News Consumption and Behavior of Young Adults and the Issue of Fake News

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ABSTRACT

This study aimed to understand young adults' attitudes concerning news and news resources they consumed, and how they encounter the fake news phenomenon. A qualitative approach was used with semi-structured interviews with 41 young adults (aged 20-30) in Tehran, Iran. Findings revealed that about half of the participants favored social media, and a smaller group used traditional media and only a few maintained that traditional and modern media should be used together. News quality was considered to be lower on social media than in traditional news sources. Furthermore, young adults usually followed the news related to the issues which had impact on their daily life, and they typically tended to share news. To detect fake news, they checked several media to compare the information; and profiteering and attracting audiences' attention were the most important reasons for the existence of fake news. This is the first qualitative study for understanding news consumption behavior of young adults in a politicized society.

Keywords: news consumption, fake news, news behavior, young adults

1. INTRODUCTION

In the past, people could receive news via radio, television, newspaper, magazines, and acquaintances (in person); whilst today, social media play a significant role for many people in terms of local, national, and international news (Oltmann et al., 2018). While social media have helped the speed and spread of news dissemination and have facilitated people's contribution to content, this has also contributed to the fake news phenomenon. Because of the convenient access to different topics in the virtual world, the amount of fake news and misinformation has increased. People tend to accept information that is supportive of their feelings or personal beliefs. This is related to the construction of "filter bubbles" by social media, which means social media with their recommendation and personalization algorithms make people see information that targets their established interests, and therefore people no longer encounter a balanced and healthy information diet (Bruns, 2019b). Filter bubbles mean that users can avoid facing alternative views and reinforce their preconceptions (Rose-Wiles, 2018). Some scholars such as Bruns (2019a) have disputed the concept of filter bubbles; nevertheless, it is vitally important for people to be able to determine the right information.

Despite the long history of fake news, for a few reasons it has attracted more scholarly attention recently. It is now easy to set up websites and publish content and earn money through advertising. Moreover, social media are suitable platforms for fake news dissemination, and the use of social media has seen a dramatic rise (Allcott & Gentzkow, 2017). According to Digital 2022 (Kemp, 2022), Facebook has 2.91 billion users. In Iran, 33.4 million users utilize social media, even though many social media platforms are banned and filtered by the government.

Young adults are an important part of any society and it is important that they are well-informed but also have critical thinking skills for evaluating information. Young adults' interest in news can have an impact on the economics and existence of news organizations and on the quality of journalism (Craft et al., 2016). Recent research (e.g., Esmaeli et al., 2019) has raised concern about Iranian young adults' information literacy with regard to news consumption and fake news. Information literacy is a "set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (Shields, 2005, p. 6). However, there is not sufficient research and information available on how young adults in Iran con- sume news. Therefore, the aim of this study is to fill this gap and study news consumption behavior and tendencies of young adults. Fake news in this study is not limited to news that is misleading by design, i.e., the cases where false or misleading claims are deliberately presented as news (Gelfert, 2018); instead it is generously defined as news that is perceived as untrue (Kitta, 2018), and therefore it includes both deliberate disinformation and unintentional misinformation. The research answers the following questions:

- What kind of news do young adults usually consume and what kind of news attracts them?
- What sources do young adults use in order to get news?
- What perception do young adults have about fake news and how do they deal with fake news?

1.1. Mass Media in Iran

Iran, in the Middle East, north of the Persian Gulf, has 84.2 million people, half of whom are under 35 years old. Politics severely affects people's daily life, and many aspects of social and private life, from sexual life to religion to youth identity, have been politicized (Khan Mohammadi & Kaveh, 2019). Iran has also been under international and US sanctions for many years that have affected its economy adversely, which is another reason for many people to closely follow the news. The government of Iran controls all of the media. All TV and radio channels are state-owned, and the print media are controlled by a ministry. Most of the well-known social media platforms (e.g., Facebook) are filtered to prevent political protest (Rahbarqazi & Baghban, 2019). In spite of these limitations, social media are heavily used by people who bypass filtering using anti-filter software. For instance, it is estimated that Telegram has about 24 million, WhatsApp 14 million, and Instagram 12 to 14 million Iranian users (Rahbarqazi & Baghban, 2019). There are some news websites and TV and radio channels in the Persian language outside Iran (e.g., BBC Persian, VOA Persian, etc.) that are banned in Iran, but many people watch them using top-of-the-roof satellite receivers.

2. BACKGROUND AND LITERATURE REVIEW

Fake news is a global phenomenon that affects people all over the world. Here, first, a review of news consumption studies is presented to provide some context for this study, and then research related to fake news is reviewed.

2.1. News Behavior (News Consumption)

There have been studies concerning news consumption and news behavior of people throughout the last decade. Interviews with 61 high school students in the USA by Marchi (2012) revealed that the way they accessed news and their priorities had changed and that teenagers had novel insight into news resources. A survey by Craft et al. (2016) showed that American teenagers got news mostly from social media and their parents, and that teens cared less than adults about news. In fact, age influences news consumption so that it increases as young people mature (Casero-Ripollés, 2012). A more recent survey in the USA also showed that most university students accessed news through social media (Evanson & Sponsel, 2019). In addition, Shearer and Eva Matsa (2018) found that one third of people who used social media for news had a better perception of current affairs. Another study in the USA showed that college students obtained their news from their friends (93%), via social media (89%), and from their educators and professors (70%) (Head et al., 2018). College students have also been found to use smartphones or computers to get online news (Antunovic et al., 2018; Chan-Olmsted et al., 2013). Young adults also inadvertently received news while using smartphones or their computers (Boczkowski et al., 2018). Young Canadians considered social media as a source of news, though it acted more as an encouragement for them to follow mainstream news that they regarded as more trustworthy and believable (Thom, 2016). Malaysian college students also preferred online news, especially entertainment news, and they disliked business and finance news (Freeman, 2013). When college students were asked how they thought that news would be received five years in the future, they predicted that they would rely more on traditional media than social media (Lewis, 2008).

News does not seem to be a priority for university students, especially as they consider media as a place for a wide range of joy and gratification, as Huang (2009) found out. A study of 450 people (15 to 25 years old) in the Netherlands showed that young adults find standard news unattractive and boring (Meijer, 2007). In Sweden, high school students predominantly read hard news (i.e., timely, serious, and consequential news such as politics and business) on traditional media rather than on social media and they considered news from traditional media as more credible (Nygren et al., 2019).

The literature reveals some cultural and national differences among young adults in terms of news consumption. In the UK, while TV is still the most useful news platform for British adults, its use has decreased, and the use of social media has increased. The Internet is the most popular news platform among 16-24 year-olds in the UK (Ofcom, 2019). In Australia, young adults (16-24 years old) regarded television as their main news source and online news as a secondary medium (Lancaster et al., 2012). A study of 18 to 24-year-old college students in the USA revealed that they got their news mostly from the Internet (Jarvis et al., 2009).

A study in China found complementary and converging patterns of media usage in which users utilized multiple media for news, with choices influenced by their interests along with the availability and credibility of sources (Yuan, 2011). Hernández-Serrano et al. (2017) found differences based on age, sex, and educational level in news consumption. They maintained that there is a need for an innovative educational approach to inform citizens so that they can be critical and able to evaluate the media content. However, education needs to be carefully designed and delivered, otherwise it can contribute to the problem, as research by Wineburg et al. (2020) shows that some approaches to teaching digital literacy actually make students susceptible to scammers, rogues, bad actors, and hate-mongers.

And finally, in the case of Iran, which is the subject of this study, there has not been much research regarding young people's news consumption in Iran. The only study seems to be a survey of three generations of Tehran's young adults that showed each new generation consumed less news than previous generations; however, people were usually interested in political news (Amiri & Zabolizadeh, 2018).

2.2. Fake News

Fake news is not a novel phenomenon, and it has existed in the past, too. Allcott and Gentzkow (2017) defined fake news as a false piece of news that deliberately misleads readers. Two significant features in this definition are authenticity and intention. First, fake news includes false information that can be verified. Second, fake news is produced with a dishonest purpose to mislead readers (Shu et al., 2017), particularly when it is separated from the original context or source (Rubin et al., 2015). The spread of fake news has become one of the most important concerns in the twenty-first century. Pennycook and Rand (2017) argued that Facebook engagement (likes, comments, shares) was greater for the most viral fake news stories than for the most viral real ones in the three months leading up to the 2016 US election. In addition,

it was found that false news and information on Twitter spread wider, deeper, and faster than true news stories (Vosoughi et al., 2018).

The extensive dissemination of fake news can have detrimental effects, such as breaking the authenticity balance of the news ecosystem (*ecosystem* here refers to the news environment with all its players such as publishers, consumers, etc.); also it can encourage audiences to accept beliefs which are false or prejudiced, and change readers' interpretation and response to the true news (Shu et al., 2017). According to Vosoughi et al. (2018), political fake news has more effects than other fake news concerning terrorism, natural disasters, science, urban myths, or financial information. Al-Zaman et al. (2020) also found political fake news dominated social media, especially around election periods. Two principal reasons for producing fake news are financial and ideological motives (Tandoc et al., 2018). A news article that goes viral on social media can earn a significant profit when users click on the original site. This seems to be a key incentive for most producers whose identities were revealed (Allcott & Gentzkow, 2017).

Several studies have investigated people's ability to identify fake news. Young adults' ability to detect fake news is positively correlated to their critical evaluation strategies (Leeder, 2019) and their analytical thinking skills (Pennycook & Rand, 2017). Culture also plays a role in the spread and acceptance of fake news distributed via social media (Rampersad & Althiyabi, 2020). The use of social media influences the acceptance of fake news, e.g., those who rely on Facebook as a principal source of news were more likely to rate fake news headlines as accurate (Silverman & Singer-Vine, 2016). Other factors such as biases and cognitive biases can play a role (Behimehr & Jamali, 2020). For instance, research showed that in the 2016 US election, people were much more likely to believe news stories that favored their preferred candidate (Allcott & Gentzhow, 2017).

Detecting fake news is not straightforward and requires education, literacy, and skills. Education for how to evaluate news and how to detect fake news should start from an early age (Loos et al., 2018). It has been suggested that besides teaching information literacy to college students to build critical thinking skills, academics and librarians can also introduce reliable fact-checking websites such as Snopes and HoaxSlayer to combat fake news (Musgrove et al., 2018). Technology has been also used to deal with the fake news problem. Algorithms and software tools have been developed to detect or combat fake news, which are

beyond the scope of this paper.

3. METHODOLOGY

This research used a generic qualitative approach (Kahlke, 2014). Generic qualitative approach, also called basic qualitative or simply interpretive approach, which can stand alone as a qualitative approach (Merriam & Tisdell, 2015), is the type of research that is not guided by an explicit or established set of philosophic assumptions in the form of one of the more established qualitative approaches (e.g., phenomenology) (Kahlke, 2014, p. 39). Semi-structured interview was used as the data collection means. Participants (Table 1) were young adults in Tehran, aged 20-30 years old. This age range was chosen as we assumed people in this age range would be more aware of their society and more likely to have interest in news. We limited our participants to people who live in Tehran because of practical reasons such as accessibility to population but also because Tehran, as the capital, is the largest city and includes immigrants from all corners of the country. However, Tehran by no means represents all of Iran and results should not be generalized to the whole country. Participants were selected using a purposive sampling approach with the aim of achieving maximum variability in terms of demographic characteristics within the given age limit. They were recruited through the network of two of the authors on social media, using recruitment posts on social media in general (Telegram Messenger) and through snowball techniques, as some participants

Table 1. Characteristics of participants (n=41)

Characteristic	Category	N	%
Sex	Male	12	29.3
	Female	29	70.7
Marital status	Married	22	53.7
	Single	19	46.3
Occupation	Employed	17	41.5
	Unemployed	15	36.6
	Student	9	21.9
Education level	Diploma	3	7.3
	Associate degree	5	12.2
	Bachelor	19	46.3
	Master	11	26.9
	PhD	3	7.3

introduced others. No monetary incentive was offered for participation and the participants were ensured about the confidentiality and anonymity of their participation. Their education ranged from diploma to PhD degree, with 46.3% having a bachelor's degree. More than two-thirds (70.7%) of them were women, 43.6% were married, 41.4% and 36.5% were employed and unemployed respectively, and 21.9% were university students. A total of 41 semi-structured interviews were conducted before the researchers felt the new interviews did not include much new information (saturation point) and stopped data collection. Interviews were conducted either face-to-face or by phone during April-June 2020, all of which were recorded and transcribed for the analysis. The appendix shows the interview questions. Thematic analysis (Braun & Clarke, 2006) was used for data analysis. Quotations (translated from Persian to English by the researchers) in the results section include a fictional name, sex (F for female and M for male), and age of interviewees to provide some context.

4. RESULTS

The Internet and social media have had a big influence on news consumption. However, different age groups might have different news consumption behaviors, as their needs and interests may be different. Interviews with Tehran's young adults showed that about half of the interviewees (19 people) did not regularly follow the news. Their reasons for not following the news included lack of interest, distrust in media, feeling distressed as a result of sad news, and lack of time. For instance, Golnaz (F, 28) said "I don't follow the news because it makes me nervous and affects me directly and then when I am nervous, I mistreat my child." Maryam (F, 30) stated that "I think media don't reflect the truth and everything is selective, biased, and phony."

However, the remaining (twenty-two) interviewees actively consumed news. They mostly followed scientific, artistic, political, and financial news. They were also interested in issues related to the environment, celebrities, technology, and culture. These choices were based on issues that they felt would have an impact on their daily life (especially politics and finance). Reading the news also helped them to escape from the pressures of life and be entertained (e.g., by reading about celebrities). They usually spent between 15 minutes and two hours per day reading news. One of the respondents (Morteza, M, 30) was an outlier as he spent around four to five hours each day following news, mostly watching news on television. Being unemployed might have contributed to the amount of time he spent on following news.

In the current study, news media were divided into two categories, traditional and modern. Traditional news sources included television, radio, newspapers, and magazines. Most modern media consist of social media and websites. Choosing a medium begins with the social and psychological origins of one's needs. As Zerba (2011) pointed out, beliefs, expectations, values, requirements, daily routines, and sociocultural factors can affect a person's choice of news medium. Studies in the past (e.g., Marchi, 2012) have found that most young adults under 30 do not subscribe to newspapers, television, or radio channels.

The interviewees in this study were divided into three groups, those who used modern media more than conventional media, those who favored the traditional media, and those who believed that both media types should be used. One of the reasons for those (20 people) who had a tendency towards modern media was their perception of the credibility of news sources. They believed that modern sources, including Instagram and websites, are more trustworthy than conventional ones. They also mentioned that modern media are more accessible, ubiquitous, and less controlled in that users can review them and have more freedom for expressing themselves. This should be understood in the Iranian context, as official media (TV, radio, and print media) are either state-owned or strictly controlled by the Iranian government and might serve as propaganda channels for the political regime. On the other hand, advocates of traditional media (16 people) believed that television is more reliable because it is known as a trusted source and is the first news source for most people, especially less literate or illiterate ones. The rest of the interviewees maintained that both traditional and modern media should be used together since they can complement each other. They also felt the necessity to evaluate and investigate information from both kinds of media to have a better picture of the events.

According to Yalda (F, 30), "nowadays social media are used more and more and they have a higher position than traditional sources, but we should check the accuracy of media content because news may be fake."

In contrast, Leila, (F, 30) said "to me, traditional media like radio, TV, and satellite channels give more accurate news to people; they are more reliable than social net-

works such as Telegram and Instagram."

4.1. Traditional News Resources

4.1.1. Television (National and International Channels)

Amongst participants in our research, some young adults who utilized television as a main news source (15 people) believed it to be more reliable than other sources, and therefore they get their news only from television. The others did not trust television due to tendentious programming and the tendency to support authorities.

"TV is a widespread medium and it's reliable, but satellite TV channels follow only their goals in drawing audiences' attention." (Hussein Ali, M, 25)

"I think TV has credibility because it's national media." (Sahra, F, 25)

"They don't tell the whole story or all of the details of news stories and just focus on the parts they favor, and there is a lot of censorship." (Ashkan, M, 20)

Interviewees who preferred to use satellite channels highlighted the point that each channel is different from the others and that international channels are better than domestic channels.

Atena (F, 24) explained that "some channels like BBC Persian tell the news as an impartial source but some others like VOA [Voice of America, Persian] is completely biased against Iran and this is obvious through their news, and this animosity makes them tell maybe false news, and all in all we can't say how much it is reliable, and channels differ from each other."

"We can trust some news and information which we usually watch on satellite channels... Maybe just they aren't consistent with our religious opinion." (Leila, F, 30)

"I'm not a fan of those [satellite] channels, because they blame our country for everything and it makes me nervous because I live here. But they may be more credible than local channels due to their reports which are sent by ordinary people." (Golnaz, F, 28)

Furthermore, several interviewees declared that do-

mestic and satellite channels should be used together because they complement each other, and stated that people should evaluate the news to find the truth. For example, Sara (F, 24) said: "both kinds of channels have their own bias which means it's better to watch both and find their similarities and finally you yourself should distinguish which is correct."

4.1.2. Radio, Newspapers, and Journals

Some of the participants (11 people) believed that radio has more specific and smaller groups of audiences, and therefore is more honest and daring when it comes to telling the news. Nevertheless, they thought that radio was not suitable for news because it lacks visuals that reduce its influence. For this reason, they use it just for entertainment.

According to Mehraveh (F, 28), "Radio has few controversies due to fewer audiences but maybe it is less effective due to the lack of visuals."

"Perhaps the radio isn't useful enough nowadays, and people usually get their news through other media." (Mansour, M, 25)

Previous studies have mentioned that young people are usually not interested in reading print media (newspapers and magazines) for a few reasons, including time limitations, the availability of other news media, the price of newspapers, lack of interest, the physical format of the printed newspaper (i.e., not being multimedia), their perception that the print media are biased, and difficulties with understanding news stories in newspapers (Jarvis et al., 2009; Zerba, 2008; 2011). Although this study was in line with some past studies, print media were not used extensively by the participants as some respondents used different types of newspapers and magazines. They considered most newspapers as biased towards their own political side. They also thought that yellow press (i.e., yellow journalism) had low-quality contents. Only a popular science magazine was considered to have considerable credibility because of its specific audience and professional content. Tina (F, 26) added that this is so of newspapers and magazines "because they are written and are similar to formal documents so they are more reliable than TV."

"I think they [newspapers] have more freedom to express opinions but some of them like Keyhan uses strange and weird headlines as it seems to want to per-

suade people to fight each other and it's just for certain people so that I can't trust it." (Samareh, F, 20)

4.2. Modern News Resources

4.2.1. Social Media

Social media has become the most important news resource for young adults (Leeder, 2019) whereas older people prefer printed news media (Hernández-Serrano et al., 2017). According to the Pew Center's report, Facebook was still the most popular social network for news in 2018 followed by YouTube and Twitter (Shearer & Eva Matsa, 2018). Similarly, in this study social media was popular among the participants.

Instagram and Telegram were the most popular social network platforms among participants (mentioned by 24 participants) for news consumption. One reason might be that other social media, such as Facebook and YouTube, are filtered by the Iranian government. Participants mentioned several reasons for their choice, including accessibility, spending a long time using social media channels for other reasons (e.g., communicating with friends), the diversity of information available, disliking watching television, speed of transmission, currency of news, the ability to connect with others on social media, and more realistic information on social media.

"I use mostly Instagram and less Telegram because there is a huge number of photos and texts and also a variety of information, and I spend all day on Instagram so it is the most up to date place for me." (Sara, F, 24)

"I prefer to use social networks because I don't watch TV but I can always get news by social media no matter where I am." (Elaheh, F, 25)

Although Tehran's young adults used social media as a news source, they did not necessarily consider it trustworthy. They believed that the type of Instagram page (e.g., celebrity, professional, or governmental) and news can affect the evaluation of social media credibility. They also believed that because ordinary people are the source of news on social media, it could be either true or fake. Another reason for distrusting social media was that almost all social media posts eventually seek to attract audiences and might, therefore, share news that is exaggerated or superficial.

Marjan (F, 26) explained that: "I can trust just pages that belong to scientists or professional people or institutes. Sometimes, they [pages] post strange and weird things to attract audiences. In the case of Telegram, I think we can't trust it much because they are highly exaggerated."

And according to Ehsan (M, 27), "Instagram is not a news source and almost all the pages are personal pages, and at last, belong to companies which try to advertise their products... You should be careful what you see or from whom you hear… about Telegram, some channels are biased, too, and some try to earn money, similar to Instagram."

"I can't trust news on Instagram even 10%, because everybody likes to be famous and earn money from that; also everyone can post anything they like." (Shohreh, F, 20)

As far as education is concerned, participants announced that they themselves had not taken any course related to using social media; rather, they learned about possible issues through different pages or by asking people around them.

Marjan (F, 26) reported that "there is a need to educate people, especially teenagers and housewives, and in particular about Instagram because they may face something that they don't know about its source, or the content may be unsound either in terms of accuracy or morality, so a person should be trained to have the ability and morality and also the culture that are needed to use it."

Also, Leila (F, 30) mentioned, "before using everything, there should be education and culture building; definitely it's true about social networks."

4.2.2. Websites

Our findings showed that well-known and reliable websites (e.g., Google news, Zoomit.ir, and YJC.ir) were attractive to young adults. Professional and academic websites were also considered to have appropriate credibility. However, respondents generally thought that websites were not needed because of the existence of social media. Interestingly some young adults also described websites as distributing fake news as much as other media.

"I usually use some apps for my language and they tell me the daily news… for example, Google news app, the website of young correspondents, cinema ticket app, and etc." (Marjan, F, 26)

Regarding websites, Reza (M, 25) also said "I use mostly trustworthy and professional websites, such as Astronomy, Zoomit.ir, and NASA websites."

But Ashkan (M, 20) stated, "to me, websites are the biggest liars; for instance if you searched for the death of one actor whom there is no news about, you would definitely find some websites that she has died."

"People don't use websites a lot, as they use social media…" (Tina, F, 26)

4.3. Fake News

When we asked about the reasons for the existence of fake news, our interviewees believed that the fake producers are engaged in profiteering, drawing an audience's attention, destroying others, exaggerating and distorting the news, abuse, orienting and distracting people to a certain issue, censorship and concealing the truth, creating chaos or pacifying society, and entertainment.

Ali (M, 22) noted, "fake news has a different definition or sometimes a source itself could be fake or there might be a misinterpretation, which may be 90%. Somebody shares a piece of news when it has a benefit for him, and they usually apply their views, but sometimes a medium may share fake news because of the attraction of that fake news or they want to draw readers' attention or perhaps they tend to create chaos in society."

Also, in Yalda's viewpoint (F, 30), "the point is that people often don't think if the news is fake or not and just due to its attraction, they share it; and individuals don't even think about the negative consequences of spreading fake news, either on social media or in the real world."

"There is a lot of fake news; the most important reason is everybody or every group wants to show themselves, some who like to be seen use fake news to get a lot of audience attention, and some others want to impose their belief and then they share fake news to get you to change your mind or to occupy your thoughts." (Reza, M, 25)

4.3.1. Fake News Detection

Detecting fake news is not a straightforward task. Studies have shown that many people who are exposed to fake news believe it. One reason for this is that fake news articles are often published by websites which are intentionally designed to look like reliable news media (Leeder, 2019) and include general topics and issues, such as politics and the economy. Fake news does not follow the ethical codes that professional journalists abide by (Berkowitz & Schwartz, 2016). Repetition of news, i.e., being familiar with a particular news item, can also have an important effect on whether people believe it (Soltanifar et al., 2017).

Similarly, a few of the interviewees of the current study believed that there is no possibility to detect fake news.

Shohreh (F, 20) reported, "because every day there is a lot of new news and if 25 pieces of news out of each thousand were fake news, then tomorrow you can't think which one was fake and then you may hear again thousands of pieces of news. Actually, in reality, that fake news was hidden among a huge amount of news, so it's hard to identify it [fake news]."

Nonetheless, most interviewees employed some techniques to distinguish fake news. These included assessing and comparing it with other sources, educating themselves, and using personal logic and experience. Other factors mentioned included how frequently the news was republished, the news genre, multimedia (films or clips or pictures related to the news), the credibility of the news source and its history, the social atmosphere, the existence of any refutation in a reliable medium, the tone of the reporter, and the absence of personal feeling or bias.

Regarding this, Azadeh (F, 30) expressed what techniques she employed to distinguish fake news: "through a trustworthy medium and referring to a printed version of a reliable outlet; not reading just headlines; if there is a link on the text, checking the link; checking the date of publishing; who is the writer of the news; and Googling."

"The best way to detect fake news is the education of identifying accurate news. This causes people to gradually react to false news and perhaps the market for fake news will disappear. Also, we should always know there is real news against grey news; the more real news stories, the less fake ones." (Atiyeh, F, 24)

"You just search to find how many times it is re-shared and where those are, and also how much it matches with your logic. Check if it is on ordinary people's pages or famous ones." (Sarah, F, 24)

Furthermore, to find more evidence and evaluate doubtful information, the interviewees utilized different methods, and searching among various sources stood out as the most popular method.

In Marjan's (F, 26) opinion, "if it's an important issue… I wait to see what TV is releasing on it, or check some websites, which are related to government… Also, I usually watch the main news program of TV or the "20:30 News Show," or breaking news programs through the news channel."

Additionally, Ehsan (M, 27) stated that "it depends on the importance of news or how much that news item is biased; whether an issue typically is very significant or trivial, or the tone of news is extremely harsh, or the problem is extremely simple but a writer makes it look significant, then you'd doubt it. I typically check a few different sources that belong to different countries or have different political sides. You yourself should be neutral, then you can realize which one is true and which is wrong."

The second action taken by Tehran's young adults is to ask well-informed individuals. Arash (M, 30) noted, "…it depends on the importance of news. I search for more evidence, searching on the Internet, or asking my professors or well-informed people…"

Respondents mentioned using personal logic and rationale as well. They assessed of the content of news. An example is: "to me, news content is the best evidence for assessment if all aspects are taken into account, and if it's not extravagant, phony, or exaggerated, it can be a little trustful" (Yalda, F, 30). Finally, the extent of news and reading the criticism of articles are the other items that were noted by the interviewees.

4.3.2. Criteria for Distinguishing between True/False News

This study found that the source of news is the most significant criterion for the differentiation of fake news from true news: "A reliable source has a huge effect on the accuracy of the news" (Katayon, F, 30). Other criteria included frequency and repetition, personal logic and ex-

perience, and participants' prior knowledge.

Ehsan (M, 27) stated that "prior knowledge of a person is important in understanding a piece of news. If we lack prior knowledge and information needed to properly analyze a piece of news we should be more cautious about it. If we can't analyze, we shouldn't easily believe it."

Other factors mentioned by interviewees were how wide the news spreads, people's reaction, neutrality of outlets, considering all sides of a story, the reporter's tone and his/her position, news genre, objective evidence, asking well-informed individuals, the date of the news release, and whether there is information that disproves the news.

"I check who wrote the news, what the news wants to tell us, when it's released, where it's published, and what I will feel after reading the news." (Leila, F, 30)

"It's important how realistic the context is; its writer or his tone could be helpful, the tone also can show if the reporter seeks to get attention or wants to just tell the news. We should treat the news with caution when somebody speaks in a good tone." (Ali, M, 22)

4.3.3. Education in Relation to Fake News

When it comes to education, media literacy and information literacy are regarded as the most effective skills (Soltanifar et al., 2017). Esmaeli et al. (2019) mentioned that education can be a responsibility of libraries and can be in the form of academic skills courses from primary schools (Hernández-Serrano et al., 2017).

The interviews also revealed the importance of education for detecting fake news. Interviewees emphasized culture-building activities to prevent people from believing everything quickly. Atena (F, 24) noted "it's better to teach people to tell the truth rather than tracing verification." In that case, people will not become a source of fake news. Instead they need to be taught to examine any news.

"This education should be for the public because people mostly are innocent; for example, some workshops or courses could be held in cultural and local institutes… in order for people to become familiar with newsagents, or how they can find a good and accurate news source. Also, those workshops can go with something like introducing some apps because most people use cell phones these days." (Marjan, F, 26)

"The first thing that should be taught is whatever we read, we shouldn't believe, especially on the Internet or printed newspapers which are published in our country due to the bias they have. The Internet is a double-edged sword, which means it has both good and bad things. And if there is something which is important for people, before any reaction they should search about it not to tell tales." (Ehsan, M, 27)

It is noteworthy that verification is related to the type of news and its importance. Some people who are completely involved with the news or for whom it has a huge effect on their life need more education. According to Zahra (F, 30), "It depends on a person; for example, for me who follows the news just as an ordinary person, it's not worthy, but for another where her life can be impacted a lot by the news, it is necessary."

Education can be provided both directly or indirectly. Some skills, such as critical thinking, information literacy, and media literacy can be taught at universities, schools, and educational centers: "some techniques, signs, and words could be taught to children, in particular at an early age so that children can learn not to follow false news, and when they can detect it, their logic also can be thriving" (Elaheh, F, 25). In contrast, Katayon (F, 30) said that the "educational system in schools is under control of government so it affects children and their learning."

Indirect education could be provided through national media and/or on social media for all walks of life in the form of short or long clips and movies. Such education can help people make better judgements and decisions that will improve society.

"In the past, education could be provided by movies, but not now, because most people don't watch TV, like us, but Instagram clips or funny videos which most people follow can provide these contents because it goes directly to people's subconscious." (Sarah, F, 24)

"Education makes people improve in their daily life; for example, how to act in relation to politics is directly related to education, and it's good for improvement in society and future generation." (Sahar, F, 23)

Only a few interviewees had been trained how to detect fake news at university. Others had been taught by their family or by experience not to believe everything or how to assess information and news in a better way.

Ehsan (M, 27) mentioned, "I didn't have any direct education either in school or at university, but my family and especially my father were always saying I shouldn't believe everything… in particular, about political issues. Since I was a child, I searched on the Internet and then I've gradually seen lies and prejudice, and practically I've learned from my experience, and then I've learned to read from foreign websites."

4.3.4. Sharing and Preventing Fake News from Dissemination

When people read the news, if they find it attractive, they usually share it with others, family, and friends. In most cases, individuals share news for the sake of entertainment and having fun, and ironically most news stories are related to unpleasant events and are ill-intentioned (Al-Zaman et al., 2020; Mercier, 2020). Self-expression and socializing are among the main incentives for people sharing misinformation, while the accuracy and credibility of information are often not considered as significant (Leeder, 2019). A study by Chen et al. (2015) noted that sometimes college students shared misinformation with others because of unawareness, attractive messages, or communication with their friends.

Participants of our study paid attention to the accuracy of news as far as sharing news was concerned. If they are confident something is fake news, they will not share it, or even if they share it, they will inform others if they later realize that it is false. The issue, of course, is that their perception does not necessarily match the reality. They might perceive a piece of news as real when it is fake.

"If it's a funny story, I'll send it to my friends, but if it's crucial and warning news, I'll try to send it to all to make them aware, and about current affairs, I'll send only if I'm sure that it's true. When I'm not sure, I tell them I've just heard or read it. Rarely did I share fake news, and it wasn't on purpose." (Marjan, F, 26)

"It depends on the news and for whom I want to send it. Sometimes I check the accuracy, but it happened to me that I shared fake news and when I realized the truth, I also shared the accurate news. I didn't know it was fake news, otherwise I wouldn't have shared it." (Elaheh, F, 25)

Because of their willingness to share news, young adults can contribute to the dissemination of fake news (Leeder, 2019). Consequently, the question of whether or

not the spread of fake news can be prevented comes to light.

On the one hand, our interviewees believed that it is impossible to halt the spread of fake news, in particular when it is released on reliable media or sources. In Arash's (M, 30) point of view, "no, it's not possible. Because we don't have any power to stop it, we can just counter it, which means we can share true news on media." Or according to Elaheh (F, 25), "overall, fake news is common among people, and people themselves gossip."

On the other hand, some claimed that people could be taught not to be the source of fake news and not to share it, and that this can happen by means of culture-building practices. Moreover, the spread of fake news may somewhat be prevented through several measures, including the presence of the information in reliable resources that disproves fake news, reporting the sources of fake news, and the existence of professional reference groups in every field (e.g., scientific or professional associations).

"Unfortunately, most people think that they all have a task of sharing news, but first of all we are just readers, and after checking about accuracy we're allowed to share it. If our society accepts this manner not to share everything before being assured about the accuracy, we can stop the spread of fake news." (Hussein Ali, M, 25)

"If there is no customer for something, the seller won't exist. People should be developed mentally and logically, and they should mainly be aware listeners... People should learn how to think correctly." (Ehsan, M, 27)

5. CONCLUSION

The current study used a qualitative approach to understand the news consumption behavior of Tehran's young adults and their attitude towards the fake news phenomenon. The paper is the first to study this topic in an extremely politicized society such as Iranian society. Of course, the findings cannot be generalized to other countries, as political and cultural situations might be different in every country. However, the findings contribute to our general understanding of news consumption among young adults and the way they deal with fake news. Some of the findings of the study are:

- Tehran's young adults preferred social media to receive news, although they perceived the quality of the content of social media to be lower than that of

traditional media;
- Even though the government of Iran tries to limit the access to some social media, Tehran's young adults use filtering software to view them;
- Their choice of news content was influenced by their information needs in daily life;
- They might use various strategies such as cross-media comparison to verify the accuracy of news.

The findings demonstrated that about half of the participants did not follow the news due to lack of time and lack of interest; and the others consumed news related to their areas of interest. Among those who got news, modern resources (especially social media) were used to receive news due to ease of access, more freedom, and lower cost. Yet this does not mean that young adults in this study trusted modern sources completely. Some past studies also discussed the low credibility of social media (e.g., Shao et al., 2018; Shu et al., 2017). However, social media can act as a gateway to mainstream news that is considered to be more reliable (Thom, 2016).

Traditional media (especially television) was the second choice for respondents in this study. But this was different from some other countries. For instance, in Britain television was found to be the most popular platform for adults' news consumption (Allcott & Gentzkow, 2017; Lancaster et al., 2012; Ofcom, 2019). This difference might have something to do with the trust of people in their government and the independence of the media. Although in this study we did not ask questions concerning the political views of participants as it could be a sensitive issue, the findings indicated that there was a link between trust and political views. Those who trust some traditional media might do so partly because they support the current political establishment and their control over the media. On the other hand, those who trust social media might do so partly because social media are not controlled as much by authorities whom they do not trust.

Furthermore, our findings showed that newspapers are the least preferred medium among young adults, who perceive them as being subjective and biased. This might be because most newspapers in Iran are affiliated to political groups, and it is difficult to find newspapers that reflect independent and critical journalism. They also thought that the yellow press has low-quality content, a finding that was also noted by Zerba (2011) and Casero-Ripollés (2012). These findings are not aligned with studies such as Ofcom (2019) and Jarvis et al. (2009), which stated that journals and newspapers have better quality, accuracy,

credibility, and neutrality in comparison to some other news platforms.

Due to the lower cost and fast dissemination of online news and the accessibility of social media, they have become fertile ground for the growth of false information (Shao et al., 2018). In these media, everyone is able to produce fake news. As our findings show, various reasons were mentioned by participants for the existence of fake news, including drawing audiences' attention, distortion of news, and financial and political incentives. These findings are similar to those reported by Allcott and Gentzkow (2017) and Tandoc et al. (2018).

However, most participants in our research mentioned that detection of fake news is almost impossible. In this regard, Leeder (2019), Pennycook and Rand (2017), and Silverman and Singer-Vine (2016) noted their participants could not detect fake news, especially when that news was separated from the original context or sources (Rubin et al., 2016). It was also found that familiarity with news makes it more believable (Soltanifar et al., 2017). In fact, people are not very successful at distinguishing and assessing fake news, as they rely on the first several items of searching results while using search engines such as Google (Leeder, 2019). They also tend to choose news that supports their current views (Shu et al., 2017) and accept any ideas that they do not fully understand (Rubin et al., 2016). But this does not imply that all people act passively in terms of evaluating news, indeed. Our study showed that young adults employed certain methods to determine the accuracy of their news. These include comparing various sources, examining news content, and so forth.

Some studies, such as Soltanifar et al. (2017) and Esmaeli et al. (2019), found education as an important factor in critical evaluation of news and suggested taking advantage of information and media literacy in addition to critical thinking (Leeder, 2019; Musgrove et al., 2018). Also, some studies suggested education should start from childhood and be conducted in elementary schools (Hernández-Serrano et al., 2017; Loos et al., 2018). As we mentioned, education can be provided directly and indirectly, but owing to the education system in Iran, which is influenced by ideology and therefore is not strong in teaching critical thinking skills, private institutions and non-governmental organizations might help to provide some sort of education, especially with regard to social media. Media such as short comedy clips (e.g., Iranian "Dirin Dirin" animation clips) are usually more attractive for people and they can be used for education and culture-building purposes.

When it comes to spreading fake news, our study showed that Tehran's young adults faced this problem cautiously and paid attention to the accuracy of the news. Overall, it seems impossible to prevent the dissemination of fake news, but it could be beneficial to implement culture-building practices and provide education; although Rampersad and Althiyabi (2020) found that in some societies age and culture are bigger factors than education in acceptance of fake news.

The future of news may be neither on television nor in the paper but on the Internet. The Internet is able to use all media (voice, video, and text) at the same time. Young adults also acquire the latest news in their field of interest online because of its efficiency, convenience, familiar feeling, and so forth. Of course, some people will still prefer television due to the large screen for some time yet (Meijer, 2007). However, according to Tehran's young adults, in the future people will use more modern news resources than traditional ones because of the penetration of the Internet in societies. Perhaps the presentation of news will change and new formats will emerge. However, social advancement will improve the academic level of individuals, which itself causes discernment of accurate news and truth from false information. Moreover, it is predicted that along with the advancement of the technology, some algorithms and more effective methods will be developed to detect fake news and prevent its dissemination. As Clayton et al. (2020) explained, various social media platforms might employ tags to identify fake or controversial stories. Van Heekeren (2020) also stated that social networks could assist with disclosing the identity of those who create and disseminate fake news.

In the end, we should again highlight the point that young adults are a significant and considerable part of society. They rely on their mobile devices and the Internet, meaning that they may be exposed to fake news most of the time, and therefore it is essential to teach them how to detect fake news and avoid spreading it. Future studies might look at how education can help people better deal with fake news and at what age or level such education can be most effective.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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APPENDIX. Interview questions

1. Are you actively following news? If no, why?
2. If yes, what kind of news do you mostly follow? Why?
3. What kind of news mostly attracts you? Why?
4. Where do you usually look for news?
5. How much time do you allocate to following news?
6. What was the last piece of news you read? From where?
7. When you are reading news, how do you evaluate it? Do you find any evidence for the truth of the news? From where can you find evidence?
8. What do you think about the last news you have read?
9. What criteria do you think should be considered for the truthfulness of news?
10. Do you think there should be training for determining true news and evaluating the news? If yes, how should it be?
11. How can the training influence people's behavior?
12. Do you use social media? Do you think using social media needs education? Have you taken any educational course in this regard?
13. How much fake news do you think there is in different media? Why is that?
14. What do you think about the reasons for the presence of fake news? How can you detect it?
15. How do you think the spread of the fake news can be prevented?
16. When you read news, do you share it? If so, do you pay attention to the reliability aspect? Have you ever read/seen news that appeared to be fake?
17. What do you think about traditional news media (programs and reliability)?
18. What do you think about other news media (content and reliability)?
19. What do you think about the future of the news and news media?