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Fake news and Social Media

How Greek users identify and curb misinformation online

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Abstract

The issue of fake news and its impact has become very prominent in recent years. Despite the fact that fake news is not a new phenomenon, technological advances have constructed a fertile environment for the fake news to be spread rapidly. Social media platforms, such as Facebook, Twitter or YouTube, offer ground for generation and distribution of fake news. Consequently, it is important to study the way social media operates, how fake news is produced and spread through social network sites and what is the role users play. In particular, this study examines the methods and tools Greek users implement in order to spot fake news on social media and counter its spread. Moreover, this research contributes to the theory of fake news by addressing the issue of users' interaction with news and users' collaboration in the information era. The data presented in this research was collected from the members of the Ellinika Hoaxes Facebook group, an online Greek community where users exchange knowledge and insights and they collaborate to spot fake news and counter its spread.

Keywords: fake news, social media, Greek users, the act of authentication, social networking, activism, collaboration

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1. Introduction

In the light of the recent attention to the role of social media in the dissemination of fake news about current political and social affairs, it is important to understand the way the audience interacts with disinformation on Social Network Sites (SNS). Fake news about current social or political issues is circulated on social media with tremendous speed (Mehrdad and Anna, 2017). These fake stories or hoaxes – deliberately or not – misinform or deceive audiences. Usually, these stories are created to either influence people's views, push a political agenda or cause confusion and can often be a profitable business for online publishers (Brennen, 2017). Fake news stories can deceive people since their sources are mainly using names and web addresses similar to reputable news organizations. There are also cases where fake news is produced by mistake, but it might also confuse and mislead audiences (Corner, 2017). Many people consume news and are informed about current political and social affairs from social media platforms and networks (Allcott and Gentzkow, 2017) and it can often be difficult to tell whether stories are credible or not. Information overload and a general lack of understanding of how the internet works, have also contributed to an increase in the fake news or hoax stories. Both social media and users can play a big part in increasing the spread of these types of stories (Spohr, 2017). However, there are individual users and groups of users who are taking action to counter the spread of fake news on social media. These groups of people and their actions are the focus of this research so that a more comprehensive framework of how users can identify and fight fake news can be developed.

Social network organizations like Google and Facebook have announced new measures to tackle fake news with the introduction of reporting and flagging tools. Media organizations like the BBC and Channel 4 have also established fact-checking sites. While these are positive developments, digital media literacy and developing skills to critically evaluate information are essential skills for anyone navigating the internet (Mihailidis and Viotty, 2017). The vast amount of information available online and the rise of fake political news highlights the need for critical thinking (Burkhardt, 2017). Therefore, it is crucial to examine the users' acts of verification on spotting and curbing fake news on social media. The tools and methods they use to

identify a fake story, as well as the way they interact with it, can be used to obtain useful information about how users could potentially behave online to counter fake news on social media. This research aims at examining how the Greek users manage to identify fake news distributed online and what kind of acts of authentication do they follow in order to verify facts and data. The members of the *Ellinika Hoaxes* Facebook group were chosen as the research focus of this study. This specific Facebook group was chosen based on the fact that its members are users organized within the group in order to fight the spread of misleading information on social media. Moreover, the *Ellinika Hoaxes* and its members manage to spot fake news distributed on social media in Greece, on a daily basis, and they also contribute by providing their findings as a primary source to prominent media outlets. For instance, there are cases where the members of the *Ellinika Hoaxes* identified a fake news story and then their findings were used by Greek newspapers as a source. Consequently, the mechanisms and tools these Greek users implement to counter fake stories are in need of examination, particularly as they provide insights about the way citizens interact with fake news about current political and social issues and the role they play in countering its spread.

This research gathers quantitative data on what actions could be taken on the social media environment to give effective tools to more users to identify reliable and verified information about current social and political affairs and adapt to the challenges of the digital age. By examining the way Greek users interact with fake news and what methods they follow in order to counter its spread, this research collects useful insights which could be used as a guideline for the construction of a general strategy against fake news on social media. For this reason, the main Research Question (RQ) of this study needs to be answered: *How the members of the Ellinika Hoaxes Facebook group detect and curb fake news on social media?*. This RQ is supported by two sub-Research Questions, which were constructed in order to make the research even more focused and straightforward. To be more specific, the first one is *'What specific actions of authentication do the members of the Ellinika Hoaxes Facebook group take in order to identify fake news on social media?'* and the second one is *'How the members of the Ellinika Hoaxes Facebook group interact with fake news after they have detected it on social media?'*. Basically, the second and the third RQs operate as a bridge to gather quantitative data to answer the first

main RQ of this study. To be more specific, the first aim was to collect responses about users' tools and mechanisms during the acts of authentication. These mechanisms could be detected by investigating the way these Greek users spot a fake story. In order to fully understand the way these Greek users curb the spread of fake news on social media, responses regarding the actions they take after spotting a fake story were also collected. Then, combining these responses (about tools and mechanisms on curbing fake news and actions against its spread) data about the overall strategy followed by the members of the *Ellinika Hoaxes* Facebook group was extracted.

Briefly describing the structure of this study, first, the theoretical framework of this study is presented. The Uses and Gratifications Theory is used as the overall framework in order to construct the context within the members of the *Ellinika Hoaxes* Facebook group and their acts of verification are studied. Then, a literature review, where the term of fake news is presented in detail, is used to provide a broader image about this debatable issue. The role social media plays in the spread of fake news is also studied. The theoretical framework and the literature review are followed by the empirical study of this research, where the data acquired by the members of the *Ellinika Hoaxes* Facebook group is presented in detail. After presenting the data about the acts of verification and the users' interaction with fake news, there is a discussion about the findings of this study and potential further researches, based on them.

2. The Ellinika Hoaxes Facebook group

The *Ellinika Hoaxes* Facebook group is the case study of this research, and in this chapter the motivations behind this choice are presented in detail. In order to better understand the way this specific online community operates, the fake news phenomenon in Greece is also presented in this chapter, by providing examples of well-known hoaxes stories. The members of the *Ellinika Hoaxes* Facebook group have contributed to the process of spotting and countering some of these fake news

stories, and therefore their knowledge and their acts of authentication are in need of further study.

2.1 Active users fight fake news

The *Ellinika Hoaxes* Facebook group, which has more than 110.000 members, was chosen as the case study since it consists of Greek users who spot and counter the spread of fake news on social media. The members of this group are organized in order to identify potential misleading information circulated on social media and search for verification. For example, when the users have doubts about whether a story is fake or not, they post it in the group and ask the other members to contribute with their knowledge. The other users actively participate in the discussions by providing external links with accurate data or by giving facts and other elements which certify whether the story is fake or not. Similarly, when the users are aware of a fake story, they also post it in the group explaining its origins and the online discussion begins in order to attract more people to participate and be aware of the case. The group is a closed one in the sense that the administrators are responsible for approving any new request for participation as well as any new post and users that are not members of the group are not able to post.

It is worth mentioning that the group is directly connected with the Greek online newspaper *Ellinika Hoaxes*, which is a website devoted to present fake stories by explaining why the data presented in these stories are inaccurate. Therefore, the group operates as a parallel community where fake stories are discussed online, and the members are able to provide their own knowledge and data in order to conclude on whether a story is fake or not. In accordance, these online discussions lead to significant conclusions and fake stories are spotted with users' participation. Then, the stories are presented in *Ellinika Hoaxes* newspaper as well, in order to inform other users and the general audience. In a sense, the members of the group can be described as active users who have an interest on identifying fake news and counter its distribution on social media, and consequently, their online presence is in accordance with the focus of this study.

By analyzing the ways, the members of the *Ellinika Hoaxes* Facebook group operate, one could detect a set of methods and activities implemented by the members while they are making an effort to identify fake news and curb its spread on social media. This study focuses on listing these methods in order to identify the common patterns used by the users. These patterns construct an effective strategy to fight the spread of fake news on social media. To be more specific, after collecting and analyzing the mechanisms and tools the members of the *Ellinika Hoaxes* Facebook group implement to detect fake stories online and counter their distribution, a researcher could construct a strategy consisting of the most effective methods which might be followed by other users or anyone who has an interest in fighting the spread of fake news on social media. Based on the fact that the members of the *Ellinika Hoaxes* Facebook group contribute to the content presented on the Greek online newspaper *Ellinika Hoaxes*, their knowledge on curbing fake news presents a clear interest, and therefore their methods are also significant and worth being studying.

Even though the *Ellinika Hoaxes* Facebook group is presented by its administrators as an online community that consists of users who fight the spread of fake news, there are many reasons to describe it as an activist community. According to Ricketts, “it is the work of activists which pushes society along, prompts it to deal with its own failings and inequalities and helps to manifest a vision of a better world” (2012, p. 6). *The Ellinika Hoaxes* Facebook group demonstrates activists’ practices since it aims at building a better media ecosystem and helping users on social media to be well-informed about current affairs – by reducing the spread of misleading information. Ricketts (2012, p. 7) states that activism is a very broad term which refers to actions and activities intentionally designed to exert influence within democratic processes and in this sense, we could see democracy as a process and activism as a set of specific activities taking place as part of this process. Mirroring Ricketts’s notion of activism on the *Ellinika Hoaxes* Facebook group one could detect users who are fighting against the spread of propaganda and misleading data and are demanding a well-informed audience. Moreover, the group itself promotes democracy, since the users can start online discussions about potential fake news, share insights and data and build an open conversation where the other members can freely contribute with their knowledge or insights. To ensure that the users within the

Ellinika Hoaxes Facebook group are able to spot and counter fake news efficiently, inside collaborations are crucial for the group.

Based on the above it is clear that the members of the *Ellinika Hoaxes* collaborate in order to counter the spread of fake news. Marinez-Moyano (2006) describes collaboration as the process which occurs when two or more people (or organizations) work together to realize or achieve a goal. This notion places collaboration very close to cooperation. Collaboration is defined (Mattessich et al., 2001) as a mutually beneficial and well-defined relationship entered into by two or more partners to achieve common goals. In the case of *Ellinika Hoaxes*, the Greek users work together to achieve a specific goal: to spot misleading information on social media and inform other users about fake news. To achieve this goal, they collaborate. For instance, when the users spot fake news distributed on social media, they post it in the group and they ask other users for their views. An online discussion starts, where, by exchanging their knowledge, the users manage to identify fake news and counter its spread. Consequently, it is clear that in the process of spotting and curbing fake news, the collaboration between the members of the group plays a significant role.

2.2. Fake news in Greece

Distributing misleading information on Greek media, social media, and the Internet is also not a new phenomenon. In her recent study about propaganda on Greek media, Patrona (2018) discusses the historical framework of the Greek case and emphasizes the fact that in Greece there have always been misleading information, false facts, and fake news in the media. For instance, by analyzing the discourse of the Greek media, Patrona comes up with the conclusion that there is a common pattern which leads to the production of fake news: Greek media present conversations as news and instead of using data in their reports, opinions are preferred. Poulakidakos and Armenakis (2014) studied the Greek media discourse in relation to the economic crisis of 2010 and they point out cases where media in Greece presented fake news with misleading information in order either to promote a specific political propaganda or to gain money. By analyzing the discourse of the most prominent Greek media, they conclude that popular Greek online newspapers,

such as *tanea.gr* and *enet.gr*, made use of sentimental propagandistic methods and they generated misleading and fake news (2014, p. 137). These studies indicate that Greek media have always generated and distributed fake news. This fake news' purpose was to attract audience interests either for promoting a specific political agenda or to earn money (or both). An interesting subject to be studied is how this distribution of fake news has changed over the information age and the spread of the use of social media.

In order to study the distribution of fake news on social media in Greece, it is crucial to examine a few examples of well-known fake stories, which were generated and distributed on social media. Since the case study of this research is the *Ellinika Hoaxes* Facebook group, the examples presented below originated in this group. In fact, in 2017 the members of this group managed to spot and counter the spread of migrant-related fake news. It all started with a Greek Facebook user who generated a fake story, which became viral within a few hours. The user posted a photograph of wasted food and a description saying that migrants wasted food distributed to them by authorities. The post became viral and even prominent Greek media used it as a source for reports – it then turned out to be fake. The members of the *Ellinika Hoaxes* Facebook group started their own research and came to the conclusion that the story was fake, and the post was inaccurate. Another significant example of fake news which was identified by the members of the *Ellinika Hoaxes* Facebook group was about a story of a falsely alleged rapist. To be more specific, a Greek organization about animals posted a photograph of a man on Facebook and claimed that he was the rapist of a young girl. The organization even posted the man's name and surname and other personal details. The post became viral on Facebook and the members of the *Ellinika Hoaxes* spotted it. After conducting their own research, they managed to present facts which indicated that the post was fake. The man was not a rapist, there was no incidence of rape of a young girl in the area mentioned in the post and the Greek authorities confirmed that the story was fake.

Fake news distributed on social media in Greece is not generated only by users, but by media outlets as well. In fact, there are websites in Greece which have a bad reputation and they have produced a lot of fake news in the past. One example is the Greek website *enimerosi-247*, which, last summer, posted a story about an upcoming

disastrous and deadly earthquake in Greece. The website presented misleading facts about a forthcoming enormous earthquake. It turned out that the prediction was made up and the scientist which was used as a source was nonexistent. The members of the *Ellinika Hoaxes* spotted this fake news, which became viral on social media in Greece and was also distributed by other media outlets. However, there are also Greek media outlets with no clear record which, nevertheless, have either produced or distributed fake stories. An interesting example is a local newspaper from Kavala, a small town in Greece, which generated a migrant-related fake news that became viral and even discussed in the Hellenic Parliament. The story was about migrants who were presented as demanding the closure of a local Orthodox church. The story became viral on social media within a few hours and was then distributed by prominent Greek media outlets as well. With their research, the members of the *Ellinika Hoaxes* Facebook group managed to present facts which clarified that the story was fake. The examples presented above indicate that there are a lot of fake news on social media in Greece and that the *Ellinika Hoaxes* Facebook group plays a significant role in the process of identifying and curbing them. Therefore, it is clear that as a case study the *Ellinika Hoaxes* Facebook group could provide useful insights in order to answer the RQs of this study and better understand the way Greek users act in order to stop the distribution of fake news on social media.

3. Theoretical Framework

Within this chapter, the theoretical framework of this study is presented. The Uses and Gratifications Theory is used as the context within the members of the *Ellinika Hoaxes* Facebook group are studied, in order to answer the RQ of this research. This chapter is the first step to understand the way the users interact with news, messages, and sources on social media. Moreover, it contributes to this study by providing information about the role social media plays in the spread of fake news and users' online behavior. These pieces of knowledge are important to construct the theoretical framework of this study in order to collect and analyze data about the way Greek users spot fake news on social media and counter its spread.

3.1. Uses and Gratifications Theory

Based on the fact that this research lies in the field of mass media and communication studies, the Uses and Gratification Theory (UGT) was employed as its theoretical framework. UGT is a popular approach to understand mass communication. This theory places more focus on the consumer, or audience, instead of the actual message itself by asking what people do with media rather than what media does to people (Leung and Wei, 2000). UGT was first proposed by Katz in 1959 and consecutive relevant studies were conducted by Katz, Blumler, and Gurevitch in 1974 (Hui-Fei and Chi-Hua, 2017). Based on the definition provided in Hui-Fei and Chi-Hua's recent study, UGT states that the audience selects media based on personal needs and knows which media can satisfy their needs. In other words, whether an audience uses a medium is determined by the latter's usefulness in providing information and is influenced by the audience's motives. Consequently, media behavior reflects previous interests and hobbies without being easily affected.

This theory assumes that members of the audience are not passive but instead they implement an active role in interpreting and integrating media into their own lives. In order to study the way members of the *Ellinika Hoaxes* Facebook group interact with fake news distributed on social media, this theory could provide a sufficient theoretical framework to understand these Greek users and how they operate. For instance, the fact that the members of this online community implement a set of actions of authentication in order to spot fake news is in line with UGT, which conceives the audience as active users. However, the UGT can also be used to conceptualize the use of the media by the audience and in this case to study the potential ways the members of the *Ellinika Hoaxes* Facebook group use social media and the Internet to spot fake news and counter its spread.

UGT is a framework that explains how and why people actively seek out for specific types of media (Phua et al, 2017). According to UGT, people receive gratifications through media, which satisfy their informational, social, and leisure needs. Studies applying UGT have found that the individual differences of members of the audience – including media self-efficacy, habitual behavior, prior attitudes, and self-regulation – serve to moderate their media selections (e.g., Humphreys, Von Pape and Karnowski, 2013; LaRose and Eastin, 2004). These media selections, in turn, lead to

enhanced knowledge, social interaction, diversion, escapism, and civic participation (Gil de Zuniga, 2012). More recently, scholarly research has drawn upon UGT to examine audiences' goal-directed consumption behavior in the computer-mediated communication context (Gil de Zuniga 2012; Papacharissi and Mendelson, 2010). In particular, two trends of Social Networking Sites (SNS) use have been identified: first, the majority of people use two or more SNSs simultaneously because each has its unique features and purposes (Brandtzæg, 2012); and second, people increasingly embrace SNSs as tools for both communication and information, which help them fulfill their informational, emotional, and social desires when used in tandem (Quan-Haase & Young, 2010).

The findings of these previous studies are crucial for analyzing the way the members of the *Ellinika Hoaxes* Facebook group operate, the actions of authentication they employ, and the overall strategy they follow in order to counter the spread of fake news. In fact, the members of this group use social media platforms, like Facebook, to communicate and share information about fake news (apart from other uses, which are not part relevant to this study). Moreover, this study investigates the way the members of the *Ellinika Hoaxes* Facebook group use various media during their actions of authentication, and therefore the emphasis is more on what these Greek users do with media in order to satisfy their need for quality content and truth. Despite the fact that this research does not study or analyze motives for using SNSs, the UGT is used as an overall framework to conceptualize the active role users employ when they identify fake news on social media. In a sense, the members of the *Ellinika Hoaxes* Facebook group are studied as active users who use social media platforms and the Internet to expand their knowledge and identify fake news distributed online. Moreover, they make use of the media in order to employ their actions of authentication and it is clear that they cannot be categorized as a passive audience. In fact, they employ a more active role during the communication process with various sources on social media and the Internet. The current research aims to address this role and, in a sense, to investigate the way the members of the *Ellinika Hoaxes* Facebook group use the media.

3.2 Social media and fake news

Prominent media outlets have invested significantly in developing and improving digital journalism, publishing content for their online environments and expanding their networks through social media and the Internet. Information sharing, networking, and communication are among the key motivations behind the use of social media (Ahn et al., 2007) and, as a result, social media is emerging as one of the key platforms for information dissemination (Xiang and Gretzel, 2010). The technological advances associated with the emergence of social media have increased the spread of information and democratized its consumption globally. According to Burkhardt (2017), the dissemination of information allows ideas to be shared and formerly inaccessible regions to be connected. It also allows users to make choices about the received information and provides a platform for many points of view. Over the past two decades, media organizations have invested in building their online presence, with the later use of social media platforms playing a significant role. In fact, they use social media like Facebook or Twitter, to distribute their content, share their information and build a network of audiences and engage with them. On the other hand, users benefit from the technological advances social media offer since they have acquired access to multiple sources of information and the way they consume news has also changed significantly.

The new digital landscape for information dissemination and sharing, in combination with the pressure that media organizations face in an omnipresent media environment, have placed considerable changes on news organizations as they are currently structured (Silverman, 2015). As Kellner (2003) underlined, pressures – economic, technological, political, and social – combined with the need to be constantly present, to report with equal speed and alacrity, and to gain followers in the process, has led to a landscape where fake news is almost everywhere, even in prominent media outlets. It is clear that the new technological advances associated with social media (for example the free and real-time distribution of news and information) have also provided a fertile environment for the online misinformation to grow. Burkhardt (2017) argues that in a largely unregulated medium, supported and driven by advertising, the incentive for good is often outweighed by the incentive for revenue, and this has a major impact on how the medium develops over time. Discussing the new technological advances associated with social media,

Burkhardt described the proliferation of fake news as one of their outcomes. In fact, she points out that while the existence of fake news is not new, the speed at which it travels and the global reach of the technology that can spread it, are unprecedented (2017, p. 8). Based on the above, fake news exists in the same context as real news on the social media and the problem seems to be distinguishing between what is fake and what is real. In fact, according to Burkhardt (2017), while the fake news is not a new phenomenon, the means by which it is spread has changed in both speed and magnitude: social media platforms like Facebook, Twitter and Instagram are fertile ground for the rapid spread of fake news. Moreover, the same author points out that algorithms known as bots are increasingly being deployed to manipulate information, to disrupt social media communication and to gain users' attention.

3.3. Bubbles, bots, and algorithms

Over recent years, fake news and the effect of the social media filter bubble have become increasingly important both in the academic and general discussion. This has been exacerbated by the perceived role of fake news and selective news filtering in the recent United State (US) presidential election and the British-European Union (EU) membership referendum. According to a definition provided by Technopedia, a “filter bubble is the intellectual isolation that can occur when websites make use of algorithms to selectively assume the information a user would want to see and then give information to the user according to this assumption” (Technopedia, 2018). Pariser (2011), in his well-known book *“The filter bubble: What the Internet is hiding from you”*, describes that companies like Google or Facebook make assumptions based on the information related to the user – such as browsing history, location or form click behavior – and with the use of algorithms they construct a filter bubble where only selective information is circulated. A filter bubble, therefore, can cause users to get significantly less contact with contradicting viewpoints, causing them to become intellectually isolated. Some theorists claim that the algorithmic personalization that filters our online experiences effectively places us in an echo chamber of our own beliefs and is the stronger cause of polarization (Pariser, 2011; Rader and Grey, 2015) and a critical factor in the growing importance of fake news. As social media plays an increasing role in the consumption of news and information, the effects of ideological polarization in information consumption

become arguably more apparent. In recent years, social networks have displayed symptoms of ideological polarization (Dylko et al., 2017; Stroud, 2010) and the formation of the so-called filter bubbles associated with the emerging phenomenon of fake news. Selective exposure behavior, confirmation bias and availability bias that make us more likely to interact with content which confirms our pre-existing views are the more likely trigger of ideological polarization, both offline and online (Frey, 1986; Klapper, 1957; Stroud, 2008).

Despite the fact that the term ‘filter bubble’ has been popularized by Pariser (2011), who illustrated the phenomenon of polarization on social media platforms, it is not a new phenomenon. Already in 1996, Negroponte predicted a world where information technologies become increasingly customizable and he “envisioned a digital life, where newspapers tailor content to your preferences and media consumption becomes a highly personalized experience” (Gil de Zuniga and Diehl, 2017, p. 3). He based his vision on the fact that even in the pre-digital era audiences seemed to prefer reading specific media outlets and gathering information from sources which were close, or at least closer, to their beliefs. They also tended to be influenced by their own network of friends and other individuals, and in a way, they lived inside bubbles. Interestingly, Negroponte’s vision has become reality in our news feeds and overall online experiences both on social media and the Internet, but it appears that many individuals do not consider the implications of their highly customized online experience. To be more specific, one study investigating users’ beliefs around Facebook News Feed found that most users are not particularly aware of the algorithm behind it (Rander and Gray, 2015, p. 177-178). This finding illustrates the fact that when users interact with content on social media it is more likely for them not to be aware of the fact that this content is part of their filter-bubbles and, therefore, that other information is also available online but is not part of their bubbles since bots and algorithms have filtered it. As Burkhardt (2017) underlines, the manipulation of computer code for social media sites allows fake news to proliferate and affects what people believe, often without ever having been read beyond the headline or caption. This conclusion clearly demonstrates the significant role bots and algorithms, as well as the ‘filter bubble’ effect, play on fake news production and distribution on social media, and therefore it is crucial for the users to

be aware of the role bots and algorithms play in order to be able to counter the spread of misleading information online.

3.4. Users, re-sharing behavior, and fake news

Based on the theories described above, it is obvious that social media platforms play an important role in the distribution of fake news, but it is also clear that the users are also responsible for the proliferation of misleading information online. As Koohikamali and Sidorova argue, information sharing Social Network Sites (SNS) typically involves one of two forms: self-disclosure, the sharing of personal information by a user, and re-sharing, whereby users share content that is posted by other SNS users or third parties (2017, p. 216). Re-sharing behavior, which may be referred to as retweeting, re-posting, re-vining, or re-blogging, is one of the major mechanisms of online information dissemination (Suh et al., 2010) and as such represents an important category of informing (Cohen, 2009). For example, it is usual for users on social media to post articles and news, share them through their individual networks and discuss them online. Social media platforms provide the users with a variety of tools which enable this re-sharing behavior. SNS such as Twitter, YouTube, and Facebook are used for rapid information dissemination (Mislove et al., 2007), including information dissemination during political campaigns (Bakshy et al., 2015) as well as crisis situations (Oh et al., 2013). In addition, the users share news on their social media accounts and help information dissemination within their networks. While re-sharing of high-quality information may help create a well-informed society, re-sharing of content that contains poor quality, inaccurate, or intentionally misleading information can have negative consequences, such as the spread of fake news (Polansky et al., 2017). For instance, there are cases where a user posts fake news on social media (or even generates a whole fake story and posts it) and since social media platforms offer re-sharing tools, other users re-share the fake story and help its spread on the Internet. While the very definition of fake news, the role of social media in the spread of fake news and the effect of fake news on social and political outcomes remain the subject of debates, various approaches to combating fake news are being proposed (Allcott and Gentzkow, 2017; Harford, 2017). The social media platforms, users, and

organizations fighting the spread of fake news are among the key actors which might be able to counter the distribution of misleading information online.

By providing this theoretical brief review about the UGT, the filter bubble phenomenon and the re-sharing behavior on social media, the framework of this study is now clearer. The members of the *Ellinika Hoaxes* Facebook group are studied based on UGT's approach and they are conceptualized as an active audience which use media to fulfill its need for quality journalism and information beyond its filter bubble. In a sense, in order to investigate the ways these Greek users spot fake news on social media and counter its spread, it is important to understand these specific users as an active audience, which seeks for facts and data and tries to verify whether a story distributed on social media is true or not by using the social media platforms themselves, the Internet and other media. Therefore, their online behavior needs to be studied as well, in order to better answer the RQs of this study and come up with conclusions about the way the members of the *Ellinika Hoaxes* Facebook group manage to use specific media to identify fake news and counter its spread.

4. Literature Review

In order to study the way Greek users spot and counter fake news on social media, it is crucial to first provide an overview of the debatable term of fake news. This chapter provides a literature review about the term of fake news and its long history by presenting various approaches to the use of this term. Moreover, it presents information about the motivation behind the fake news phenomenon as well as examples of famous fake news stories which are important as a framework for the RQs, of this study. In fact, in order to understand the way, the members of the *Ellinika Hoaxes* Facebook group operate it is important to know how the term of fake news has been presented by various previous studies. Moreover, by presenting examples of fake news it could be easier to understand the use of the term of fake news within this study.

4.1 Fake news: An overview

The term ‘fake news’ is not new. Contemporary discourse, particularly media coverage, seems to define fake news as viral posts based on fake accounts made to look like news reports. According to a recent study by Allcott and Gentzkow (2017), articles that are intentionally and verifiably false, and could mislead readers, are defined as fake news. As Albright (2016) points out, fake news has become a buzzword, especially after the 2016 presidential elections in the United States, a democratic exercise marked by loads of misinformation and false news. Mainstream news outlets have reported extensively about fake news, and even political institutions around the world have discussed ways to curb the phenomenon (Scott and Eddy, 2017). A simple but well-accurate definition about the term of fake news has been provided by Leonhardt and Thompson (2017) in their article in the New York Times, where they describe fake news as a type of propaganda or yellow and misleading journalism that consists of deliberate misinformation, spread via traditional media outlets (their print or online editions) or online social media. On the other hand, a recent study (Tandoc et al. 2018) elaborates more on this by providing an overview of the various types of fake news. Briefly, the study detects six types of fake news: news satire, news parody, fabrication, manipulation, advertising and propaganda (2018, p. 147). Summarizing these findings, one could describe fake news simply as stories that contain misleading and fake facts which aim at either spreading propaganda and influencing the audience’s political views, or at producing a funny content and making a profit. However, apart from the term ‘fake news’, there are similar or quite similar terms, such as post-truth or disinformation, which are also used in an attempt to cover this complex process of producing misleading information.

In a recent report on fake news and online disinformation by the independent High-Level Group of Experts (HLEG) of the European Commission, the term ‘fake news’ is deliberately avoided. As the HLEG underlined (HLEG, 2018, p. 11), the term fake news is inadequate to capture the complex problem of disinformation, which involves content that is not actually or completely “fake” but consists of fabricated information blended with facts and practices that go well beyond anything resembling “news” to include some forms of automated accounts used for astroturfing, networks of fake followers, fabricated or manipulated videos, targeted

advertising, organized trolling, visual memes, and much more. In addition, the report uses the term ‘disinformation’ to address all forms of false, inaccurate, or misleading information designed, presented and promoted to intentionally cause public harm or for profit (2018, p. 12). This definition of disinformation is broader and combines different aspects of misleading information circulated online. In fact, one could say that fake news, as it is described above, is part of this broader definition of disinformation and when it comes to fake news the focus is mainly on data, facts or information directly related to what is known as news. Therefore, HLEG’s decision to avoid the use of fake news does not mean that the term itself is not accepted or that it cannot be used to precisely describe the phenomenon of fake news produced and distributed online. In addition, within this study, the term of fake news is preferred to terms like ‘disinformation’, since the focus of this research is primarily on the way users spot misleading information in the news circulated on social media. Thus, the emphasis is specifically placed on articles and reports only (produces either by media outlets or by users) and the term fake news is deemed as sufficient enough to cover this research area.

In a sense, this study uses the term of fake news according to the definition of Michailidis and Viotty (2017), where they describe fake news as hoax-based stories that perpetuate hearsay, rumors, and misinformation. As they point out, the way journalists and news organizations report the truth in the digital age has been the subject of much debate. Questions about the contingency and precariousness of what is publicly circulated as the ‘truth’ have long been central to research across both the cultural studies and the more sociological strands of international media inquiry (Corner, 2017). However, the flow of misinformation around the 2016 US presidential election put the problem of fake news on the agenda all over the world (Nielsen and Graves, 2017). Wardle (2017) defines fake news as fabricated news reports produced either for profit or for political purposes. Based on the various definitions described above, it is clear that the term of fake news is in practice used broadly to cover any misleading and inaccurate information produced and delivered online as a news story with different motivations and purposes.

4.2 The motivation behind fake news

After presenting an overview of the term of fake news, it is important to discuss the motivations behind the production and circulation of fake news on social media. According to Allcott and Gentzkow (2017), there appear to be two main motivations for providing fake news. The first is pecuniary: news articles and posts that become viral on social media can draw significant advertising revenue when users click on the original website. Based on this conclusion, it comes as no surprise that pecuniary appears to have been the main motivation for most of the producers whose identities have been revealed (Subramanian, 2017). For example, the teenagers in Veles produced stories favoring both Trump and Clinton that earned them tens of thousands of dollars, while Paul Horner produced pro-Trump stories for profit, despite claiming to be personally opposed to Trump (Dewey, 2016). These examples reveal the fact that making a profit is a strong motivation among the producers of fake news circulated online, who prefer to generate and share misleading articles in order to collect more clicks by potential users and earn money through the advertising. The second motivation, as Allcott and Gentzkow describe (2017) in their study about the spread of fake news during the US presidential elections, is ideological. In fact, some fake news providers seek to advance specific political points of views and distribute their propaganda by using misleading facts and data within their articles. For instance, the man who ran endingthefed.com, claimed that he started the site mainly to help Donald Trump's campaign (Townsend, 2016), while some other providers of right-wing fake news said they actually identify themselves as left-wing and wanted to embarrass those on the Right by showing that they would credulously circulate false stories (Dewey, 2016; Sydell, 2016). Summarizing the above, two main motivations are behind the production of fake news: financial and ideological. On one hand, outrageous and fake stories that go viral – precisely because they are outrageous – provide content producers with clicks that are convertible to advertising revenue. On the other hand, some other fake news providers produce fake news to promote ideas or people that they favor, often by discrediting others.

4.3. Examples of well-known fake news

In order to better understand what fake news is, the motivations behind its generation and online circulation, as well as the impact it might have on the audiences, it is helpful to look at a few well-known examples of fake news. As Allcott and Gentzkow point out in their research about the spread of fake news during the US presidential elections, fake news is not a new phenomenon and it has a long history before the elections (2017). One historical example of fake news is ‘Great Moon Hoax’ of 1835, in which the New York Sun published a series of articles about the discovery of life on the moon. The discovery was falsely attributed by the newspaper to Sir John Herschel, one of the most famous astronomers of that time. The newspaper’s circulation increased dramatically due to the fake story and after a while it was discovered that the story was nothing more than a hoax. A more recent example of fake news is the 2006 ‘Flemish Secession Hoax’ in which a Belgian public television station reported that the Flemish parliament had declared independence from Belgium, a report that a large number of viewers misunderstood as true (Allcott and Gentzkow, 2017). It is worth mentioning the fact that the report was produced as a hoax and, in order to make it more credible, interviews with prominent Belgian politicians – some of whom had been informed about the hoax – were conducted. However, the report was misunderstood as true and was responsible for a long public discussion and elevated concerns around the issue. Orson Welles’s famed radio adaptation of the classic ‘*The War of the Worlds*’ and its notorious impact should not be missing from a list of well-known fake news examples. In 1938, ‘*The War of the Worlds*’, an episode of a radio drama anthology series, was aired over the Columbia Broadcasting System radio network. The episode was narrated by Orson Welles and it became famous for allegedly causing mass panic. As Schwartz (2015) explains in his book *Broadcast Hysteria*, during the broadcast of this radio drama episode, Welles described an alien attack which was misunderstood by many listeners as true. There were people who run on the streets in a panic believing the narration was true. It is also worth mentioning that a series of news reports describing a devastating alien invasion taking place across the United States and the world followed.

All things considered, it seems that the origins of fake news date back to before the printing press. Burkhardt (2017, p. 5) explains that rumor and false stories have

probably been around as long as humans have lived in groups where power matters. As she describes in her study, until the printing press was invented, news was usually transferred from person to person via word of mouth and the ability to have an impact on what people know was an asset that has been prized for many centuries. However, a significant difference between the 'old' fake news and the fake news in the social media era, is the fact that stories can now be distributed with high speed, in real-time, reach a huge audience and therefore might influence a lot of people. For instance, as Allcott and Gentzkow point out, an individual user with no track record or reputation can in some cases reach as many readers as Fox News, CNN, or the New York Times. A well-known example of fake news distributed by users who managed to reach a huge audience and earn a lot of money by generating misleading stories is the 'Veles case'. According to Subramanian (2017), this case refers to a small Balkan town where more than 100 sites posting fake news about the US election were run by teenagers. These websites generated tons of misleading information about the election and the owners earned money by the advertisements they had added to their websites. During the US election campaigns these websites were pumping out sensational – and fake – stories to earn money from advertising. Another recent example for a fake news source is the endingthefed.com website, that was responsible for four of the ten most popular fake news stories on Facebook about the US election and was run by a 24-year-old man (Townsend, 2016). A US company called DisinfoMedia owns many fake news sites, including NationalReport.net, USAToday.com.co, and WashingtonPost.com.com and its owner claims to employ between 20 and 25 writers (Sydell, 2016).

5. Methodology: Online Survey

This chapter presents the methodology of this survey by providing information about the strategy followed in order to collect responses from the members of the *Ellinika Hoaxes* Facebook group. By explaining the way, the data presented in this study was acquired as well as the ethical consideration arose during this process, it could be easier to understand the findings of this research presented below. Moreover, this chapter provides detailed information about the research sample which is the focus of

the RQs presented above. These pieces of data are also crucial since they provide the more specific framework of this research, which is the members of the *Ellinika Hoaxes*.

5.1. Online Questionnaires

For this study, an online survey was conducted with the participation of the members of the *Ellinika Hoaxes* Facebook group. 100 members – which were chosen randomly – of the group participated in the survey, and their responses were collected and analyzed in order to answer the RQs of this study. The survey was conducted online in the group with the approval of the administrators and the members were asked to fill in a questionnaire. To be more specific, after acquiring administrators' approval a link with the online questionnaire was posted within the group. A description of the survey, its purposes and its questionnaire were also posted in the group in order to inform the users about the aims of this study and the processes of collecting data. The survey was constructed to accept 100 participants and therefore the first 100 members of the *Ellinika Hoaxes* Facebook group who chosen to participate in this study and answer the questionnaire were automatically accepted.

The questionnaire, with nine closed answer questions, was designed in accordance with the focus of this study, using the online platform '*Survey Monkey*'. The first two questions were about users' personal information (age and gender) while the following six were about the research itself. The final question provided the users with the opportunity to express their thoughts about the study, as well as to include any additional comments or ideas. Every single question was followed by a drop-down menu of possible answers provided for the respondents, while there was also the 'other' option where the users were able to give their individual answers. Based on the given limitations of this study, 100 members of the group were preferred as the sample of this research. This number of respondents was used for practical reasons since it was a feasible number of respondents to be studied by one researcher, considering the time limitations of the study as well. The participating users were not asked to provide any information about their names (the questionnaires were anonymous) and their participation was decided randomly, to

ensure less bias. The participants were allowed to pick multiple answers since it was clear that when it comes to spotting and fighting the spread of fake news, users might have been employing various methods and combining different tools simultaneously. Therefore, the Greek users who participated in this study provided, through their multiples responses, more solid and accurate answers, sufficient enough to extract common patterns in the fight against the spread of fake news on social media. As mentioned above, the participants of this study were selected randomly to ensure less bias and, based on their responses, 68% of them were men while 32% were women. The 37% of the participants of this study were between the age of 35 to 44 while 32% were between the age of 25 to 34. In addition, the 15% of the participants belonged to the age group of 45 to 54, whereas the 14% were in the age group of 18 to 24 and the 2% in the group of 55 to 64. It is crucial to mention that data (for example percentages of men and women or age) about the overall population of this specific group is not presented online and publicly. Moreover, the group is closed, and the administrators did not provide any further information about the member of the *Ellinika Hoaxes* Facebook group. Therefore, this study uses only the data acquired during the online research, since there was no access to any further data about the over population of this online community.

According to Collins (2010, p. 128) questionnaires are a popular means of collecting data and can be used as a method in their own right. Moreover, they can be distributed easily, and they are relatively cheap, and no prior arrangement is needed, thus ensuring anonymity and avoiding any embarrassment for the part of the respondent. In this case, the questionnaire was constructed based on the fact that there was a need to collect data from many anonymous respondents from various locations around Greece. Therefore, it was preferred as a feasible method for collecting responses from online users and analyzing them. Questionnaires provide standardization (Bourke et al. 2016). In addition, questionnaires not only allow researchers to ask the same questions in the same order to all respondents but also to easily and consistently make the tabulations and comparisons of answers. Consequently, standardization eliminates bias and allows objective collection of answers. That was also a strong advantage for using a questionnaire to acquire responses from the members of the *Ellinika Hoaxes* group and analyze them in order to fully understand the way users operate to identify and counter the spread of fake

news on social media. Similarly, as Collins (2010, p. 130) states, closed questions are particularly useful in obtaining factual information. Collecting facts about the methods and the tools the Greek users implement to counter fake news was crucial for this study, and there was a need for consistency in the users' responses in order to obtain a better image about their overall online behaviors.

However, the use of a questionnaire to acquire primary data for this study came with limitations on flexibility. To be more specific, the disadvantages of the questionnaires were taken into account when the plan of this research was designed. For instance, questionnaires do not allow asking follow-up questions or further probing based on the given answer (Bourke et al. 2016). This limitation was taken into account and the 'other' option was added to the questionnaire to provide the participants with the chance to express themselves freely. Their responses were analyzed but there was no other option for any further follow-up question for clarifications. Similarly, questionnaires do not encourage respondents to contribute anything extra than what is asked for. In addition, Collins (2010, p. 130) already emphasizes this fact by saying that closed questions should always include an 'other' category because not all possible responses might have been included in the list of answers. This notion was taken into consideration when the questionnaire of this study was constructed and therefore the 'other' option was added to the questions. Another disadvantage of using questionnaires is the fact that respondents may have some crucial information, relevant to the research, but overlooked by the question setter (Bourke et al. 2016). Thus, the ninth question was constructed in order to allow users to express their thoughts freely or describe their overall concerns about the research or the case study.

5.2. Ethical Consideration

A set of ethical issues regarding the use of an online survey for the purpose of this study have been taken into account. As Collins (2010) analyzed, a number of ethical issues are likely to arise in both textual and visual research, and the researcher should take them into consideration when conducting a well-constructed research. In this case, the arising ethical issues were due to the fact that an online research with the use of questionnaires was employed for this study. To be more specific, based on the

fact that the survey was conducted online in a closed Facebook group with the participation of Greek users, it was crucial to ensure both anonymity and confidentiality. The users who were asked to participate in the survey were informed that the questionnaires were anonymous. According to Collins (2010, p. 83), almost all research guarantees the participants' confidentiality: they are assured that identifying information will not be made available to anyone who is not directly involved in the research. Thus, the participants of this research were asked to provide information only about their age and gender and fill in the rest of the questionnaire without revealing their name or any other information about their identity. In this way, the research guaranteed anonymity, in a sense that the participants remained anonymous throughout the study, even to the researcher. However, an ethical issue because of the use of Facebook as part of this study arose. In addition, there were users who preferred to post public comments on the Facebook group *Ellinika Hoaxes* informing other users that they had participated in the survey and shared their experiences. Even though the users chose to reveal their participation in the study, their anonymity within the survey was ensured, since information about their answers were not revealed.

Apart from anonymity and confidentiality, obtaining informed consent was also considered as an option during the ethical decision-making process. According to Buchanan and Hvizdak (2009), in-person participant enrollment in studies was also considered includes a discussion and signing a consent form, while mailed or web-based surveys imply consent or "passive" consent by virtue of participants completing them. As they point out, participants should understand that they have the right to participate without compromise and in addition, they should have the right to not answer specific questions. However, as it was mentioned above, this study was conducted with the use of the online platform Survey Monkey and the feature tools which were employed for the questionnaire did not allow participants to skip questions. In fact, participants were not allowed to move on to a subsequent question without responding to the current question and they were not able to submit the survey without responding to all questions. To deal with this ethical issue, a short description about the online survey and what tools were offered to the participants were shared within the *Ellinika Hoaxes* Facebook group, to ensure that the users who

were going to participate in the survey would be informed about the survey's formality.

In all forms of research, minimizing bias is important. Selection bias can be problematic and can also compromise external validity in posted web-based surveys (Eysenbach and Wyatt, 2002). In addition, according to Hammer (2017), researchers should attempt to target diverse populations when it does not interfere with the research purpose. However, as this study is focused on analyzing the members of the *Ellinika Hoaxes* Facebook group, specific limitations arose. For instance, it was not feasible to target diverse populations since the population of this study is very specific: the members of the *Ellinika Hoaxes* Facebook group. It is worth mentioning that the questionnaire provided to the participants, was constructed by the researcher, and there were specific limitations for the users who participated in the study. These limitations (for example the pre-set provided answers) might have influenced or guide users' answers. To minimize the extent of bias the 'other' option was added to the questionnaire, to ensure that the participants will be provided with the option to give their individual answers apart from those provided in the questionnaire. Therefore, despite the fact that the questionnaire was constructed by the researcher and one could say that the questions provided might mirror the researcher's bias, the participants were allowed to express their own replies or better clarify their choices. However, it is clear that the provided answers have constructed an already formed framework for the participants of this study. This framework might have influence their responses (or may not) and therefore it is crucial to also mention it as part of the ethical consideration of this study.

Apart from the above, it is worth mentioning the fact that the members of the *Ellinika Hoaxes* Facebook group do not represent the whole Greek users, and therefore it would not be accurate to generalize the findings of this study. However, based on the limitations of this study and the fact that this research has a specific focus on the members of the *Ellinika Hoaxes* Facebook group, specific decisions during the design processes of this study were made. In fact, it would not be feasible to study a broader target group, including members outside this specific group and expand the findings of this study, since the aim of this research is first to come up with conclusions about the way the members of the *Ellinika Hoaxes* Facebook group

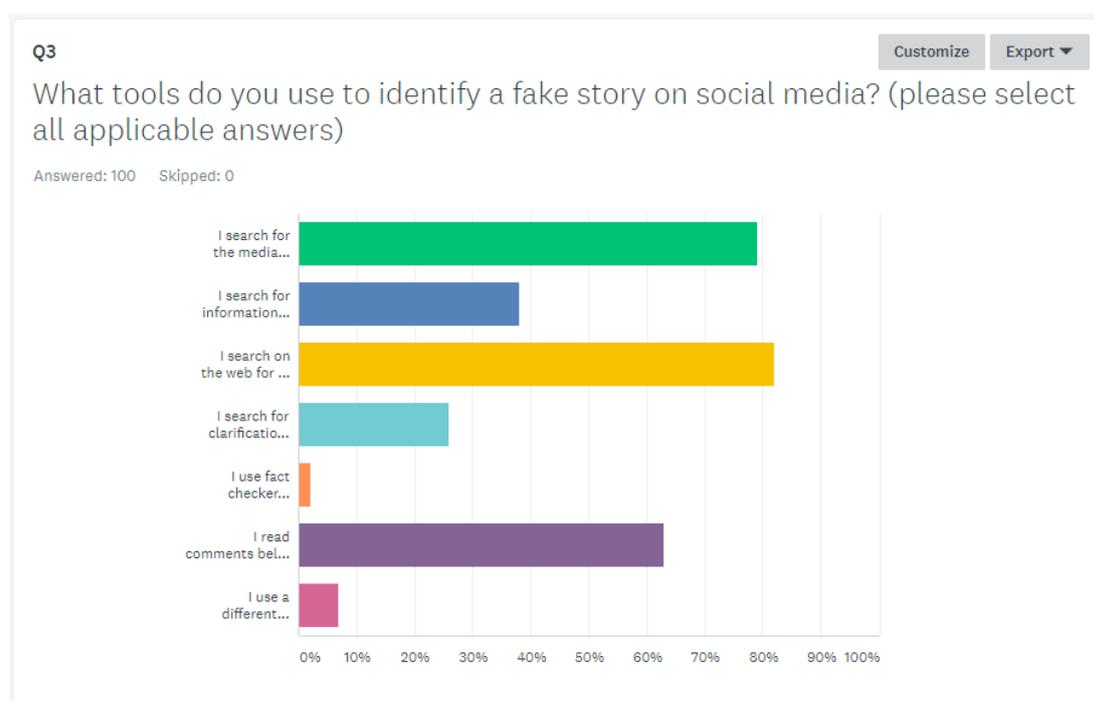
operates. Therefore, the findings of this study reflect only these specific group and not all the Greek users. For practical reasons during this study the members of the *Ellinika Hoaxes* Facebook group referred as “the Greek users”, but this does not mean that the data presented above could be generalized and used to describe the way the Greek users in general spot and curb fake news on social media.

6. Empirical Study

Having analyzed the methodology followed in order to collect responses from the members of the *Ellinika Hoaxes* Facebook group, it is time to move on the empirical study and present the data acquired in order to answer the main RQ of this study: *How the members of the Ellinika Hoaxes Facebook group detect and curb fake news on social media?*. This chapter presents the data obtained by collecting responses from the members of the *Ellinika Hoaxes* Facebook group. In fact, this section provides users’ responses in order to answer the RQs of this study and come up with findings and results.

6.1. The findings

The results of this study indicate that the members of the *Ellinika Hoaxes* Facebook group implemented a set of methods and techniques to identify fake news and counter their spread (Figure 1). Most of the participants in this study stated that when they read news online they search on the web for any relevant material in order to identify whether the data presented are true or not. To be more specific, 82% of the



participants underlined that they conduct their own research on the web, to confirm the credibility of the news they read on social media. This process, despite the fact that it is time-consuming since it requires a lot of research on relevant websites or other online sources, is preferred by the users as the most effective. Moreover, 79% of the people who participated in this study said that another effective tool to identify fake news circulated on social media is to search for the media outlet's background and journalists' identity. Based on this finding, for the participants of this study, the background of the source plays a significant role. The users tend to seek information about the media which posted a story on social media and the author of this story in order to understand whether it is a fake story or not. Apart from researching the web for clarifications and exploring the background of the media and the authors, a lot of users implement another tool to identify fake news on social media. That is, 63% of the users read comments below the post to find out any information about reliable sources or users. There are cases where users have already identified fake news and they have posted a comment to warn other users. Therefore, the users of this study underlined that they can find useful data which will help them to spot a fake story on social media, by searching in the comments below it.

The results of this study highlight the fact that the users when they try to identify fake news on social media, consider also the identity of the person who has posted the specific story. In fact, 38% of the users search for information about the person who has posted a story on social media, to acquire a broader image of their identity and background. Moreover, 26% of the users pointed out that they also search for clarifications through their own network. For instance, they ask other users or online friends for their perspectives about a story circulated online, or they search on Facebook groups – for example, the *Ellinika Hoaxes* group – to find any relevant material or data. It is worth mentioning that only 2% of the users, who participated in this study, use a fact checker software to evaluate the accuracy of a story circulated online. Despite the fact that there are many free to use software programs which can identify misleading information and arguments, the users of this study do not prefer them as tools to spot fake news and they mainly choose to make their own research.

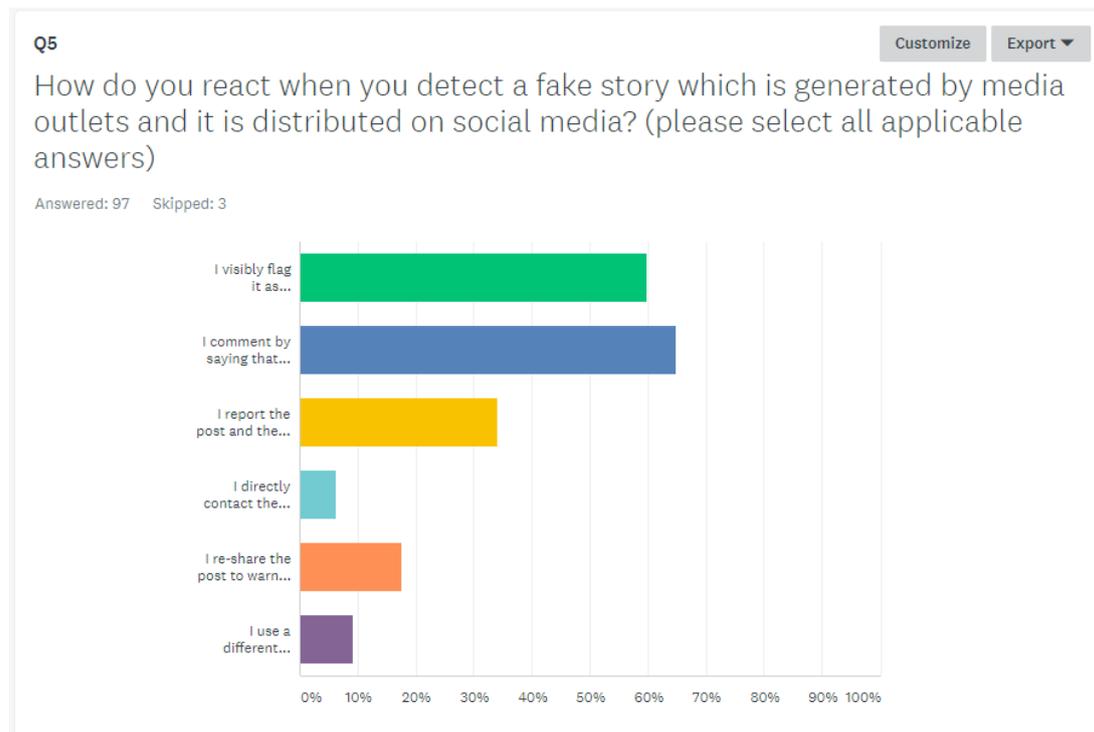


Figure 2: The Greek users interact with fake news on social media

After they indicated which methods and tools they employed to identify fake news on social media, the participants of this study were asked to elaborate more on their interactions with the misleading content (Figure 2). First, the users were asked to provide data about their interactions with a fake story which is circulated on social media by other users or trolls and then they were asked to provide data about the interactions with fake stories distributed on social media by media outlets. Based on the findings of this study, when it comes to a fake story which is generated by other users or trolls – for example, a misleading photograph with inaccurate data – the users mainly employ two specific methods: commenting and reporting. To be more specific, 59.79% of the users choose to comment below the post by saying that this is a fake story and 58.76% of the users visibly flag the post as untrustworthy (if there is that option). However, there are users who take more action after they detect a fake story. In fact, 38.14% of the users pointed out that they report the post or the user – or both – when they confirm that the data presented is fake or misleading. Interestingly, there are users who re-share fake news knowing that they are fake. Specifically, 15.46% of the users who participated in this study indicated that they choose to re-share a fake story generated by users or trolls in order to warn other

users not to read it. Furthermore, approximately 10% of the users said that they simply ignore the fake post and they take no action after they have spotted it as fake. However, there are also users who prefer to act in the opposite way. For instance, 8% of the users choose to directly contact the user or the account that has produced the fake story and ask them to delete it.

The way users react when they detect a fake story which is generated by media outlets and is distributed on social media provides a broader image of the strategies users employ to counter the spread of fake news. Generally, there is no significant differentiation between users' interaction with the fake stories generated by users and the ones produced by a media organization. The users tend to employ similar techniques to counter the spread of a fake story, no matter who the producer is. In fact, 64.95% of the users highlighted that when it comes to fake news produced by media outlets, they also comment on the post by saying that this is a fake story. Moreover, 59.79% of the users choose to visibly flag the post as untrustworthy (if there is that option) and 34.02% of the users said that they report the post and the media or the user who shared the fake story. It is worth mentioning that similar to the fake stories generated by users, 17.53% of the participants in this study prefer to re-share the post with the fake story to warn other users not to read it. There are also users (6.19%) who directly contact the media that has produced the fake story and ask them to delete it and approximately 6% of the users who ignore the post and take no action.

The social media offer the tools for generating and distributing fake news rapidly. The users who participated in this study were asked to specify which social media platforms offer a more fertile environment for the spread of a fake story. Based on their experiences, 96% of the users believed that Facebook is the best place to post fake news since it provides an environment to produce and share fake stories easily. According to 28% of the users, Twitter is also a social media which offers the tools to distribute fake stories easily while 5% stated that Instagram provides a fertile environment as well. Only 2% of the users described YouTube as a social medium which is a fertile ground to generate and circulate fake stories and 1% underlined that the spread of fake news has to do with the users and not with the social media and that the users are the ones responsible for the production and distribution of a fake

story. After clarifying which social media are more fake-news “friendly”, the users who participated in this study expressed their opinions about who is responsible for identifying and curbing fake news on social media. The users concluded that the users and the social media platforms have the main responsibility to counter the spread of fake news. In fact, 76% of the users believed that the users should be responsible for identifying a fake story distributed on social media and stopping its spread. Moreover, 60% of the users stated that the social media platforms should take actions in order to spot the fake news and curb their distribution. Apart from the users and the social media, 43% of the participants of this study believed that an independent body can play a significant role in this process and it is crucial to creating an independent authority responsible for spotting fake news on social media. There were users (15%) who underlined that the government should also be responsible for curbing fake stories on social media, and users (8%) who said that they do not know who should take actions and stop the distribution of fake news on social media. Furthermore, 2% of the users believed that the independent body described above should consist of journalists who will judge the content of the fake news, while 2% of the users pointed out that there should be penalties initiated by the social media for users who produce and share the fake news.

Based on the fact that the users who participated in this study are constantly dealing with fake news and they are members of a Greek online community which fights the spread of misleading information online, they were also asked to provide perspectives about the impact these stories have on the audiences. To be more specific, the users expressed their opinions about the impact fake stories have on social media users in Greece. Mainly, the users believed that fake stories mislead the users (89%) and they increase xenophobic feelings (82%). In Greece, there are many cases of migrant-related fake stories which are one of the biggest concerns among the members of the *Ellinika Hoaxes* Facebook group. Daily, they spot relevant stories and they post them on their group in order to start an online discussion about their impact. This study has shown that the users believe fake stories which are distributed on social media in Greece increase xenophobia which is an interesting finding and could be analyzed further with a new study in the future. In addition, 62% of the users who participated in this study stated that fake stories make the users mistrustful about other stories which are true. Moreover, there were users (2%) who declared

that fake stories influence users' political views while others (1%) believed that fake news increases misinformation about health issues, medication, and diets.

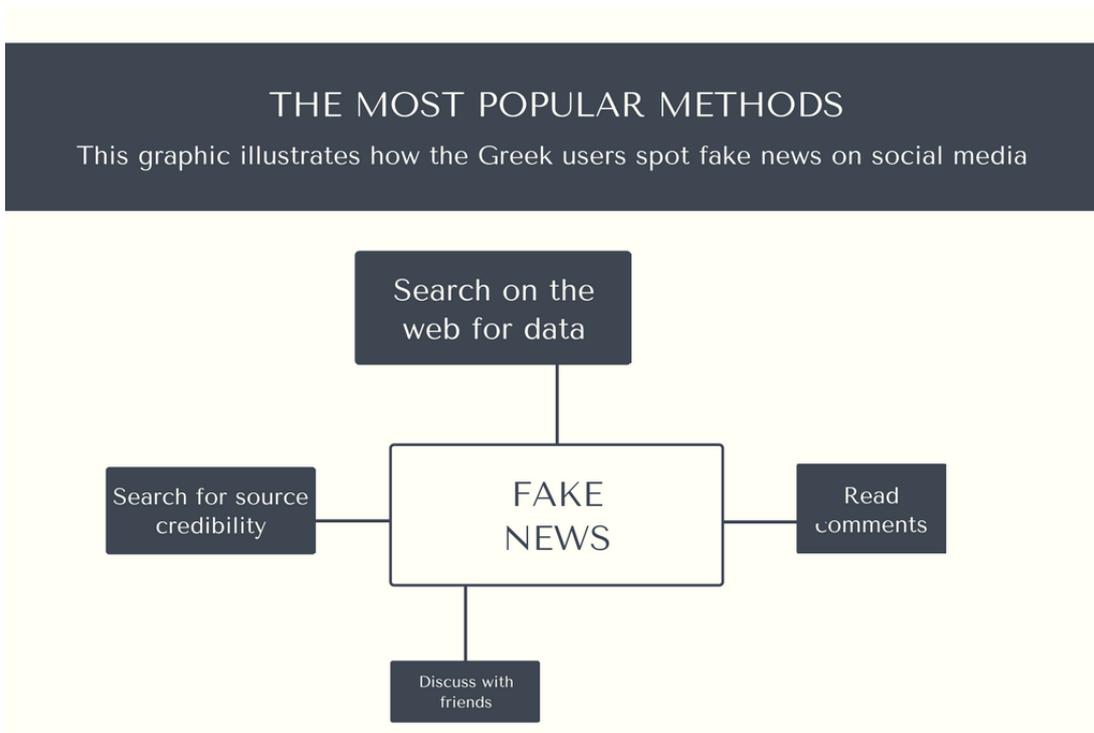


Figure 3: The most popular methods used by the Greek users during the verification process

Summarizing the findings of this study it is clear that the users implement a set of methods to identify and counter fake news distributed on social media, while they believe these stories might have a significant impact on the audiences' perceptions (Figure 3). Collecting and analyzing users' responses could lead to the construction of a common strategy to spot misleading information and act against fake news. In fact, the users tend mainly to make their own research on the web in order to verify the credibility of a story and its source and then they take actions to stop the spread of a fake story on social media. It is worth mentioning that fact-checker websites are not so popular according to the users who participate in this study since they prefer to put more effort into identifying fake stories rather than just trusting these platforms. Moreover, the users implement methods such as reporting a fake story or even re-sharing it in order to warn other users – they also seem to act the same way no matter who has produced and distributed a fake story (whether it is a media outlet or a user or troll). Another interesting finding of this study is that the users believe that the main responsible actors to counter the spread of fake news on social media are the

users and the social media platforms themselves. The participants also feel positive about the creation of an independent authority responsible for checking fake news and countering its distribution. Finally, the users believe fake news has a strong impact on the audience by increasing xenophobic feelings, misleading the users and making them mistrustful about the media and news in general.

6.2. Analysis of the findings

The findings of this study provide useful insights with regard to the way Greek users spot and curb the spread of fake news on social media. The purpose of this paper is to study the members of the *Ellinika Hoaxes* Facebook group and present the mechanisms and tools they employ to counter the spread of fake news. After analyzing Greek users' responses, it is now time to present the common patterns identified within this research, which might be used as a guideline to construct a general strategy against the spread of fake news. According to Michailidis and Viotty (2017), there have been calls for citizens to take the role of fact checkers, but these calls often ask citizens to engage in a type of reading that is less and less likely as digital media further penetrate daily information routinely. From his point of view Davis (2016) outlines a series of recommendations for users to read news like fact checkers, including pay attention to the domain and URL of a post, read the About Us section, look at the quotes in the story, look at who said them, check the comments, and reverse image search. Based on the findings of this study, it is obvious that the members of the *Ellinika Hoaxes* Facebook group implement some of these recommendations during their verification process. In fact, by preferring to make their own research when they spot a potential fake news, the Greek users act like fact checkers. They chose to adopt a more active role; instead of using fact checker software or website, they make their own individual research on the web. Moreover, the Greek users also verify the credibility of the source, which is in line with Davis' recommendation about paying attention to the domain and the About Us section of a website. For instance, the participants of this study attach significance to the process of searching information about the background of a media outlet, a website or a user who posts a story on social media. According to the Greek users, searching the comments below a story is also an important component of the clarification process. Combining these activities employed by the participants of this

study, one could conclude that the Greek users follow Davis' recommendations and they use their individual knowledge and experience as weapons against the spread of fake news.

In a sense, the Greek users adopt a more active role and as the UGT, which is the theoretical framework of this study, indicates the audience is active and its media use is goal generated (Leung and Wei, 2000). The UGT exercises the idea that the audience use media so that they receive a specific gratification from it and this theory discusses how users proactively search for media that will not only meet a given need but enhance knowledge, social interaction and diversity (Papacharissi and Mendelson, 2010). This approach was detected in the members of the *Ellinika Hoaxes* Facebook group. Based on their responses, they tend to use media, like the Internet and social media platforms, in an active way in order to fulfill their need for accurate facts and data. Moreover, they use the same media to adopt a more active role and counter the spread of fake news, share their findings (facts which suggest that a story is fake or misleading) and enrich diversity in information and social interaction. For instance, they search on the Internet for facts to verify whether a story is fake or not. Instead of being passive users who read messages online, they chose to play a more active role, be skeptical and make their own research using various media. Moreover, according to UGT approach, people have enough self-awareness of their media use, interests, and motive to be able to provide researchers with an accurate picture of that use (Papacharissi and Mendelson, 2010). This self-awareness is obvious in the members of the Greek users, who know their media use and the fact that they can extract useful insights and acquire accurate data to verify messages and sources by using various media.

The Greek users tend to engage in a well-organized authentication process, which consists of many steps. In the model of authentication process followed by the members of the *Ellinika Hoaxes*, the individual relies not only on sources and message cues but also on their own tacit sense of authenticity. For instance, the Greek users assess potential fake news based on their own experience, knowledge, and intuition. As they have pointed out, they tend to conduct individual research to clarify the credibility of a message or source. This process is crucial according to the responses of the Greek users. Therefore, the acts of authentication can be categorized

into two main patterns: interactions with fake news and personal experiences. During the act of the authentication process, the Greek users combined these two patterns to better spot a fake story and counter its spread on social media.

Interactions with fake news: The Greek users interact with fake news on social media by looking for information about its content and its sources. According to their responses, the Greek users tend to search for the media outlets' background and journalist's identity – a process, which can be defined as a source authentication process. Moreover, they search for reliable sources and users by reading comments below fake news. This process is also part of the source authentication process since the users primarily look for information about the source or the message. Based on the findings of this study, the process of interaction with fake news includes the act of authentication of the messages delivered throughout a story on social media. For instance, the Greek users tend to implement their own research by looking for any relevant information on the Internet. This act of authentication is part of the process of interaction with the fake news since the users interact directly with the message by clarifying the credibility of its content. This process is also in line with the second pattern followed by the Greek users, which refers to the personal experience.

Personal experience: When interacting with fake news the Greek users assess its credibility based on their individual knowledge and experience. In addition, during the process of researching on the Internet for reliable data, they use their own knowledge and intuition which is combined with the findings of their research. They also implement their own judgment to verify the credibility of a source and a message and therefore their individual background plays a significant role in this act of authentication. Furthermore, the Greek users tend to search for clarification about fake news through their own networks – friends and families – which means that their personal knowledge might be influenced or expanded by the interactions within their networks.

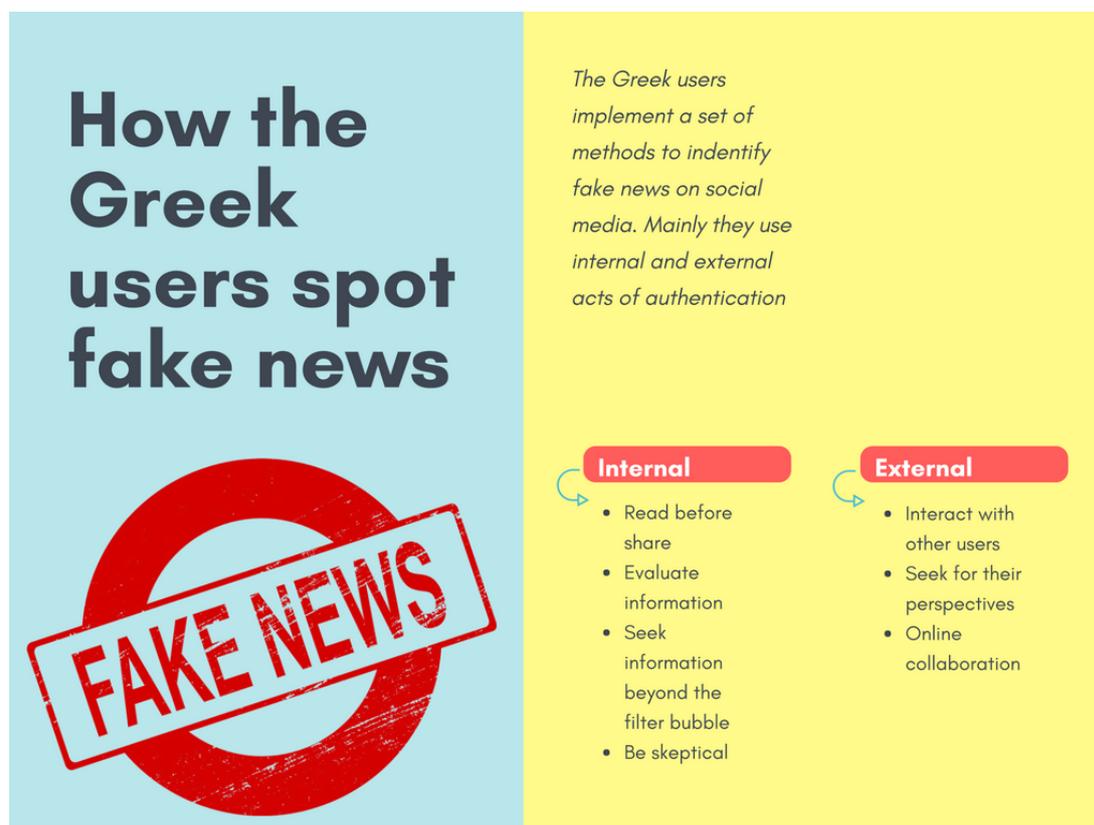


Figure 4: Based on the findings of this study, the Greek users employ internal and external acts of authentication

Based on the findings of this research it is clear that the acts of authentication combine the interaction with fake news with the user's personal experience and knowledge (Figure 4). Apart from this conclusion, the research has shown the patterns followed by Greek users in their attempt to curb the spread of fake news. In fact, after detecting fake news, the Greek users fight to stop its spread. The process the Greek users implement to counter the spread of fake news on social media illustrate the activist role they adopt (intentionally or unintentionally). In a sense, the fact that the Greek users act in order not only to spot fake news but also to fight its spread on social media is in line with Ricketts's research (2012) on activism, which presents users in an active way, seeking to deliver messages to other users in order to fulfill their goals and raise awareness. For instance, Greek users adopt a more active role on the fight against the spread of fake news, by reporting fake posts, commenting below them to warn other users and sharing them on their personal account to warn their networks. They may even contact the source which generated and distributed a fake story in order to ask to delete the fake news. By implementing this active role, the Greek users manage to better counter the spread of fake news,

due to the fact that they contribute with their individual knowledge and research on the process of authentication and then they use social media to distribute their findings of fake news.

As it was already mentioned above, the spread of fake news on social media has increased rapidly and there are strong concerns about the way this phenomenon can be confronted. The question is what to expect of mainstream media and news organizations in the post-fact culture and what role do consumers, sharers, and publishers of news play in the declining space of truth and fact in society today. According to Silverman's (2015, p. 143) critique of newsrooms, journalists are squandering much of the value of rumors and emerging news by moving too quickly and thoughtlessly to propagation. The Greek users, based on the findings of this study, believe that the users themselves should adopt a more responsible role in the fight against the spread of fake news. In a sense, they emphasize that the users have the main responsibility of identifying and countering the spread of fake news on social media. They also underline that the social media platforms are also responsible. This notion points out that the Greek users are aware of their responsibility as news consumers and that they also believe in the audience's power to curb the spread of fake news. In a way, the Greek users believe that they are more responsible for countering the spread of fake news, than, for example, the media outlets.

Apart from their responsibility, the Greek users believe that technology firms like Facebook and Twitter need to take more responsibility for fake news and misinformation. As Spohr (2017) underlined, recent political events have made it clear that these companies can no longer deny their hybrid role as technology firms and media companies with considerable editorial powers. Consequently, while the social problem of fake news discussed in this study can be exacerbated by information technologies, the same issue can also be mitigated by technologies (Howard, 2016). The Greek users, who participated in this study, point out that during their acts of authentication they make use of information technologies – report a story, flag it, use search engines for data – and that social media platforms should collaborate further by adopting a more responsible role in the fight against the spread of fake news. Therefore, the participants of this study believe that users in

collaboration with social media organizations, like Facebook or Google, should act together and counter the spread of misleading information online. To achieve that, potential changes should take place. For example, according to Howard (2016), introducing random news stories and ensuring exposure to high-quality information could be a simple – and healthy – algorithmic adjustment to social media platforms. Additionally, with better-informed insights, collaboration with an independent authority could lead to a more effective policy that limits the impact of fake news and similar phenomena. It is worth mentioning that the Greek users underline that fake news has a strong impact on the audience, for example by increasing xenophobia and by misleading the users. They have a strong belief in this impact and maybe this is one of their motives behind their attempts to spot and counter the spread of fake news. This notion reflects their operation as activists, described above. In a sense, the Greek users believe that fake news increases xenophobia and has a strong impact on the audience and therefore they choose to adopt an active role on raising awareness and stop the spread of misleading information online in order to limit the impact of fake news on the Greek audience.

Summarizing the findings of this study, a specific strategy followed by the Greek users could be detected. The Greek users implement the internal and external acts of authentication to spot fake news and counter their spread. They interact with a fake story, make their own research about the source and message and they use their personal experience to come to conclusions about the content's credibility. The internal act of authentication, in the case of the Greek users, consists of the following processes: read before sharing, evaluate information, seek information beyond the filter bubble, be skeptical and use verification tools. Moreover, the Greek users interact with other users, collaborate and discuss with them and come up with practical results in the fight against the spread of fake news on social media.

These processes can be described as external acts of authentication, where the Greek users interact within their networks to improve their knowledge and share concerns and insights. The interconnection between the internal and external acts of authentication leads to more accurate results since the Greek users follow not only their instincts, knowledge or personal perspectives, but also combine these with research and human interactions. Then, they do not tend to stay apathetic, but

instead, they adopt a more active role and try to spread their findings in order to warn other users. In order to have a better-informed society, information gathering needs to be a conscious act of seeking out diverse sources, and political and social discussions should once more be based on an openness to listen to the other side (Spohr, 2017). Based on the findings of this study, the choices made by the Greek users indicate that they are aware of this notion. Their activist approach leads to an emergence of users, who either with relatively little effort or with in-depth research and analysis, manage to spot fake news and even counter their distribution on social media platforms.

There are different perspectives on who is responsible for the generation and the spread of fake news. The U.S. election case is a significant example of fake news production with multidimensional purposes and motivations and it has provoked a global debate about fake news and responsibilities of media outlets, governments, companies like Facebook or Google and users (Allcott and Gentzkow, 2017). When it comes to fake news, it is crucial to know who is responsible for its generation and distribution, due to the fact that by defining who is accountable it might be easier to counter the phenomenon. However, there are cases where it is not obvious who has the main responsibility for fake news or where there is more than one responsible party (Mehrdad and Anna, 2017). Therefore, everyone who is involved in news production and news consumption might be partially responsible for the spread of misleading information. This argument leads to the conclusion that media, governments, audiences and social media platforms ought to play an active role in the fight against the spread of fake news. In Greece, which is the focus of this research, a broader discussion about the generation and rapid distribution of fake news has recently started. Institutions and organizations, like the Media Literacy Institute and the Union of Journalists of Newspapers, have started an open discussion in relation to media responsibilities in the spread of fake news, while they also try to collect and analyze media literacy practices which will be beneficial for both media and the users. For instance, the Media Literacy Institute in Greece presents methods and mechanisms which could be followed by the users in order to identify fake news on the Internet and counter its spread. At the same time, workshops on how to spot fake stories and educate audiences on verifying news stories are also organized by the same institution. On the other hand, organizations like the European Journalism

Centre, have put an effort in the fight against the spread of fake news. For example, the European Journalism Center (EJC) has recently published *The Verification Handbook* which is a collective book where tools and mechanism to identify fake news are presented in detail and in various languages.

This research has shown that the users make their own effort in the fight against the spread of misleading information. The findings of this study have contributed to the overall approach of the UGT, since they have shown that in Greece there are active users who use the media to fight the spread of fake news and satisfy their need for quality content in journalism. Despite the fact that the focus of this research is not on who is responsible for the generation and distribution of fake news, the findings presented above have shown that there are users who are aware of their roles, their responsibilities, and their power and they use their knowledge to collaborate and build a better news ecosystem.

7. Conclusion-Discussion

Fake news is, and has since long been, an increasingly common part of the media ecosystem (Tandoc et al., 2017). Unintentional fake news, satirical pieces, and news that is purposely fake have become part of our daily news routine (e.g. Albright, 2016; Allcott and Gentzkow, 2017), while social media offers the tools to generate and distribute fake news rapidly. There is deliberately fake news which has done everything from amusing us to confusing us, and there are many calls to take actions and counter their spread on social media and the Internet. The speedy spread of information through social media platforms — both verified and unverified, from both professional and non-professional content providers — has facilitated the spread of fake news (Tandoc et al, 2017). Based on the fact that news consumers are having difficulties in distinguishing between verifiable news and falsified content provided with the intention to mislead the reader, it is increasingly important to understand how social media users verify items that they suspect to be false.

This study has shown that users need to be aware that news consumption should be an active process. The members of the *Ellinika Hoaxes* Facebook implement their own strategy to verify news circulated online and deliver high-quality results along with the other members of the group and their online networks. The findings of this study have shown that when the users adopt a more active role and seek out diverse sources and data, they end up with better news and they contribute to building a better news ecosystem. As this study indicates, users' contributions to the fight against the spread of misleading information online are crucial due to the fact that their results might be used by media outlets as well. For example, the members of the *Ellinika Hoaxes* manage not only to find out fake news and warn other users, but also there are cases where their findings are used by the journalists of the online newspaper *Ellinika Hoaxes*. Their contributions become even more significant since their acts of authentication turn into articles which show that a story distributed on social media is fake and misleading.

The findings of this study have also indicated that there are users who consume news in an active way, are aware of the fact that fake news has rapidly increased, and they want to contribute to its elimination. In addition, the reasons individuals have for reading news items impact the extent of how far they will go to in order to authenticate a story. According to Tsfaty and Cappella (2005), the motives for news consumption include social integrative (to be part of the conversation), surveillance (to gather information to help everyday life), mood management (stimulation during moments of boredom), and cognitive needs (to understand the world, political life, and arguments for and against topics of discussion). People may still consume news they do not trust if they still fulfill these functions (Tsfaty and Cappella, 2005). A research question for future research, therefore, could be then: under what circumstances do individuals authenticate a story, and when are they happy to read, share, or use the information without validating it? Moreover, another topic for future research could be to study the way users in other countries – apart from Greece – authenticate a story distributed online, how they are organized – if so – and how they manage to spot a fake story and counter its spread. Then, the comparisons between various countries could be made, contributing to a more effective strategy. It would be interesting to elaborate on the current study on the Greek case, by using,

for example, focus groups and study examples of fake news in order to identify users' acts of authentication in practice.

Despite the difficulty of finding simple solutions or clear culprits in the discussion of fake news, this study has shown that there are effective ways to spot and counter the spread of fake news on social media and that users can play a significant role in this process. In fact, developing further mechanisms to ban, flag, or delete fake news from the social media environments seem to be a necessary step. Well-informed and educated users might also be able to put an end to – or at least decrease significantly – the spread of fake news on social media. Social media is a fertile environment for the fake news to be spread rapidly. However, social media platforms can also be used by users, media outlets, and advertisers as a powerful tool to counter the circulation of fake news. To build a better news ecosystem, with a well-informed audience, quality, and accuracy in journalism, we need to construct and follow a strategy with an aim at educating the users on spotting and curbing fake news. Empowering users with the tools and the knowledge to verify information distributed online could lead to a better online society with the less fake news.

Apart from the well-informed and educated users, capable of spotting fake news and curbing its spread on social media, quality in journalism is also required in order to counter the spread of misleading information. In the information age, the spread of social media and the fact that fake news industry is a profitable business have changed the media ecosystem. Fake news is everywhere, and it is generated and distributed with tremendous speed. However, as this study has shown, there are people, media outlets and organizations who are fighting the spread of fake news and are willing to make an effort in order to provide quality content. Media outlets which produce quality content need to be supported both by advertisers and the audience. Governments, independent authorities and technologies firms should cooperate not only in the field of fighting fake news industry but also on supporting media outlets or audience communities which produce quality content, make research and provide accurate data and facts. The healthy journalism should be supported in order to survive and beat the fake news tsunami. Quality in journalism in combination with media literacy and the well-educated and skeptical audience might be the solution to

the spread of fake news, by developing a new online media ecosystem where there will not be a place for disinformation, misleading facts, and fake news.

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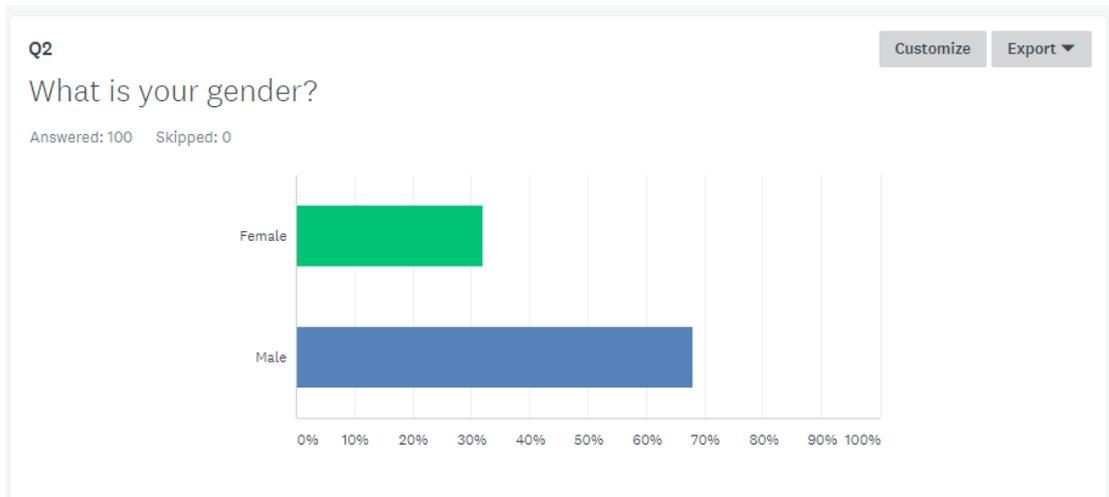
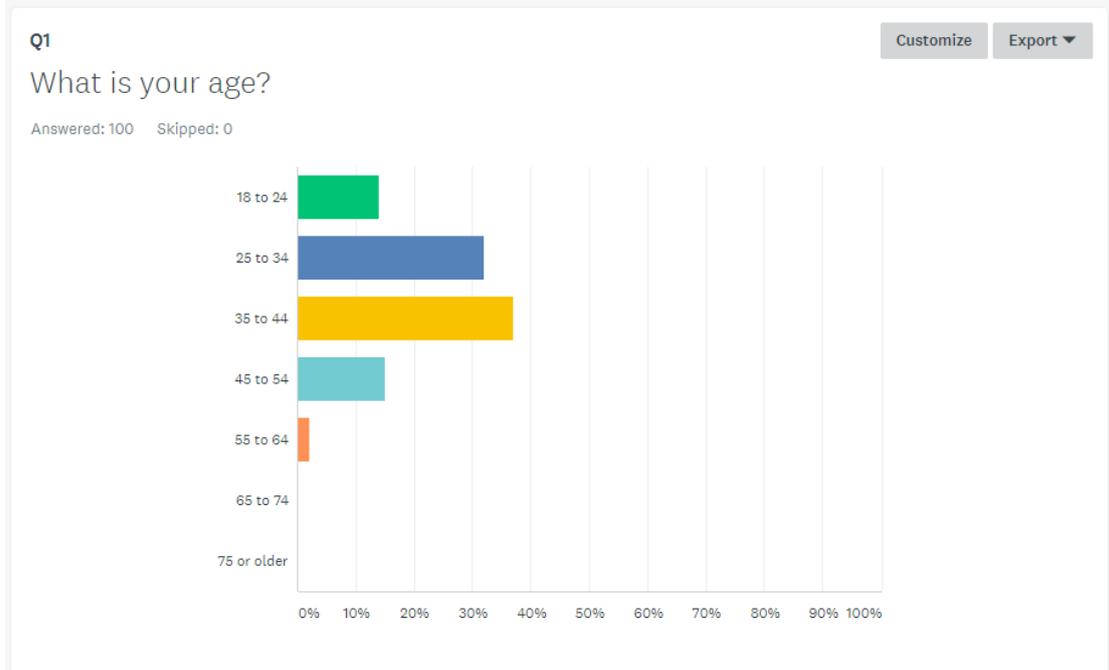
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Appendix

Page 1: Fake news and Facebook



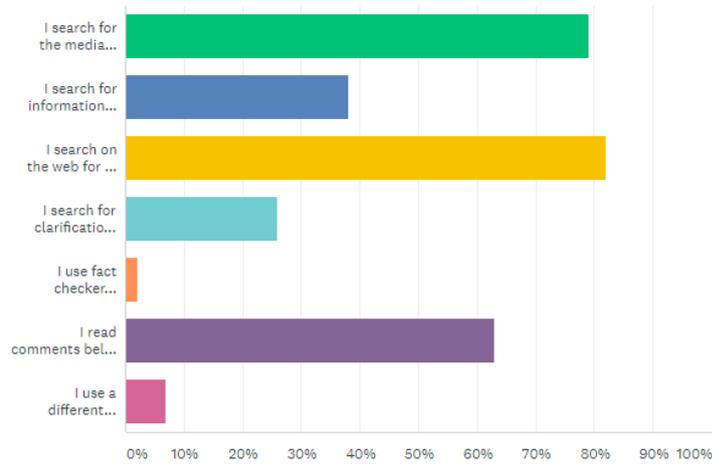
Q3

Customize

Export

What tools do you use to identify a fake story on social media? (please select all applicable answers)

Answered: 100 Skipped: 0



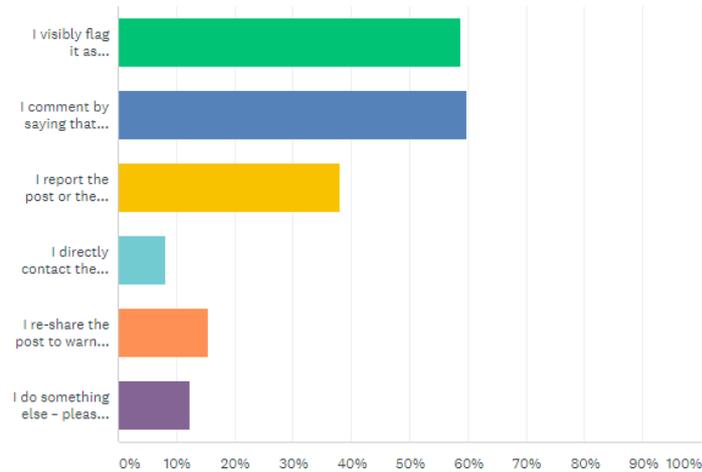
Q4

Customize

Export

How do you interact with a fake story which is generated by other users or trolls? (please select all applicable answers)

Answered: 97 Skipped: 3



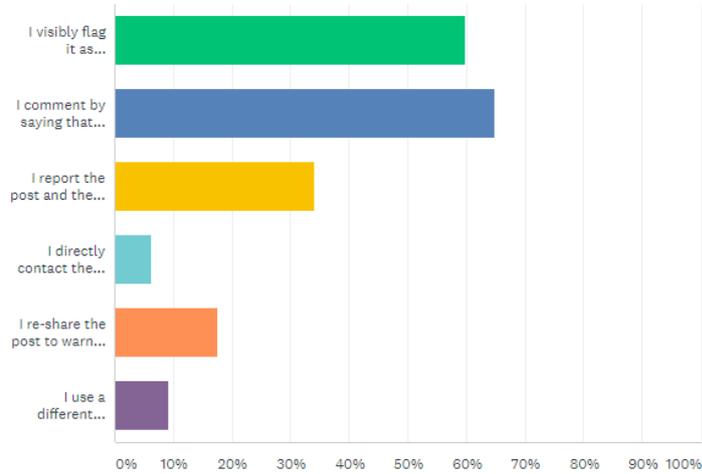
Q5

Customize

Export

How do you react when you detect a fake story which is generated by media outlets and it is distributed on social media? (please select all applicable answers)

Answered: 97 Skipped: 3



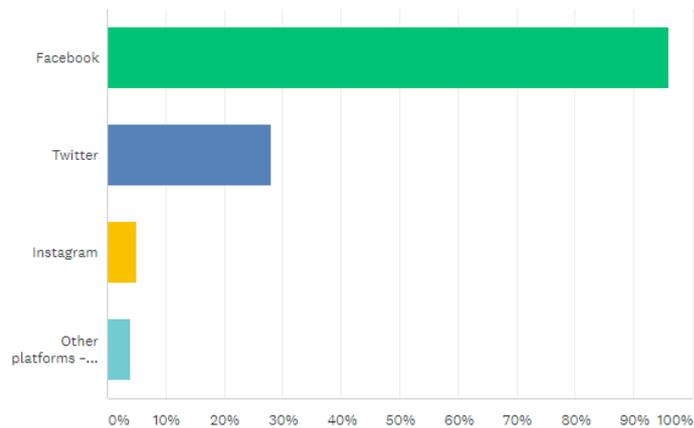
Q6

Customize

Export

Based on your experience which social media platform offers a more fertile environment for the spread of a fake story? (please select all applicable answers)

Answered: 100 Skipped: 0



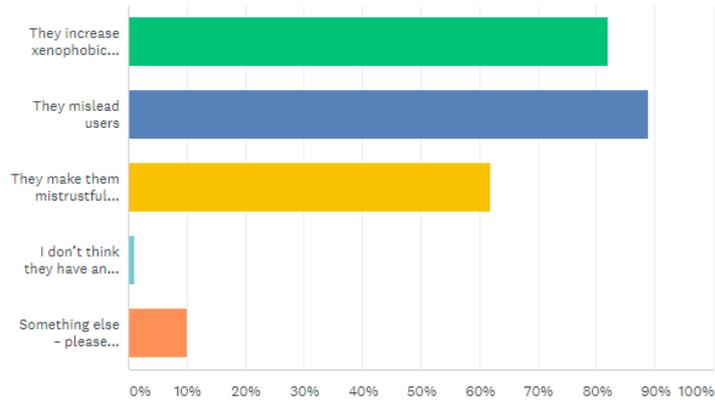
Q7

Customize

Export

In Greece, there is lots of fake news which is generated and distributed on social media. What impact do you think these stories have on social media users? (please select all applicable answers)

Answered: 100 Skipped: 0



Q8

Customize

Export

Who should be responsible for identifying and curbing fake news on social media? (please select all applicable answers)

Answered: 100 Skipped: 0

