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Sharing Fake News about Brands on Social Media: a New Conceptual Model Based on Flow Theory[1]

Abstract: The growing importance of Social Networking Sites (SNS) in today's information economy has generated significant interest for understanding and managing shared fake news about brands on social media among academia and industry worldwide. In this context, we consider it is important to discuss the role of flow, also called *optimal experience*, in sharing fake news about brands on social media. Firstly, we will critically analyze the conceptualizations of the umbrella term 'fake news' in the so-called 'post-truth' era and assume a narrow definition from literature. Secondly, we will review different theories from literature (i.e., selective exposure theory, uses and gratifications theory, social comparison theory, rational choice theory and self-determination theory) in order to explain why users share fake news. Furthermore, we will refer to *flow theory* proposed by Csikszentmihalyi (1975), which could be used as a framework to better the understanding of the user's behavior regarding the sharing of fake news about brands on social media. Flow is a hedonistic construct whose importance is widely recognized as having a major impact on the user's behavior in relation to information systems. According to Csikszentmihalyi (1975, 1988), flow is a "crucial component of enjoyment" and is "the holistic sensation that people feel when they act with total involvement". In a flow state, the consumer perceives an effortless action, loss of time and a sense that the experience stands out as being exceptional compared to daily activities (Csikszentmihalyi 1997). Flow is a continuous variable that can occur on different levels, ranging from none to an intense (or complete) state (Csikszentmihalyi & Csikszentmihalyi 1988). Flow experience has been studied as an independent variable, as a dependent

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variable, and lately, as a mediator variable. In this paper we propose a new conceptual model containing 3 variables: (1) fake news spread about brands in SNS, (2) flow state experienced by SNS human users (i.e., *optimal experience*), and (3) sharing fake news about brands on social media by SNS human users (i.e., social media behavior). We conclude by outlining the need to empirically test the new conceptual model proposed in this paper.

Keywords: fake news, conceptual model, flow theory, social media, brand

1. Introduction

In the last years, the number of Internet users has increased exponentially, reaching up to 4,383,810,342 users in March 2019, with a penetration rate of 56.8 % in World Population.[2] The number of social media users was around 3.484 billion in January 2019, with a penetration rate of 45% in World Population.[3] In this context, the growing importance of Social Networking Sites (SNS) in today's information economy created a significant interest among academia and industry worldwide for managing online brand communication. The growth of SNS changed the way people communicate with each other because it became the major platform for online social interaction and information transmission (Shu, Sliva, Wang, Tang & Liu 2017). Moreover, due to several main characteristics of social media networks, such as: ease-of-use, low cost, rapid rate, and immediate feedback, a large amount of information is being produced, commented and shared online by users. Thus, it becomes extremely difficult for communication practitioners to manage brand communication in the online environment.

Online social media is changing the way in which we consume news and information because online users can not only learn about the trending events, but they can also share their stories and advocate for different problems and issues (Shu *et al*. 2017). The Pew Research Center reported in 2017 that 66% of U.S. adults used Facebook and 45% of them got their news from this social media platform. YouTube had a base of

[2] Source: Internet World Stats. Report published online: "Internet Usage and World Population Statistics estimates for March 31, 2019". Accessed May 5th, 2019. https://www.internetworldstats.com/stats.htm.

[3] Source: DataReportal. Report published online: "Digital 2019: Global Digital Overview". Accessed May 5th, 2019. https://datareportal.com/reports/digital-2019-global-digital-overview.

58% of the American population out of which 18% read news on YouTube, making it the second most common social media site for news. Twitter is also a pathway to news used by Americans: 15% of U.S. adults use it and 11% get their news from it. Other social media sites, such as Instagram (26% of U.S. adults users; 7% get news from it), LinkedIn (21% of U.S. adults users; 5% read news on it), Snapchat (18% of U.S. adults users; 5% get news from it), WhatsAPP (11% of U.S. adults users; 2% read news on it), Reddit (6% of U.S. adults users; 4% get news from it) and Tumblr (4% of U.S. adults users; 1% read news on it) are also sources of getting the news.[4] Considering this data, we could argue that social media sites are important communication channels that need to be considered by marketing specialists in managing online brand communication.

The amount and richness of information available on social media has facilitated the manner in which people communicate with each other and offered important opportunities, but it has also challenged the communication specialists. Not only that customers can stay informed by using social media, but they can also share experiences and interact within certain social groups, influence their friends and followers cognitions, attitudes and behaviors regarding brands. In this context, brands can lose control over their communication strategy (Allcott & Gentzkow 2017; Fulgoni & Lipsman 2017) and information accuracy becomes essential. Furthermore, more recent information spread on social media as news is dubious and, in some cases, intended to mislead - such content is often called *fake news* (Zhang & Ghorbani 2019). After the 2016 U.S. presidential election campaign, believed to be influenced by fake news, scholars and communication practitioners seeked to understand the fake news phenomenon (Zhang & Ghorbani 2019). Studies emerging from different fields, such as political communication, library sciences, journalism, psychology, philosophy, information sciences and business communication focused on fake news origins, distribution and effects.

In this paper, we discuss the problem of fake news phenomenon in the brand communication context because social media emerged as the primary source of information for many customers. Since the 2016 US elections, there has been a surge of fake news. Not only political candidates and news organizations are fake news targets, but also brands such as Starbucks, Microsoft, Pepsi and New Balance have become

[4] Source: Pew Research Center. Report published online: "News Use Across Social Media Platforms 2017". Accessed May 19th, 2019. https://www.journalism.org/2017/09/07/news-use-across-social-media-platforms-2017/.

victims of it.[5] Fake news outperformed real news in terms of popularity and engagement on social media (Price 2017), and it became crucial for companies to understand how this proliferation may harm their marketing efforts (YouGov 2017). Moreover, fake news can have negative consequences for a brand: the loss or damage of reputation can affect a brand's competitiveness, trust and loyalty (Aula 2010). Fake news can hurt businesses financially and it can also make things toxic for them by destroying trust and creating an atmosphere in which people do not know who to trust[6].

Fake news can spread rapidly on social media and may be used by malicious entities or competitors to manipulate the customer's options and decisions, like stock markets or online shopping. *The key aspect in fake news proliferation is the content diffusion (i.e., the complex contagion) in the online environment*. Although in literature scholars proposed different theories in order to explain fake news diffusion on social media, there is still a lack of understanding regarding the spreading mechanisms. In this paper we propose a new conceptual model of fake news spreading on social media, using flow theory as a theoretical framework.

2. Fake News Literature Review

In this section we critically review the state of art regarding the fake news phenomenon. We consider it important to refer to fake news' historical evolution and definitions, the relationship between brands and fake news, fake news creators, and fake news spreaders on social media.

2.1. Historical Evolution of Fake News

Fake news is not a new phenomenon (Gelfert 2018; McGonagle 2017) because the partisan press has always peddled biased opinions and stories lacking factual basis (McGonagle 2017). New technologies, from the telegraph in the 19th century to contemporary social media algorithms, have lead to fake news proliferation (Gelfert 2018). For example, Gelfert (2018) refers to an article written by J. B. Montgomery-McGovern in 1898, in the *Arena* journal, entitled "An important phase of gutter journalism: Faking", in order to outline the challenges of fake news in the

[5] Kuchler, H. "Companies Scramble to Combat Fake News". Financial Times, 22 August 2017. Accessed May 19th, 2019. https://www.ft.com/content/afe1f902-82b6-11e7-94e2-c5b903247afd.
[6] *Ibidem*.

19th century. In his article, Montgomery-McGovern (1898) complains about "fake journalism", considered to be "the most sensational stories" published by news organizations (1898, 240) and explains the "stand-for" technique used by "fakers" to deceive: they used a reputable member of the community (e.g., a doctor, dentist, architect, or other professional or business man) who, for money, would corroborate the fake story.

Gelfert (2018) considers nowadays fake news creators eliminated the "middle-men" and address the readers directly, by sharing the sensational stories on social media. Figueira & Oliveira (2017) argue that fake news (i.e., inaccurate, false, or grossly distorted information presented as news in order to deceive the audience) are produced and disseminated on an exponential online scale causing a real impact on brands. In addition, another important aspect to take into account regarding fake news proliferation is the *post-truth era*.

Fake News in the Post-Truth Era

Although fake news is not new, the scale of the problem has grown exponentially in the last years and it should be analyzed in the *post-truth era context*. The term "post-truth" was first used in 1992 by Tesich to describe a mostly political environment in which debate is framed by appealing to emotion, with repeated assertions of half-truths and outright lies whose factual re-buttals are ignored. Since 1992, scholars have argued that we are living in the post-truth era, in which: (1) emotions and personal beliefs are more important than facts, (2) the truth of the story no longer matters, (3) there is a mistrust in authority, and (4) an appeal to negative emotions, such as fear or anxieties (Laybats & Tredinnick 2016).

Rochlin (2017) argues that in the post-truth era facts and evidence have been replaced with personal belief and emotion. "Fake news" no longer stand for factless or slanderous news, but rather news that are considered to attack a person's pre-existing beliefs (Rochlin, 2017). A key aspect to take into consideration is the nature of the news and what people accept as news rather than facts (Rochlin 2017). Rochlin (2017) argues that nowadays the society has shifted towards a belief and emotion-based market. In this context, from a marketing communication perspective, brands can thrive in an emotionally based market, but can also be affected by fake news. Fake news stories that spread via social media intertwine with journalism and become primary sources of information because they are considered by people to be real news (Rochlin 2017).

2.2. Fake News Conceptualizations

A critical literature review regarding fake news conceptualization reveals *a broad range of definitions* proposed by different scholars and practitioners. For example, Lazer *et al*. (2018, 1094) conceptualize fake news as "news stories that were fabricated, but presented as if from legitimate sources, and promoted on social media to deceive the public for ideological and/or financial gain". Zhang & Ghorbani (2019) consider *fake news* to encompass all kinds of false stories or news that are mainly published and distributed on the Internet, in order to purposely mislead, befool or lure readers for financial, political or other gains. Oremus (2017) defines *fake news* as information that is designed to be confused with legitimate news, and is intentionally false. Levy (2017, 20) argues that "fake news is the presentation of false claims that purport to be about the world in a format and with a content that resembles the format and content of legitimate media organizations". Furthermore, Rini (2017, 45) states that "a fake news story is one that purports to describe events in the real world, typically by mimicking the conventions of traditional media reportage, yet is known by its creators to be significantly false, and is transmitted with the two goals of being widely re-transmitted and of deceiving at least some of its audience."

According to Visentin, Pizzi & Pichierri (2019) a good definition of fake news should incorporate the fact that they are intentionally false and fabricated stories (Allcott & Gentzkow 2017; Lazer *et al*., 2018), yet perceivably realistic (i.e., consistent with an individual's previous beliefs) (Fulgoni & Lipsman 2017, 100).

Martens, Aguiar, Gomez-Herrera & Mueller-Langer (2018) explain *that there is no consensus in the literature on fake news conceptualizations*. The fake news definitions emphasize four dimensions of the construct: (1) type of information, (2) falsity of information, (3) intention of the author, and (4) consequences of the information dissemination, including personal (perception of the receiver) and societal effects (disruption of democratic processes). The first two dimensions (i.e., type and falsity of information) narrow fake news definitions and tend to focus on verifiably false news reports, whereas broader definitions include any misleading or distorted information. The last two dimensions (i.e., intention of the author and consequences of the information dissemination) better reflect the reality of manipulative stories – many of which are not entirely false, but, at the same time, mix deliberate falsehoods with well-known truths by selectively presenting partial truths,

employing a false context or manipulating images alongside verified news stories (Martens *et al*. 2018).

The EU High Level Expert Group (Martens *et al*. 2018) agreed that when defining fake news, we only have two options: to assume either a broader or a narrow definition of fake news. Martens *et al*. (2018, 9) propose a broader definition of fake news: "as disinformation that includes all forms of false, inaccurate or misleading information designed, presented and promoted to intentionally cause public harm or for profit (e.g., commercial click-bait)". This broader definition of fake news encompasses deliberate attempts at *disinformation and distortion of news* (Martens *et al*. 2018; Wardle & Derakhshan 2017; Gelfert 2018), the use of filtered versions to promote ideologies, confuse, sow discontent and create polarization (Martens *et al*. 2018). Martens *et al*. (2018) argue that a broader definition of fake news *is more difficult to verify objectively*, but could be useful in research fields that study the structure of news markets, compare pre-digital offline news with digital online news markets and try to assess the impact of digitization on the quality of news production and consumption.

A narrow definition of fake news proposed by Alcott & Gentzkow (2017, 213) *conceptualizes fake news as "intentionally and verifiably wrong or false news produced for the purpose of earning money and/or promoting ideologies"*. They consider *fake news to be "news articles that are intentionally and verifiably false, and could mislead readers"* (Allcott & Gentzkow 2017, 213). Allcott & Gentzkow (2017) explain that there is a market for verifiably false news because: (1) it is cheaper to produce false than to generate 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. Gelfert (2018) considers that *the fake news term should be reserved for cases of deliberate presentation of typically false or misleading claims as news, where these are misleading by design, (...) systemic features of the sources and channels by which fake news propagates and thereby manipulates (...) consumers' pre-existing cognitive biases and heuristics*.

Martens *et al*. (2018) argue that a narrow definition of fake news would be limited to verifiably false information. In this case, fact checking can expose false news items and identify the sources of these articles. This narrow definition requires an identifiable and well-defined set of false news articles and sources to measure the reach and impact of false news (Martens *et al*. 2018; Alcott & Gentzkow 2017; Fletcher *et al*. 2018). The EU High Level Expert Group consider the narrow definition of fake news to be more

appropriate for empirical studies conducted in the consumer behavior field (Martens *et al*. 2018). Thus, in this paper we assume the narrow definition of fake news from literature because we consider it to be more appropriate for our research project. In a future study, we intend to empirically test the conceptual model proposed in this paper.

2.3. Brands and Fake News

The relationship between brands and fake news is complicated. Berthon, Treen & Pitt (2018) explain that brands can interact both directly and indirectly with fake news. First of all, brands can interact directly with fake news by becoming victims or purveyors (Berthon *et al*. 2018). Secondly, brands can interact indirectly with fake news because they can be linked via image transfer to either where fake news contaminates brands, or brands validate fake news (Berthon *et al*. 2018). Although the relationship between brands and fake news is complex, in this paper we are interested in understanding the mechanism of fake news spreading, in which brands are victims and not sources. In this section we will briefly present three case studies of brands affected by fake news shared on social media.

Brands as Victims of Fake News: The Pepsi Co, New Balance and Starbucks cases

In some cases, brands can be fake news casualties (Berthon *et al*. 2018) and *financially affected* by rapidly spread fake news on social media. *Pepsi Co stock fell around 4% just prior to the 2016 US presidential election when a fake news story about Pepsi's CEO, Indra Nooyi, telling Trump supporters to "take their business elsewhere" spread in social media*.

> "In an interview at the New York Times Dealbook Conference, PepsiCo CEO Indra Nooyi said, 'I think we should mourn for those of us who supported the other side'. But she also added, 'we have to come together and life has to go on' and even congratulated Trump on his victory. But the Conservative Treehouse blog falsely quoted Nooyi with the sensationalist headline: 'Massive Stewardship Fail – PepsiCo CEO Tells Trump Supporters to Take Their Business Elsewhere.' Fake new sites

jumped on the fictitious quote, with people threatening to boycott all of Pepsi's brands using the hashtags #boycottPepsi and #Pepsiboycott."[7]

Figure 1: Fake news spread on Twitter about Pepsi Co CEO Indra Nooyi statement[8]

Figure 1 depicts the fake news shared on Twitter about Pepsi Co CEO Indra Nooyi statement. Analyzing the image we notice the misleading headline, the picture of Pepsi Co CEO Indra Nooyi and the hashtag #PepsiBoycott. This fake news spread on social media about Pepsi Co brand had a negative financial impact: the stock fell around 4%. The Pepsi Co fake news case shows how top brands can be the target of fake news spread on social media. In this context, from a marketing communication perspective, understanding the mechanism of fake news spreading seems to be extremely important.

Another brand affected by fake news spread on social media is New Balance. A fake news spreader misquoted the New Balance

[7] Source: Plusar. Accessed May 19th, 2019. https://www.pulsarplatform.com/blog/2016/brand-dig-pepsi-new-balance-and-facebook-battle-fake-news.
[8] Image source: Twitter

spokesman and repackaged the message with the headline "*New Balance offers a wholesale endorsement of the Trump revolution*". Here is the full context:

> "In the wake of the deeply divisive US presidential elections, brands were wise to keep out. But New Balance was accidentally drawn in. Anti-Trump websites misquoted a New Balance spokesperson saying Obama had let them down and with Trump 'things are going to move in the right direction'. While the spokesperson was referring to the Trans-Pacific Partnership only, the internet seized the quote and repackaged the message: *New Balance offers a wholesale endorsement of the Trump revolution*. It led to alt-right groups praising it as a brand for white Americans, while anti-Trump groups burning their New Balance shoes and sharing the ritual online."[9]

Figure 2: Image posted online with New Balance shoes thrown to garbage by anti-Trump customers

This fake news was shared in social media and caused negative reaction (see **Figure 2**): anti-Trump groups burned their shoes and broadcasted online because New Balance was declared "the official shoes

[9] Source: Plusar. Accessed May 19th, 2019. https://www.pulsarplatform.com/blog/2016/brand-dig-pepsi-new-balance-and-facebook-battle-fake-news.

of white people". The New Balance case can be useful to better understand the negative consequences of fake news on brand image.

Starbucks was also a target of fake news spread on social media. In this case, in 2017, a hoax affected Starbucks' reputation when tweets advertising "Dreamer Day" (see **Figure 3**), in which the coffee chain would supposedly give out free frappuccinos to undocumented migrants in the US, was spread online. Bellow we present the full context:

> "Advertisements including the company's logo, signature font and pictures of its drinks were circulated with the hashtag '#borderfreecoffee'. *But it was a hoax*. Starbucks raced to deny the event, replying to individuals on Twitter that it was 'completely false' and that people had been 'completely misinformed'. Yet the rapid spread of the fake news showed again the power of social platforms to damage reputations, and illustrated how companies should be more vigilant and creative in responding."[10]

Figure 3: Fake news spread in social media about Starbucks "Dreamer Day"

As we already argued, the relationship between brands and fake news is complicated. However, from a marketing communication

[10] Source: Financial Times. "Companies scramble to combat 'fake news'. From Starbucks to Costco, brands have come under attack from hoaxers". Accessed May 19th, 2019. https://www.ft.com/content/afe1f902-82b6-11e7-94e2-c5b903247afd.

perspective, a key aspect to take into account is the way in which brands can be affected by fake news spread on social media. Social media platforms play an important role in fake news distribution, but *the individuals are also responsible for this proliferation*. *In some case, users post fake news and since social media platforms offer re-sharing tools, other users share the fake news story and spread it online, thus affecting the brands*. In the next section of this article we will discuss the issue of fake news creators and spreaders, in order to better understand the mechanisms of fake news dissemination on social media.

2.4. Fake News Creators and Spreaders

Brands can be affected by fake news when creators succeed in spreading the fake content in social media rapidly by affecting stakeholders' cognitions, attitudes and behaviors. Thus, understanding the spreading mechanisms of fake news on social media becomes crucial in order to prepare effective reactive communication strategies (Fârte & Obadă 2018).

Zhang & Ghorbani (2019) consider important to identify the fake news creators and spreaders because they could be *non-human* or *real human beings*. Non-human creators of fake news are usually social bots and cyborgs. Ferrara, Varol, Davis, Menczer & Flammini (2016) explain that social bots are computer algorithms designed to exhibit human-like behaviors, that automatically produce content and interact with humans on social media. Ferrara *et al*. (2016) argue that many bots are designed specifically to distribute rumors, spam, malware, misinformation, slander, or even just noise - and can be creators / spreaders of fake news. Chu, Gianvecchio, Wang, & Jajodia (2012) define cyborgs as either bot-assisted humans or as human-assisted bots. Chu *et al*. (2012) explain the operating mechanisms: after being registered by a human, the cyborg account can post content and participate with the social community. Zhang & Ghorbani (2019) argue that similar to social bots, malicious cyborg accounts can disseminate, fast and easily, fake news that may result in damaging the social belief and trust. However, scholars and practitioners studying the fake news phenomenon developed different tools to counteract *non-human* creators and spreaders of fake news.

In our opinion, it is more difficult to counteract *human* creators and spreaders of fake news than non-human representatives. *Zhang & Ghorbani (2019) consider real humans as crucial sources of fake news diffusion*. Social bots and cyborgs are only the carriers of fake news on social media; those automatic accounts are programmed by *humans* to

spread false messages (Zhang & Ghorbani, 2019). Zhang & Ghorbani (2019) conclude that regardless of the manner in which fake news are spread, manually or automatically, *real humans* are the ultimate fake news creators. *Thus, we consider it essential to better understand why human users share fake news about brands on social media*. We agree with the idea postulated by different scholars (Zhang & Ghorbani, 2019) that fake news are intentionally created and spread by human users to attack different brands (i.e., competitors). However, in our opinion, without a wide spreading of fake news on social media, the negative consequences for a brand would be limited. ***In this complex contagion, a key aspect is to understand the human user behavior of sharing fake news on social media.*** Zhang & Ghorbani (2019) explain that some legitimate users (i.e., real humans) can also contribute to fake news distribution by becoming sources. These "second hand" spreaders of fake news can post and share content in certain groups and act as influencers for a "third hand" generation of fake news spreaders and so on - determining a complex contagion.

Considering the importance of understanding fake news proliferation on social media, we propose a new conceptual model using flow theory as a framework to explain the manually diffusion of fake news by humans.

3. Flow Theory Literature Review

In positive psychology, flow theory was developed by Csikszentmihalyi (1975) and is *one of the two theories of intrinsic motivation*. The other theory, of self-determination, was developed by Deci and Ryan (1985) a few years later. However, Csikszentmihalyi and other researchers argued that flow theory *is not only motivational*, but also *a theory of creativity* (Csikszentmihalyi 1996; Csikszentmihalyi, Rathunde & Whalen 1993; Gardner, Csikszentmihalyi & Damon 2001), *a psychological theory of holistic personal development* (Csikszentmihalyi 1975, 1990; Csikszentmihalyi & Larson 1984), *an important factor in the evolution of bio-culture and selection* (Csikszentmihalyi 1990) and *a theory for psychological rehabilitation practic*e (Delle Fave & Massimini 2004, 2005). Despite the variety of interpretations, *flow theory is discussed as a motivational paradigm* in online marketing communication studies.

Flow is defined as *the holistic sensation that people feel when they act with total involvement* (Csíkszentmihályi 1975). The term "flow" (i.e., also called *optimal experience*), a metaphor, was used în 1975 by serveral participants to Csíkszentmihályi's interviews (e.g., amateur dancers, chess

players, rock climbers and surgeons) to describe the experience that occured during different activities, associating it with being carried along by the water current.

Csikszentmihalyi (1997) argues that the flow can be better understood by considering the following main factors: (1) clear and distinct goals, (2) temporary loss of self-consciousness, (3) distorted sense of time, (4) actions merging with awareness and immediate feedback, (5) high concentration on the task, (6) high level of control, (7) a balance between the perceived skills of the individual and the task challenges, and (8) autotelic experiences. In order to better explain the construct, Csikszentmihalyi presents a description of *optimal experience* provided by a participant during his interview sessions (Csikszentmihalyi & Csikszentmihalyi 1988, 195):

> "My mind isn't wandering. I am not thinking of something else. I am totally involved in what I am doing. My body feels good. I don't seem to hear anything. The world seems to be cut off from me. I am less aware of myself and my problems. My concentration is like breathing - I never think of it. When I start, I really do shut out the world. I think that the phone could ring, and the doorbell could ring or the house burns down or something like that. When I start I really do shut out the world. Once I stop I can let it back in again. I am so involved in what I am doing. I don't see myself as separate from what I am doing."

In a flow state, the individual perceives an effortless action, loss of time and a sense that the experience stands out as being exceptional compared to daily activities (Csikszentmihalyi 1997). Flow is a continuous variable, meaning that different levels of flow can occur, ranging from none to an intense (or complete) state (Csikszentmihalyi & Csikszentmihalyi 1988). Furthermore, flow is a hedonistic construct, whose importance has been widely recognized as having a major impact on the user's behavior regarding information systems (Hoffman *et. al.* 1996). Many scholars consider flow to be a useful variable for explaining the online consumer's behavior (Hoffman *et. al.* 1996; Koufaris 2002). For example, Siekpe (2005) outlined that "flow construct [...]" is important "for understanding the nature of consumer experience".

Flow experience has been proven to influence online consumer's attitudes, behavioral intentions and behavior (Obadă 2014). Flow has been studied as an independent variable, as a dependent variable, and lately, as a mediator variable (Obadă 2015). *In this article we consider flow as a mediator variable that could partialy explain why social media users share*

fake news about brands: because they have an optimal experience while surfing on SNS. We will explain the proposed conceptual model in the next section of this paper.

4. Sharing Fake News about Brands on Social Media: a New Conceptual Model Based on Flow Theory

In fake news literature we can identify different theories (i.e., *selective exposure theory, uses and gratifications theory, social comparison theory, rational choice theory or self-determination theory*) proposed by scholars to explain various aspects of social media users' behavior. For example, Read (2016) considers *selective exposure theory* (also know "congeniality bias" or "confirmation bias") to be useful in understanding fake news proliferation on social media. According to Gall (1983), people would seek exposure to mass media content to support their pre-exposure attitude towards the issue or favorite candidate and avoid exposure to campaign communications that disagree with their predisposition. The main idea that can be inferred from this theory is that social media users like being exposed to information they believe in and do not like being exposed to information they do not believe in. Due to the fact that social media sites provide information consistent with users' interest, beliefs and desires, newsfeed will contain information in accordance with the individual's pre-exposure attitude towards the brand.

Another theory proposed by researchers and used as a theoretical framework to explain online fake news proliferation is the *uses and gratifications theory* (Katz 1959; Katz, Blumler & Gurevitch 1974). According to this theory, people achieve gratification through media, which satisfies their informational, social and leisure needs (Katz 1959; Katz *et al*. 1974). The audience selects media based on personal needs and knows which media can satisfy it. Moreover, individuals are an active and not a passive audience: they interpret and integrate media into their own lives. Social media users' behavior (such as sharing fake news) reflects their previous interests without being easily affected.

For instance, *social comparison theory* could also explain how individuals (in this case, social media users) form beliefs and opinions about their capabilities and the drive they possess to evaluate their own abilities and compare it with others (Festinger 1954). According to Festinger (1954), in this evaluation process the person achieves validation and cognitive clarity. Thus, the social media behavior could be influenced by users' self-evaluation and comparisons with other individuals (i.e.,

upward comparison or downward comparisons) depending on their level of motivation. Nesi & Prinstein (2015) argue that social comparison behavior has been observed to be manifested in social media use and could partially explain why users share fake news about brands.

Furthermore, *rational choice theory* (Becker 1976), according to which consumers make choices that tend to maximize their personal utility, has been used by social scientists to analyze human behavior. Becker (1976) argues that, in a specific context, individuals make rational decisions based on analyzing the ratio of costs and benefits associated with each preference. Logan *et al*. (2018) consider that rational choice theory could be used to understand why consumers consciously decide to continue to use social media, anticipating positive outcomes rather than discontinuing its use on account of social media fatigue (Logan et al. 2018).

An important theory from positive psychology that proposes a framework for human motivation and personality assessment is the *self-determination theory* (Deci & Ryan 1985). This theory postulates the idea that individuals are active organisms seeking to evolve continuously, in order to make coherent sense of the self. In this process, the social and cultural factors are extremely important in order to catalyze the psychological growth, initiative and the active engagement. Beyens *et al*. (2016) outline that *self-determination theory* could be used to explain the social media behavior: FoMO. Beyens *et al*. (2016) notice the need for relatedness and sense of belonging as the main motivation driving FoMO.

As we already argued, the theories discussed in this section could partially explain the spread of fake news on social media, but, in our opinion, *flow theory could also be used as theoretical framework to shed light on users' behavior of sharing fake news about brands on SNS*.

The *proposed conceptual model can explain why users share fake news about brands on social media*. We used as a framework the flow models from literature, containing the *three stages, as follows: flow antecedents, flow experience and flow consequences* (Chen 2000; Ghani & Deshpande 1994; Trevino & Webster 1992; Webster Trevino & Ryan, 1993). Based on these three stages, we developed our conceptual model in which *flow experience mediates the relation between task and social media behavior*. **Figure 4** depicts the relation between the research variables: *(1) fake news spread about brands on social media* (i.e., considered to be an antecedent of optimal experience), *(2) flow state experienced by SNS users* (i.e., optimal experience) and *(3) sharing fake news about brands on social media by a human source* (i.e., flow consequence: social media behavior).

First of all, social media users can experience flow while they surf online and conduct different types of activities (Obadă 2014, 2015). Secondly, while surfing online, users can pursuit a (1) clear and distinct goal, such as searching for information about brands (i.e., products and services), playing games, chatting with friends or staying informed about different topics. Thirdly, considering the social media sites' characteristics (e.g., interactivity, immediate feedback, information richness), users need to perceive (2) a balance between the available skills and the task challenges. Fourthly, in order to reach this perceived balance, social media users need to (3) concentrate on the task and maintain a (4) high level of control. Fifthly, in this process, users' (5) actions merge with awareness and immediate feedback, and can feel immersed in the activity up to the point where they become oblivious to their surroundings. Sixthly, they can (6) lose track of time and the entire experience can be (7) autotelic or intrinsically motivated. Seventhly, as a result of this optimal experience, human users share fake news about a brand on social media.

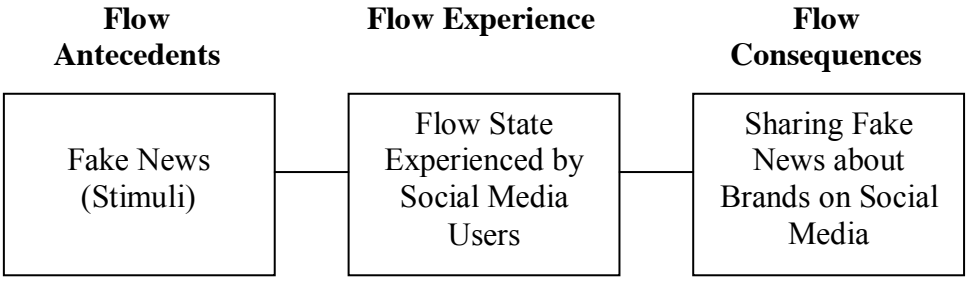

Figure 4: A New Conceptual Model of Sharing Fake News about Brands on Social Media Based on Flow Theory

Furthermore, in flow literature we can identify studies that conceptualize the information and perceived information quality as antecedents of flow state (Gao *et al*. 2015; Zhou 2014; Zhou 2012; Chatterjee *et al*. 2009; Lee & Chung 2009; Lin & Wang 2006; Gao, Bai & Park 2017; Skadberg & Kimmel 2004). In our proposed model, fake news about brands (i.e., specific type of information) is an antecedent of optimal experience. In our view, *online fake news can be defined as false, inaccurate, or misleading information presented as news (i.e., specially designed to be confused with real news) and shared online to deceive the audience in order to influence their cognition, attitude and behavior regarding a specific event / person / brand*. Thus, we argue that users can

experience flow while surfing the social media and read fake news about brands. Furthermore, we formulate the hypothesis that *optimal experience* (i.e., flow) could partialy mediate the relation between fake news and users' behavior of sharing fake news about a brand on social media.

A key variable to consider in the proposed model is the *users' behavior of sharing fake news on social media*. In this specific situation, information sharing on Social Network Sites (SNS) involves one of the two forms: *self-disclosure* (i.e., sharing personal information about one's self), and re-sharing (i.e., sharing content that is posted by other social media users or third parties) (Koohikamali & Sidorova 2017). Moreover, Suh *et al*. (2010) argue that re-sharing behavior (i.e., re-tweeting, re-posting, re-vining, or re-blogging) is one of the major mechanisms of online information dissemination due to various tools available for re-sharing the content (e.g., share button on Facebook). Polansky *et al*. (2017) state that *re-sharing* inaccurate and poor quality content or intentionally misleading information can have negative consequences, such as the spread of fake news. For instance, in this paper we presented three case studies relevant for the situation in which social media users shared and re-shared fake news about top brands through their individual networks (e.g., Twitter, Facebook) and spread it online.

We conclude by outlining the need to empirically test the new conceptual model proposed in this paper.

5. Conclusions

The amount and richness of information available on social media transformed the traditional news production and consumption, by empowering the users who become sources and spreaders of information online. From a marketing communication perspective, brands can face real challenges in this blur media landscape because distorted, false or fake information presented as news can affect consumers' cognition, attitude and behavior, causing financial losses. Although fake news is not a new phenomenon, new technologies lead to a proliferation in the post-truth era. Scholars and practioniers from different research fields proposed theories and models in order to explain fake news diffusion online. However, there is still a lack of understanding the complex mechanisms of fake news spreading on social media. Humans are the ultimate creators and spreaders of online fake news – thus, understanding human motivation and experiences could contribute to the development of new tools that reduce the fake news spreading. As we already discussed in

this paper, fake news became a real problem for brand managers due to their rapid spreading on social media and potential negative impact on brand capital. The increasing number of individuals who use social media platforms as pathways to news and the characteristics of online environment upgraded the scale of the problem. In this context, the relationship between brands and fake news is complicated: they can be both victims and sources of fake news. In this paper, we discussed the situation of brands as fake news victims and presented three case studies to outline the potential negative impact on brand capital. From a marketing communication perspective, we consider it important to better understand the spreading mechanism of fake news on social media, in order to prepare effectively reactive communication strategies. In our opinion, it is more difficult to counteract *human* creators and spreaders of fake news than non-human ones because their behavior is harder to predict by using algorithms.

Thus, our proposed conceptual model suggests that flow theory can be used as a framework to partially explain why social media users share fake news about brands in SNS: because they can have an optimal experience. The *new conceptual model of sharing fake news about brands on social media based on flow theory* contains three variables, one for each flow stage: antecedent (i.e., fake news), experience (i.e., flow) and consequences (i.e., sharing fake news). Previous studies from flow literature prove that: (1) information is an important antecedent of flow experience, (2) individuals can experience flow while surfing the social media and (3) optimal experience (or flow) can influence users' online behavior. These three arguments sustain the proposed model that needs to be empirically tested in future studies.

References

ALLCOTT, H.A., & GENTZKOW, M. 2017. "Social Media and Fake News in the 2016 Election". *Journal of Economic Perspectives* 31(2): 211-236. https://doi.org/10.1257/jep.31.2.211.

AULA, P. 2010. "Social media, reputation risk and ambient publicity management". *Strategy & Leadership* 38(6): 43-49.

BECKER, G.S. 1976. *The economic approach to human behavior*. Chicago (IL): University of Chicago Press.

BERTHON, P.R., TREEN, E.R., & PITT, L.F. 2018. "How Truthiness, Fake News and Post-Fact Endanger Brands and What to Do About It". *GfK Marketing Intelligence Review* 10(1): 18-23.

BEYENS, I., FRISON, E. & EGGERMONT, S. 2016. "I don't want to miss a thing: Adolescents' fear of missing out and its relationship to adolescents' social needs, Facebook use, and Facebook related stress". *Computers in Human Behavior* 64: 1-8.

CHATTERJEE, S., CHAKRABORTY, S., SARKER, S., SARKER, S. & LAU, F. 2009. "Examining the success factors for mobile work in healthcare: a deductive study". *Decission support system* 46 (3): 620-633.

CHEN, H. 2000. "Exploring Web Users' On-line Optimal Flow Experiences". Unpublished PhD Dissertation, School of Information Studies, Syracuse, NY: Syracuse University.

CHEN, H., WIGAND, R. & NILAN, M. (1999). "Optimal experience of web activities". *Computers in Human Behavior* 15(5): 585-608.

CHU, Z., GIANVECCHIO, S., WANG, H. & JAJODIA, S. 2012. "Detecting Automation of Twitter Accounts: Are You a Human, Bot, or Cyborg?". *IEEE Trans. Dependable Secur. Comput.* 9(6): 811-824. DOI: https://doi.org/10.1109/TDSC.2012.75.

CSIKSZENTMIHALYI, M. & CSIKSZENTMIHALYI, I. 1988. *Optimal Experience: Psychological Studies of Flow in Consciousness*. Cambridge: Cambridge University Press.

CSIKSZENTMIHALYI, M. & LARSON, R. 1984. *Being Adolescent: Conflict and Growth in the Teenage Years*. New York: Basic Books.

CSIKSZENTMIHALYI, M. & RATHUNDE, K. 1993. "The measurement of flow in everyday life". *Nebraska Symposium on Motivation*, 40: 57-97.

CSIKSZENTMIHALYI, M. 1975. *Beyond boredom and anxiety: Experiencing flow in work and play*. San Francisco: Jossey-Bass.

CSIKSZENTMIHALYI, M. 1990. *Flow: The Psychology of Optimal Experience*. New York: Harpers Perennial.

CSIKSZENTMIHALYI, M. (1997). *Finding Flow: The Psychology of Engagement with Everyday life*. New York: Basic Books.

CSIKSZENTMIHALYI, M. 2000. *Beyond boredom and anxiety: Experiencing flow in work and play*. San Francisco: Jossey-Bass.

DECI, E.L. & RYAN, R.M. 1985. *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

DELLE FAVE, A. & MASSIMINI, F. 2004. "The cross-cultural investigation of optimal experience". *Ricerche di Psicologia*, 27: 79-102.

DELLE FAVE, A. & MASSIMINI, F. 2005. "The investigation of optimal experience and apathy: Developmental and psychosocial implications". *European Psychologist*, 10: 264-274.

FÂRTE, G.I., OBADĂ, D.R. (2018). "Reactive Public Relations Strategies for Managing Fake News in the Online Environment". *Postmodern Openings*, 9(2), 26-44. https://doi.org/10.18662/po/16

FERRARA, E., VAROL, O., DAVIS, C., MENCZER, F. & FLAMMINI, A. 2014. "The Rise of Social Bots". *Communications of the ACM,* 59(7): 1-9. DOI: 10.1145/2818717.

FESTINGER, L. (1954). "A Theory of Social Comparison Processes." *Human Relations*, 7 (2): 117–140. https://doi.org/10.1177/001872675400700202.

FIGUEIRA, Á. & OLIVEIRA, L. 2017. "The current state of fake news: challenges and opportunities". *Procedia Computer Science,* 121: 817- 825. https://doi.org/10.1016/j.procs.2017.11.106.

FULGONI, G.M. & LIPSMAN, A. 2017. "The Downside of Digital Word of Mouth and the Pursuit of Media Quality." *Journal of Advertising Research*, 57, 2: 27-31.

GALL, R.L. 1983. "The effects of a televised political debate on cognitive selective retention/evaluation during the political decision-making process." Master thesis, University of Illinois. Available at: ProQuest Digital Dissertations.

GAO, L., BAI, X. & PARK, A. 2017. "Understanding sustained participation in virtual travel communities from the Perspectives of is success model and flow theory". *Journal of Hospitality & Tourism Research*, Vol. 41, (4): 475-509.

GAO, L., WAECHTER, K. & BAI, X. 2015. "Understanding consumers' continuance intention towards mobile purchase: A theoretical framework and empirical study - A case of China". *Computers in Human Behavior,* 53: 249-262.

GARDNER, H., CSIKSZENTMIHALYI, M., & DAMON, W. (2001). *Good work: When excellence and ethics meet*. New York, NY, US: Basic Books.

GELFERT, A. 2018. "Fake News: A Definition". *Informal Logic,* Vol. 38, No.1: 84-117. https://doi.org/10.22329/il.v38i1.5068.

GHANI, J.A. & DESHPANDE, S.P. 1994. "Task Characteristics and the Experience of Optimal Flow in Human-Computer Interaction". *The Journal of Psychology,* 128(4): 381-391.

HOFFMAN, D.L. & NOVAK, T.P. 1996. "Marketing and hypermedia computer-mediated environments: conceptual foundations". *Journal of Marketing*, 60(3): 50-68.

KATZ, E. 1959. "Mass Communications Research and the Study of Popular Culture: An Editorial Note on a Possible Future for this Journal". *Departmental Papers (ASC)*: 1-6.

KATZ, E., BLUMLER, J.G. & GUREVITCH, M. 1974. "Uses and Gratifications Research". *The Public Opinion Quarterly* 4th, (37)38: 509-523.

KOOHIKAMALI, M. & SIDOROVA, A. 2017. "Information Re-Sharing On Social Network Sites In The Age of Fake News". *Informing Science*, 20: 215-235.

KOUFARIS, M. 2002. "Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior". *Information Systems Research,* 13: 205-223.

KUCHLER, H. "Companies Scramble to Combat Fake News". Financial Times, 22 August 2017. Accessed 12 November 2017. https://www.ft.com/content/afe1f902-82b6-11e7-94e2-c5b903247afd.

LAYBATS, C. & TREDINNICK, L. 2016. "Post Truth, Information, and Emotion". *Business Information Review* 33(4): 204-206.

LAZER, D., BAUM, M., BENKLER, J., BERINSKY, A., GREENHIL, K., METZGER, M. & ZITTRAIN, J. 2018. "The science of fake news". *Science* 359(6380): 1094–1096.

LEE, K. & CHUNG, N. 2009. "Understanding factors affecting trust in and satisfaction with mobile banking in Korea: A modified DeLone and McLean's model perspective". *Interact*. *Comput*. 21 (5): 385-392.

LEVY, N. 2017. "The bad news about fake news". *Social Epistemology Review and Reply Collective* 6(8): 20-36.

LIN, H. & WANG, Y. 2006. "An examination of the determinants of customer loyalty in mobile commerce contexts". *Information & Management* 43: 271-282.

LOGAN, K., BRIGHT, L.F. & GRAU, S.L. 2018. "UNFRIEND ME, PLEASE!: Social Media Fatigue and the Theory of Rational Choice". *Journal of Marketing Theory and Practice 26*(4): 357-367. DOI: 10.1080/10696679.2018.1488219T.

MARTENS, B., AGUIAR, L., GOMEZ-HERRERA, E. & MUELLER-LANGER, F. 2018. "The digital transformation of news media and the rise of disinformation and fake news - An economic perspective". *Digital Economy Working Paper, JRC Technical Reports*.

MCGONAGLE, T. 2017. "*Fake news*: False fears or real concerns?" *Netherlands Quarterly of Human Rights 35*(4): 203-209. https://doi.org/10.1177/0924051917738685.

NESI, J. & PRINSTEIN, M.J. 2015. "Using social media for social comparison and feedback- seeking: Gender and popularity moderate associations with depressive symptoms". *Journal of Abnormal Child Psychology*. http://dx.doi.org/10.1007/s10802-015-0020-0.

OBADĂ, D.R. 2014. "Online Flow Experience and Perceived Quality of a Brand Website: Inpascani.Ro Case Study". *Procedia - Social and Behavioral Sciences* 149: 673-679, doi:10.1016/j.sbspro.2014.08.252.

OBADĂ, D.R. 2015. *Impactul stării de flux din mediul on-line asupra calităţii percepute a unui site web de brand*. Bucureşti Pro Universitaria.

OREMUS, W. 2017. Facebook has stopped saying 'fake news'. URL accessed 30 August 2017: http://www.slate.com/blogs/future_tense/2017/08/08/facebook_has_stopped_saying_fake_news_is_false_news_any_better.html>

POLANSKY, A., HEIMANN, G., SCHILLER, V. & MORGAN, L. 2017. "A Real Plague: Fake news. Marketing Weekly News 61". Retrieved from http://www.webershandwick.com/uploads/news/files/A_Real_Plague_Fake_News.pdf

PRICE, R. 2017. "Facebook Will Now Teach You How to Spot Fake News." *Business Insider*. Apr. 12. Retrieved from http://www.businessinsider.com/facebook-how-to-spot-fake-news-2017-4?IR=T.

READ, M. 2016. "Donald Trump won because of Facebook", New York Magazine, November 9. Available at: http://nymag.com/selectall/2016/11/donald-trump-won-because-of-facebook.html.

RINI, R. 2017. "Fake news and partisan epistemology". *Kennedy Institute of Ethics Journal* 27(2): 43-64.

ROCHLIN, N. 2017. "Fake news: belief in post-truth", *Library Hi Tech* (35)3: 386-392. https://doi.org/10.1108/LHT-03-2017-0062.

SHU, K., SLIVA, A., WANG, S., TANG, J. & LIU, H. 2017. "Fake news detection

on social media: A data mining perspective". *ACM SIGKDD Explorations Newsletter* 19(1): 22-36.

SIEKPE, J.S. 2005. "An examination of the multidimensionality of flow construct in a computer-mediated environment". *Journal of Electronic Commerce Research* 6(1): 31-43.

SKADBERG, Y.X. & KIMMEL, J.R. (2004). "Visitors' flow experience while browsing a web site: its measurement, contributing factors and consequences". *Computers in Human Behavior* 20(3): 403-422.

SUH, B., HONG, L., PIROLLI, P. & CHI, E.H. 2010. "Want to be retweeted? Large scale analytics on factors impacting retweet in Twitter network". *Proceedings of the IEEE Second International Conference on Social Computing*. Retrieved from https://www.parc.com/content/attachments/want-to-be-retweeted.pdf.

TESICH, S. 1992. "A Government of Lies". *The Nation*: 12-13.

TREVINO, L.K. & Webster, J. 1992. "Flow in Computer-Mediated Communication". *Communication Research* 19(5): 539-573.

VISENTIN, M. & PIZZI, G. & PICHIERRI, M. 2019. "Fake News, Real Problems for Brands: The Impact of Content Truthfulness and Source Credibility on consumers' Behavioral Intentions toward the Advertised Brands." *Journal of Interactive Marketing, Elsevier*, vol. 45(C): 99-112.

WARDLE, C. & DERAKHSHAN, H. 2017. *Information disorder: Toward an interdisciplinary framework for research and policymaking*. Council of Europe report, DGI.

WEBSTER, J., TREVINO, L.K., & RYAN, L. 1993. "The Dimensionality and Correlates of Flow in Human Computer Interactions". *Computers in Human Behavior* 9(4) (Winter): 411-426.

YOUGOV. 2017. "68% of APAC Residents Believe There is a Problem With Fake News on Digital Platforms." Aug. 21. Retrieved from: https://au.yougov.com/news/2017/08/21/68-apac-residents-believe-there-problem-fake- news-/.

ZHANG, X. & GHORBANI, A.A. 2019. "An overview of online fake news: Characterization, detection, and discussion". *Information Processing and Management*. https://doi.org/10.1016/j.ipm.2019.03.004.

ZHOU, T. 2012. "Examining mobile banking user adoption from the perspectives of trust and flow experience". *Inf. Technol. Manag*. 13: 27-37.

ZHOU, T. 2014. "Understanding continuance usage intention of mobile internet sites". *Univ. Access. Inf. Soc*. 13: 329-337.

https://datareportal.com/reports/digital-2019-global-digital-overview

https://www.ft.com/content/afe1f902-82b6-11e7-94e2-c5b903247afd

https://www.internetworldstats.com/stats.htm

https://www.journalism.org/2017/09/07/news-use-across-social-media-platforms-2017/

https://www.pulsarplatform.com/blog/2016/brand-dig-pepsi-new-balance-and-facebook-battle-fake-news