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1   Introduction

Fake news is not a new phenomenon but one that has gained considerable traction in recent years. During the 2016 presidential election in the US the engagements on Facebook for the Top 20 Election stories was higher for fake news, with 8.7 million engagements, than for stories from mainstream media, with only 7.3 million engagements (Newman, 2017).
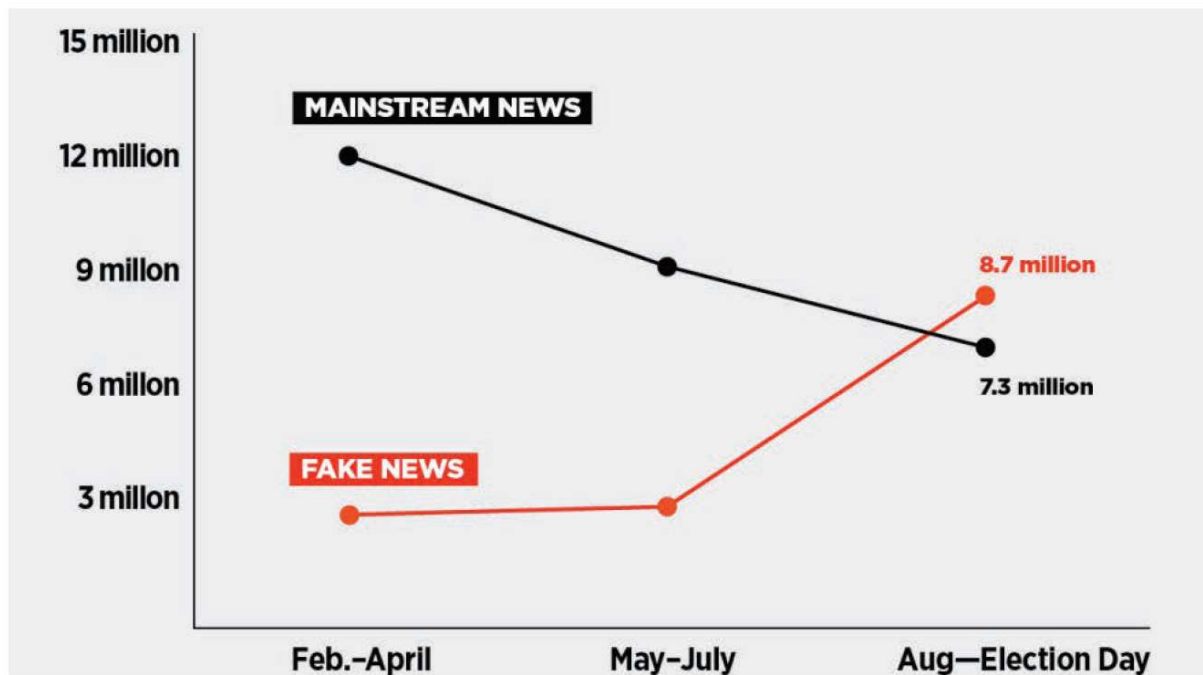
Figure 1: Total Facebook Engagements for Top 20 Election Stories by Newman, Reuters Institute of Journalism Oxford, 2017

In 2019 Mark Zuckerberg was asked to testify before congress in this matter. (Hollyer, J., Rosendorff, B. and Vreeland, J., 2019) The Federal Agency for Civic Education in Germany describes fake news as a challenge that must be tackled since it is 'the black plague of digitized media and a serious threat to our democracy' (Russ-Mohl, 2019). The problem with fake news is getting so intense that fake news is even framed as an issue that threatens democracies around the world (Hollyer, Rosendorff and Vreeland, 2019). The German federal government passed the network enforcement act in 2017 that has been recently reformed in 2020 to contain the spread of fake news (FAZ, 2020). A survey conducted by the multinational professional services network Deloitte stated that disinformation is seen as the biggest threat in cybersecurity among politicians and company decision-makers (Deloitte, 2019). In the digital age, disinformation poses a threat to the societies we live in.

While fake news mostly circulates on social media, its impacts have the potential to spill over to the world of traditional media. One of the major challenges fake news poses to traditional

media, is its ability to skew the identity of media corporations. Disinformation has led to a situation that the public is losing its trust in the traditional media industry (Newman, 2017). The traditional media industry that has been in turmoil for years, due to the digital transformation of the sector, strives to reestablish this trust and respond to this disruption of the information ecosystem. (World Economic Forum, 2019)

Fake news is disrupting existing business models of media companies. We have limited understanding of how companies can respond to this digital disruption. In this master thesis, I aim to systematically analyze how established media companies can respond to this new challenge. Based on existing research on fake news, digital disruption, and business model innovation first potential strategies that companies can apply are being identified. Subsequently, semi-structured interviews and secondary source analysis are conducted to identify actual strategies of established media companies. From these strategies are derived that media corporations can use to adapt to the changing dynamics of fake news.

The main findings of the paper include potential strategies that media corporations can use to cope with the fake news phenomenon. Further, characteristics of digital disinformation are identified, as well as its implications of digital disinformation on media corporations and ways how they can adapt to it.

2   Theoretical Framework

The following chapter discusses key concepts and relevant theories related to the research question. Since this paper is looking into how fake news influences business models in the media industry, the chapter starts off with looking into the definition of fake news, then the major literature about digital disruption theory is described, comprising sub-chapters about disruptive innovation, digital innovation, digital ecosystems and value logics. Further it is discussed which impact digital disruption has and how it differs from traditional disruption. This is followed by a discussion of business models and business model innovation, and which capabilities are needed in order to innovate a business model.

2.1   Fake News

The term *fake news* has been the focus of many studies and articles across different disciplines in the last years. The term gained more attention since the US presidential elections in 2016, which was marked by a sharp increase in false news and misinformation (Albright, 2016). It is often brought up in relation to online platforms, in particular social media, which have allowed non-journalists to engage in journalistic activities, producing journalistic outputs including news (Robinson and DeShano, 2011). Consequently, social media has not only challenged the traditional definitions of news but also the notion of factual reporting.

Contemporary discourse often defines fake news as false information or propaganda which is presented as factually accurate (Fake News: Understanding Media and Misinformation in the Digital Age edited by Melissa Zimdars, Kembrew McLeod). However, as Edson C. Tandoc Jr., Zheng Wei Lim and Richard Ling point out, there is no single, all-encompassing definition of the term, but several kinds of formats that can be classified as *fake news*. Reviewing multiple academic publications that used the term fake news, Tandoc and others (2017) were able to identify six different types of fake news i.e.: satire, parordy, fabrication, manipulation, propaganda, and native advertising, with fabrication being the most popular understanding of fake news. They differ in the degree of the facticity they offer and in the creator's intention to deceive and can be mapped out from high to low. Native advertising, for example, is based on one-sided facts, whereas fabrications have no factual background. In addition, both fabrication and manipulation show a high level of immediate intention to deceive people as they primarily aim to misinform or to generate profit through social media circulation. What is common across the different types of fake news, though, is that they all appropriate "the look and feel of real news; from how websites look; to how articles are written; to how photos include attributions"

(Tandoc et al., 2017, p.11). By mimicking the style of contemporary news, fake news presents itself as legitimate and credible undermining accurate reporting. This is considered to be highly critical especially with regards to social media, where the actual source of information often gets removed, or at least perceived at a distance (Kang et al., 2011).

Level of facticity	Author's immediate intention to deceive	
	High	Low
High	Native advertising Propaganda Manipulation	News satire
Low	Fabrication	News parody

Figure 2: Fake News Classification Table (Tandoc et al., 2017)

As a result, major social media companies and news corporations have been ambitiously implementing verification measures and collaborating with fact-checking outlets to counter fake news. Facebook, as one of the platforms through which fake news arguably spread faster than on any other social website, has quadrupled the number of fact-checking partners in the last year from 13 to 52 fact-checking sites in 33 countries worldwide since the launch of their third-party fact-checking program since December 2016. (Facebook, 2020a; Funke, 2019; Guess, Nyhan & Reifler, 2019; Travers, 2020)

Additional initiatives, which Facebook says they are undertaking include the development of their news feed ranking as well as of their reporting system, and the development of new products to reduce the prevalence of false news content. (Facebook, 2020b; Mosseri, 2017)

Notably in this context is the fact that Facebook is particularly focusing on removing the economic incentives for traffickers of misinformation, as fake news seems to be primarily financially motivated. This brings us back to defining the term *fake news*, as Facebook's *Disrupting Economic Incentives* are reflected in the definition of Alcott & Gentzkow (cited in Tandoc et al., 2017). Alcott & Gentzkow (cited in Tandoc et al, 2017) define fake news as intentionally and verifiably wrong or false news produced for the purpose of earning money and/or promoting ideologies. Their definition explicitly excludes "slanted" news, conspiracy theories, rumors and "false statements by politicians". They argue that there is a market for verifiably false news because (1) it is cheaper to produce false than accurate news, (2) it is costly for consumers to distinguish between accurate and fake news, and (3) consumers may enjoy reading fake news because it confirms their beliefs. Alcott & Gentzkow definition of the

term fake news is in line with Tandoc and others' (2017, p.12) findings, as "most common current definitions seem to focus on the third quadrant, which centers on fabrications that are low in facticity and high in the immediate intention to deceive". Therefore, this research paper will be using Alcott & Gentzkow's understanding of the term fake news, when studying the research question and evaluating the results of the expert interviews.

2.2   Digital Disruption

Digital disruption is a concept that builds on two underlying concepts: disruptive innovation and digital innovation. (Baiyere and Hukal, 2020; Skog et al., 2018) It can be seen as a consequence of digitalization and digitization, blurring the boundaries of traditional industries. Therefore, this chapter discusses the concepts of disruptive innovation, digital innovation and digital ecosystems. Further discussed are the main inhibitors that often prevent incumbent firms from adapting to disruptive changes in their environment.

2.2.1   Disruptive innovation

Since digital disruption builds on the concept of disruptive innovations, it makes sense to look closer into this idea and outline its key characteristics. The term *disruptive innovation* was first defined and analyzed by Clayton Christensen (1997) in his book *The Innovator's Dilemma*: When New Technologies Cause Great Firms to Fail. In a field study, Christensen (1997) had observed that an incumbent firm despite abundant R&D resources was replaced by a new entrant, which had launched a product based on a new technology. The new product initially only attracted the low-end of the market and thus, was ignored by the incumbent firm as this did not represent a profitable enough market segment to them. After a while mainstream customer started switching to the competitor's new product, which, consequently, led to the displacement of the incumbent in the market. Hence, disruptive innovation can be generally described as an innovation that creates a new market and value network that eventually disrupts an existing market and value network, displacing established market-leading firms, products, and alliances.

Disruptive innovations can either start off in the low-end of the market or in a detached (new) market (Schmidt and Druehl, 2008). With regards to new technologies, it is argued that, from a demand-side perspective the performance of technologies improves at a faster pace than the consumers can make use of. As the consumer's marginal gain of performance on the primary dimension diminishes customers start valuing the secondary dimensions of a technology and churn. (Adner, 2002)

Baiyere and Hukal (2020, p.5483) identify three important characteristics of disruptive innovations which are relevant to the understanding of the concept of digital disruption: Impact, Relativity, and Temporality. The first characteristic 'impact' highlights that the disruption is not about the technology itself, rather the implications it has on an incumbent. Not the technology is inherently disruptive, but the displacement of another technology is what makes it disruptive. The second characteristic, 'relativity', describes that there must be an entity that has been disrupted through the innovation, thus, disruption is a concept of perspective. The third characteristic, 'temporality', describes that disruption is a process and that the status of being disruptive can dissolve over time. This implies that organizations have to continuously reinvent their products and themselves, to avoid being disrupted.

2.2.2   Digital innovation

Digital innovations are innovations that entail digital technology. As opposed to physical 'normal' technology, digital technology i.e. modern computers, is designed on the basis of the *von Neumann* architecture, which enables them to be reprogrammed and extended. Moreover, the information of digital technology, digital information, is homogenous, meaning that all digitized information is written as a pattern of 0s and 1s. This makes digitized information editable by anyone, it can be read, written, and updated by any program that has the right interface. (Yoo et al., 2012, p.1399f) Skog and others (2018, p.433) define digital innovation as "the process of combining digital and physical components to create novel devices, services or business models, bundling them to constitute and enable market offerings, and embedding them in wider sociotechnical environments that enable their diffusion, operation and use." The qualities of digital technology allow for digital innovations to have two distinct traits: *recombination* and *generativity.* The recombination is rooted in two factors that are intertwined: *digitization*, which is the process of translating information from physical into digital format, and *digitalization*, which is the strategic implementation of digital technology to change the business model and provide new revenue and value-producing opportunities. (Skog et al., 2018)

Since digital information is homogenous, any digital technology can hypothetically interact with any other digital technology i.e. be recombined. (Baiyere and Hukal, 2020, p.5484ff) For example, an AI algorithm that has been written to forecast consumption patterns in retail, can be repurposed and used to make predictions in the financial sector, as well. All it takes is redefining values and variables as most of the foundational technology can be used in the same way as it worked in the retail sector. Recombination promotes *generativity* which means that digital technology can be extended and repurposed across industry boundaries, which generates

an ever-increasing range of possibilities. For example, weather data can be matched with consumption patterns, creating the opportunity to make predictions on the shopping behavior of customers based on the weather forecast. Generativity offers boundless possibilities to create new analytics and functionalities. (Yoo et al., 2012, p.1402f)

2.2.3 Digital Ecosystem & Value logics

As described in the previous chapters, disruptive innovation and digital innovation are both underlying concepts of digital disruption. Baiyere and Hukal (2020) define digital disruption as: 'the alteration of a domain-specific paradigm due to the digital attributes of an innovation.' (Baiyere and Hukal, 2020, p.5488) New emerging digital technologies and the process of digitalization have not only affected businesses in adapting their structure, but also shaped how entire markets now operate. Businesses do not operate in industries anymore, but in digital ecosystems instead. Adomavicius and others (cited in Skog et al., 2018, p.434) define these digital ecosystems as, 'sociotechnical networks of interdependent digital technologies and associated actors that are related based on a specific context of use.' This definition entails that in digital ecosystems different entities relate to each other through a general-purpose technology. Digital ecosystems are networks of interdependent actors and digital technologies, for example n-sided markets such as digital platforms. Value logics describe the underlying economics of digital ecosystems, that represent the mechanism of value creation and value capture and thus the motivation for actors to design, bundle and implement digital technologies into ecosystems. (Skog et al., 2018)

2.2.4 The impact of digital disruption

The pervasiveness of digital technology and the dynamics of digital ecosystems increase the complexity in which organizations operate. Digital technology is embedded in all kinds of devices and products. Customers become used to handling digital products more and more and competition not only comes from within the industry or connected industries. But can basically come from every direction. Referring to them as "big-bang" disruptions, Downes and Nunes (2013) suggest that *digital disruptions* have a greater impact than traditional disruptive innovation. While in 'traditional disruption' firms still had some leeway to respond to being disrupted, in the digital world disruption has the potential to happen overnight. In contrast to 'traditional disruption', digital disruptions start off with offering a product that is not only cheaper but usually more efficient, and better integrated with other products and services. Yoo and others (2012, p. 1401) suggest that digital technology has 'democratized' knowledge and

the innovation process. Innovation is not about developing a ground-breaking digital technology anymore, but rather who is able to put that technology effectively and efficiently into use. This, consequently, diminishes the competitive advantage for businesses that had previously relied on industry-specific knowledge and demands from them to develop crucial digital capabilities if they want to compete in the digitized world. (Yoo et al., 2012) Having said this, it seems that many incumbent firms often fail to respond to disruptive innovations. Many studies have attempted to explain the reasons why this is happening, and they suggest that the old seems to inhibit the new.

Lucas and Goh (2009), for instance, have shown that even though Kodak's R&D department had filed many patents that enabled the success of digital photography, the firm did not successfully transition from analog (film-based) photography into digital photography. It eventually got displaced by competitors and new entrants, which led to Kodak's bankruptcy in 2012. In another research, Chesbrough and Rosenbloom (2002) studied the case of Xerox, which had one of the most prominent and successful R&D units, the Palo Alto Research Center (PARC), whose patents enabled many successful innovations, such as laser printing, the personal computer, and object-oriented programming. However, most of the patents invented, were sold off and commercialized by former employees outside of the corporation. Even TiVo, which was not too long ago a disrupter of cable companies itself, became (almost) displaced by new entrant streaming services, such as Netflix. (Ansari et al., 2015) These are only a few examples listed, yet as Leonard-Barton (1992) suggests incumbent firms seem to fail to respond to disruptive innovations because of a shift in routines and capabilities. Existing core capabilities, those capabilities that ensured that a company achieved sustainable competitive advantage in the first place, turn into core rigidities that hinder the new product development process. Similarly, Gilbert (2005) identified that firms face certain inertial forces that comprise resource inertia and routine inertia. Building on Adner's study (2002), Henderson (2006) proposes that another reason for failing is companies overemphasize their most profitable core customer segment. The strong focus on the routines that were developed to seize their most profitable customer segment, the customer-facing competence. This would need to be replaced with a market-facing competence if a company wants to identify successfully new customer segments. Not investing into potentially disruptive innovations might be a perfectly reasonable decision for managers if they do not have the required market-facing competence. (Henderson, 2006)

However, even if new opportunities are being revealed there can be pitfalls on how to evaluate, exploit, and integrate the opportunities.

Benner (2007) indicates that external capital providers focus primarily on short-term profits rather than long-term investments. This exerts pressure on the management level, leading them to allocate limited resources to highly certain incremental innovation processes, which may increase profitability in the short term; rather than strategic investments into uncertain, long-term investments that would enable discontinuous change. These expectations are for example, reflected in the financial tools a firm uses to evaluate its project decisions. When innovating and developing a known technology base with a known customer segment using net present formulas or discounted cash flow assessments makes perfect sense, as a lot of the variables can be assessed with high certainty. On the contrary, when assessing a new technology, the dimensions of the customer segment often is unknown and the growth potential inherent is highly uncertain. Using net present value and discounted cash flow formulas in this circumstance will rather inhibit assessing new technologies, as developing the old technology will seem more profitable. However, these tools disregard the latent potential and implications in a new technology and thus, often inhibit to respond to disruptive threats. (Christensen et al., 2008)

Additionally, Tripsas (2009) identified that organizational identity, how an organization is perceived internally and externally, acts as a filter that can inhibit the evaluation of new opportunities, as well. Organizational identity is constructed by the perception of tangible and intangible asset structure, and former decisions that a company has made. Since, the organizational identity is reflected in stakeholder's minds they are resistant and hesitant to change. Also, Hannan and Freeman (1984) showed that the degree of formalization inherent in the organizational structure has also negative effects on the capability to reorganize. In line with that, Chesbrough and Rosenbloom (2002) argue that the reason for the failure of incumbents lies in the friction between the existing business model and the business model that is needed to commercialize innovation. Since the new structure is needed to respond to the environmental change, incumbent firms which do not manage to transition into the new structure eventually fade out of business.

Digital disruptions make these challenges even more difficult and introduce additional obstacles. First, digitalization has an ever-increasing speed, and firms that fail to build up, nowadays necessary digital capabilities are subject to failure. (Karimi and Walter, 2015)

Further, through the dynamics of digital ecosystems and the characteristics of digital innovation, competition does not only com from adjacent markets, but also from rather unexpected directions. Take, for example, the way that Amazon started out as an online-book retailer and leveraged its digital capabilities to compete with companies as disparate as Microsoft, ABC, and Apple's hardware branch. (Gupta, 2018)

To conclude, the review of the literature on digital disruption has shown that digital disruptions comprise characteristics of the concepts of disruptive innovation and digital innovation. Digital disruption is described as a consequence of digitization and digitalization in industries that blurs the boundaries of those and creates new value logics in them. Disruption is a perspectival concept, that describes the displacement of an incumbent firm due to changes in its environment. Further, it was shown that incumbent firms are struggling to cope with disruptions due to the processes and systems that were brought into place that often enabled their success in the industry in the first place. These processes and systems are anchored in a firm's business model, thus firms need to innovate their business model to cope with the changes induced by disruptions as the next chapter will discuss.

2.3   Business model innovation

The inhibitor that hinders incumbent firms to adapt to discontinuous change is the friction that is created when the new business model collides with the existing business model. Firms that are acting in fast-changing environments, thus, need to manage two different streams of activities. On the one hand, they have to continue their operations, which ensure that they have a continuous income stream at the particular moment, on the other hand, they continuously need to be forward looking and explore new opportunities to capture value in the future and reduce the risk of being disrupted. Managing this dualism can be quite difficult, as these modes require management to incorporate a certain ambidexterity in the organization, to be able to lead the two 'different' businesses at the same time and ensure that they work for the same vision or objective. This is what the next section is about. First, I will introduce important capabilities needed to manage disruption at the firm level. Second, I will elaborate what a business model is and where its theory is grounded. Third, I will present business model innovation as the link between dynamic capabilities and capturing value from a group's strategy.

2.3.1   Dynamic capabilities

To overcome the barriers of adapting to discontinuous change, firms need to have higher order capabilities (Teece, 2007). Teece (2007) suggests that in fast-changing environments firms

crucially need to have so called dynamic capabilities. They are defined as the ability to 'continuously create, extend, upgrade, protect, and keep relevant an enterprise's unique asset base.' (Teece cited in Birkinshaw and others, 2016)

Teece (2007) distinguishes between three important capabilities that firms needed to ensure sustainable competitive advantage. These stand in contrast to lower-order, ordinary capabilities. Ordinary capabilities can be described as the capabilities that a firm has created to be able to provide its current way of value creation; they are designed and created in the terms that the current business model requires. (Teece, 2018) On the other hand, dynamic capabilities are forward looking capabilities. Teece (2007, 2018) distinguishes between three capabilities that enable to prosper in fast-changing environments: Sensing, seizing, and reconfiguring. Depending on the structural mode of adaptation these reside at different levels of the organization. (Birkinshaw et al., 2016) The sensing capability describes the capacity for firms to explore new markets and assess future opportunities and threats. Seizing relates to the capacity to exploit business models and designs. Lastly, reconfiguring relates to the capacity to maintain competitive through the alteration of tangible and intangible assets.

2.3.2 Definition of business model

There is no generally accepted definition of the concept of business model (Shafer et al., 2005), however, there are repetitive elements in the definitions. Here are some proposed definitions in the literature:

Amit and Zott (2001 p.511) define a business model as the depiction of 'the content, structure and governance of transactions designed so as to create value through the exploitation of business opportunities.' Shafer and others (2005, p.205) define business model as "a representation of a firm's underlying core logic and strategic choices for creating and capturing value within a value network." Teece (2010, p.172) proposes that a business model "describes the design or architecture of the value creation, delivery, and capture mechanisms it employs". Osterwalder and Pigneur (2010, p.14) describe a business model as the "rationale of how an organization creates, delivers, and captures value". As the observant reader can see, there is no universally accepted definition of the term business model. However, there are recurring elements in the definition, a business model whether it be a 'design', a 'rationale', a 'depiction', or an 'architecture', always strives to answer the important questions of a firm in a particular order, for "whom are we creating what value?", "how do we deliver this value?", and "how do we profit from it?"

Johnson, Christensen and Kagermann (2008) define four interrelated building blocks of a business model, these comprise customer value proposition, profit formula, key processes, and key resources, which can also be seen in figure 3 which depicts the structure of a business model (Gassman et al., 2014)

Figure 3: St. Galler Business Model Navigator (Gassman et. al, 2014)

Thus, a business model, building on the core value proposition and customer segment defines what assets and resources, and which interlinkages between the organization's internal and external stakeholders are needed to deliver value, and create revenue. The business model is the bridge between a technology and the value capture in an organization. According to Christensen and others (2016) all business models have three distinct stages of development that will be further discussed in the following. First, is the creation stage, which has the aim to identify a certain job or need a customer has and how value can be delivered to them. Inhere reflected, is the highly customer-centric aspect of business model innovation, instead of improving a product line, everything evolves around certain needs that customers need a solution for. This often needs a certain macro perspective on customer needs, for example instead of thinking a customer wants to buy a car and we need to deliver the best engineered car to fulfill his need, we strive to find the reasoning why a customer needs a car. This for example can be the customer need to get to his job, and that is why he wants to buy a car. However, the customer will have this need also satisfied if he uses public transportation or could rent a car. The creation phase really is about understanding, which jobs a customer needs to be done, and what are possible ways that could fulfill this need, which resources and underlying

processes does the company need to satisfy the customer. Second, is the Sustaining innovation stage, in which the business unit is further evolved by building strong relationships with the customers and repeatable processes are developed from the findings of the creation phase. And third, the efficiency stage in which the profits are being nurtured and advancements in the business models are going towards increasing efficiencies. As business models go through these stages, they become more rigid, thus more robust to change.

2.3.3 Business model innovation

Instead of thinking of business model innovation as an event, it is important for managers to realize that they need to take the perspective that business model innovation is an ever-continuing process. Christensen and others (2016) describe business models with the metaphor of a journey that is divided into three stages and through which every business model goes.

Disruptive changes reveal latent customer needs to which an organization must react, in this situation the current approach to creating value at the customer-level and capturing value at the organizational level gets outdated. Business model innovation is in its roots enabled by establishing a new culture in the organizations, employees need to have a vision in mind that enables them to assess new, emerging opportunities, outside of the cognitive frames that incumbent firms established for so long. If the culture is not open to change, an organization will not be able to adjust to change. Business model innovation is a relatively new concept that has really gained scholarly attention only in the past decade. (Ramdan and others, 2019) Casadesus-Masanell and Zhu (2013) see the reason for this increased notion in the opportunities that arise from the pervasiveness of digital technology. According to Casadesus-Masanell and Zhu (2013, p.464) it "refers to the search for new logics of the firm and new ways to create and capture value for its stakeholders; it focuses primarily on finding new ways to generate revenues and to define value propositions for customers, suppliers, and partners". According to Markides (2006, p.20) business model innovations are "attracting new customers into the market or [by] encouraging existing customers to consume more". Adner and Snow (2010) suggest that there are three strategic approaches an organization can use to respond the threat of disruption. The most prevalent one in the literature is, seeing the discontinuity in technological change as inevitable, and thus, fully adapting to these changes. However, there are two other ones that firms often use in practice and which are often disregarded by the academic literature.

Adner and Snow (2010) identified the 'retreat' strategy and the racing strategy. 'Racing' strategy describes fighting off the technological change by extending the lifetime of an old

technology, by making it more efficient. 'Retreat' strategies comprise that a firm retrenches the old technology into a customer segment that still values the old technology either in the home market or apply it in a different market. By retrenching, firms search for customer segments that find the old technology more relevant than the mainstream segment. This is possible because the disruptive change in an industry reveals latent customer needs. When a firm focuses on these latent variables and customer segments, it can restructure its value proposition and business model in a way that makes the value proposition more relevant to the customer. Even though this means 'falling back' to a potentially smaller customer segment than covered by the 'new offering', this can still be profitable for the organization since it is a differentiating factor and the firm can ask a premium for it. (Adner and Snow, 2010)

This chapter discussed business model innovation due to the reason that most inhibitors in incumbent firms that prevent them from reacting to disruptive threats are anchored in their business model. The chapter first described dynamic capabilities as these capabilities are crucial in order to innovate business models. Second, common definitions and elements of business models were discussed. Third, literature on business model innovation was discussed, as these offers important antecedents that have to be met in order to ensure the viability of business model innovation. Lastly, different strategies in terms of how firms can innovate their business model when facing discontinuous change in their environment were described to paint a clearer picture of the decision-making process companies go through when facing disruptive threats.

3 <u>Methodology</u>

As mentioned before, fake news is a phenomenon that has gained prevalence in the digital era and has a profound impact on several stakeholders in the media ecosystem, however, it is not disruptive innovation nor does it represent a new business model. So far, there has been no other kind of disruption described in existing literature on disruption and business model innovation that can be compared to fake news. However, it is arguable that fake news does represent a form of digital disruption. Although they may not offer a better or at least comparable value to customers of an incumbent entity, fake news is competing with the news from traditional media companies for engagement, profit, and trust. The research aims to identify how the fake news phenomenon is perceived by traditional media corporations and in which ways they react and adapt their business model to it.

3.1 Research design

Since the phenomenon of fake news is not covered by the reviewed existing business literature, an inductive approach to studying the research question is chosen. Contrary to deductive research approaches, inductive research approaches allow the construction of new theory from specific cases. (Saunders, Lewis & Thornhill, 2016, p.50ff) Theory building approaches are best used, when phenomena are studied that are not covered by existing literature. They rely on qualitative data collection, since in inductive approaches generalizations are being constructed from observed cases. (Eisenhardt & Graebner, 2007)

3.2 Data collection

This study uses two means of data collection in order to collect qualitative data. As means of qualitative data collection semi-structured interviews with industry experts were conducted and secondary source raw data was processed. Both methods of collection will be described in the following. The semi-structured interview is a widely used qualitative research method (McIntosh and Morse, 2015). Semi-structured interviews are a suitable data collection method for inductive research approaches. The semi-structured interview is a systematic method of data collection. Conducting semi-structured interviews, is a way to motivate interviewees to give detailed, in-depth information in their responses. A guideline and interview-protocol are created to ensure a structured and topical-led interview process, the validity of the conducted interviews, as well as the neutrality and comparability of results. The guideline and interview-protocol are created with the support of the previous literature review and the analysis of the

fake news phenomenon. To gain as much information as possible the questions are being asked in an open manner. Interviews were conducted via phone, video call and in person.

Further the data from the semi-structured interview was supplemented with documented secondary data of media experts. According to Saunders and others (2016, p.319), secondary data is often used to supplement primary data in the research process and can include non-text documents media such as voice recordings and video recordings, as well as text documents such as blogs, magazines, organizations' communications and interviews.

Secondary data offers several advantages, such as the fact that it is often permanent and readily available. Further, it offers the ability to extend the sample size of just one source of data collection. However, using secondary data also needs to be critiqued for several reasons the researcher does not have real control over the quality of data, they bear the potential that definitions may be unsuitable to the research purpose, and they might be influenced by the initial purpose the data was initially collected for. (Saunders et al., 2016, p.333f)

3.3   Expert selection

The following section describes the criteria that were used to identify relevant candidates for expert interviews and secondary sources. According to Gläser and Laudel (2009: p.117f) the following criteria have to be given when choosing experts: the availability of relevant knowledge in the topical area, the ability to convey this information precisely and the willingness to answer truthfully. Traditional media companies were defined based on their mission to provide informative contents to an audience. These included privately funded and publicly funded media organizations. Media organizations, whether they be newspapers, TV stations, or radio broadcaster, are offline and online information providers for their audience. They strive to deliver relevant, engaging, entertaining, and informative content to their audience. The content they distribute is either acquired from news agencies, or through their editorial newsrooms. Further, the content is then edited for publication depending on the chosen channel. Publicized content, usually ascribes to the premises of professional journalism, which are anchored in codes of honor, whether it be in the US, Germany, or the UK, they comprise mandatory guidelines such as fairness, objectivity, accuracy, and intelligence. In the privately funded traditional media sector revenue is traditionally created through two streams, one is subscription-based revenue, that is acquired from the audience. The second, is the placement of advertisements in whatever medium is used to transport the information. Historically, the second stream is the by far, larger one and was used to subsidize the production of news content.

However, due to the evolution of social platforms these revenues have mainly shifted to two large technology firms. The traditional media business model is what one could call a razor-blade business model. While the razors in this case are the subscriptions and the blades are sales to advertisement customers. Nowadays, most news outlets rely on the audience-based revenue that is acquired through providing content.

Interview partners were selected by having specific and concentrated knowledge about the traditional media industry. Relevant candidates for the interviews that were conducted were all selected by a list of criteria that included the requirement that they have at least two years of working experience in traditional media companies, particularly in areas such as strategy units, innovation sub-units, corporate venture capital units, and editorial units. Further, they were selected by their job positions which included managing positions such as c-level executives, publishers, managing editors, debunking-unit managers as well as senior associates. For the expert interviews 74 experts were contacted over the course of two months, five of those contacted were able to give insights and were willing to give an interview.

For the selection of secondary source interviews and panel talks, the same selection criteria, regarding the background of interviewees and speakers were used to ensure the validity of secondary sources, in the end eleven secondary source interviews, and panel discussions were used for the study.

3.4 Interview Guideline

Interview Guideline

Request consent for recording interview

Introduction

Objective: Fake news is a core challenge of the media industry that threatens the legitimacy of media companies. This interview strives to identify whether Fake news is perceived as a threat in the media industry and what strategies companies apply to respond to this challenge and comparable challenges.

General information

Please introduce yourself shortly, and describe your role in your company

Can you briefly describe the existing business model of your company?

Fake News

How does fake news impact this existing business model?

- How would you say does Fake News represent a challenge to your existing business model? Please explain
- Does the prevalence of Fake News create new opportunity for your business model? If so, please explain

How are you responding to the threats which are caused by fake news?

How are you responding to the opportunities, which are created by fake news?

- Are you creating new partnerships?
- Are you creating new complementarities to your existing business model?
- Are you creating entirely new formats or offerings?
- Has your content strategy changed?

General Open-ended questions

Do you think that the transformational pressure in the media industry has implications on the quality of media, causing an increased attacking point for fake news?

Are there any companies that you would identify as having an innovative approach to respond to the challenge of fake news in your industry?

Is there anything that you would like to discuss that may be of value to this discussion?

3.5 Thematic analysis

To process the contents of the primary and secondary data, all non-text sources were transcribed manually. Then a thematic analysis was conducted to find themes in the responses of the media experts interviewed. Thematic analysis is often referred to as a generic approach to analyze qualitative data, it is a flexible process that allows new themes to emerge. (Saunders et al.; 2016 p.578) Thematic analysis identifies key themes in text, these themes are coded and aggregated, are then used to build theoretical models or to find solutions to real-world problems. (Guest 2012)

According to Saunders, Lewis and Thornhill (2016, p. 580) thematic analysis is a systematic technique that follows certain steps:

1. The researcher familiarizes herself with the data
2. Initial codes are created for the data
3. These codes are assigned to sub-themes
4. The sub-themes are then organized by themes
5. Themes and relationships between those are being explored
6. Themes are being refined and propositions are tested

Rather than analyzing data in a linear process, the already analyzed data is continuously revised in support of the themes that have been defined. Since the interviewees were assured anonymity, codes in the form IP 1-IP 5 were used for quotations stemming from self-conducted interviews.

4   Findings

In this section, the findings of the expert interviews and the analysis of secondary sources such as, blog posts, panel talks and interviews with and from media executives are presented. The findings were coded these codes were then organized into sub-themes. Subsequently the sub-themes were ordered in terms of themes.   The first theme describes the characteristics of disinformation that media experts described about disinformation in the digital age, the second theme describes the implications that disinformation has on traditional media corporations and their audience. The third theme is describing the approaches that media corporations take to anticipate the implications of fake news.

4.1   Characteristics of disinformation in the digital age

Regarding how fake news is perceived, the research findings of this paper could reinforce the common idea that fake news has been in the media industry and society as a whole for a long time. However, it gained considerable profound momentum in the digital age, as one interviewee explained:

> *"It is a very large and very difficult topic and something that will be difficult or even impossible to solve. [...] Wars are in my opinion the best example [for the history of fake news], because there have always been lies in the reporting, regardless of which parties involved. And these were always fake news, and there has always been and will always be news who have the objective to deceive. And this is the reason why this will never stop." IP 1*

Fake news in the digital age carries specific characteristics, which derive primarily from the way they are distributed and produced. The findings show that disinformation in the digital age can quickly gain a firmness in public discourse, one interviewee stated:

> *"The distinctive property about it [fake news], nowadays, is that fake news in the course of internationalization and globalization, connect with digitalization in an ominous matter. What I want to say with this is that fake news have such a big impact, because these stories, are now going viral in a much faster way. Most importantly, the speed with which they spread is immense. [...] Here technology supports that they gain high momentum, and they solidify in the public discourse" IP 4*

Perpetrators use digital technology to distribute fake news, as it allows for disinformation to spread quickly and at marginal or even zero cost across the information ecosystem as one of the media experts, working as a CTO noted:

> *"With the prevalence of the internet and the anarchy of the world wide web, I mean anarchy in a positive way, fake news becomes especially important. Since, information can be created and spread at zero costs, which has led to a radical disruption." IP 3*

This is particularly problematic, as fake news by definition are produced for the purpose of earning money and/or promoting ideologies. The often polarizing controversial content often stirs the audiences' emotions and triggers them to share the "information" with their peers, regardless if the information is right or wrong.

> *"It is comparable to fear, you can tell someone who is in fear 'do not be afraid', but that is a rational answer to an emotional state. That does not work, and it is the same thing with conspiracy theories." IP 4*

This consumer habit alongside the technology behind the internet and social media platforms – the algorithms that tend to push the most viewed content without checking whether it is true or not has magnified the impact of fake news. They can become sensationalist in a very short period of time, as described by one of the media experts:

> *"You are especially successful on social platforms with things that are liked more and shared more by users. The whole infrastructure of a Facebok or Youtube is built around the optimization of retention time of users. Since this means an increase in advertisement revenues [...] It is a completely totalitarian infrastructure, about which every dictator would be happy. [...] [In this infrastructure] there is untransparent algorithms which deliver no information about how information is spread. This is paired with the human tendency towards sensationalism, so that suddenly contents that are lurid and polarizing become the most successful contents on these platforms." IP 3*

In addition, the sensationalism of fake news is also boosted by the economics of platforms, as some media executives agreed upon.

> *"the economics is that the economics of the internet right now incentivizes people to create content that are at the extremes because when content is at the extremes of an opinion it gets more eyeballs and therefore generates more revenue." Gary Liu – SMCP*
> (Fernandez et al., 2019)

The rise of fake news poses a challenge to digital as well as traditional media companies because they not only now compete with an additional competitor for audience's attention, but also one that has cheaper production costs. On top of that, the production of fake news itself has become more professional over the last years as this study found out. There is a great deal of professionalism shown in mimicking the style of contemporary news as well as exploiting relevant technology to their advantage, which makes it difficult for the audience to distinguish between truthful and manipulated content. Machine learning (ML) and artificial intelligence (AI) algorithms become more elaborate and distributed. These can be repurposed to create manipulated content at a pace and a level of professionality that is almost incomparable to the traditional creation methods of manipulated content. AI and machine learning techniques are used in video manipulation, voice manipulation, and can also create manipulated text content. (Pant, 2018) As one interviewee stated:

> *"one hundred years ago there was also already picture and text manipulation, however, for your generation these were created in a way that you would call dilettante. [...] Sources [now] can be disguised easier." IP 4*

It has become much more difficult to reveal manipulated content, which is not only a local but a global issue that impacts our society as a whole; it presents a "multifaceted problem". Because of the nature of fake news i.e. cheap in production, fast in spreading and high level of intention of deceiving, they had and are having profound implications on how we perceive the world around us and are influencing political as well as economical events.

Summarizing the findings of this study with regards to the characteristics of fake news: fake news is not a new phenomenon in public discourse, however, in the digital era disinformation is mostly spread through social networks which economics drive the phenomenon and equips it with distinct characteristics that are closely tied to technological development. This has induced a certain professionalization of fake news in that they become more disguised. Since fake news is spread mostly through social media networks and manipulated content is build with support of digital technology.
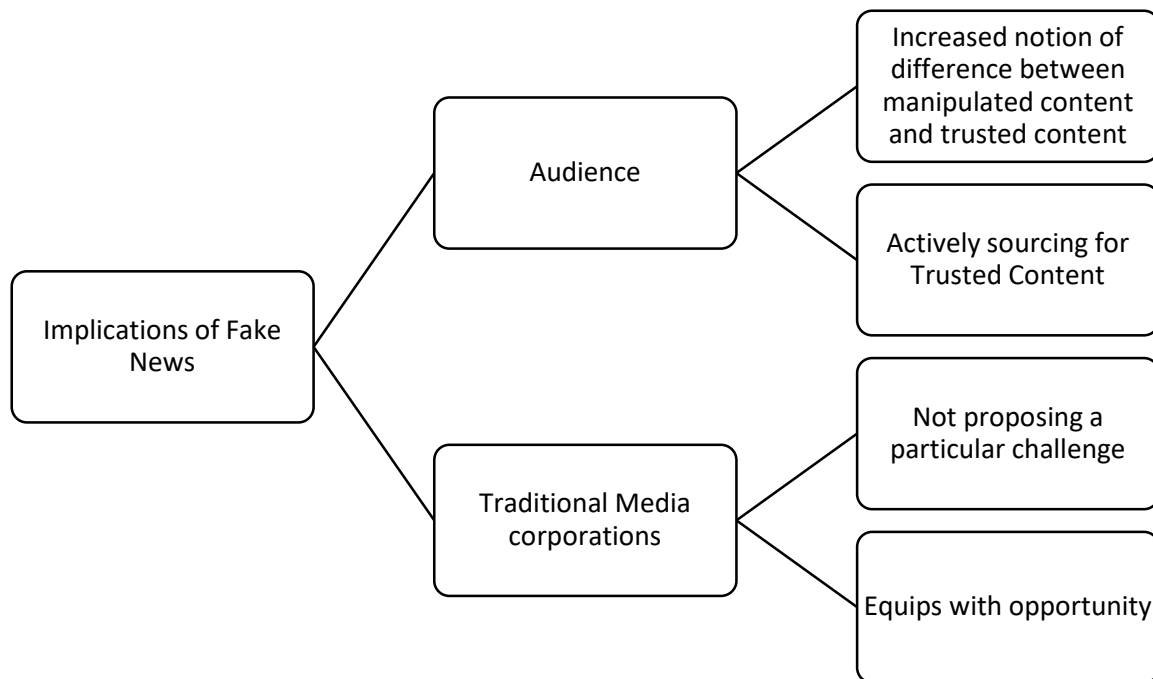
4.2   Implications of fake news

Figure 4: Implications of Disinformation

4.2.1   Implications of fake news on media companies

Even though there are challenges inherent to fake news for reliable content providers, such as news corporations, interviewees did not perceive fake news as a particular threat to their business model. Fake news as such represents a challenge, in that it threatens the public discourse, and adds complexity to the work of journalists, but it does not represent a particular challenge to news organizations that produce most of their content themselves. On that note, one publisher elaborates:

> *"Fake news inhibits the industry on a global level, they inhibit societal development, and influence people, even in elections, as we know. It is a very complex and very difficult topic. [...] Nowadays we, as journalists, have to check all news for their truthfulness, but in our case it does not touch us as much, since we are local media, we create most of our news ourselves, and are kind of the last element in the information chain." IP 1*

Traditional media organizations can rely on their long-standing experience with Fake News to navigate through current times of post-truth. Disinformation does not influence their business model directly, in structural terms, but the increase of perceived legitimacy that fake news gains

through resharing and reposting does. This is reflected in the following quote of an editor-in-chief from a regional media company

> *"I would not say that Fake News as such challenge our business model, one of the reasons is that disinformation has a long history already. What represents the challenge in our case [...] [is that it is] more difficult to revoke false information, since news are posted in several channels, and further develop their own momentum through resharing and reposting by users in social networks. What could be solved in earlier times with a correction message in next day's paper, is now more difficult to correct. Even if a correction message is posted it is difficult to replicate the momentum and penetration the initial message had."* IP 4

The notion that fake news does not pose a threat to the business model of a company is also shared by experts of other media sectors. A respondent from the entertainment media sector perceives it as a challenge to the media industry as a whole, but due to their orientation towards entertaining contents for clear audience segments it does not influence the media corporation's organizational structure. The interviewee stated:

> *"with our media we are especially focused on entertainment media, we have clear content strategies for clear audience segments, we are less in the news business and more in the entertainment media business, which makes the topic of fake news not as relevant to us. Of course, it represents a challenge for the media industry as a whole, but since we focus on the entertainment media sector, we do not have to take a hard stance against fake news."* IP 2

Another interviewee from a specialist media organization elaborated that fake news is not threatening their business model, since their publications are directed towards small industry communities in which actors know each other. It is a trusted environment in which fake news perpetrators would be quickly identified and excluded, stating:

> *"our publications are directed towards small industry communities, every publication on their own represents its own ecosystem, in which actors are on themselves editors, audience, and advertisers. In these ecosystems there is strong relationships between the actors, which know each other. So that there is no venue to publish something comparable to fake news."* IP 5

The study showed that fake news is considered a societal problem by all of the media experts interviewed, yet they do not perceive it as a threat to their business models. They acknowledge that fake news adds to the complexity of the processes used to research and create content, but agree that it is not influencing the structural and managerial level of their businesses.

4.2.2 Implications of fake news on audience behavior

Although fake news does not impose challenges to media business models, it does to the audience of media corporations, according to the interviewees. In light of the increase of fake news across social media, audiences are asking for news sources they can trust and are transparent in their reporting. There is the notion that consumers are more careful and critical over the news they consume as David Pemsel, former CEO of the Guardian Media group states:

> *"I think people are really anxious, at a time when people are consuming a lot of their content within Facebook, Google, Instagram, or indeed any other social media, trying to understand what is truthful what is not has become a massive problem." David Pemsel – Guardian Media Group* (BoF, 2019)

Media consumers have become more demanding and do not only want to understand how reporters got the information that is being presented, but also want to build a relationship with the person that is behind reporting a news story, as an interviewee from a regional news outlet points out:

> *"I think the expectations of readers and customers increases to know not only what is being presented, but also who is behind [a story]. [...] This has also a lot to do with classification, 'Is it serious to me? Is it credible?'" IP 4*

Therefore, providing background information about the person that is reporting a particular story and the news corporation behind it has become a standard amongst news media outlets; it is considered a good practice. It enables the audience to make an informed decision on whether a certain news piece is credible, but also reinforces the trustworthy image of the news outlet. The trend in consumers being more critical towards the news source they consume is also reflected in an increase of subscription numbers and website traffic, which is especially observable during times of political and economic uncertainty. As one interviewee elaborates:

> *"What you can observe during the [Corona] crisis is that the trust in established media has increased immensely. Even on our websites the traffic has increased like never*

before. Also, digital subscriptions [of traditional media] have increased very, very strongly." IP 5

As derived from the study's findings, fake news has influenced media consumption patterns and preferences. Especially in times of uncertainty, in which fake news tends to circulate in high numbers, people seem to rely on established news sources that offer additional background information to the news context, journalists, and the corporation itself. The aspect of transparency and trustworthiness play an important factor for the audiences when sourcing actively for news.

4.2.2.1 Challenges for audience represent opportunity for media corporations

As mentioned in the previous chapter, there is an increase in the demand for reliable news sources on the consumer side of which media companies can profit. Several industry experts noted that during times filled with extreme uncertainty, such as the Corona Pandemic, consumers tend to seek out news sources they can trust, which has shaped the way news corporations have positioned and market themselves recently. Interviewees, for example have emphasized that holding up editorial standards and creating credible content is of utmost importance during those times to reinforce the relationship to their readers. Credibility and the quality of journalism seems to be more than ever a unique selling point for serious media corporations, as an interviewee mentions:

"Yes, I think so, and this is particularly reflected now by the Corona Crisis which for many developments is a catalysator. [...] For serious media it offers the advantage that we can play our biggest advantage. The biggest advantage might not be having the highest reach or the highest volume, but it is our credibility. [...] So, in one sentence I would say, seriousness is gaining more importance in a positive sense" IP 4

As a result, many of the analyzed media organizations have reemphasized their commitment to their journalistic standards. As Jim Egan, CEO of the BBC elaborates in a statement:

"The BBC says we just need to reemphasize our commitment to real news at this time. In an era of fake news, the journalism that we do and that other serious news organizations whether they are publicly or commercially funded do is more important than ever before. In many ways we are not changing that much, we are just restating our commitment, to the BBC's editorial principles to believe in the value of accuracy,

independence, and neutrality. And trying to uphold those during this very difficult time."
Jim Egan – BBC (Egan, 2019a)

Ensuring this commitment, is important because editorial quality is a key differentiating factor in the media industry as one interviewee stated,

> *"For us what is immensely important is quality since editorial quality justifies our existence. If we do not offer quality, we lose relevance, and this would provide fake news with a target." IP 5*

While news media corporations, which differentiate themselves through editorial quality, seem to be at a disadvantage with regards to production costs and distribution when compared to fake news, their competitive advantage lies in their editorial quality. They are profiting from the post-truth phenomenon because reliable reporting has been in the main focus of the consumers in the recent years. The prevalence of fake news represents an opportunity for media corporations, as it increases the awareness of audiences about the difference between disinformation and serious content. Especially in times of uncertainty, people rely more on serious news platforms which has led to an increase in website traffic and new subscriptions. Additionally, the increased awareness about quality of news consumption among consumers equips them with opportunity to make their publications mor relevant to advertising customers as well. As one interviewee points out,

> *"If we, look at our advertisement business we clearly compete with providers of fake news and there we can use it as a selling argument that customers' advertisement is published next to curated information, that it is brand-safe. We can represent ourselves as a 'safe space' towards our advertisement customers." IP 2*

Thus, disinformation is providing media corporations with an opportunity to sell more advertisement, since advertising customers are also more aware of the difference between fake news and serious media.

4.3 Changes in business model to adapt to the implications of fake news

The media experts interviewed for this study unanimously agreed that fake news does not pose a direct threat to the business model of their company. They did acknowledge though, that the prevalence of fake news has created a unique opportunity for them to reinforce their position as reliable news sources in the market. In doing so, media corporations have adapted their business model and operations to cater the consumers' demand for more transparency and credibility. They have in particular changed the way in which they prepare and publish their content according to the research findings. The new measures comprise actions such as supporting the content verification processes in news rooms, changing the way how content is provided, offering additional complementary news products, working towards a stronger customer relationship, and increasing cooperation to collectively tackle the problem (figure 5).
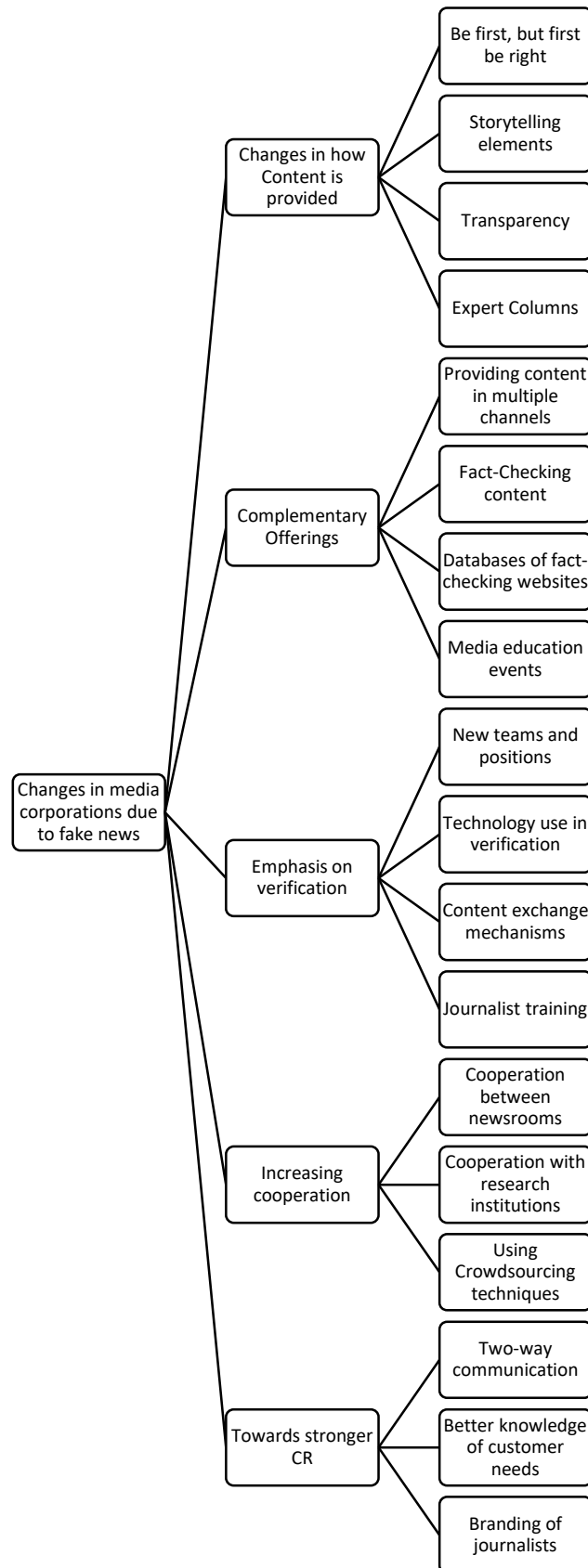
Figure 5: Reaction of Media Companies to Disinformation

4.3.1 Changes in how content is provided

One of the dominant themes emerging from the study is that there is a noticeable change in how content is provided to the audience. The news organizations in the sample have changed how they see themselves in the information chain of their audience. While the main objective of the publishing strategy of traditional media was to be the first one to break news, today it is more important to represent a source of information that delivers critical analysis of news. One interviewee highlights:

> *"We as journalists always say 'be first, but first be right', which means speed has a high value in times of digitalization, but you can also say that in times of digitalization, even if it sounds paradox. Speed loses value, because you are not that long proprietor of an exclusive news piece, because it may go viral in another news source, and in the third or fourth quotation the original source is not even mentioned anymore. From this can be derived that speed is an important factor but not the most important factor for journalists.[...] We [journalists] need to be a benchmark in two ways, first, accuracy is more important than speed, and secondly, if the information is only good enough when the context we deliver is good enough, it is not decisive whether we publish on Monday or Wednesday. The best news stories are those that deliver the same reader value regardless of being published on next Wednesday." IP 3*

Similarly, as Jim Egan of the BBC elaborates:

> *"Organizations like ourselves, CNN, Sky News and so on, being in a race to break news first that era is over. Because that race is basically won by social media. So we now presume that when audiences come to us that they are not necessary coming to us to hear the news the first time [...] So our role is more in explanation, verification, providing analysis and so on." Jim Egan - BBC* (Egan, 2019a)

In times of digital disinformation, it has become even more important to deliver accurate and credible information. The primary role of news corporations, which want to deliver quality news, has shifted to be explainers, analyzers, and verifiers of information, instead of providing breaking news. The first observed phenomenon was that quality media are able to set topics at the cost of speed to spread the news as one editor-in-chief stated about their approach to reporting:

"Away from the classification being a news spot towards a classification of analysis and also to prepare longer pieces. [...] And that I think is a tendency that we have, not to run behind the breaking news business, but think more strongly about which topics we want to set." IP 4

Secondly, media corporations tend to deliver content by using a form of explanatory journalism, which involves writers to actively anticipate potential questions of their readers. In doing so, they create content that is a mixture of news reporting and storytelling elements, which makes the stories more accessible as one interviewee outlines:

"in this regard, even though the initial assumption was that lengthy content cannot be presented in digital channels, it becomes more important to us to engage in lengthy storytelling. We try to anticipate our users, their questions and problems that may arise, and we seem to be successful in this approach." IP 4

Another measure that news organizations have undertaken to adapt their content creation processes to the presence of fake news is that they have become more transparent about how the content is created in the first place. They provide their readers with more detailed background information about the author of the article, the resources used, or about the news organization itself. In short, they provide more context, as one editor-in-chief points out:

"Research depth, credibility, accuracy, and especially transparency are [valued] different[ly] than before. Transparency includes that we reveal our doing, who has researched a topic, which supporting resources did we use, why did we use them, and what were potential limitations to our research. [...] That also includes that we admit to things we could not find out, even though this is not very liked amongst journalists." IP 4

Lastly, media organizations have been placing more emphasis on expert columns and guest contributions, as it not only provides an extra level of expertise but becomes a point of reference for the audience. By providing information about the author of the news item and thus strengthening reliability, news outlets can build stronger relationships with their readership, as one interviewee suggests:

"I think what is often called expert column or guest contribution, gains a whole different level of meaning. Because it offers the opportunity to create a different kind of link between expertise and the public." IP 3

To sum up, media organizations that differentiate themselves through providing quality content, have changed the way they are offering content in response to fake news. Today, they see themselves primarily responsible for verifying and analyzing events rather than breaking the news. This mission is reflected in their increased focus on transparency and expertise. They provide more context to a story and encourage longer formats, opinion pieces and expert contributions.

4.3.2 Complementary offerings

Besides changing the way in which content is provided, media corporations have also been publishing complementary products to their core products as a response to the fake news phenomenon. Media organizations are more inclined, for example, to distribute their content across several different media channels than exclusively via traditional means. One interviewee stated that his firm is constantly testing out emerging digital communication channels, and the appropriate ways how to engage with the customer base in those. (IP1) As the managing editor of the New York Times, Joseph Kahn states:

> *"We have to find more ways of telling readers about that [context of a story]. Audio is a good way to engage more directly and to have more of a conversation about a story involving the reporter, involving a source, involving a host who can ask questions about what we know and how we know it, and 'what surprised you?' Video can be a good way of telling a story in a different way." Joseph Kahn – NYT (Kahn, 2017)*

Secondly, contents are presented that are strictly aimed at debunking fake news, even though these are not typical news stories. Jim Egan of the BBC elaborates:

> *"we have a string called reality check where we are taking a number of claims which are made by politicians and other people, both in the UK and beyond, and we are assessing whether these are really true" Jim Egan – BBC* (Egan, 2019a)

Thirdly another complementary offering is providing databases about known fake news providers, these are provided as open-source databases, as Samuel Laurent states:

> *"the Decodex, which is an application a database we launched in February, which includes 700 websites now. Basically, the idea was that you have a map of the fake news factories, of the less reliable websites in France. Because often you see people being fooled by these kinds of websites. [...] For most of the people if it looks like a journalistic*

story it is journalistic so true. But we know now that this is not true." Samuel Laurent –
Le Monde (Laurent, 2017)

Fourthly, educational events are being organized that teach the public in debunking fake news as Jim Egan elaborates:

> *"But also off-screen beyond fake news has had its biggest manifestation in and around series of events, including both members of the public, as well as members of the media industry. Talking about how to spot, how to counteract, how to work against fake news. Because this is a very complicated problem, and the answer to it will have many dimensions as well." Jim Egan –* BBC (Egan, 2019a)

4.3.3   Emphasis on verification

The analysis showed that the fake news problem is tackled with a resources shift towards the processes of verification in the newsrooms, firstly, new positions and teams for verification in the newsroom are being created. As Peter Kropsch, CEO of the DPA explains:

> *"We have changed our editorial processes, there are new job profiles in our newsroom, we have a radar officer who observes social media to sense emerging topics early on. And there is for example the verification officer, whose job it is to verify whether what we see in our research has factuality." Peter Kropsch –* DPA (Kropsch, 2017)

Secondly, technology is being built that flags suspicious content, to facilitate the verification process of content. An example of this is the Wall Street Journal that does research on artificial intelligence and machine learning algorithms, develops applications to debunk manipulated content and to "fight fire with fire". (Pant, 2018) However, the opinions about technology to solve the fake news problem diverge as Hazel Baker of Reuters explains:

> *"we don't think that currently any of these solutions are up to scratch and we're left with the conclusion actually at the moment it's human judgments and subject expertise and a verification framework which give us the best opportunity of identifying deep fakes rather than relying on technology." Hazel Baker –* Reuters (Baker, 2019)

Thirdly, technology is being built that allows the exchange of researched news between media outlets, to facilitate acquiring trusted content. As a CTO stated:

> *"for example, we are building a News Box at the moment [...] that allows us to acquire content collectively, [...] There we are developing an automated translation technology*

that lets us push content to partner websites. It is not live yet, but we are working on a first beta function in our office." IP3

Fourthly, journalists are being trained to uncover manipulated content through the use of technology and to increase skepticism towards content in them, because there is still doubt about how well technological solutions are at uncovering manipulated content. As Hazel Baker elaborates:

"we don't think that currently any of these [technological] solutions are up to scratch and we're left with the conclusion actually at the moment it's human judgments and subject expertise and a verification framework which give us the best opportunity of identifying deep fakes rather than relying on technology. [...] primarily we also wanted to build a newsroom culture with an ever-greater level of instinctive questioning about this new threat." Hazel Baker – Reuters (Baker, 2019)

Taking these actions is important because circulating fake news would significantly damage the reputation of media organizations, as Rajiv Pant of the Wall Street Journal elaborates:

"we might end up publishing fake videos or audios if we are not careful and two we may report on story is based on fake information which significantly hurts the credibility of a media organization" Rajiv Pant – WSJ (Pant, 2018)

In summary, these findings show that media corporations shift resources to the verification processes in newsrooms. This is done through the creation of dedicated verification positions and teams, creation of exchange systems that facilitate the exchange between news organizations, and trainings provided to journalists in the mechanisms that underly the creation of manipulated contents.

4.3.4 Increasing cooperation

Another finding which emerged from the study is that news outlets have been expanding their collaboration efforts in tackling the fake news phenomenon. One of the efforts, for example, is building partnerships across newsrooms in order to streamline the debunking of fake news, as one CTO states:

"The strategy how we are attempting to tackle this problem is [...], we are creating partnerships, on the level of the EBU - European Broadcasting Union, we are connected in a network with 70 other public broadcasters and for example in this collaboration we work at the moment on the News Box that enables us to share content with all the

partners in the network at the same time. [...] So this network that we are building gives us to opportunity to acquire content collectively, because not everyone has the capacity to research every topic." IP 3

The increased willingness amongst news outlets to work with each other makes it possible to tackle the issue of fake news both, more effectively and efficiently. Efforts such as the *News Box*, a platform on which news outlets share their content with each other, reflect the current trend within reporting to ensure quality content and high journalistic standards by sharing resources for research and verification. Moreover, collaboration efforts on the process of fact-checking itself are increasing,

> *"the first initiative we took was to begin an association with first draft, which is an NGO close to google in a project which is called cross-check which was kind of useful. Basically, we just went together with other newsrooms in France, and we just agreed on the fact that hoax busting and fact-checking should at least fact-checking fake news should not be a competition issues, we should work together on this." Samuel Laurent – Lemonde* (Laurent, 2017)

But there could be also other motivations behind the newsroom collaborations as one interviewee stated that he observes that collaboration between competitors becomes more prevalent, even though this often has mainly an economic background, it also supports the journalistic department in their work.

> *"On principle, I observe that there are big efforts that above the borders of publishing houses there is more willingness to work together. [...] that is not altruistic, or without competition, but the basic thought here is to say, we found out this and you found out this, let us work together." IP 4*

Further, larger media corporations cooperate with research institutions to develop technological capabilities, for example content verification applications. As Rajiv Pant states,

> *"we are currently working in a research partnership with Cornell University where we're looking at more interesting ways to deal with this issue." Rajiv Pant – WSJ* (Pant, 2018)

Another form of cooperation that arose was using crowdsourcing-techniques in debunking potentially manipulated contents, as Jim Egan elaborates:

"Media organizations have been verifying videos and pictures since the birth of the Internet of course but this community of so-called couch analysts has extended the range and possibilities of investigative journalism often with powerful effects. We saw an opportunity to bring some of the techniques of open source into our work to tackle fake news a couple of years ago and to combine them with the BBC standards of writing and presentation." Jim Egan – BBC (Egan, 2019b)

In summary, these findings show that there is tendency to cooperate in media corporations due to the issues of fake news.

4.3.5 Towards a stronger customer relationship

News corporations seem to particularly focus on improving the relationship they have to their audience, according to the study. This is achieved through engaging in a two-way communication with the aid of digital technology but also through presenting journalists as brand ambassadors. As one interviewee states,

"we have changed our customer engagement strategy from a one-way communication to two-way communication. We actively engage in interactions such as discussion and debates on our social media platforms." IP 3

Digital technology has helped news outlets to enable their readership to comment and discuss issues, as another interviewee outlines "we engage in something one would call direct customer relationship […] it has become important to us to know our audience, and in turn it is important to us that our audience knows us and our journalists." (IP4) And further explains:

"That is also a matter of classification, who is serious and is this credible, can I make myself a picture of the producer of a news story […] For what is the creator known, for credible news stories or many mistakes in their stories I think that this has to be developed further." IP 4

News outlets are also trying to strengthen their relationship with their readers through introducing individual journalists as their brand ambassadors but also profit by hiring reporters that have a high number of followers on social media already, as mentioned by the interviewee:

"I also think there is a tendency that singular journalists become brands more themselves as well." IP 4

News corporations react to the phenomenon of disinformation by creating a direct relationship with customers, since this enables the customer to gain a better understanding of the context of a news piece. Doing so, prevents distortions of the business model. As one interviewee stated:

> *"We do not have extra systems [to tackle fake news] because of the knowledge about our distribution area, […] this results in a very intensive and good knowledge of our readers, customers and markets. […] personal contact to many really helps to prevent distortions fluctuations and changes." IP 2*

To sum up, media companies are building stronger and more direct relationships to their customers, this is done by engaging in discussions, by building brands around journalists, and by having a good knowledge about the customer base.

5 Discussion of results

5.1 Discussion of findings

This paper set the objective to answer the research question 'how do fake news influence business models in the media industry', with a focus on the changes that fake news introduce to business models in the traditional media industry. This section discusses the findings of the study and how they add to the understanding of the thematic of disinformation and how business models of news corporations are being influenced by the phenomenon. Further, this paper derives certain strategies used to deal with this phenomenon from the reactions of media companies to fake news.

The first set of findings describes the characteristics of digital disinformation, as these are slightly different to the characteristics of 'traditional' disinformation. Fake news as such is not a new phenomenon in the media industry and society in general but has changed through the digitalization of the 21st century. The professionality of fake news seems to be closely related to the development of digital technology, as perpetrators of disinformation make us of distributed digital technology in the creation and spread of manipulated content. The spread of fake news is further supported and increased by the economics of online platforms; profit is usually tied to the number of clicks or online engagement content receives, which rewards click-bait that mimics real information. Additionally, disinformation is a far-reaching problem that will not be solved by one sole actor or technology and requires the engagement of actors on several levels of the information ecosystem. The findings also suggest that fake news is especially prevalent in crisis situations, this leads to the notion that fake news tends to have a high emotional component.

In terms of threat perception, the media corporations did not perceive fake news as a particular challenge to their business model. Even though disinformation tries to skew the identity of traditional media corporations, media executives did not perceive it as a challenge. This contrasts with the initial assumption that fake news would propose a disruption to traditional media corporations. The media corporations which see themselves as providers of serious content, have already had longstanding experience, with the fake news phenomenon. It was induced that this is due to their expertise in verification of information. Further, they create most of their content themselves, while upholding the editorial standards of reporting, which prevents fake news from having a negative influence on their business model.

The analysis suggests that media executives perceive that their audiences are most influenced by the prevalence of fake news since the widespread discussion of fake news spurs uncertainty about the truthfulness of information. Consequently, the audiences demand truthful content and transparency, since this allows them to better assess whether they can trust a news source. Thus, the prevalence of fake news creates an awareness in users, customers and advertisers, about the difference between real news and fake news. This finding is also reflected by other studies such as a study by Instinctif partners (2017, p.5) conducted with media consumers, which states:

> *"Fake news has made facts – the truth – more valuable. Almost two-thirds (66%) of the consumers of news that we surveyed agreed that hard facts have 'grown more precious in the digital age'."*

Additionally, the statements about rising subscription levels and increased website traffic of a few respondents seem to further support this relation.

In relation to this, the findings suggest that while respondents are not seeing disinformation as a particular challenge, they identified the prevalence of disinformation as an opportunity for their business model. This may be connected to the shift in audience awareness about the difference between fake news and serious news content. Participants further outlined that the prevalence of disinformation plays to their biggest advantage, which may reflect that the prevalence of disinformation in public discourse may represent an opportunity for media corporations to rededicate their mission in the digital era. Similarly, the notion that disinformation represents an opportunity to traditional media is reflected in a study conducted by Newman (2017, p.9) for the Reuter's Institute of Journalism at the University of Oxford states:

> *"In many ways these developments offer an opportunity for existing news brands. Over two-thirds (70%) of respondents to our digital leaders survey say they think their position will be strengthened, by highlighting the need for trusted brands and accurate news at a time of uncertainty."*

In this context, it is important to note that during the digital transformation the business models of media corporations, in general have shifted. For example, as figure 6 shows the publishing branch since 2009 has been going through structural decline, the consolidated advertisement and subscription revenues, of newspaper publishers' print and digital businesses, on average declined annually by 1.7%.

Figure 6: Publishing Industry in Germany (Statista, 2019)

The structural decline in the traditional media sector, and especially the decline in advertising revenues, led to a restructuring of the business models in the media industry. Media corporations now more heavily rely on audience-based revenues. Well-known examples for this are the Wall Street Journal and the New York Times with their digital subscription models, as well as the Guardian with its membership model. (Newman, 2017, p.12) This trend is also reflected in a study by Newman (2020) on media executives' expectations about media houses' revenue streams in the future states that 50% of executives surveyed see reader revenue as the most important revenue stream going forward, 35% see it as a mix of reader and advertising revenue, while only 14% see advertising revenue as the most important source of revenue. Thus, the shifted awareness of consumers about trusted content providers due to the prevalence of disinformation, may increase the likelihood of successfully transitioning into audience-based revenue models.

Thus, the reactions of media corporations to digital disinformation mainly revolve around nurturing the opportunity that it offers to them and responding to the increased complexity in their workflows that digital disinformation introduces. Since the prevalence of fake news leads the audience to demand transparency to better be able to differentiate between fake news stories and news published by trusted content providers. Media corporations must provide their content in a new manner, since trust and credibility are the key differentiators in their business model. They must deliver more context, contents must be presented and reedited through different communication channels in order to, facilitate the delivery of said context, and news corporations must change their value structure by placing thoroughly researched news coverage over breaking news stories. These actions will ensure that the contents presented by news corporations are better distinguishable from fake news contents, thus transport credibility to the

user. Further, the increased storytelling elements that deliver context about the situation and explaining journalism in news stories which are being used in the media corporations ensure an increase in media literacy in the audience and create a stronger customer relationship, as in these formats, users are much more likely to feel engaged. Many users distrust large media corporations because they view them as monoliths and see no way to challenge these companies when they are wrong. This methodology is likely to challenge user expectations of media behavior and make them potentially more likely to read stories they otherwise would have ignored.

In addition, the analysis shows that media corporations provide additional complementary offerings that go beyond just stating news and context. These are in the form of fact-checking contents, and databases. Through this methodology media corporations enable users to better distinguish between credible and fake news sources, by giving them the tools the reporters themselves used to come to the conclusions in their articles. It also increases media literacy, as users are being made more aware of the red flags that point towards a non-credible news source. Media literacy is a concept from the education and communication studies and its most commonly used definition is 'the ability to access, analyze, evaluate and communicate messages in a variety of forms' (Aufderheide cited in Potter, 2013, p.413). Another way how media corporations can increase media literacy is by organizing media education events.

Due to disinformation, the analyzed media corporations also shift resources to the verification mechanisms in their newsrooms. Journalists are provided with training on how disinformation works and which red flags point towards manipulated content. In addition, new positions and teams that are solely dedicated to verifying content are being created. On the one hand, this means that journalists become more aware of the fact that information sources can be potentially manipulated and in which ways that manipulation can occur, thus creating a certain culture of skepticism. On the other hand, it ensures that the process of verification is facilitated and sped up. In some cases, also technology was developed that enables the classification of whether a certain piece of content might be manipulated. In this regard, it is important to note that the opinions diverge on the use of technology in debunking manipulated content. The human component is still indispensable in debunking manipulated contents, since these programs are just as good as the data that is used to train the algorithms. If for example, a software that is used to manipulate content is fed with more data than the software that is used to uncover manipulated content, the uncovering software will fail. In general, these actions imply that news organizations put an emphasis on verification processes and quality control processes so

as not to run into the trap of becoming circulators of fake news themselves. As this, even if done unintentionally, could severely damage their reputation of being a trusted news source. Whatever the case may be, media corporations must develop a certain skepticism in their editorial workforce towards the information inflow to ensure neutral, quality reporting even with the prevalence of fake news.

The findings also showed that the willingness to cooperate increases in media corporations, because of disinformation. These partnerships take place on several levels, firstly on the level of newsrooms, media corporations have a tendency to cooperate on this level since disinformation seems to be a problem for the industry rather than singular firms, and as it further ensures a more efficient use of resources. Secondly, partnerships also take place between media corporations and research institutions in this regard. Media corporations use these partnerships to tap critical technological capabilities that are needed to understand the creation and spreading of disinformation. Thirdly, media corporations cooperate with the public using crowdsourcing techniques to create a more efficient process of debunking manipulated content, as the example of the BBC shows.

The last set of findings shows that the analyzed media corporations work towards a stronger, more direct relationship with their customer by engaging with them differently. This is attempted by branding of singular journalists, and by engaging with their audience using two-way communication, and by also discussing with their audiences in these channels. This implies that having a more direct customer relationship increases the probability of transporting trust and credibility towards the customer base. Further, through engaging in discussions with the audience, news corporations can make sure that necessary context is delivered and that they are more successful in the topics they set with their news stories.

Due to the exploratory design of the research findings arose that are not strictly connected to media corporations, but which are important to combatting the phenomenon of fake news on a broader scale. It seems important that, in regard to fake news building media literacy in society is key, which is a finding that could prove useful to policy makers, sociology researchers and decision makers as a whole.

Relating this to the question of how disinformation can be combated and not only how media corporations are influenced by it, that would suggest that media corporations which build on quality journalism with its longstanding standards and practices, concerning accuracy, research depth, and credibility play an important factor in combating the general problem of fake news.

5.2 Practical Implications

From the findings of the study several implications and recommendations for practitioners can be derived. These will be discussed in the following. Firstly, media corporations that differentiate themselves through delivering quality content should respond to their shifted role in media consumption by putting more value in accuracy in the information they provide before the speed at which they provide it. This is because their editorial standards of delivering neutrality, objectivity, and credibility in their news reports are the key differentiator in their business model, thus delivering inaccurate information would negatively impact their reputation as a trusted news provider. In addition, media corporations should introduce additional quality control mechanisms to prevent themselves from circulating malicious information. This can be done by introducing technology into the newsroom to facilitate the working procedures of verifying information, creating additional job positions, such as dedicated verification teams or officers, or by creating a culture in the workforce that is skeptical about every piece of information that flows into the newsroom.

Secondly, media corporations should set a greater emphasis on cooperation with different stakeholders. Firstly, cooperation with other media organizations is recommended since this allows for a more efficient use of editorial resources in fact-checking, as these processes are highly time-consuming. Secondly, cooperation with technology firms and technology research institutions is recommended because this allows them to acquire critical technological capabilities. Thirdly, cooperation with educational institutes is recommended as it can increase the media literacy and establish trust within the audience.

Thirdly, news organizations should build stronger, more direct customer relationships with their audience, as a good knowledge of the audience base allows them to set stronger topics, facilitates the decision process for which context is important to customers, and also builds trust among the audience. In this regard, also new positions or functions can be created that for example track trending topics in the audience base.

6 Conclusion

6.1 Limitations of Study

The findings of this study must be seen considering some limitations. Firstly, the study builds on a relatively small sample size due to difficulties in expert access even though a large number of experts were contacted. To counteract the small sample size, the research design was adapted to also include secondary source data, however, there are also limitations in using secondary source data, as the researcher has no real control over data quality. Further, secondary source data always depends on the context it was recorded in, thus, there may be some bias as to in which contexts the data was collected. Secondly, due to the inductive research design the analysis and findings presented are not generalizable, contrary to a quantitative research study, the results do not have statistical significance, they are however, valuable in that they can give implications for further research. Additionally, it was not possible to estimate how effective the measures are that the analyzed media organizations take. It would take a longitudinal study in order to determine the effectiveness of the measures that media corporations take, and it would also have to involve their audience's susceptibility to consuming disinformation. Also, there were limitations to the study since disinformation is a concept that might require more interdisciplinary research, for example, since disinformation is often heavily emotionally connoted as it speaks to people's fears and perceptions a lot of psychology is involved in the spread of it. Further, education in the public, as inherent in the concept of media literacy, is an important factor that determines how susceptible people are to disinformation. Over these factors however, media corporations do not really have influence, other than making their contents more relevant to audiences. Another limitation of the study evolved from the term fake news, as there is no distinct, all-encompassing definition of the term, the term has gotten overloaded with different meanings, so that here is no clear, distinct meaning in it as it unifies several different concepts. Even though the study attempted to define fake news, in terms of the facticity and the author's immediate intention to deceive inherent in a certain piece the term was often interpreted differently by participants of the study and in analyzed secondary sources. For example, when a news outlet unintentionally posts a news story that is factually incorrect and has a highly deceiving character is it then not fake news? Further, there may be other factors that influence the actions taken by media corporations to the disinformation phenomenon, it cannot be clearly said, whether they are solely grounded in responding to this phenomenon or because they are also influenced by the digital transformation the media industry is in.

6.2 Further research implications

From the findings several implications for further research can be derived. A potential research venue would be to analyze the effectiveness of partnerships with different stakeholders in the media industry and in which ways these should be organized, for example in joint venture, open alliances or in other form. Another important aspect for further research would be research that clearly classifies the term fake news into several sub concepts, as the term is overloaded with different meanings. Research would also be interesting as to how effective training provided to journalists and the use of technology are in terms of news corporations ability to uncover manipulated content. Also, the effects of delivering transparency in news reporting would be interesting in terms of how they influence the audience's ability to distinguish between manipulated content and truthful content. In the more specific news media context, the relationship between audience trust towards a news corporation and their audience's willingness to pay for their products would be an appropriate venue for further research. An interesting phenomenon to study would also be how, even if done unintentionally, the circulating of fake news influences the reputation of news organizations and what the best strategies are to cope with such flaws. Another interesting venue for further research would be to analyze the effects of information crisis situations on the media consumption of audiences, as there seems to be a relation between audience's news consumption and uncertainty about disinformation in public discourse.

7 Final Remarks

This study aimed to answer the research question 'how do fake news influence business models in the media industry' with a focus on the traditional media industry. The main findings of the study were that disinformation represents an opportunity for traditional media corporations, in that their audience finds more value in their value proposition as media corporations can enable them to navigate the post-truth era. Their reputation as credible and trusted content providers is their key differentiating asset. To prevent distortions to their reputation as trusted content providers, media corporations should introduce additional quality control mechanisms to prevent them from circulating fake news. Also implied was that media organizations must build more direct customer relationships with their audiences, as these enhance trust in the audience and enable them to transport down their credibility. Lastly, it is important that media corporations uphold their editorial standards, in being neutral, fair, and transparent observers. All in all, it can be said that fake news is a phenomenon that will take the concerted effort of many stakeholders, such as media corporations, audience, education, policymaking, and social platforms, to limit its damage to the information ecosystem. Media corporations play an essential role in combating the problem of fake news in society but need to make their products more relevant and accessible to broader audiences, through that they can hinder the further spread of disinformation.

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