Digital payments for a digital generation

*Disruptive technology in book and local newspaper industries*

Linn-Birgit Kampen Kristensen & Mona Solvoll

Department of Communication and Culture, BI Norwegian Business School, Norway, linn-birgit.k.kristensen@bi.no & mona.solvoll@bi.no

Abstract

Digitalization is both a major cause of the challenges now faced by several media industries and a source of their potential solutions. Within the book and newspaper industries, the value of the physical product is about to be surpassed by that of digitally delivered content, disrupting the distribution system that these industries have relied on for many decades. In particular, digital distribution has radically changed the way in which consumers engage in unpaid and paid media consumption.

Anchored in the notion of disruptive innovation, and more specifically related to the idea of distribution as disruptive technology, our study investigates Generation Z’s unpaid and paid consumption of digital books and online local newspapers. Drawing on two Norwegian audience surveys, we find that both industries involve at least one disruptive actor. Generation Z relies heavily on Facebook as a distribution channel for news. Paywalls have a negative effect on the usage of paid online local news, despite the belief that paywalled news is better than free news. In the Norwegian book industry, paper books still have a very strong position among Generation Z. Audiobooks have greater usage than e-books, and we conclude that the real disruptive actor in the Norwegian book industry is the streaming of audiobooks by actors such as Storytel.

*Keywords: Generation Z, digitalization, book industry, local newspapers, consumption*

Introduction

In the Norwegian book and newspaper industries, which are the focus of this article, we explore how the distribution of local online news and online books has been disrupted and how Generation Z is engaged in unpaid and paid consumption. Based on Christensen’s (1997) criteria for disruptive innovation and Cunningham and colleagues (2010) notion of disruptive distribution, our research questions...
for this study are the following: 1) What characterizes Generation Z in paying for books’ and local newspapers’ online content? 2) How is disruptiveness manifested in the newspaper and book industries in Norway?

Previous studies have shown that age plays a part when utilizing different technologies and that there is a generational difference between young users and older users (Olson et al., 2011). Peer-to-peer opportunities for downloading and understanding technological possibilities is a common trait for Generation Z – this generation grew up understanding and keeping up with technological changes (Geck, 2007).

Previous studies of customers’ willingness to pay for online media products have been inconclusive, while distribution has been examined far less frequently than both production and consumption (Braun, 2015; Perren, 2013; Warner, 2002). Focusing on two “old” print media that are challenged by digitalization, we are able to investigate how they respond differently to disruptiveness. In addition to e-books, paper books and audiobooks, this study focuses on local newspapers’ online editions. As such, our study is about “printed media in transition and readers on the move”. The digital age has fuelled dramatic changes in distribution processes for these two industries, and these merit further investigation.

Our study built on two separate population surveys, one on local newspapers and one on the book industry. Our analysis found that moving audiences may not be a simple process of transition and that generational behaviour is not a straightforward phenomenon. We discovered that members of Generation Z do not use local online newspapers but rely on Facebook to stay informed about what is happening in their local community. Young people read books, but they prefer paper to e-books and audiobooks. Despite high willingness to pay for digital music and film/TV, the willingness to pay for local news and subscriptions to digital book services is low. Even though Generation Z believes that local news behind paywalls is better than local news outside paywalls, its members are not willing to pay for local news online. Regarding books, the use of e-books is lower than that of audiobooks, but the willingness to pay for e-books is higher than that for subscribing to audiobook streaming services. We argue that the real disruptive actors for local newspapers and the book industry in Norway are Facebook and Storytel, a streaming service for audiobooks and e-books.

Theoretical framework
Disruptive innovation is defined as a product or service that caters to markets that incumbents overlook (Christensen et al., 2015). For our analysis, we draw on three main arguments from Bower & Christensen (1995) and the concept of distribution as disruptive technology (Cunningham et al., 2010). The four arguments are presented below.

First, Bower & Christensen (1995) argued that disruptive innovation begins with meeting the needs of less-demanding customers. In our context, this is
conceptualized as willingness to pay. Customers in disruptive markets are more easy-going than existing customers but are also very often not willing to pay a premium for products that they find to be too expensive. Some studies have found that younger people are more likely to pay for online news access than older people (Chyi, 2005; Goyanes, 2014). Fletcher and Nielsen (2017) argued that younger people may be more accustomed to paying for digital services and show willingness to pay for the services that they value, although the “culture of free” pervades much online media consumption. Other studies have found that the willingness to pay for online news is low among the younger generation (Chyi & Tenenboim, 2016; Kammer et al., 2015; Olsen & Solvoll, 2018). The e-book market will increase due to digital devices, and this will change the willingness to pay for books (Benhamou, 2015). Previous research has shown that the adoption of e-books is not driven by price and willingness to pay but faces other barriers to adoption (Gregory, 2008; Lai & Chang, 2011). Colbjørnsen (2015) argued that the audiobook industry might be the next big innovation for books, and it is an innovation that can incorporate consumers’ eagerness for easy payment systems for services surrounding books (Benhamou, 2015).

Secondly, disruptive products serve low-margin, end-of-a-market or emerging markets in a way that is “good enough”. The consumers of these products are often willing to accept reduced quality if the price is low. They are simpler, smaller, lighter, more flexible and convenient to use, more efficient and cheaper (Christensen et al., 2015; Kostoff et al., 2004). We conceptualize this as satisfaction. Paywall studies of online newspapers have found that locked content offers little added value for the readers, because they could obtain the same or good enough information for free elsewhere (Arrese, 2016; Brandstetter & Schmalhofer, 2014; Myllylahti, 2017; Olsen & Solvoll, 2018). A particular challenge is “local newspaper’s ability to generate sufficient newsworthy content to attract an audience to its website sufficiently often to justify a charge” (Graham et al., 2015: 221). Streaming has become more popular in the book industry, as it provides a flexible and combination service for e-books and audiobooks. The penetration of smartphones and the technology of streaming have the potential to stimulate reading in other, more convenient formats (Colbjørnsen, 2015). Researchers have found that flexibility and convenience play a critical role in users’ choice of reading format and that price is not a strong determinant when these decisions are made (Bergström & Höglund, 2018).

Thirdly, within a few years, digitalization has profoundly changed the ways in which products are distributed and media companies determine their prices and audience access (Bell et al., 2017; Gershon, 2013). In some countries, the digital subscription revenue is about to displace digital advertising as the core revenue stream for newspapers, as this makes up for the fall in print revenues and insufficient growth in digital advertising revenues. The problem for online newspapers is not the small size of the digital advertising market but the fact that online newspapers are tiny players in an advertising market dominated by large
technology companies, such as Google and Facebook (Goyanes, 2014). In addition, the subscription-based model is challenged by the geographically limited market for online local news (Graham et al., 2015). The entrance of e-books has shown that some consumers are willing to take a risk with new high-end products of varied quality to read digitally (Colbjørnsen, 2014), although the products may never become mainstream. With audiobooks, the investment in the device is lower, as the penetration of smartphones is large in the Norwegian society. The apps for audiobook streaming may then “get away with” a lower offer for consumers initially (Colbjørnsen, 2015). Although previous research has noted a large rise in e-books, it is not large enough to cover the loss from the traditional paper book market (Benhamou, 2015).

Fourth, the main argument made by Cunningham and colleagues (2010) is that disruptiveness takes place in the distribution system and changes the way in which media companies interact with their customers. For the purpose of this article, we define a disruptive actor as one that significantly forces a change on the business of a media industry by changing the “rules of the game”. For newspapers, social networking sites facilitate the sharing of news with hyperlinks to the newspaper site. Newspapers may see Facebook as a “frenemy”, a disruptive co-distributor of news, but also as a competitor, selling ads to the same advertisers as newspapers. In addition, Facebook provides access to competitive content from other newspapers and other media (Bell et al., 2017; Ju et al., 2014; Nechushtai, 2018). The book industry faced a potential disruption with e-books (Finkelstein & Mc Cleery, 2013; Wilson, 2013). Production, distribution and use could change as a result of e-books and their potential market. As noted by Bergström and Höglund (2018) and Wilson (2013), different cultures and different countries experience the e-book phenomenon at different speeds and in different ways. If one merely considers e-books as causing disruption in the book industry, there is the potential to overlook the true disruption in distribution, as argued by Cunningham and colleagues (2010).

Background

Norway is one of the most digitally advanced and diverse countries in the world, with 97 per cent of the population having internet access and 74 per cent of the population having access to tablets (Vaage, 2018). The more than 200 newspapers play important democratic roles as information sources, mediators of belonging and identity and arenas for public discourse (Hess & Waller, 2017). Pressured by falling print circulation and a decline in advertising revenues, most newspapers have rolled out some variation of paywalls within a few years (Olsen & Solvoll, 2018).

E-books’ availability is large, and the National Library has digitized its whole collection and made every book published before the year 2000 available free of charge (Drefvelin & Lindblad, 2018). All the libraries in Norway lend e-books
and audiobooks in CD format through their services, as an audiobook streaming service within the library system is non-existent. Norway did not experience rapid growth of e-book sales after the introduction of Amazon’s Kindle, unlike other countries. Over the last five years, two actors in the audiobook streaming market have surfaced, Storytel and Fabel. In addition, Norwegian customers of Amazon need to order from outside the country, as Amazon has not opened a Norwegian department.

Method and analytical design
Motivated by the research questions on how disruptiveness is manifested in the local newspaper and book industries by Generation Z in Norway, we chose to undertake an explorative case study. We use current ages between 15 and 19 and between 20 and 29 years, giving Generation Z a birthdate between 1989 and 1998 or between 1998 and 2003 (Seemiller & Grace, 2016).

Our research is part of the project Digitization and diversity: Potentials and challenges for diversity in the culture and media sector. Within this project, several large survey data sets were collected about four industries: the library and book sector, museums, film and local press. Researchers within each group developed and tested questions on the phenomenon of interest for their own survey, and, on behalf of the researchers, the data were collected by the Norwegian market research company Opinion. The main challenge for the researchers was the under-representation of ethnic minorities in surveys targeting the general population. The data will be insufficient for an accurate assessment of the position of ethnic minorities in connection to the topic of interest. Ethnic minorities are difficult to survey, because they do not participate in panels to the same degree as the rest of the population. The results were weighted for gender, age, geography and education in line with the national census data to correct for deviation from the Norwegian population. Both surveys were analysed using SPSS version 25. The significance test used was a bivariate analysis test of column proportions with cross-tabs and a z-score test.

The study of Generation Z’s use of newspapers is based on survey data (N=1,586) from an online questionnaire distributed in the autumn of 2016 to a national web panel consisting of 81,000 panellists aged 15 and above. We asked 20 questions about the respondents’ use of different news sources, interest in news, willingness to pay, satisfaction and level of trust in addition to questions about news feed algorithms and the respondents’ relationship to advertising and content marketing.

The study of Generation Z’s use of books is based on similar survey data (N=1,558). This survey was also conducted in September–October 2016 by Opinion with the same national web panel that the newspaper survey utilized. The population survey was designed to capture a range of information related to book consumption in Norway. The survey consisted of 48 open- and closed-ended
questions measuring respondents’ book consumption in general: online, paper based, audiobooks and paid and free consumption (such as borrowing books from libraries). For this particular study, we used nine questions from the newspaper survey and eight questions from the book survey. Some of the questions were open, while others used a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Based on the theoretical framework and our survey questions, the following is the analytical design:

Table 1. Analytical design of the paper

| Theoretical argument: | Newspaper survey items: | Book survey item: |
|-----------------------|-------------------------|------------------|
| **Less Demanding Customers (willingness to pay)** | How do you agree or disagree with the statement “I’m annoyed that I have to pay for content in my local newspaper online edition” | What is your impression of the price level of e-books compared to paper books in general? |
| | How do you agree or disagree with the statement “I think local online news should be free to everyone on the internet” | How much are you willing to pay for the following: Foreign paper book, national paper book, national e-book, international e-book, streaming service for audiobooks (per month)? |
| **Good enough products in emerging markets (satisfaction)** | How satisfied or unsatisfied are you with... (a range of media services, including local online newspapers) | Do you find any weaknesses of e-books comparing them to paper books? |
| | How do you agree or disagree with the statement “I think content which requires payment is better than the free content in my local online newspaper” | What device for digital books do you prefer? |
| **Paid or unpaid distribution** | Do you use online local newspapers with a paywall? | Do you have a subscription to any audio book services? |
| | How do you agree or disagree with the statement “I read less local news online after the local newspaper introduced paywalls” | Have you used any book service that does not require payment? |
| | How do you agree or disagree with the statement “I use other news sources more after the introduction of paywalls in local newspapers” | Have you used any book service that requires payment? |
| **Disruptive distribution actor** | Which of the following media do you use to stay informed about the community (16 media types were listed for the question) | Have you used any of the following book services? (this question contained nine variables including Amazon, Google Books and Storytel) |
| | How do you normally find local news online (8 options to choose from) | |
Findings
Turning to our findings regarding what characterizes Generation Z in paying for books and local newspapers online and how disruptiveness is manifested in the Norwegian local newspaper and book industries, we briefly describe the overall patterns of disruptive innovation and disruptive distribution as presented in the analytical design.

First, addressing the argument of less-demanding customers, Generation Z is not willing to pay for online news, as 70 per cent of our respondents under 30 years old were annoyed about having to pay for online news and 65 per cent believed that online local news should be free. For books, knowledge about pricing is high in Generation Z, 55 per cent of Generation Z stating that e-books are generally cheaper than paper books. For audiobook streaming subscriptions, members of Generation Z are willing to pay a mean of 50 Norwegian kroner per month. For a one-time payment for a Norwegian e-book, they are willing to pay 59 NOK, and, for a foreign e-book, they are willing to pay 65 NOK. Generation Z members are willing to pay 182 NOK for a foreign paper book and 186 NOK for a Norwegian paper book.

Secondly, in terms of “good enough” products in emerging markets, half of our respondents were satisfied with their local newspaper’s online edition. In addition, 43 per cent of those between 15 and 19 years old and 33 per cent of those between 20 and 29 years old believed that news stories behind a paywall are better than those in front of the local newspaper’s paywall. Regarding e-books, 64 per cent of our respondents found weaknesses, while 14 per cent did not. Although they have more features that could make reading more comfortable, very few people think of them as an advantage.

Thirdly, addressing the issue of paid and unpaid distribution, 22 per cent of the members of Generation Z use local online news that requires payment and 71 per cent claim to read less local news since their local newspaper introduced online payments, while over half of them said that they use other sources for news since the implementation of paywalls by their local newspaper. Generation Z is significantly different from the population aged over 30 years regarding the unpaid consumption of books. Of Generation Z, 10 per cent stream audiobooks, 23 per cent had downloaded a book for free, 35 per cent had borrowed a paper book from the library and 6 per cent had borrowed an e-book from the library in the last six months. Regarding paid book consumption, 18 per cent of Generation Z had paid to download e-books, and 51 per cent of Generation Z had confirmed a purchase of a book in a physical store and 27 per cent via an internet store.

In regard to our fourth argument about disruptive distribution actors, almost 60 per cent of the respondents use other sources more since their local newspaper introduced digital payment for online news and more than half of them use Facebook more. Less than 10 per cent do not use Facebook at all to be informed about what is happening in their local community. More than 60 per cent of Generation
Z find local online news through sharing and recommendations in social media. In our book survey, 72 per cent of Generation Z reported that they prefer paper books. The second-largest group prefers listening to audiobooks, accounting for 8 per cent of the respondents. Still, 7 per cent of Generation Z prefers not to read books. When asked whether they use Storytel, Amazon and Google Books, 15 per cent of Generation Z and 6 per cent of those aged over 30 years actually use Storytel. This is higher than the reported use of Google Books (Generation Z: 13 per cent; above 30 years: 4 per cent). Amazon has the highest reported use at 29 per cent for Generation Z and 16 per cent for those over 30 years old.

Discussion
In the theoretical discussion, we emphasized the importance of understanding how disruptive distribution is manifested in the Norwegian local newspaper and book industries (Cunningham et al., 2010). Both practitioners and researchers have frequently been asked why there is not a “Spotify for news” or a Netflix model for books. The answer may be that, although the kind of massive transformation that took place in the music industry over the past 15 years is now taking place in other verticals, disruptive technologies mean different things for different industries, particularly in terms of distribution. Based on our findings, we propose Facebook and Storytel as two potential disruptive distribution channels for news and books.

Free online news is regarded as “good enough” and, according to Generation Z, there are many available sources that can provide them with it, for instance Facebook. For newspapers, Facebook provides a good share of the audience for online news and is a significant source of potential growth in viewership (Bell et al., 2017; Nechushtai, 2017). Consequently, one can argue that the disruption in distribution for newspapers is the entry of Facebook to users and that newspapers are suffering pressure from consumers to offer free access to stories (Ju et al., 2014). Accordingly, we find that Facebook is a disruptive actor changing the way in which news organizations interact with their users. Our result concerning news consumers, particularly within the younger generations, also suggests that they heavily rely on Facebook as a news source through sharing and recommendations from other users. This finding to some extent contradicts Nordicom’s recent report, “Youth and news in a digital media environment” (Andersson et al., 2018), which found that some Swedish youths hesitate to share news online because doing so simultaneously entails sharing information about themselves, their relationship with others and their social position (Andersson et al., 2018).

Following the development of services such as Storytel, one can see a rapid increase in audiobooks and subscriptions to that service. The results of this study indicate a rapid increase in audiobooks for Generation Z after the introduction of Storytel to the market, and there is no reason to believe that this will slow down, comparing it with findings by Statistics Norway (Vaage, 2018). The general no-
tion is that e-books are supposedly better due to the various built-in features of a tablet or eReader. When comparing Storytel with other e-book services, it does not require any additional device than a smartphone, making it even more of a “good enough” product than comparable services for tablets and eReaders. The investment in tablets and/or eReaders may be viewed as yet another hurdle for users to overcome. This increases the chance of other generations trying out the service and consequently increasing the spread in the market (Cunningham et al., 2010). The historical development of e-books has been slow in Norway and has been stable at less than 5 per cent for years.

The theoretical discussion also highlighted the transition from unpaid to paid consumption of online books and local online newspapers as an essential disruptive factor. Although Generation Z has embraced a digital lifestyle and online news, local newspapers are struggling to overcome the retro-innovation of subscriptions (Arrese, 2016). Our findings confirm that young audiences are particularly reluctant to pay for online newspapers (Chyi & Tenenboim, 2017; Kammer et al., 2015; Olsen & Solvoll, 2018). Despite the fact that 70 per cent of the young generation pay for digital music and film/TV, their attitude towards paying for news is quite different. This could have a historical explanation, as access to online newspapers was free for a long time, while music and film have traditionally always been paid-for products. However, a large part of Generation Z does not find newspapers’ content to be worth paying for, despite believing that paywalled news is better than free news, as also suggested by Brandstetter and Schmalhofer (2014), Myllylahti (2014) and Olsen and Solvoll (2018). Generation Z’s reluctance to pay for online news is disturbing, as newspapers, both in Norway and elsewhere, are increasingly rejecting ad-supported free content models and instead relying more on digital subscription models.

For books, the digitalization process looks more complex and contradictory, as Generation Z still reads printed books. Our study shows that Generation Z prefers to read longer text in printed books and not on digital devices. This supports the finding that there is reluctance to convert from paper to e-books and that the two formats can co-exist (Bergström & Höglund, 2018; Gregory, 2008; Lai & Chang, 2010). Our findings also support Quan-Haase and colleagues (2014) in that both young consumers and old consumers are reluctant to use e-book technology for their reading. Furthermore, our findings suggest that the knowledge of the pricing level of e-books compared with paper books is high and that Generation Z’s willingness to pay for books is greater when talking about paper books and lowest for a subscription service to audiobooks and e-books. In line with the arguments made by Benhamou (2015), the rise in e-book sales cannot cover the losses from traditional paper book markets, but the willingness to pay for streaming services for audiobooks, as presented in this paper, is even lower than that for e-books. This creates new challenges for the industry, as it needs to generate a profit from all the available services.
Conclusion and further directions

Disruptive innovations have fundamentally changed the way in which people spend their leisure time on smartphones and tablets. Over time, these disruptive technologies have displaced the established technologies. Digitalization has perhaps created a golden age for disruptive distribution agents within music, movies and television, as argued by Waldfogel (2012), but this development has only partly manifested itself within the local newspaper industry through the use of Facebook and in the book industry as increased use of audiobooks. According to Bell and colleagues (2017), newspapers have experienced three significant disruptions related to consumption trends: the transition from print to digital, the rise of social media and the influence of mobile technology. Our paper argues that one of the reasons for the increased use of Facebook as a news source is the introduction of digital subscriptions by local online newspapers. Another reason is that Facebook offers Generation Z good enough news for free through the easy and convenient system of sharing and recommending news stories within a network. Young adults are still reading local newspapers, and they are willing to pay for digital content. Therefore, we argue that there is a distinct digital consumer segment for local newspapers to target. One such area could be the mobile phone segment. To attract Generation Z and further increase the growth in subscriptions, local newspapers could consider easing their strictly paid services by exploring bundled price strategies further, for instance by including the possibility of flexibility, availability and usability.

Although members of Generation Z recognize that e-books are cheaper than paper books, they do not find e-books to be better and choose not to read them. The results show that the real emerging market may come not from e-books but from audiobooks, as these are more convenient and easier to use. Despite the features of convenience and ease of use of audiobooks and e-books, Generation Z has greater willingness to pay for paper books. They are willing to pay for a subscription service per month but only a small amount. These disruptive technologies may have a profound effect on the traditional publishing industry but also present new possibilities for the industry that can create new revenues (Finkelstein & McCleery, 2013; Gaigher et al., 2014; Loebbecke, 2010). Still, as the research by Gregory (2008) and Lai and Chang (2010) has shown that there are some barriers to the adoption of e-books, there is a need for more in-depth studies of why audiobooks are more attractive to Generation Z than e-books.

This study was conducted in a small-language context, and continuous studies of similar contexts are necessary to understand fully the digitalization process of media industries. Similarly, we would welcome more studies aiming to provide comparative approaches across media. Our study only focused on the traditional printed media, books and local newspapers, and more work needs to be undertaken in comparative media studies. With a few exceptions (Waldfogel, 2017), there is an absence of conversation across various areas of media research. Lastly,
as distribution has been examined less extensively, as argued by Perren (2013), we call on researchers to explore the types of distribution activities, not least the impact of bundled sales strategies, physical distribution practices and technological infrastructures.

Funding

This study was supported by the KULMEDIA programme of the Research Council of Norway under grant number 247602.

References

Andersson, Y., Dalquist, U. & Ohlsson, J. (2018). Youth and news in a digital media environment – Nordic–Baltic perspectives. Gothenburg: Nordicom.

Arrese, Á. (2016). From gratis to paywalls. Journalism Studies, 17(8): 1051-1067. doi: https://doi.org/10.1080/1461670X.2015.1027788

Bell, E., Owen, T., Brown, P., Hauka, C. & Rashidian, N. (2017). The platform press: How Silicon Valley reengineered journalism. Columbia Journalism School. doi: https://doi.org/10.7916/D8R216ZZ.

Benhamou, F. (2015). Fair use and fair competition for digitized cultural goods: The case of eBooks. Journal of Cultural Economics, 39(2): 123-131. https://doi.org/10.1007/s10824-015-9241-x

Bergström, A. & Höglund, L. (2018). E-books: In the shadow of print. Convergence: The International Journal of Research into New Media Technologies, doi: https://doi.org/10.1177/1354856518808936

Christensen, C. M. (1997). The innovator’s dilemma: When new technologies cause great firms to fail. Boston, MA: Harvard Business Review Press.

Bower, J. L. & Christensen, C. M. (1995). Disruptive technologies: Catching the wave. Long Range Planning, 28(2): 155. doi: https://doi.org/10.1016/0024-6301(95)91075-1.

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

Braun, J. (2015). Social media and distribution studies. Social Media and Society, 1(1). doi: https://doi.org/10.1177/2056305115580483.

Christensen, C. M., Raynor, M. & McDonal, R. (2015). What is disruptive innovation? Harvard Business Review, 93(12): 44-53. doi: https://doi.org/10.1353/abr.2012.0147.

Chyi, H. I. (2005). Willingness to pay for online news: An empirical study on the viability of the subscription model. Journal of Media Economics, 18(2): 131-142. doi: https://doi.org/10.1207/s15327736me1802_4.

Chyi, H. I. & Tenenboim, O. (2017). Reality check. Journalism Practice, 11(7): 798-819. doi: https://doi.org/10.1080/17512786.2016.1208056.

Colbjørnsen, T. (2014). Digital divergence: Analysing strategy, interpretation and controversy in the case of the introduction of an ebook reader technology. Information, Communication & Society, 18(1): 32-47. doi: https://doi.org/10.1080/1369118X.2014.924982.

Colbjørnsen, T. (2015). The accidental avant-garde: Audiobook technologies and publishing strategies from cassette tapes to online streaming services. Northern Lights: Film & Media Studies Yearbook, 13(1): 83-103. https://doi.org/10.1386/nil.13.1.83_1.

Cunningham, S., Silver, J. & McDonnell, J. (2010). Rates of change: Online distribution as disruptive technology in the film industry. Queensland University of Technology. Online, 136(1): 1-13. https://doi.org/10.1177/1329878X1013600114.

Drefvelin, C. & Lindblad, K.-E. (2018, February 1). Bokhylla.no – Nå kan du lese 270 000 bøker gratis på nett. Men noen bestselgere mangler [Bokhylla.no – Now you can read 270,000 books for free online. But some bestsellers are missing]. Dagbladet [online]. Retrieved from https://www.dagbladet.no/kultur/na-kan-du-lese-270-000-boker-gratis-pa-nett-men-noen-bestselgere-mangler/69396347 [Accessed 2018, August 21].

Finkelstein, D. & McCleery, A. (2013). An introduction to book history (2nd ed.). New York: Routledge.

Fletcher, R. & Nielsen, R. K. (2017). Paying for online news. Digital Journalism, 5(9): 1173-1191. doi: https://doi.org/10.1080/21670811.2016.1246373.
Gaigher, S., le Roux, E. & Bothma, T. (2014). The predictive value of disruptive technology theory for digital publishing in the traditional publishing environment: A South African case study. *Journal of Scholarly Publishing*, 45(3): 261-288. doi: https://doi.org/10.3138/jsp.45.3.003

Geck, C. (2007). The Generation Z connection: Teaching information literacy to the newest generation. In E. Rosenfeld & D. V. Loertscher (Eds.), *Toward a 21st-century school library media program* (pp. 235–241). Lanham, MD: Scarecrow Press.

Gershon, R. A. (2013). Digital media innovation and the Apple iPad: Three perspectives on the future of computer tablets and news delivery. *Journal of Media Business Studies*, 10(1): 41-61. doi: https://doi.org/10.1080/16522354.2013.11073559

Goyanes, M. (2014). An empirical study of factors that influence the willingness to pay for online news. *Journalism Practice*, 8(6): 742-757. doi: https://doi.org/10.1080/17512786.2014.882056

Graham, G., Greenhill, A., Shaw, D. & Vargo, C. J. (2015). *Content is king: News media management in the digital age* (1st ed.). New York: Bloomsbury.

Gregory, C. L. (2008). “But I want a real book”: An investigation of undergraduates’ usage and attitudes toward electronic books. *Reference & User Services Quarterly*, 47(3): 266-273. doi: https://doi.org/10.1080/21670811.2016.1178074.

Hess, K. & Waller, L. 2017. *Local journalism in a digital world*. London: Palgrave.

Ju, A., Jeong, S. H. & Chyi, H. I. (2014). Will social media save newspapers? *Journalism Practice*, 8(1): 1-17. doi: https://doi.org/10.1080/17512786.2013.794022

Kammer, A., Boeck, M., Hansen, J. V. & Hauschildt, L. J. H. (2015). The free-to-fee transition: Audiences’ attitudes toward paying for online news. *Journal of Media Business Studies*, 12(2): 107-120. doi: https://doi.org/10.1080/16522354.2015.1053345.

Kostoff, R. N., Boylan, R., & Simons, G. R. (2004). Disruptive technology roadmaps. *Technological Forecasting and Social Change*. doi: https://doi.org/10.1016/S0040-1625(03)00048-9.

Lai, J. Y. & Chang, C. Y. (2011). User attitudes toward dedicated e-book readers for reading: The effects of convenience, compatibility and media richness. *Online Information Review*, 35(4): 558-580. doi: https://doi.org/10.1108/14684521111161936.

Loebbecke, C. (2010). The emergence of ebooks: Just another media industry joining the converging digital world? An explorative study on user preferences and industry structure changes. *TPRC* 2010. Retrieved from https://ssrn.com/abstract=1986386 [accessed 2018, June 21].

Myllylahti, M. (2017). What content is worth locking behind a paywall? *Digital Journalism*, 5(4): 460-471. doi: https://doi.org/10.1080/21670811.2016.1178074.

Nechushtai, E. (2018). Could digital platforms capture the media through infrastructure? *Journalism*, 19(8): 1043-1058. doi: https://doi.org/10.1177/1468488917725163.

Olsen, R. K. & Solvoll, M. K. (2018). Bouncing off the paywall – Understanding misalignments between local newspaper value propositions and audience responses. *International Journal on Media Management*, 20(3): 174-192. doi: https://doi.org/10.1080/14241277.2018.1529672.

Olson, K. E., O’Brien, M. A., Rogers, W. A. & Charness, N. (2011). Diffusion of technology: Frequency of use for younger and older adults. *Ageing International*, 36(1): 123-145. doi: https://doi.org/10.1007/s12126-010-9077-9.

Perren, A. (2013). Rethinking distribution for the future of media industry studies. *Cinema Journal*, 52(3): 165-171. doi: https://doi.org/10.1353/cj.2013.0017

Quan-Haase, A., Martin, K. & Schreurs, K. (2014). Not all on the same page: E-book adoption and technology exploration by seniors. *Information Research*, 19(2). Retrieved from http://www.informationr.net/ir/19-2/paper622.html [7/10 /

Seemiller, C. & Grace, M. (2016). *Generation Z goes to college*. John Wiley & Sons.

Shapiro, C. & Varian, H. R. (1999). The art of standards wars. *California Management Review*, 41(2): 8-32. doi: https://doi.org/10.2307/41165984

Vaage, O. F. (2018). Norsk Mediebarometer 2017 [Norwegian Media Barometer 2017]. Oslo/Kongsvinger: Statistics Norway.

Waldfogel, J. (2012). Copyright research in the digital age: Moving from piracy to the supply of new products. *American Economic Review*, 102(3): 337-342. doi: https://doi.org/10.1257/aer.102.3.337.

Warner, M. (2002). Publics and counterpublics. *Public Culture*, 14(1): 49-90.

Wilson, T. D. (2013). The e-book phenomenon: A disruptive technology. In *Proceeding of the international conference publishing – Trends and contents* (Vol. 2, pp. 3-12). Pula, Croatia: Libellarium.