and new are mutually defined and relate in complex and shifting arrangements with no guarantee of an orderly transition from one to the other, that rather is characterized by the duality of continual reconfiguring of the two.

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