FACTORS THAT MOTIVATE SOUTH AFRICAN STUDENTS TO SHARE FAKE NEWS ON SOCIAL MEDIA PLATFORMS

by

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ABSTRACT

The increased adoption of social media and the continued spread of fake news has resulted in unique problems for society to overcome in the modern era. This study aims to determine what factors influence South African students to share fake news on social media platforms. The theory that was used to create the research model and questionnaire was the Users and Gratification (U&G) framework. A mixed-method approach was followed in conducting the study, utilising both quantitative and qualitative strategies. Data was gathered through collecting responses using a questionnaire distributed to students of the EBIT faculty at the University of Pretoria. 190 usable responses were gathered. The questionnaire was created using Google forms and the questionnaire link was shared to students through clickUP and various student groups on Facebook. The factors that were investigated were platform, emotional drivers, social responsibility, conformity, biases, trust, third-person perspective (TPP) and personality and how they influence intention to share fake news among students.

The findings from the empirical study of 190 students found that the hypothesis that there is a positive association between bias and trust was partially supported. There was also found to be a negative correlation between third-person perspective, emotional drivers, and the conscientiousness trait of the big-five personality model. This confirms that people's emotional drive, bias, TPP, trust, and conscientiousness have a moderate effect on their intention to share. Additionally, from the qualitative findings, the factors of previous experience and knowledge were also found to influence intention to share.

Through partial least squares regression analysis, we found that the factors that contributed the most to intention to share are emotional influences and the conscientiousness trait of personality that both had a negative association. TPP has small correlations to intention to share. Trust and bias were removed from the quantitative model due to bad fit, however, from the qualitative findings it was determined that trust and bias impacted students' identification of fake news articles.

By understanding the relationship between TPP, conscientiousness, trust, bias, emotional drivers, previous experience, previous knowledge and intention to share fake news may help further the understanding of why fake news is spread, the motivation for students to share fake news and curb the spread with changing technological environments. These findings

can also promote action to implement programs and regulations to protect users who are vulnerable and more exposed to fake news on social media platforms

Keywords: fake news, misinformation, disinformation, social media, online social media networks, trust, conformity, bias, personality, emotional influences, Third-Person Effect, Third-Person Perception, social responsibility, altruism

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Lastly, I would like to thank my parents for their support and encouragement throughout my entire life and academic career.

Declaration

I declare that this dissertation, submitted by me, is my own work, that I have referenced all the sources that I have used and that no part was previously submitted at any tertiary institution.

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Signature

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Date

THESIS MAP

The thesis map shown below illustrates the structure of the thesis.

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Chapter 3: Research model

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GLOSSARY OF TERMS

Abbreviation/ Acronym	Term
Fake news	News that is purposefully misleading and made false claims.
Content type	Topics of interest that are often grouped together.
Intention to share	The aim or plan to spread something
Online social media platforms	Websites and applications that allow users to follow communities and people who have similar interests, are like-minded and have similar ideals.
Emotional influences	The effect that emotions have on controlling or altering behaviour of someone.
Social responsibility	The responsibility to act in the best interest of society and environment as a whole.
Altruism	Altruism is the principle and moral practice of concern for the happiness of other human beings or other animals, resulting in a quality of life both material and spiritual.
Conformity	The process whereby people change their beliefs, attitudes, actions, or perceptions to more closely match or follow those of a group that they are seeking approval of or belong to.
Bias	An unfair inclination or prejudice for or against a person or group.
Trust	The belief that someone or something is reliable, safe, good, or honest.
Third-person effect	The perceptual gap where an individual perceives that others are influenced and affected more easily by the messages of media than themselves.
Third-person perspective	This perceptual component, known as the Third-Person Perception (TPP), describes the skewed perception of the influence of negative and socially undesirable social media messages affect others more than themselves.

CHAPTER 1 : INTRODUCTION

1.1. Background information

People's ability to obtain information through means of technology and the internet has greatly increased in recent years. News can now be consumed through a wide variety of media such as printed media, television, and the internet. This increase in ease and accessibility to share and consume news can have a significant impact on the probability of intentionally or unintentionally sharing fake news. As of October 2021, 57.6% of the global population actively uses social media (Kemp, 2021a). This is an increase of 9.9% over the last 12 months. In South Africa, social network usage is 38% and continues to increase (*Social Media*, 2019). This increase in accessibility means that there are more sources where people can get their news, increasing the risk of fake news being shared. The continued rise of online social media platforms and their popularity, not only among the youth but also people of all different ages contribute to the dissemination of fake news more than ever before.

News is defined as new or important information that is distributed about current or past events (*News | Definition of News in English by Oxford Dictionaries*, 2018). The term Fake news has emerged to describe news that is purposefully misleading and made false claims (Allcott & Gentzkow, 2017). Two important words can be used when discussing the spread of news that is untrue or misleading, namely disinformation and misinformation. Misinformation and disinformation both are defined by the spread of false or inaccurate information, however, misinformation could imply the unintentional spread of information while disinformation is done deliberately (Søe, 2017). The motivations that people have for sharing inaccurate or misleading information can be determined by different factors such as trust, conformity, emotional influences, social comparison, trust, bias, third-person effect, and personality (Celliers & Hattingh, 2020; Rosenthal-von der Pütten et al., 2019). These factors will be explored and expanded on based on existing literature in chapter 2.

1.2. Expected contribution

With the growth of online social media platforms, access to technology, and the internet it is important to understand how and why fake news is spread by users. This better understanding of fake news will ensure that fake news can be blocked or detected early

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before the effects can be spread to those impacted by the circulation of incorrect information. There are existing frameworks that show the different factors that explain this behaviour. There is an opportunity to identify and expand upon other factors that can complete the framework and provide a better understanding of the reasons fake news is spread.

This research will fill a gap in the literature regarding the sharing of fake news by further investigating the effects that different factors have on intention to share fake news. The results about the relationship of these factors will enable social media platforms, websites, and other news sources to implement changes that can curb the spread of fake news. These findings can also enable future researchers to use the framework and results of this study to further expand on and predict behaviour based on the factors from the model. People in the field of journalism, environmentalists, and other areas affected by the spread of fake news can use the results of the study to curb the consumption and manipulation of media that is sent out to the public. Therefore, expanding on existing frameworks to explain the spread of fake news will benefit the academic and general population.

1.3. Problem statement

The topic that has been explored in this research paper is determining the factors that motivate students to share fake news. An important aspect that also needs to be explored is whether students know what fake news is and whether they have been exposed to it and share it on purpose or accidentally.

Most studies regarding fake news have focussed on political news with primarily U.S sample populations (Jang & Kim, 2018; Salwen & Driscoll, 1997). This study aims to narrow the demographic to a South African population. This study will also focus on university students in order to determine the effect of fake news on the next generation of people who will potentially enter the workforce with tertiary education. Fake news can be spread deliberately or accidentally, and with the rise of social media high volumes of information can be sent through many different communication channels in a very short period of time (Vosoughi et al., 2018). As of January 2021, there are 25 million social media users in South Africa which is equivalent to 41.9% of the population and a 14% increase from 2020 (Kemp, 2021b). This means more people will be able to rapidly access any news from various sources about various topics.

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It is unclear if people are aware of fake news and share it intentionally or are unaware that the information that they are sharing is misleading. One study found that a person's perception of an issue and their predispositions influence the likelihood that they will share the content (Su et al., 2019). Viewing news online is a passive action that only provides users with more information while sharing that information is a commitment that many do not undergo (Beam et al., 2016). People are shown to be driven to share content that is more shocking or emotionally arousing than content that is more positive and that may lead to more positive emotions such as happiness (Rubenking, 2019). People that have an emotional attachment to a certain cause or group may be more likely to share the content that positively supports that group than ones that don't (Nelson-Field et al., 2013; Rubenking, 2019). Therefore, if people find the news about a topic that they support to be unbiased, from an influential and credible source they will be more likely to support and share information without fact-checking first. The literature can be expanded on, and further research can be done relating to sharing fake news.

Further research needs to be conducted to determine what factors motivate certain groups of people to share information. Past literature only shows a few factors that motivate this behaviour (Przybylski et al., 2013; Lee & Ma, 2012). These studies focused primarily on demographics such as age and gender (Rubenking, 2019). It also needs to be investigated how much these factors influence the student's choices and topics they are confronted with. Findings show that consuming news online relates positively to sharing that content (Weeks & Holbert, 2013). Most articles focus only on the sharing of political news (Choi et al., 2017; Su et al., 2019). This is problematic since it is unclear if those findings can be applied to a broader range of news categories and diverse populations. There is also a lack of knowledge regarding what motivates people to fact-check information before sharing.

One study found that people are more likely to retweet fake news compared to authentic news (King & Wang, 2021). There isn't a clear understanding of whether the popularity of the platform affects the sharing of fake news and if there are unique aspects of the platforms that drive this sharing behaviour.

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The perceived credibility of news sources was found to be the most important factor for trusting those platforms and is shared more confidently (Oh et al., 2010). This is contradicted by a different study that found information that did not have credible sources was spread more frequently (Oh et al., 2013). In these studies, there is also a lack of consensus around the definition of trust and credibility of news and how to measure it. There is also a lack of research that focuses on people's biases towards news content and how it affects the spread of fake news. People may also be biased towards groups that have similar beliefs or views as themselves (Houston et al., 2011).

In a study by Winter et al., (2015) evidence was found that supported the social influence of other users' comments when judging online news stories. A different study found that users conformed to the opinions of the group irrespective of the anonymity level that the user thought they had (Tsikerdekis, 2013) and that people's actions online can be partially influenced by others and motivated by their desire to bolster their self-concept. People likely conform to the beliefs and views of others around them, even if they do not agree, to protect or bolster their self-esteem. This is a sentiment that is echoed by (Cialdini & Goldstein, 2004). Previous research has also shown that individuals perceive others to be more susceptible to fake news than themselves (Jang & Kim, 2018; Salwen & Driscoll, 1997). This phenomenon is known as TPP. Conformity and TPP were included in this study as a factor to provide updated results and expand on existing literature.

Online videos are also found to be shared more if it elicits emotions from the viewer such as anger, sadness, and excitement while videos that elicit disgust and negativity were shared less (Rubenking, 2019). There are however contradicting findings with regards to what effects negative and positive messages have towards intention to share. One study found that Twitter messages that were negative, shorter, and used emojis were shared more (King & Wang, 2021) while a different study found that negative tweets were shared less but had more user interaction (Chen et al., 2020). Due to the lack of consistent findings in research, this factor was included in the model of this study.

All the factors mentioned above were incorporated into this study to determine their correlation to intention to share. The main research question was to determine the main factors that predict the intention to share fake news among students. The sub-research

questions determine what is meant by fake news, intention to share, and to what extent students share fake news.

1.4. Justification and motivation

The problem that has been investigated in this study is factors that motivate South African students to share news that is misleading or inaccurate on social media platforms. It is unclear to what extent these factors influence sharing. The different factors were explored and their relationship with intention to share was determined. Further research is needed to determine the factors that influence fake news sharing online due to the lack of consensus on the effect that these factors have on the dissemination of information.

This research will enable users and designers of social media platforms to be aware of the reasons why fake news is spread and what motivates people to share it with others. This will be able to assist social media sites or social groups who are confronted with fake news to address the user's actions and concerns more easily around the spread and consumption of fake news. Future researchers will be able to expand on this research.

1.5. Research questions and objectives

The main aim of the study is to determine the factors that predict South African students' intention to share fake news. Understanding how these factors play a role in the student's decision to share fake news is important.

To determine the main factors that predict a student's intention to share fake news.

What factors predict South African students' intention to share fake news on social media platforms?

From the main research question and objective, the following sub-research questions will be answered:

Secondary research question 1: What content influences the student's intention to share fake news?

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Secondary research objective 1: There are many different types of content that users consume. It is important to determine how the type of content determines what users are more willing to share. Different content could also be more susceptible to fake news, such as political news and environmental news. Therefore, it needs to be determined to what extent content type influences intention to share fake news.

Secondary research question 2: How does students 'ability to identify fake news influence sharing behaviour?

Secondary research objective 2: With the rise of technology the sources of news have expanded immensely in the last few decades. Due to the easier dissemination of information, fake news has also become more prevalent. People may not be able to identify if the news they are consuming is truthful or misleading. It will therefore be determined if readers are able to identify fake news and how it influences their intention to share.

Secondary research question 3: What factors influence users to share fake news?

Secondary research objective 3: People's intentions are multidimensional and different environmental and internal factors may play a role in how users see and share news that they are exposed to. These different factors such as emotional attachment to the news, trust in the source, and TPP could expand on existing models to explain why people share fake news.

1.6. Assumptions

We will operate under the assumption that fake news and misinformation will increase as the use of social media increases among students. For data gathering, it will be assumed that the information provided by the respondents will be accurate, truthful, and complete. By this assumption, reliable data analysis methods can be used to find reliable results to test the hypothesis. It will also be assumed that the sample size from which data will be gathered for the study will be an accurate representation of the overall population.

1.7. Delineations and Limitations

This study will look at the student population in South African universities where the use of technology to consume information is common and widely accepted. This study will only be

concerned with the most popular news sources that can be found in South Africa, including newspapers, radio, word of mouth, and social media platforms.

1.8. Brief chapter overview

This dissertation will consist of the five chapters that will be described below:

- Chapter 1: Introduction

In this chapter background information about fake news and the spread of fake news was provided along with a problem statement. The research main question and sub-research questions were given along with the objectives. Assumptions, delineations, and limitations of the research are provided. Definitions of key terms and concepts were given as well as the significance of the dissertation.

- Chapter 2: Literature review

Chapter 2 consists of a complete literature review are provided with existing sources and articles about fake news and different aspects and factors surrounding it. Each concept was discussed and explored to support the problem statement of this dissertation.

- Chapter 3: Method

Chapter 3 consists of information about the methodology and framework used to conduct research. The data collection method, data analysis techniques, and sampling method are provided and motivated for the research topic. Lastly, ethics surrounding the way the data will be gathered and research conducted is discussed.

- Chapter 4: Methodology

In chapter 4 the methodology that was used was given and the motivation of the use in this study is discussed. Methods used for data analysis and research strategies are explored. In this chapter the method used to analyse the qualitative data gathered is discussed and implemented.

- Chapter 5: Thematic analysis of qualitative findings

In chapter 5 the results from the qualitative data were provided using the thematic analysis method described in chapter 5. These findings are used to determine relationships between the themes and hypotheses set in chapter 3.

- Chapter 6: Analysis of findings

In chapter 6 the data collected from the participants will be analysed using the methods discussed in chapter 4. The findings were discussed and presented using tables and graphs. At the end of chapter 5 a summary of the findings related to the hypotheses will be given as well as linking the quantitative findings to the qualitative findings from chapter 4.

- Chapter 6: Conclusion

In chapter 6 the findings are discussed in context to their respective hypotheses that were proposed in chapter 3. This will be used to answer the main research question along with the sub-research questions. Future research possibilities, as well as suggestions on improving the study, are provided.

CHAPTER 2 : LITERATURE REVIEW

2.1. Introduction

In recent years the spread and consumption of fake news has become a global issue with the effects being seen around the world. Issues that saw an increase in false and misleading information were the 2016 US elections and anti-vaccine media (Allcott & Gentzkow, 2017; The Lancet Infectious Diseases, 2020). The dissemination of fake news will continue to spread unless more is done to prevent it. In this study, an understanding of the factors that motivate users of social media platforms, specifically students in South Africa, to share fake news will be explored to further examine the role that people and platforms have with regards to the dissemination of misinformation and disinformation that could be harmful to the wellbeing of others and themselves.

Misinformation can cause widespread confusion and lead people to be hesitant to believe information that is backed by facts and the necessary data. One study found that once an individual is exposed to fake news it is difficult to change their opinion (van der Linden, 2015). Results from this study found that persuasive facts are largely negated when they are presented with related misinformation and do not do much to change the views of participants. In a different study participants' exposure to conspiracy theories decreased their intentions to engage in politics and efforts to reduce their carbon footprint (Jolley & Douglas, 2014). This is also similarly supported by a study that found exposure to conspiracy claims adversely affects trust in government institutions and services, even if those services and institutions have no connection to the original conspiracy claim (Einstein & Glick, 2015). The effects of misinformation can therefore have detrimental effects not only on individuals but also negatively impact society as a whole.

Fake news articles, trends, and topics can be highly volatile and can have short lifespans (Allcott & Gentzkow, 2017). Many sites for example during the 2016 U.S presidential election were removed after the campaigns ended (Allcott & Gentzkow, 2017). Many fake news generators upload and remove content quickly to avoid detection due to more focus being put on fake news detection and removal programs in recent years (Ahmed et al., 2017; Søe, 2017). Due to the far reach of social media and its velocity, it is difficult to determine the extent of the impact it has and the consequences thereof.

Since misinformation online is widespread and difficult to slow it is important to enable users of social media to question information and be able to make informed decisions based on all the information available to them (Gaozhao, 2021). To assist in this, it is important to understand the underlying motivations for each user to share fake news.

Many studies have shown that users who view content online have poor skills to detect fake news and distinguish between real and false information (Kumar & Shah, 2018). In this study, we wish to examine and explain why misinformation is shared by users to enable the development of strategies to assist users and social media platforms to prevent and curb sharing behaviour that exacerbates the problem. The factors that will be explored in this study will be types of news content, social media platforms, trust, social comparison, emotional influences, bias, TPP, and personality.

2.2. Fake news

Misinformation has always been a part of society and the ways of spreading misinformation has evolved as society and technology have developed over the years. The term fake news first appeared in 2016 before the US election when websites that were spreading false or misleading information were identified (Silverman & Singer-Vine, 2016). Silverman discovered how social media was used to misinform readers and distribute information that was biased and untrue regarding the US election in 2016 where Facebook was the primary source of these misleading articles. It was also shown that the people who were exposed to these articles believe the information (Silverman, 2016).

Other people's reactions and comments influenced others' reactions to and spread of fake news. One study found that disclaimers did not dampen users' intention to comment and share fake news (Colliander, 2019). The same study found that posts with negative comments were shared less while posts with supportive comments had higher share rates.

Fake news is often used as an umbrella term to describe a wide variety of concepts and practices related to the spread of misleading and incorrect information. The definition of fake news in academia is diverse and has been defined by multiple people. In a paper by (Tandoc et al., 2018) 34 scholarly articles were analysed to identify a typology of fake news definitions. The definition by Allcott & Gentzkow (2017) defines fake news as news articles that deliberately and verifiably mislead readers with false information. Most definitions

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however mostly lack consideration for mistakes made during reporting, conspiracy theories, satire, inaccurate statements given, rumours, and misleading reports that do not contain a full set of facts or exclude certain facts purposely to drive a certain narrative. Fake news can include a variety of different sub-categories such as misinformation, rumours, satire news, fake reviews, fake advertisements, false statements by public figures, and conspiracy theories.

Other researchers do take rumours and satire into account to provide a more comprehensive understanding of everything that fake news can encompass and how it influences readers' thinking (Brewer et al., 2013; Tschiatschek et al., 2018; Vosoughi et al., 2018). In this study, fake news will be classified into real and fake categories, as defined by Allcott and Gentzkow's view on fake news. Fake news in recent years has been defined as news-style stories that are made up and promoted on social media sites to mislead the public for financial or ideological gains (Allcott & Gentzkow, 2017; Celliers & Hattingh, 2020; Mai, 2018) and is widely used to describe information disorder as a whole. A problem that social media is facing with regards to the spread of fake news is that fact-checking becomes a tedious and time-consuming process with everything being called into question about any information.

Fact-checking can be done by using fact-checking resources and is currently the easiest way for users to confirm the validity of information. Fact-checking resources are becoming more commonplace for mainstream media organizations and social media platforms that provide users with more reliable means to verify the validity of news articles and information. Popular fact-checking online resources include *PolitiFact.com, Snopes.com, FactCheck.org,* and *Classify.news*. Telling users what information is true, false, and mixed using fact-checking resources enables them to be cautious when consuming news content. Although fact-checking resources do have benefits there are still some limitations and issues. The process of detecting fake news is delayed and a time-consuming process that includes a large amount of manual labour for verification. Therefore, it is still important for users to be able to identify fake news without the help of fact-checking resources when online.

These resources provide much-needed assistance to determine fake news, however, there needs to be more effort to understand why users share information in the first place, and solutions geared towards those individual aspects need to be explored further. One study found an association between passive corrective actions on fake news (such as blocking senders of fake news) and sharing fake news due to lack of time implying that those who adopt passive corrective actions are not likely to share fake news due to lack of time. This study found no support for the hypothesis that users authenticate news before sharing it due to lack of time or religiosity (Talwar et al., 2020).

Fake news has two main categories; misinformation and disinformation (Balakrishnan et al., 2021). When the term fake news is used it usually refers to misinformation. Misinformation is information that is created without any harmful intention and spread unknowingly or deliberately (Balakrishnan et al., 2021). Misinformation is primarily inaccurate and potentially accidentally created so. Disinformation is a subset of misinformation that is created intentionally that is spread and intended to deceive the reader and or cause harm to an entity (person, group, country, organisation) (Balakrishnan et al., 2021; Stahl, 2006). The distinction between the two concepts is crucial when investigating intent. Therefore fake news can be spread either unintentionally through misinformation or deliberately and potentially maliciously through disinformation (Karlova & Fisher, 2013; Stahl, 2006). This manipulation or inaccurate spread of information could lead information to cause widespread panic and confusion, especially during times of protest, economic uncertainty, and government interference.

With the rise of fake news, concerns emerge about it being used to spread propaganda. Propaganda has been defined in many ways and can be interpreted differently depending on the situation. Propaganda can broadly be defined as information of a misleading or biased nature being used to promote a specific point of view or cause to influence mass behaviour (Cunningham, 2002; Little, 2017; Taylor, 1992). Therefore, fake news is not always necessarily propaganda but could be classified as such if there is the intention to influence the perception of something to the people in a malicious way.

Findings from previous research found a link between pass time gratification and news sharing (Choi, 2016) and similarly misinformation sharing (Del Vicario et al., 2016). Pass time gratification and fake news dissemination are supported by a different study that found

that individuals who use social media to pass time lessen their ability to verify messages before sharing over time (Apuke & Omar, 2021). A contrary finding was made in a different study that did not find a link between pass time and news sharing.

The full extent of the effects of fake news is not yet clear and may change significantly in the coming years. The biggest concerns at the moment are mistrust in important sources of information to promote the spread of further information to undermine an informed citizenry (Allcott & Gentzkow, 2017). Many studies have been done around fake news from varying perspectives and approaches. These include fake news detection, how fake news spreads over online social media, and fake news in politics and marketing. In this study, the main focus will be on the user side and the factors that motivate users to spread fake news.

2.3. Content type

Platforms such as Reddit, Facebook, YouTube, and Instagram allow the user to consume more of the content that they show interest in by using an algorithm that promotes similar content to the viewer (Flaxman et al., 2016; Thurman, 2011). Online social media platforms also provide users the flexibility to follow communities and people who have similar interests, are like-minded and have similar ideals. This means that consumers have a highly personalized news feed (Thurman, 2011). This creates an echo chamber or filter bubble where an individual's own views are reinforced and isolated from other perspectives (Flaxman et al., 2016). In these filter bubbles content that relates to the user's behaviours and likes are used to not only push products onto the user's feed but also other related content such as groups and posts. Users are not necessarily aware of the filter bubble that they are in (Pariser, 2011).

Due to the growth of technology and increased reach around the world, news can now more easily be spread online to different locations and cultures than before. Global access to news about anywhere around the world means that the news ecology now has become de-territorialized compared to traditional news in the past (Heinrich, 2012; Athique, 2017).

Topics of interest when consuming news are security and crime, politics, sports, arts, and entertainment. Companies such as Facebook and Google, referred to as secondary gatekeepers, are prime examples of where users are directed to content based on their

previous searches and interest gathered by their analytics about user's consumption patterns (Nielsen, 2016; Singer, 2014). User-generated visibility also plays a big role in spreading content online through content that users spread about companies and other information rather than the company themselves spreading the information. This is a useful way to promote companies through forming an emotional connection and relationship with real people around common interests (Singer, 2014).

2.4. Intention to share

For this study, it is important to understand what is meant by intention to share and how different factors can affect this behaviour. Intention is defined as an aim that guides an individual's planned actions. In one study intention to share knowledge is defined as the aim to provide information, experiences, and skills of an area of knowledge to the community in a variety of ways (Perik, 2014). Intention to share fake news is therefore the plan to distribute fake news to the community.

One study found that people who are confident in their sharing abilities are more likely to share information. This study also found that the older the individual was the stronger the intent to share information the community was. Attitude and controllability were not considered significant predictors (Alajmi, 2012). However, in a different study attitude was found to be a significant predictor where IT workers with a positive attitude towards knowledge sharing showed an increased likelihood for knowledge sharing through their intention (Ranasinghe & Dharmadasa, 2013). This study also found that if knowledge sharing was considered important to the community, then the individual was more likely to share information thus showing that social influences play a role with intention to share (Ranasinghe & Dharmadasa, 2013).

One study found that pressure, either internal or external, to conform to norms (descriptive or subjective), influenced whether a user would share information in an online platform (Alajmi, 2012). Knowledge sharing self-efficacy in the study also explained the individual's motivation to share their knowledge with others from the same platform. The attitude and controllability of the participant had no significant impact on whether they formed intention (Alajmi, 2012).

2.5. Why do people share fake news?

A study by the *Pew Research Center* in 2016 found that 23% of Americans admitted to sharing fake news, knowingly or unknowingly (Barthel et al., 2016) 16% admitted to sharing fake news that they later found out was made up and 14% that knew it was made up at the time (Barthel et al., 2016). 39% reported that they were very confident in their ability to recognize made-up stories, 45% were somewhat confident and the minority (15%) responded that they were not confident or not confidant at all in their ability Barthel et al., 2016). Many sources that spread fake news also use confusion and other tactics to mislead users. They may supplement fake news with real facts or leave out important information surrounding those facts to mislead readers.

The ability for people to spot fake news has been shown to have a negative association with news sharing behaviour (Barthel et al., 2016; Bordia et al., 2005). Results from the *Pew Research Center* found that only a minority of people shared fake news knowingly (Barthel et al., 2016). It would therefore suggest that if a person was able to spot fake news, they would not share it in most cases. Therefore, a person's inability to spot fake news could lead to them sharing fake news. Beyond people's ability to spot fake news many other factors lead people to share news that is not factual or misleading. One reason is the concern for others and the need to spread information that could potentially help those around you.

The platform can play a role in intention to share fake news. Some online social media platforms, due to popularity and ease of use, may have more fake news content and thus make it easier for users to share information that is more prevalent on that platform. Similarly, if platforms encourage user interaction and sharing of content it is also likely to encourage the dissemination of fake news content.

People's ability to be unbiased and remember facts correctly as time passes also impacts their ability to spot fake news and their intention to share. Behaviour of an individual may also be influenced by the environment and those who are around them. People may be inclined to follow the habits of others to preserve their self-esteem or self-concept and avoid scrutiny of others in the community. This may lead to behaviour where certain information is propagated because it follows the views and beliefs of the majority of those who a user sees and interacts with online.

Another reason fake news could spread is due to the emotional emphasis that is put on the content, for example, the shock value of the content. The more shocking and attention-grabbing the easier it will be for people to consume the content, regardless of the media type. One topic may be more intriguing, new, and shocking while the other is something that everyone knows and has become desensitized to in mainstream media.

Social responsibility and altruism have been shown to influence user behaviour on online social media platforms. Users may feel driven to share information that they feel can help others in some way, whether this impact is significant or minor.

Trust may be a factor that motivates users to share fake news. If users have trust in the source or user that shares the information, they may be more inclined to share the information as well. Distrust in conventional media outlets and news providers means that people turn to alternative sources to consume information. Blogs and short posts are easily consumable and presented in a trustworthy way. Sources that challenge conventional methods of news distribution seem appealing. Distrust is widely promoted by today's society and is increasing due to anyone being able to post information online without the necessary verification. Trust in media and government has also been negatively impacted due to many conspiracy claims (Einstein & Glick, 2015). There was found in a different study to be a positive association between believing fake news and conspiracy beliefs (Halpern et al., 2019) which could be argued falls under the same umbrella.

There is therefore a need to understand how trust evolves, how it is earned, and how it is lost (Warner-Søderholm et al., 2018).

2.6. Factors that motivate to share of fake news.

In this section, the factors that are explored in this study are defined and examined using existing literature to determine what effects they have on intention to share fake news and how this can further be studied.

2.6.1. Platforms

Many people rely on online social media platforms to function in their daily lives. People join online social media platforms with different goals. These reasons include keeping in touch

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with family or friends, meeting new people, connecting with people who have similar interests, entertainment as well as reading and sharing news.

Online social networks enable every user to share news; this has its benefits as well as drawbacks. Misinformation can be consumed and spread as easily as legitimate information and can lead to distrust in news and harmful information being circulated amongst people in communities (Tschiatschek et al., 2018).

Online social networks have enabled the efficient dissemination of information and are therefore leveraged to propagate fake news (Bowler et al., 2009). One study found that close to 9 out of 10 Twitter users rely on it as their main source of news and 74% of them reported to using it daily (Rosenstiel et al., 2015). This dependency has resulted in Twitter replacing many mainstream media outlets as a main source of news. This is especially the case among millennials and gen-z (Stieglitz & Dang-Xuan, 2013).

There is low verification and many times non-existent procedures on online social media platforms, allowing anyone to write and share fake news (Ahmed et al., 2017). Several web pages have been created to purposefully publish fake news such as *theOnion.co.za*, *denverguardian.com,* and *ABCnews.com.co*. Many of these sites are created with the sole purpose of spreading satire, propaganda, disinformation, conspiracies, and hoaxes. The motive behind these sites is most often financial or political. Not all of these sites, for example, the satirical news website *The Onion*, intend to deceive their readers. The problem with these sites is that readers might not be aware that the content is satirical or fake. This could in part be due to the websites resembling real and legitimate news organizations (Allcott & Gentzkow, 2017). The contents from these sites may also be spread as real news and used out of context of the original intention of the article. These factors contribute to the large volume of fake news that can be found online.

Social media along with portable communication devices have played a vital role in communities and during crisis events where dissemination of information has become easier due to technological adoption (Chaubey & Sahoo, 2021; Dwivedi et al., 2020; Roy et al., 2020; Sinha et al., 2019). Social media can be used to empower users and promote community engagement due to the growing adoption and accessibility (Phuluwa & Hattingh, 2017). During natural disasters, social media plays a key part in spreading vital information.

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During hurricanes or earthquakes for example information is spread rapidly over social media platforms by not only news platforms and emergency services, but also by people who provide eyewitness accounts and others aiding the people affected (Oh et al., 2010). There are however also drawbacks where vital and important information can become lost between all the noise and misinformation that also circulates online. For example, rumours that were propagated on Twitter after the 2010 earthquake in Chile lead to increased public panic and chaos among the community (Castillo et al., 2013).

Online social media outlets do not have the same editorial standards and procedures that traditional and regular news media editorials have (Lazer et al., 2018). The result of having fewer regulations and procedures is more widespread and frequent circulation of misinformation online. Most literature regarding fake news has focussed primarily on health-related misinformation and general fake news stories, conspiracy theories, or rumours (An et al., 2021; Bunker, 2020; Parra et al., 2021; Wang et al., 2019).

People are no longer constricted when consuming news. News can be obtained from a wide variety of sources and no longer rely solely on traditional media such as print and television news. There are three main types of news media that all news platforms can be divided into (Dutta-Bergman, 2004). Print media for example includes newspapers and magazines. Broadcast media includes television and radio. Lastly, the internet is the newest and fastest-growing provider of information around the world. Internet news media covers social media sites that spread information in formal and informal ways to a variety of groups and populations. These additional sources of news are driven by the rapid growth of technology and in order for providers and social media platforms to keep users engaged news providers have had to adapt their businesses and practices. These adaptions by news providers may be to circulate news that is misleading or just pure fake news. Online social media platforms may similarly promote fake news content or not act to stop the spread of stories on their platform. While not all news providers and social media platforms engage in such behaviour it is important to know that some do for either financial or political gain.

Some concerns that people have about consuming news on a social media platform is the inaccuracy with 31% claiming they have concerns about the information being inaccurate and 11% claiming it's too biased or political and 10% claiming it to be of low quality (*News Use Across Social Media Platforms 2018 | Pew Research Center*, 2018). One study found

that the hours participants consumed political news was positively related to greater perceived accuracy of fake news. This suggests that exposure to news may not be related to susceptibility to fake news (Calvillo et al., 2021).

The overall internet penetration rate in South Africa is 54%, 31 million people, as of January 2019. This increase means that more people have access to new and alternative sources of news than the traditional print or radio media with 40% of the population (23 million people) using some form of social media (*These Are the Biggest Social Media and Chat Platforms in 2019*, 2019).

Facebook is the most used social media platform in South Africa with 53% of users and the second most used platform far behind with 18% of users is LinkedIn. These are followed by Instagram, Twitter, and Snapchat covering the remaining 16% (*These Are the Biggest Social Media and Chat Platforms in 2019*, 2019). Due to the popularity of Facebook not only in South Africa but globally, it has become an easy platform to use for the dissemination of fake news. For example, a news story shared on Facebook made a misleading claim that Cable News Network (CNN) was not one of the most-watched cable networks in 2018 by using selective TV rating data.

With the rise of social media use as a form of news consumption the decline of traditional sources such as printed media is evident. In South Africa, newspaper circulation has declined by 4.4% in the first quarter of 2018, 2.5% in the second quarter, and 4% in the third quarter. Some news outlets such as The Star and Pretoria News, both well-established daily newspaper providers, had positive results over the year. Many other newspaper providers and magazines have also shown negative figures over the last few quarters of 2018. This is due to the overall trend of news consumption moving towards online media as online penetration improves across the country (*Newspapers ABC Q3 2018*, 2018)

Along with the rise of social media and the decline in printed media, television has become less widely used as the main source of news in recent years. The use of online news was shown to have a direct impact on the use of traditional news platforms. One study found a positive correlation between television news consumption and reading online news (Cauwenberge et al., 2010).   Previous studies showed that online news is used to

supplement traditional news media (De Waal et al., 2005; Diddi & LaRose, 2006). This shows that traditional and online news platforms can be used complementary to each other rather than be replaced.

An additional disadvantage of online social networks is that the users from these platforms act as gatekeepers. Due to individual biases, it is difficult to assess the validity of the news items being propagated, and due to the volume of data being uploaded and shared this problem is exacerbated. This causes information on social media to reach a larger audience than traditional media and major news outlets (Allcott & Gentzkow, 2017). This increase in audience leads to misinformation being more likely to spreads and shared faster than authentic news (Vosoughi et al., 2018). A survey in 2016 found that stories containing misinformation were shared more than authentic news stories and that 75% of American adults were misled by headlines that were primarily misinformation (Silverman & Singer-Vine, 2016). One study found that retweets for misinformation was higher than authentic news due to higher novel news items' ability to attract more attention (Berger & Milkman, 2012).

Misinformation can more easily grab and hold the attention of readers because it generally is more easily consumable with less information and more intrigue. This adoption is magnified during extreme events such as natural disasters or unrest in a country read (Osatuyi & Hughes, 2018). In one study it was found that the diffusion of tweets reduces gradually when news stories novelty wears off; possibly due to the tendency of novel news to be more inspiring, attention-grabbing and therefore have higher sharing ability but less relevant as time passes from the original event (Itti & Baldi, 2009). People are also likely to read similar, if not the same, stories on other platforms reducing the novelty and virality of the story over time.

Different platforms are also geared towards different interactions and interests. Twitter is aimed to allow people to share their thoughts and ideas with an audience. Platforms such as Instagram and Facebook can be fuel more intimate interactions where people can keep up with family or friends through sharing thoughts and images, as well as join groups for easy community interaction. Social media platforms can promote directed or undirected relationships. As an example, a friendship on Facebook would be an undirected relationship

while the follow relationship on Twitter would be a directed relationship (Zareie & Sakellariou, 2021).

It can be difficult for readers to verify information veracity and therefore differentiate fake news from real news (Bordia et al., 2005). One study found that 87% of people who shared tweets containing fake information were ordinary users of the platform and not journalists, politicians, or celebrities. Along with this, it was also found that 43% of fake news stories posted on Twitter had a link to a news website that was not credible (Jang et al., 2018). It has also been found that if a topic is not of particular interest to the online media consumer or not relevant they have been shown to be reluctant to conduct a critical analysis of the news story (Bordia et al., 2005; Rapp, 2016). It was found that people do not believe misinformation due to an active choice of what to believe based on their preferences but rather due to a lack of reasoning and not (Pennycook & Rand, 2018).

Research has identified important features that assist in assessing information veracity and influence information diffusion on social media (Boyd et al., 2010; K. Lee et al., 2014). Information diffusion is a term that describes the way that a piece of information is spread from a person or a community to another network (Li et al., 2017). Information diffusion in online social networks is often measured by virality. Virality is defined as the "large-scale diffusion of online information that is also diffused among multiple networks" (Boichak et al., 2021; Han et al., 2020). A post is therefore viral when it spreads quickly and reaches a large audience on potentially different platforms.

Information diffusion research includes three feature types, namely user-based features, content-based features, and time-based features (Hoang & Mothe, 2018). User-based features relate directly to the behaviour and characteristics of users. Contend-based features relate to the contents of the text used in the message being propagated. Time-based features related to the time information are generated and posted. Information veracity research has more focus on proactive measures like detection and includes linguistic cues, and social network characteristics (Conroy et al., 2015).

The problem of lazy reasoning is further aggravated due to how information is disseminated over social media. Fake news can look similar to real news due to the way that online social media platforms are structured. When users navigate through platforms such as Twitter or

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Facebook different information from various sources flow together. A real news article may be followed by a satirical news article from *The Onion*. This mix of sources with varying levels of trustworthiness and the streamlined design of online social media platforms can confuse users. The differentiation from actual credible information sources becomes difficult for users to identify and adapt to (Kang et al., 2012; Tandoc et al., 2018).

Fake news articles may sway readers' beliefs and influence them just as much as real news. Therefore, social media platforms must play an active role in making users aware of potentially harmful or misleading content to encourage critical thinking of information that is presented as factual.

2.6.2. Emotional influences

Emotional connections to a topic could factor into the dissemination of fake news (Rubenking, 2019). Fear of a situation that a person has personal experience with or connected to can steep the flames and encourage the spread of misinformation further than a topic that is distant and unclear to the consumer.

Findings by Rubenking (2019) found greater sharing intent of online videos if the individuals who viewed the content felt emotions such as anger, sadness, positivity, and excitement. It was also found that emotions such as disgust and negativity led to less sharing intent. Other findings further showed that news that had negative sentiments was retweeted more than tweets with neutral or positive sentiments (King & Wang, 2021). This contradicts findings in a different study that found that negative tweets were spread less broadly than non-negative tweets; however, users were more likely to respond to negative tweets than positive ones (Chen et al., 2020). King and Wang (2021) also found that tweets with lower lexical density had more retweets due to the use of shorter formats, words, and the inclusion of emojis.

Motivated reasoning can also play a role in motivating people to share information. If an individual feels a connection towards a news story research in neuroscience and psychology has shown that people tend to accept ideas that are similar and fall in line with their previous experiences, viewpoints, and imagination (Newberg & Waldman, 2006). Critical thinking is a skill that can be developed that enables the process of active and skillful reasoning. This process involves conceptualisation, analysation, and evaluation (Paul & Elder, 2019).

Critical thinking can be promoted by fact-checking flags to encourage readers to evaluate the veracity of information. Critical thinking also enables people to process information more accurately and systematically leading them to depend less on heuristics for decision making and judgments (Kahneman, 2011). Research found that people with higher levels of critical thinking abilities are better able to distinguish fake news from real news (Pennycook & Rand, 2018).

2.6.3. Social responsibility and altruism

Certain cultures promote and have more emphasis on society as a collective. For example, Asian countries (particularly South East Asia) tend to be more focused on the goals and success of the group than the individual (Krassner et al., 2017). This is contrasted by the Western countries that put more emphasis on the individual. This could be explained by the collective approach and explains respondents' tendency to share fake news in the hopes of helping others. These findings show that altruistic people enjoy sharing information in an attempt to help others. This can however lead to the increased sharing of misinformation and fake news if attention isn't paid to the legitimacy of the information being shared.

Altruism has been shown to be a strong factor to influence fake news sharing behaviour. Altruism is the principle and moral practice of concern for the happiness of other human beings or other animals, resulting in a quality of life both material and spiritual (Ma & Chan, 2014). Altruism has been shown to be a trait related to culture, where one paper found that in the Nigerian context the average Nigerian showed the altruism characteristic (Apuke & Omar, 2020)

One study found a positive association between instantaneous sharing of news for creating awareness and religiosity indicating that users on social media instantaneously share news, in this case, related to religion, to spread awareness to other members of the same community (Talwar et al., 2020). In a different study supporting results were found that people more freely shared opinions in social groups where they knew the community (Schweidel & Moe, 2014). People with high participation and engagement with social media and its community might perceive their relationships with online community members as intimate, leading to a higher level of group identification and categorisation. This supports

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that people have a higher intention to share due to social responsibility within a group and if the news aligns with their views and beliefs.

2.6.4. Conformity

The role of conformity in online behaviour has been documented by previous authors. Support for groupthink mentality in online communities has been found (Breitsohl et al., 2015). One study found that consumers' preferences can shift based on others' recommendations in an online setting (Zhu & Huberman, 2014). Users who have been exposed to misinformation may be reluctant to see other views and corrections since their existing belief about something is being challenged (Zareie & Sakellariou, 2021).

People tend to copy popular or widespread behaviour or the behaviour of those around them (Akerlof, 1980; Asch, 1956; Bernheim, 1994; Jones, 1984). This phenomenon is called conformity and shows similar traits to herd mentality (Chen et al., 2017). Behaviour related to spreading false information will increase if it is encouraged or seen as an unavoidable and accepted part of society. Groups on social media platforms can often have polarising views and promote segregation of groups based on the values and beliefs of the community (Flaxman et al., 2013; Zhao et al., 2018). Participants who engaged frequently in the community tended to perceive the "hypothetical others" as members outside of the group. Possibly because they viewed them as socially distant they reported higher evaluations of COVID-19 fake news effects (Tsay-Vogel, 2015).

Social comparison has been found to influence intention to share fake news (Celliers & Hattingh, 2020). One study found no support for the hypothesis of a positive association between social comparison and authenticating news before sharing possibly due to users not seeing authentication as a way to promote or maintain self-image (Talwar et al., 2020). Social comparison theory is centred around the belief that individuals are driven to accurately make self-evaluations (Festinger, 1954). This may indicate that other mediating variables play a role in the complex behaviour of online sharing. In the same study, findings found support for the hypothesis that social comparison is negatively associated with sharing fake news online. This could be due to the damaging effect that sharing fake news can have on a user's image. A positive image is associated with social comparison and the risk of damaging that image is an incentive to avoid sharing fake news.

People are less likely to share a fake news story if they see others commenting negatively on it or being critical of the information. Evidence also supports that people will have a more negative attitude towards a fake news story that has critical comments than supportive and will also be more likely to leave critical comments on such stories. Public shaming of people who post fake news stories can deter further spreading of fake news for people who support the view but do not wish to endure scrutiny. People would therefore be more cautious of sharing fake news stories to avoid potential shaming and thus threaten their self-concept.

Results from a study by (Colliander, 2019) showed the hypothesis that people are less likely to share fake news after exposure to fake news stories that had user comments that identified it as fake news than user comments that supported the content. Therefore, people who comment on posts or articles are likely to echo the thoughts and views of other commenters. Only partial support however was found for the hypothesis that people are less likely to share fake news stories with supportive user comments after exposure to a fake news story where the poster of the constant was shamed by users for sharing the content. These findings indicate that users can curb the spread of fake news stories if external input is given that challenges their views or opinions. The argument is made that this could be due to people not spending much cognitive effort to process online content rather than conformity or a threat to their self-concept ('waking-up' effect) (Weinreich et al., 2008). Some people may therefore only be motivated to spend more time questioning the validity and accuracy of online content when it is brought into question by other users in the comments. Other stimuli could potentially have the same effect as comments, to draw the consumer's attention to the fact that a news story is / potentially fake such as flagging content that could potentially contain misinformation (Gaozhao, 2021). The concept of conformity will be further explored in this study to determine what role it has in intention to share if any.

2.6.5. Biases

Social attractiveness has been found to contribute to biases people have when consuming news content. It has been shown to impact the adoption of misinformation. Social attractiveness includes characteristics such as dependability, friendliness, and trustworthiness (Bayard, 1995; Podberesky et al., 1990). People are shown to rate their own country's accent higher on social attractiveness, leading to people having higher trust in people from their community. This however is not always the case. One study found that

New Zealanders rated other forms of English that are considered more valued as more socially attractive than their own (Bayard, 1995; Huygens & Vaughan, 1983). Along with accents power also plays a role in social attractiveness. The less gap there is between the speaker and standard speech (NA and RP) the more powerful the listener finds the speaker (Anisfeld et al., 1962). The combination of a higher accent and power was found to influence social attractiveness. Accents alone did not influential enough on their own, but rather provides additional information about the speaker and their power and social attractiveness (Vornik et al., 2003). The higher the social attractiveness and therefore the more easily subjects are misled.

Bias can also be found in groups where people share certain beliefs or views. Houston's (2011) study on perceived bias found that participants perceived presidential candidates from the other party to be depicted more negatively than the candidate that they supported. This supports the hypothesis that greater perception of bias in media would be found for news stories that had partisan user comments. This also supports the theory that user comments about online content influences the perceptions surrounding it.

Biases can also come from the incorrect recollection of memories about events that took place. Incorrect recollection can play a part in altering peoples' beliefs and views. In one study a group of participants were given questions about an event they experienced. Some participants received questions with accurate information, while others received questions with inaccurate information (Stark et al., 2010). The participants who received misinformation were more likely to recall incorrectly based on the incorrect facts given, more than those who received accurate information. False memories can feel as vivid as real memories (Laney & Loftus, 2008; Stark et al., 2010). One study found that when individuals are exposed to false information after an event the memory of the event may be altered and may also change an individual's attitude about the event (Benedict et al., 2019). False memories can affect details of an event or context that the event that took place. Some people may remember details incorrectly or remember something happening to them that they only heard about or imagined.

Accounts of an event can negatively be impacted by post-event information (PEI). PEI is the processing of information that is received following an event that can potentially alter the memory of the actual event. In one study it was found that subjects were influenced by

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PEI and the longer the time between the event and the PEI the more likely the subject was to add the misinformation into their final report (Vornik et al., 2003). This could be that the passing of time weakens people's memories of events without them knowing or fully aware of the fact (Loftus et al 1978). The person relaying the PEI also has an effect on the incorporation of misinformation. If the subject believed the source to be reliable then they would be more inclined to believe the misinformation (Dodd & Bradshaw, 1980). In the experiment conducted by Dodd and Bradshaw subjects adopted information presented by an anonymous source but not when the source was presented as unreliable. This relates back to how trust in the source has a strong impact on how fake news can spread online and amongst certain communities.

The literature discussed above shows that biases can come in many forms and have varying effects on fake news dissemination. All factors need to be considered to enable a greater understanding of what content users are willing to believe and share as a result.

2.6.6. Trust

Trust plays an intricate role in everyone's lives and also plays a part in what we choose to believe. Trust in recent years has decreased between the public and government, consumers and corporations (Einstein & Glick, 2015). The decrease in trust could contribute to the increase in using alternative sources for a more perceived level of reliability. People may tend to share information from other, less reliable sources than sources that are more reliable but come from the people who they have prejudice towards or where mistrust was fostered over the years. People may believe social media such as Facebook more than their newspaper and other professional news providers due to past negative experiences that lowered their trust in these sources.

Fake news has the ability to dominate public opinions, decisions, and interests through social media. Fake news can impact the trust that people have towards news in general and how they interact with real news. People are exposed to more information than ever with the average person having 5 social media accounts and actively using 3 of them at any given time (GlobalWebIndex, 2016).

Trust has also not been linked to an individual personality trait (Schlenker et al., 1973; Wieselquist et al., 1999). According to one study trust is shown to be impacted by situational variables and is not a personality trait that can be seen as constant, static, and unchanging (Schlenker et al., 1973; Wieselquist et al., 1999).

A person's trust can undergo constant change and can fluctuate depending on the situation. According to a study by Stewart (2003), there are two ways that trust can be transferred, namely communication and the cognitive process. The communication transfer takes place when the trustor is influenced by the trusted source during their direct communication. Cognitive trust transfer occurs when the trustor puts trust in the target based on the association between the trusted source and the target. Like a friend recommending something (Liu et al., 2018).

A study by Talwar et al. (2019) found a negative association between online trust and authenticating news before sharing. This implies that social media users with high trust in content are likely to share it with others. It was also found that there was a positive association between online trust and sharing fake news online, suggesting that users with high online trust are not hesitant to share fake news.

One study compared professional fact-checkers and crowdsourcing to determine the difference in influencing people's opinions. An insignificant difference was found between the treatments of the two groups by the survey respondents of the experiment. This contradicts previous findings that found that crowds have more influence in changing people's opinions than experts (Paek et al., 2011; Sundar et al., 2009).

A form of intervention, known as flagging, can be added to online content to suggest the evaluation of news claims (Lutzke et al., 2019). Flagging fake news in an attempt to direct readers' attention to the validity and automaticity of the news and provide additional information that is normally not clear on social media. Fact-checking flags are likely to influence users of social media on their evaluation of information and sharing thereof by promoting critical thinking (Gaozhao, 2021). Flagging has been shown to influence users' perceptions about the validity of news items. In one study it was found that flags' suggestions were likely to be accepted as true instead of considering the accuracy of the news message. Accurate and inaccurate flags were both found to reduce the unsureness about determining

the authenticity of news and are equally persuasive (Gaozhao, 2021). Studies found that flags disputing the content of a post may lower users' willingness to accept information if it was flagged as fake news, regardless of the validity of the flag or the source of the flag (Berinsky, 2017; Gaozhao, 2021). People in one study correctly identified news articles correctly more often when accurate flags were provided. People who were provided with inaccurate flags made fewer accurate identifications of news items (Gaozhao, 2021). These findings show that people's attention is drawn to the article and critical thinking is triggered by the flags, but critical thinking is not triggered to assess the validity of the flag itself. The persuasiveness of both inaccurate and accurate flags could be attributed to the straightforwardness and directness of the cue provided for people to draw conclusions from (Gaozhao, 2021). People in the treatment groups were found to mostly ignore the sources of the flags and just accepted the assessments provided. This is in contrast to an earlier study that suggests that the change in perception is due to scepticism and not due to fact-checking flags (Lewandowsky et al., 2013). This temporary state of scepticism makes consumers sceptical about the authenticity of information and increases their critical thinking.

There are a few practical-based social theories to identify fake news namely the creator-based approach, new content-based approach, and social context-based approach (Zhang & Ghorbani, 2020). The creator-based approach is based on detecting fake news by focussing on the legitimacy and credibility of the news source (Zhang & Ghorbani, 2020). Users can check if the web domain is popular or well-known. If not, this might be a hint that the site is not credible. The lexical property of the URL can also be used as an indicator. Abnormal domain names (e.g., ".com.co") or suspicious tokens should be noted (Zhang et al., 2017). Users can also view the "About Us" page of a news provider for more information about the site or platform and creators as an indicator of credibility.

The news content-based approach is about not looking at an article on a surface level but more in-depth (Zhang & Ghorbani, 2020). The first step that a user can take is to read the content of the article and not stop at the headline; headlines of much online news content are written to draw the reader's attention. This can be done with attention-grabbing words or wording that can often be misleading without the full context and in some cases are not related to the content entirely. Users can check if the article provides any supporting

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resources. A well-written and reliable article should include facts, statistics or data, supporting documents, expert knowledge, references, and link. If these are provided time should be taken to go over all the facts given to determine the validity of the article. If no such facts are given, then the article could be fake news.

The social context-based approach is based on checking the date of the news and the facts and resources provided, checking if other credible online news sites report on the same or similar story with supporting, supplementary or similar information given (Zhang & Ghorbani, 2020).

Social media users are also able to share content that does not include sources, fact-checking or editorial judgment of other news (Allcott & Gentzkow, 2017). This leads to much of the content shared on social media to be unprofessional and spontaneous, often based more on the opinions of the poster than facts (Robinson & DeShano, 2011). This is in stark contrast to traditional news media that focuses on professionalism in journalism, which holds their journalists to a higher standard and higher accountability for the content that they produce generally within journalistic guidelines.

2.6.7. Third-person effect and Third-person perception

Research has shown that people tend to see themselves as less affected by media than those around them. This discrepancy, known as the third-person effect (TPE), is defined as the perceptual gap where an individual perceives that others are influenced and affected more easily by the messages of media than themselves (Davison, 1983). It also implies that individuals believe that social media messages have a greater impact on attitude change in others than themselves.

Social distance factors also impact TPE as individuals believe that others that are further away from their social circle are affected more by negative information from social media. This social distance can be geographical distance, socio-demographical or psychological attributes. Individuals will act in a way to protect others from undesirable messages and the effects therefore if due to social distance differences (McLeod et al., 2001). It is based on the self-other difference that is perceived by individuals when trying to explain the effects

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that information in media can have. People who also perceive themselves to be more knowledgeable than others tend to believe that they will not believe misinformation as easily as others (Salwen & Driscoll, 1997). One study that applied TPE to social media confirmed that individuals believed fake news affected members outside of the group more than people within the group (Jang & Kim, 2018). This proves the existence of the social distance corollary. In the same study, it was also confirmed that the social undesirability of content is a positive predictor of TPP. Due to the findings that TPP has an impact on fake news sharing behaviour this theory will be included in this study to explore the association further between explanatory and dependent variables.

There are two corollaries that this theory can be understood through namely the perceptual component and the behavioural component. This perceptual component, known as the Third-Person Perception (TPP), describes the skewed perception of the influence of negative and socially undesirable social media messages affect others more than themselves (Sun et al., 2008). One study found that individuals judged the impact that media and violence on television to be greater on others than themselves with 84.7% of participants perceiving mass media to have a greater impact on others (Rojas et al., 1996).

In recent years scholars have become more interested in TPE and the use of TPE has been extended beyond its original application. More recent research has extended its application towards behaviour aimed at corrective actions. These actions included coping with the negative impact of socially undesirable messages or harmful (Lim, 2017) and counteracting the negative and harmful outcomes of online messages (Barnidge & Rojas, 2014). TPE initially focused on actions in media such as censorship of messages in media. Understanding TPE will allow scholars of social media to better understand how people behave on online social media platforms. One study, for example, found that TPP had an impact on behaviour and attitude towards messages on social media.

There is also a behavioural component that combines cognitive, attitudinal, and behavioural consequences due to the perceptual gap created (Chung et al., 2015). Studies have hypothesized that TPP can predict the attitudes and intention towards censorship to protect others from a potentially harmful message (Xu & Gonzenbach, 2008)

Individuals' social presence, gained through active community interaction (Biocca et al., 2003; Lim et al., 2015) and a supportive network of community users, can empower their self-efficiency. This can be accomplished through normative approval and social proof to reinforce efficacy (Hu et al., 2018). This is shown to lead to individuals underestimating their susceptibility to socially undesirable content to support and maintain their efficacy beliefs (Scharrer & Leone, 2008).

In previous studies, it was shown that individuals elevate their self-image by showing that they are less susceptible to negative messages but more receptive to socially desirable messages in media than others (Cohen et al., 1988). It is also shown that users relied on optimistic bias through self-other asymmetry to maintain their efficacy beliefs (Yang et al., 2020). These biases serve to boost individuals' self-image and ego.

2.6.8. Personality

The final factor to influence intention to share that will be examined in this study is personality. The five-factor model of personality will be used as a guideline in this study (McCrae & John, 1992). The five-factor model of personality traits are extraversion, agreeableness, openness, conscientiousness, and neuroticism. It is important to note that personality is complex, and it can be difficult to classify all aspects accurately and under specific categories. People's personalities are on a spectrum and can change over time. It is also important to keep in mind external factors such as environment and upbringing. This concept, known as nature versus nurture, describes the impact that an individual's upbringing can have on their nature and has been seen to mainly affect people's level of extraversion. People who grew up around or accustomed to introverted settings may avoid extraverted situations due to lack of previous exposure rather than them inherently disliking those situations. These external factors may not only impact the level of extraversion but also the other personality traits. Each one of the individual factors will be discussed briefly.

Openness can be characterised by wide interests, high imagination, artistic nature, and curiosity. Individuals who scored high on openness were described as having a high degree of intellectual capacity, enjoy aesthetic impressions, had wide interests and unconventional thought (Rammstedt & Danner, 2017; Sindermann et al., 2020). Open-mindedness is the

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receptiveness of various and new ideas and relies on evidence and consideration of alternative explanations to form and influence beliefs. Individuals who scored lower were described as favouring conservative values and repressed anxiety (McCrae & John, 1992). One study found that the openness personality factor positively correlated with the number of news sources consumed (Calvillo et al., 2021). In a different study, it was found that open-minded thinking was negatively related to the tendency to believe fake news (Bronstein et al., 2019).

Conscientiousness can be characterised by impulse control, high levels of thoughtfulness, and being goal-driven (Jang et al., 1996). Individuals who score high in conscientiousness tend to be more organized, detail-oriented, and mindful of how their behaviour impacts others. Individuals who score low in conscientiousness dislike structure and routine, tend to be less organised, struggles with completing necessary or important tasks, and procrastinate. One study found lower perceived accuracy of fake news related to the conscientiousness trait (Calvillo et al., 2021).

Neuroticism can be characterised by emotional instability, mood swings, and sadness. Individuals who score high in this trait tend to have higher anxiety, are irritable, and prone to mood swings and sadness (Jang et al., 1996). Individuals who score low in this trait tend to be more stable, deal well with stress, are more relaxed, and are seldom worried or sad.

Extraversion can be characterised by high levels of assertiveness, excitability, sociability, and talkativeness (Jang et al., 1996; McCrae & John, 1992). Individuals who score high in extraversion tend to be more outgoing and energised in social situations. They enjoy meeting new people and have a large social circle. Individuals who score low are more introverted, tend to be more reserved and feel drained from social interaction and events. These people find starting conversations difficult, dislike being the centre of attention, and think about what they want to say before they speak (Jang et al., 1996). People are not static by nature and therefore as they mature their preference can change to become more or less extraverted over time.

The amount of time an individual spends on social media can also vary depending on their level of extroversion. One study found that introverts preferred online social interactions to maintain their online social network as compensation for not having an adequate social

network in their general lives (Liu & LaRose, 2008; McKenna & Bargh, 2000). There is also evidence that extroverts may benefit more from social media due to their sociability that can adapt to an online social network (Kraut et al., 2002). Therefore introverts, as well as extroverts, may have strong online social networks, extroverts' social networks extend well to their online lives.

Agreeableness is characterised by trust, altruism, affection, and kindness. Individuals who score high in agreeableness tend to care more and feel more empathy for others, enjoy helping others, and are cooperative. Individuals who score lower tend to have little interest in others, are more competitive, and don't take other feelings into account.

The personality trait of openness specifically may be negatively associated with the tendency to believe fake news. This is however contradicted with a meta-analysis on conspiracy beliefs where it was found that neither openness nor any of the other Big Five traits were significantly associated with conspiracy beliefs (Goreis & Voracek, 2019). In a different study, lower perceived accuracy of false news was related to the agreeableness, conscientiousness, and open-mindedness personality factors (Calvillo et al., 2021). This shows that certain personality traits could relate to the susceptibility of readers to fake news.

There is thus a need to clearly determine what personality factors, if any, can truly be associated with believing and/or disbelieving fake news and by extension associated with intention to share. Along with this, there is a need to determine the association between Big Five traits and the misclassification of fake news and real news.

2.7.   Conclusion

In conclusion, the spread of fake news is more complicated than what can be perceived on a surface level. Many different factors contribute to the intentional or unintentional spread of fake news on social media. In this chapter, a definition of Fake news was provided as well as possible factors that could contribute to the spread thereof. Factors that contribute to the spread of fake news were discussed as well as the different types of news content.

Factors that were discussed included trust, social media platforms, emotional influences, social responsibility, bias, TPP, and the five different factors of the Big-Five personality

model. The platform used as well as the type of content that users consume create a broad spectrum of potential users and possibilities for the spread of fake news.

All the factors discussed will be used to complete the objective of the study and contribute to the proposed framework. The next chapter will provide information about the chosen theory and the framework that will be used in the study and expanded upon. The proposed hypotheses are also given based on the literature discussed in the previous sections.

CHAPTER 3 : MODEL DEVELOPMENT

3.1. Introduction

In the previous chapter the theoretical background for the study was discussed. This chapter will focus on models underpinning the study, the model developed from those frameworks, and hypothesis statements.

3.2. Theories and Models Underpinning the Study

A conceptual framework was created based on existing work surrounding fake news, online social media, and communication to hypothesise the relationship between the selected factors. These factors are trust, bias, TPP, social comparison, conformity, bias, platforms, and personality with intention to share fake news online. Based on findings of previous studies surrounding fake news and sharing behaviour on social media platforms there is a need for supplemental data and supporting research.

The framework that will be used for this research and expanded on is the Users and Gratification (U&G) framework (fig. 1). The users and gratification (U&G) framework is an audience-centred theory that attempts to explain what people do with media and what needs are fulfilled by this behaviour (Lee & Ma, 2012; "Uses and Gratification Theory," 2016). This framework is considered a leading framework for determining the motivations behind using media in communication and in more recent years specifically focussed on social media (Lee & Ma, 2012). This theory focuses on why and how people use media and can be used for many mediums from television, newspaper, and social media (Quan-Haase & Young, 2014). One example application of this framework was in a study by Pittman and Reich (2016) to determine the effect of loneliness on intention to share news.
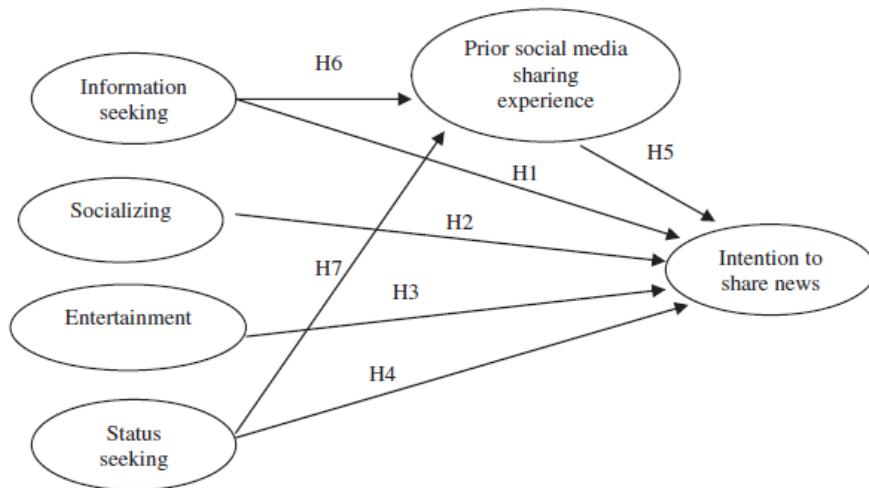
Figure 1: Users and Gratification Framework (Lee & Ma, 2012)

The Users and gratification framework focus heavily on why people use media and sharing behaviour. Moderating variables content type and age will be added to the U&G framework to determine their effect on the independent variables (trust, platform, social responsibility, personality, bias, and emotional drivers) and how it, in turn, affects the dependent variable (intention to share).

3.3. Research model

3.3.1. Introduction

By using the theory as outlined in the previous section a model has been created to explain fake news sharing behaviour and uses different factors discussed in chapter 2 to predict students' intention to share fake news. The relationship between the independent variables, moderators, and dependent variables from a conceptual framework is used in combination with the U&G framework to create a model for explaining behaviour that leads to sharing fake news on social media. Figure 2 shows the proposed model. The moderators are content type and age group. The predicted relationship between the independent variables (trust, platform, social responsibility, personality, bias, and emotional drivers) and the dependent variable (intention to share) will be given in the hypotheses in section 3.4.
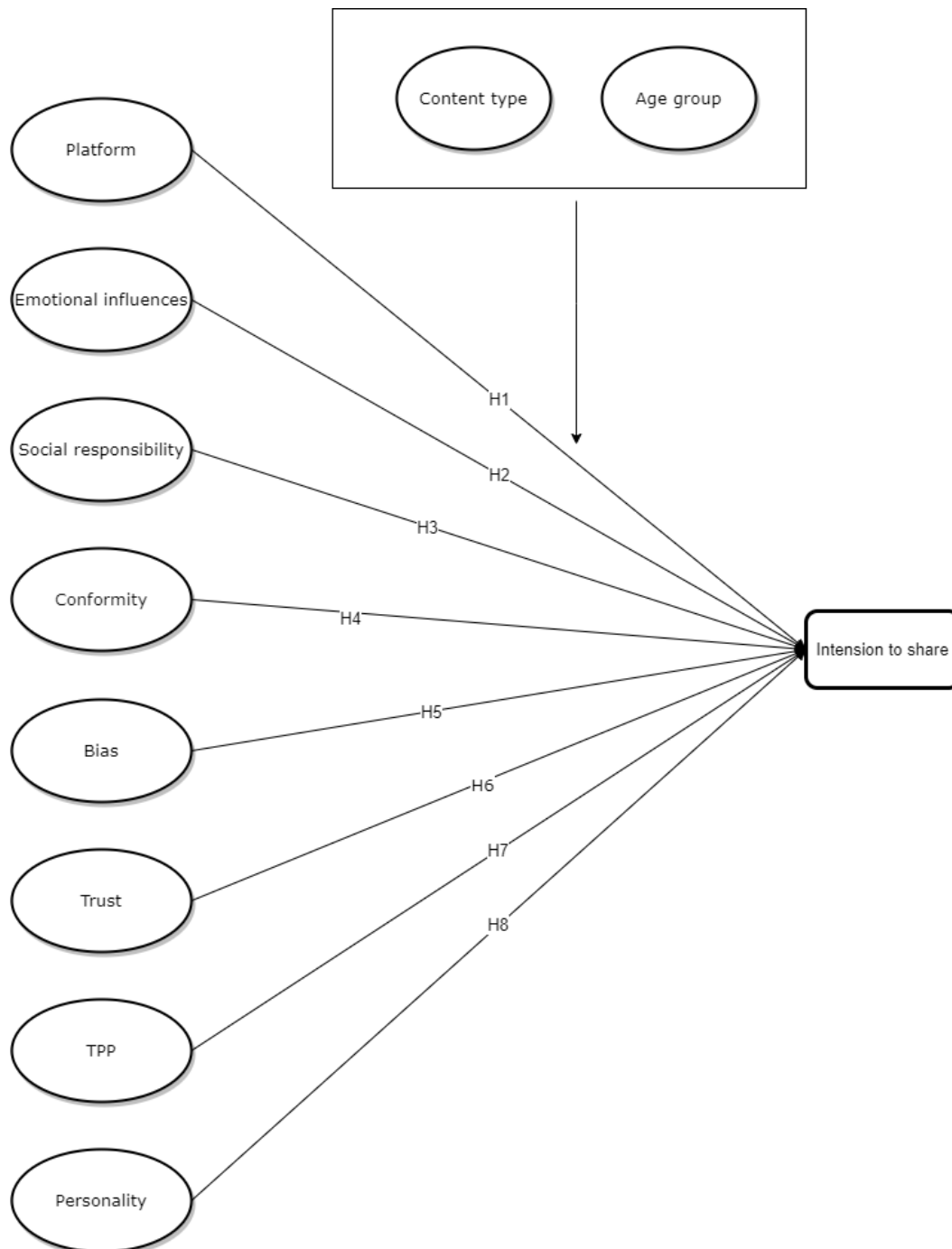
Figure 2: Proposed model

3.4. Hypotheses

3.4.1. Platform

Online social media platforms all provide users with different experiences and have different ways to disseminate information on their platforms. Many platforms encourage user interaction that could potentially lead to the increased spread of misinformation by the users. For example, Facebook encourages interaction between friends and groups that an

individual follows providing a feeling of more intimate interactions. The content on these platforms can be anything from videos to posts containing only text. Comparatively a platform such as Instagram and TikTok can promote different user engagement through sharing and posting content that based on similar content that the user interacts with. The focus is placed less on relationships between groups, friends, and family than on Facebook. The differences in platforms engagement can therefore potentially influence intention to share fake news.

For many people, these platforms are their main source of news and information and can be leveraged to spread fake news. Twitter and Facebook have been the focus of many researchers due to the large userbase and even larger impact it has on the spread of fake news. The main online social media platform in South Africa is Facebook with 53% of the overall OSN users (*These Are the Biggest Social Media and Chat Platforms in 2019*, 2019) and is, therefore, similar to many other countries, used to spread misinformation that can be cultural or political content. Due to the popularity of Facebook and Twitter, these platforms were widely used to spread fake news during the 2016 US presidential election (Silverman & Singer-Vine, 2016).

One study found that people are more likely to retweet fake news compared to authentic news (King & Wang, 2021). This is also supported by two other studies (Vosoughi et al., 2018). The extent of the influence that platforms have on intention to share needs to further be investigated. This led to the first hypothesis.

H1: There is an association between platform type and intention to share.

3.4.2.   Emotional influence

Emotional influence and drivers as a predictor of a persons' intention to share have been found to affect sharing behaviour through the use of positive and negative sentiments (Osatuyi & Hughes, 2018; Stieglitz & Dang-Xuan, 2013). Creators of misinformation were found to often use negative sentiments in their information to attract sharing (Osatuyi & Hughes, 2018). In a different study, it was found the use of negative and positive sentiments are shared equally (Stieglitz & Dang-Xuan, 2013). These results show that emotions can be leveraged to pull in more readers.

Online videos are also found to be shared more if it elicits emotions from the viewer such as anger, sadness, and excitement while videos that elicit disgust and negativity were shared less (Rubenking, 2019). There are however contradicting findings with regards to what effects negative and positive messages have towards intention to share. One study found that Twitter messages that were negative, shorter, and used emojis were shared more (King & Wang, 2021) while a different study found that negative tweets were shared less but had more user interaction (Chen et al., 2020).

The emotional influences that news can have on intention to share fake news led to the second hypothesis:

H2: There is an association between emotionally charged content and intention to share.

3.4.3.   Social responsibility and altruism

Social responsibility can play a large role in an individual's motives to share news. If a news article contains information that the individual perceives as important, resonates with them morally, or is about something that could concern people they know they may feel compelled to share it with others in their community or social circle (Talwar et al., 2020; Schweidel & Moe, 2014).

Altruism has also been found to largely influence people's motives to share fake news in recent studies. One study found altruism to be a significant motivator among their Nigerian sample group (Apuke & Omar, 2021) and similarly a different study found that it was the strongest predictor of fake news sharing that related to COVID-19 (Apuke & Omar, 2021).

The choice to contribute on social media platforms has also been shown to be influenced by altruistic motives (Plume & Slade, 2018). A different study also showed the influence of altruism on the dissemination of information on social media (Ma & Chan, 2014). Altruism is commonly defined by the concern for the well-being of others while social responsibility is defined as the responsibility to act in the best interest of society as a whole. For this study, altruism will be grouped under the term of social responsibility due to their

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similarities. Social obligations that a person can have surrounding the news and the role of altruism led to the third hypothesis:

H3: There is a positive association between social responsibility and intention to share.

3.4.4. Conformity

People have been found to copy the behaviour of those around them (Akerlof, 1980; Asch, 1956; Bernheim, 1994; Jones, 1984) and avoid behaviour that draws negative attention such as posting potentially fake news or comments that support a view that is seen as fake news.

Results from one study show that people are more likely to share information that was shared by a friend on social media (Fu et al., 2017). Similarly, a study by (Chang et al., 2016) found that false information dissemination was positively predicted by socialisation gratification.

In a study by Winter et al., (2015) evidence was found that supported the social influence of other users' comments when judging online news stories. A different study found that users conformed to the opinions of the group irrespective of the anonymity level that the user thought they had (Tsikerdekis, 2013). People's actions online can be partially influenced by others and motivated by their desire to bolster their self-concept. People likely conform to the beliefs and views of others around them, even if they do not agree, to protect or bolster their self-esteem. This is a sentiment that is echoed by (Cialdini & Goldstein, 2004). Other research has found that conformity affects online action. This is supported by a study where it was found that commenting on online discussion forums was significantly affected by the need for connection (Hamilton et al., 2017). This led to the fourth hypothesis:

H4: There is a positive association between conformity and intention to share.

3.4.5. Bias

People's motivation to share fake news items may be driven by their individual biases about a certain topic or belief. People may be biased towards groups that have similar beliefs or views as themselves (Houston et al., 2011).

Social attractiveness has been found to contribute to biases people have when consuming news content. The combination of a higher accent and power was found to influence social attractiveness (Vornik et al., 2003). Biases can also come from the incorrect recollection of memories due to the passage of time or PEI that was presented to the individual after the event took place (Vornik et al., 2003). These findings from previous literature led to the fifth hypothesis:

H5: There is a positive association between internal bias and intention to share.

3.4.6. Trust

Trust as a potential motivator for sharing misinformation has been studied in many different aspects. Multiple factors can play a role in the trust that people have towards news. These can include the platform the news is consumed on, sources given, references, and the person relaying the news. In one study participants showed higher levels of trust in posts that contained hyperlinks to scientific articles and other sources than posts that contained either no hyperlinks or hyperlinks to fake news and demonstrates peoples higher trust in what is perceived to be reliable and reputable sources even amongst growing concerns about the impact of sharing fake news via social media (Verma et al., 2017). This indicates that the additional references and sources provided have an impact on the person's intention to share news.

One study found that participants' trust was higher for posts that contained hyperlinks to scientific articles, hidden URLs, and mainstream media than posts that had no hyperlinks o had hyperlinks that led to fake news (Verma et al., 2017). This showed that despite concerns about the effects of sharing fake news on social media platforms participants still trusted more reputable sources (Verma et al., 2017)

Many people still find traditional news sources, such as television, radio, and printed newspapers to be the most trustworthy sources of news (Union (EBU), 2021). Younger

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respondents, between the ages 15 and 24, tended to trust news from online sources more indicating that age also plays a role in trust. Respondents with higher educational qualifications had more trust in different media formats compared to respondents with lower educational qualifications (Lima Quintanilha et al., 2019). This result is supported by a study that found the credibility of the sources was the most important to most users, controlled the spread of rumours, and reduced anxiety of the community (Oh et al., 2010). In a different study, it was also found information that does not have notable sources is the information that is propagated the most (Oh et al., 2013).

User's trust can largely depend on how credible they find the message, source, or platform. These categories are found in research that focuses on trust and credibility in mass media. They are however still relevant and can be applied in the digital era (Metzger et al., 2003). These categories can overlap when it comes to social news media. Message credibility concerns the trust in the information. Source credibility is the trust in the provider of the information. Finally, media credibility (also referred to as medium or channel credibility) is trust in the medium that relays the information. Each one of these provides different credibility that the reader can use to determine if it is fake news.

It is worth noting that there is no consensus currently in the research (to date) about the definition of trust or credibility in news media with no agreed-upon or standard way to measure it.

Based on previous findings there should therefore be a positive association between a person's trust towards the source sharing the information and their intention to share fake news. This leads to the sixth hypothesis:

H6: There is a positive association between trust and intention to share.

3.4.7. Third-person effect and Third-person perception

Third-Person Perception (TPP), describes the skewed perception of the influence of media on the individual versus others around them (Sun et al., 2008). Research has shown that people are shown to see themselves as less affected by media than those around them. This discrepancy, known as the third-person effect (TPE), is defined as the perceptual gap

where an individual perceives that others are influenced more easily by the messages of media than they are.

In one study it was found that individuals thought others were more susceptible to the potentially harmful fake news than themselves (Jang & Kim, 2018). The study focussed on two groups: Republican and Democratic American voters. Republican voters believed that Democratic voters were more influenced by fake news than fellow Republican voters and vice versa. In a different study, it was found that individuals who perceived their knowledge about COVID-19 to be higher than it truly was had a larger perceptual gap between their susceptibility to fake news than others (Yang & Tian, 2021). This is consistent with previous findings on the positive effects of knowledge over TPP (Salwen & Driscoll, 1997).

This supports the TPE that people think they are less influenced by fake news and false attempts at persuasion. People with higher TPP should therefore have a higher likelihood to share news they believe to be true. There should therefore be a positive association between a person's TPP and their intention to share fake news. This led to the seventh hypothesis:

H7: There is a positive association between TPP and intention to share.

3.4.8. Personality

The correlation of personality traits of the big five personality model has been shown to be able to predict certain behaviours and factors of an individual such as affection and career achievement and the potential impact it has on a person's willingness to share fake news has been explored in previous research.

In one study it was found that there is a relationship (in moderate effect) between engagement and the intention of sharing fake news on the extraversion personality type (Ozer & Benet-Martínez, 2006). It was also found that openness, consciousness, agreeableness, and neuroticism did not have an effect (Gumelar et al., 2018). Environmental concerns have been related to Characteristics of agreeableness and conscientiousness (Hirsh, 2010). People who scored higher on extraversion were more likely to share fake news.

To further the understanding of how personality traits correlate with the intention to share fake news can help psychologists and designers to understand user behaviour. This will enable them to assist with behavioural changes and implement better design and filtering to enable users to make better decisions when sharing news online. This leads to the final hypothesis:

H8: There is an association between personality traits and intention to share.

3.5. Summary

The increase in popularity of online social media that led to the increased spread and impact of fake news resulted in a need to determine the different motivations individuals have to share news content online. These different factors have been explored and used to develop hypotheses statements and a model. One factor that was identified is the trust that users have regarding different aspects of news articles. Trust can be directed towards the platform, author of the paper, the sources provided, and so on.

The platform used can impact the willingness of users to share fake news either through how information is presented, the ease of sharing, and the community that the user is a part of.

People may also have biases regarding a news topic and could be more inclined to share fake news if it resonated with them emotionally and in alignment with their views and experience.

Social responsibility and altruism play a large part in modern society as the focus shifts towards the impact that an individual has on the world or community as a whole. This drive can cause people with intentions to help or protect others from harm to unintentionally be led to share news content that is misleading and potentially harmful.

Certain personality traits can predict if users are more likely to share information online. People with the Openness trait have been to be more likely to share false news stories. There have not been many studies that agree on what personality traits could affect intention to share if any.

The third-person effect has shown the perceptual gap between how people view their susceptibility to fake news and that of others. This gap leads them to think that they will not fall victim to fake news like others and therefore be more inclined to share fake news stories. In the next chapter the research design, research strategies, sampling, and data collection method used for this study will be discussed.

CHAPTER 4 : METHODOLOGY

4.1. Introduction

To address the current gap in the literature regarding factors that contribute to the sharing of fake news among students, research needs to be done to collect data from the relevant sample groups.

In this chapter, the research philosophies that will be used in this research will be explained. The research strategy and research instruments that are available and that will be used will be explored. The data collection plan will be provided to explain how the data gathering processes will be approached. Ethics surrounding the data gathering and research will be discussed.

4.2. Research design

The paradigms that will be investigated are positivism, interpretivism, and critical research. Each will be discussed briefly.

The positivist paradigm aims to show an objective view of the world that is measurable and can be observed (Oates, 2006). Positivist philosophy follows a quantitative approach to finding the truth based on measurable facts that are reliable and repeatable (Goldkuhl, 2012).

The interpretive paradigm states that there can be multiple versions of the truth. These multiple versions of the truth can depend on many environmental factors and the perceptions surrounding the study (Oates, 2006). This paradigm is more subjective and open to interpretation than positivism and is best suited for qualitative data (Goldkuhl, 2012).

The critical theory research paradigm set out to challenge existing standards and beliefs. Critical research is the lesser-known and accepted paradigm. This paradigm looks at the history and how the people can be empowered through a greater understanding of the constructs of the world around them (Oates, 2016).

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For this study, the aim is to not only identify factors that can influence intention to share but to also interpret the findings. The findings from the study are open for interpretation and depend on many other factors. Therefore, the interpretive paradigm was used.

4.3. Sampling

There are two main types of sampling techniques, namely probability sampling and non-probability sampling (Oates, 2006). Probability sampling is used when the researcher believes that there is a high probability that the sample used is representative of the overall population. Probability sampling includes the following techniques: Random sampling, systematic sampling, stratified sampling, and cluster sampling.

Non-probability sampling is used when the researcher is unsure that the sample is representative of the overall population. When this technique is used it is difficult for generalisations to the wider population. Techniques include purposive sampling, snowball sampling, self-selection sampling, and convenience sampling.

For this research, the non-probabilistic sampling technique self-selection sampling was used. The target population for the study was university students from South Africa at the University of Pretoria. These students varied in age and year of study. A survey was sent out and the responses gathered from students who willingly participated in the survey were used for data analysis. The benefit of using self-selection sampling is that due to the participant's willingness to take part in the research more insight can potentially be gained through their responses. Self-selection may not accurately represent the population due to self-selection bias where participants may already have previous knowledge or interest in the topic of fake news.

Table 4.1: Sampling techniques (Oates, 2006, p.96)

Probabilistic	Non-probabilistic
Random	Purposive
Systematic	Snowball
Stratified	Self-selection
Cluster	Convenience

4.4. Sample size

Using an appropriate sample size for the number of independent variables is important to draw meaningful conclusions. There is no consensus of what the correct sample size is in SEM and varies depending on the source (Hair et al., 2010; Kline, 2015). Kline (2015) gives several factors that affect the sample size requirements such as model complexity, score reliability, and particular kinds of structural equation models. Kline also suggests using the N:q rule to determine adequate sample size where q is the number of parameters. The ideal ratio is suggested to be 20 to 1 (Kline, 2015), or a lower ratio of 10 to 1 in rarer cases (Kline, 2015; Schreiber et al., 2006). Others suggest a minimum of 5 responses per independent variable (Bentler & Chou, 1987; Hair et al., 2010).

A sample size of 150 - 200 respondents is needed to obtain results that can reliably be used for the prediction of the population. This sample size of the collected 190 usable questionnaire responses was deemed adequate for the initial proposed model.

4.5. Data collection

The research questions and objectives need to be measurable, and statistics need to be gathered through the correct data analysis methods. The type of data that was mainly used is quantitative since it is a well-established data type commonly used with large quantities of data that can be analysed simultaneously, and it can be used to measure and present a conclusion in a structured way based on the sample population (Oates, 2006). This data type also fits with the conceptual framework to determine the impact of the different variables (moderators and independent variables) on the outcome. Qualitative data gathered was used to support the quantitative findings.

Data was gathered by using the survey research strategy and the data gathering method was a questionnaire created on Google forms. The link to the questionnaire was distributed to students through clickUP and various student groups on Facebook. There was only one phase of data gathering for this study. The interpretive paradigm was used due to the questionnaire containing both open- and closed-ended questions that can be open to different interpretations. Some drawbacks of using this approach are that there will be no way to ask respondents to clarify their answers if necessary and the respondents may have not truthfully answered the questions due to being in a hurry or not fully understanding the

questions. The questionnaire consisted mainly of closed-ended questions that were selected and put on a response scale for the respondents to complete. One section consisted of open-ended questions where respondents were asked to provide reasoning to support why they found a news article to be real or fake news.

A pre-test was used to determine the initial fitness of the questions in the questionnaire and the suitableness of the study to be conducted. The pre-test was assessed by five participants to obtain feedback on any suggestions or questions they had regarding the questionnaire or particular questions.

4.5.1. Research instrument

There are four main types of measurement instruments namely questionnaires, interviews, observations, and documents (Oates, 2006; Zohrabi, 2013). The method used most frequently in mixed-method research is questionnaires that contain both closed-ended and open-ended questions. Closed-ended questionnaires are used for quantitative data while open-ended questionnaires, observations, and interviews are used for qualitative data gathering (Zohrabi, 2013). For this study, a questionnaire containing both closed- and open-ended questions was used. The benefit of using a questionnaire is being able to simultaneously gather data from a large group of people without the presence of the researcher required (Brown, 2001; Gillham, 2008). This method is also time-efficient and cost-efficient. This method also provides respondents with anonymity.

There are however drawbacks that need to be noted. These drawbacks include inaccurate or incomplete responses, lower response rates if shared online (especially for longer questionnaires) (Brown, 2001; Gillham, 2008). Some respondents may also provide inaccurate answers due to questions being unclear or ambiguous.

The constructs that were measured in the study were platform, trust, bias, social responsibility, personality, emotional influence, and TPP. A Multi-item scale was used to measure the closed-ended questions that related to the constructs in the questionnaire. A five-point Likert scale was used for the closed-ended questions in the questionnaire to measure the constructs. This scale was used since it is a more reliable and easier to use method than other scales (Clark-Carter, 2009). This enables respondents to give a more

truthful personal response where the measurement is clearly set. The scale ranged from 1 to 5 where "strongly disagree" represents a 1 and "strongly agree" represents a 5, with a variation in between. The reliability of the scale will be verified by using Cronbach's Alpha. The dependent variables, such as age and year of study, were measured using a nominal scale. Questions from previous studies related to the various factors were used to compile the questionnaire. The questionnaire is provided in Appendix A along with the references used for each question.

To measure respondents' personality the Big Five personality traits questions from Gosling et al. (2003) were used in Section C. These questions were also measured using a five-point Likert scale.

4.5.2. Pre-test and Pilot study

A pre-test, consisting of five people, was used to ensure that the questions are understood, clear, and interpreted correctly, these people were purposely selected to provide feedback on the contents of the questionnaire. Minor improvements were made such as wording changes, question structure, and order of questions. Certain questions were also combined for brevity. For example the questions "Does the platform incentivise the sharing of its information?" and "Does the platform make it easy to share information with a group of people?" were combined into "From your most used platform(s) in question 5: In your experience, how easy do these platforms make it to share information make it easy to share information with an individual / a group of people, for example, presence and visibility of share buttons?".

Questions that required more personal details about respondents were combined or removed. Questions such as "What is your highest level of education?" and "What are you studying?" were combined into "What year are you in to your degree?". The question about respondents' specific age was changed to an age range and the questions about gender and ethnicity were removed.

After the pre-test, a pilot test was done with fifteen respondents. The main objective was to determine if the respondents understood the questions and completed the questionnaire as expected without any problems.

The final questionnaire was sent out and 194 responses were gathered, with 190 being usable. This is a sufficient sample for the number of variables according to the N:q rule (Kline, 2015) and to test the hypothesis (Pallant, 2010).

A copy of the questionnaire and cover letter can be found in Appendix A. A copy of the approval email to conduct the research can be found in Appendix C.

4.5.3. Ethical considerations

The respondents of the questionnaire for this research were students from the University of Pretoria. The respondents who completed the questionnaire participated on their own free will. Informed consent was obtained from all respondents, who were also able to at any point retract from the questionnaire. A brief overview of the study being conducted was provided at the start of the questionnaire. Respondents were informed about the topic, the purpose of the research being done, and that the results from the study will be used for academic purposes and may be published in an academic journal. Contact details of the author and research supervisor were provided if respondents had any questions or concerns about the study or their participation in the questionnaire. By completing the questionnaire, they voluntarily grant their permission to participate in the study.

The data that was collected from the students is anonymous. The student's name, student number, and any other information that can identify them specifically was not asked in the questionnaire. Only information relevant to the research was collected from participants.

Ethical clearance was obtained in line with department rules and regulations (See Appendix C for the Ethical Clearance Approval letter). Respondents were also informed that ethical clearance was obtained through the Research Ethics Committee of the University of Pretoria. The results of the questionnaire are kept in a secure location in a file that is secured with a password. The laptop itself is also protected by a password to prevent any breach of information obtained from respondents. The original questionnaire containing the responses is saved on a secure Google drive.

4.5.4. Questionnaire length

With regards to determining the length of the questionnaire, an attempt was made to keep it as short as possible while still containing all the necessary questions needed to complete data analysis and draw meaningful conclusions. Long online questionnaires are believed to impact response rates (Deutskens et al., 2004; Dillman, 2007). During pilot testing, certain questions were replaced with questions that were more concise in an attempt to shorten the overall questionnaire (See Section 4.5.2).

4.6. Research Approach

The mixed-method approach has been used in Information Systems (IS) research for over three decades as a powerful approach in the field (Fidel, 2008; Venkatesh et al., 2013). There are many definitions of mixed methods and can broadly be defined as using both qualitative and quantitative approaches or methods in a study to collect and analyse data, integrating the findings and drawing references from both to answer research questions in a study (Cameron, 2009; Johnson et al., 2007; Rocco et al., 2003; Tashakkori & Creswell, 2007). It is important to note that studies that use multiple methods are not considered mixed-method unless those methods are both qualitative and quantitative. The qualitative and quantitative elements should work together to answer the research question proposed in the study for it to be considered a mixed-method study (Cameron, 2009; Johnson et al., 2007; Rocco et al., 2003). Table 4.3 compares quantitative and qualitative approaches.

Table 4.2: Quantitative versus qualitative approach

Quantitative	Qualitative
Captures information about data that is measurable (numerical data).	Captures information about a phenomenon that is difficult to quantify and measure, but that can be observed.
The most commonly used research instrument is a survey (Trigueros et al., 2017).	The most commonly used research instruments are observation, case study, and the interview (Trigueros et al., 2017)
Uses controlled, objective testing and experimentation.	Used in social and behavioural studies to capture complex human interactions.

Quantitative	Qualitative
Consists of standardised steps for data collection and analysation to reduce bias and subjectivity.	Bias, conscious or unconscious, can influence the researcher's conclusions.
Larger sample size is generally required.	Small sample size is generally acceptable.
Results can be generalised to a larger population.	Results can't always be generalised to a larger population.
May not work as well in natural settings where the conditions can't be tightly controlled and where human behaviour is a factor.	It is more time-consuming to collect data, transcribe and analyse notes and transcripts, and identify themes.
Results are reliable, can be reproduced.	Not easy to replicate and reproduce results.
Survey instruments are vulnerable to flawed sampling techniques and measurement mistakes.	May be dismissed by some as anecdotal due to a lack of scientific controls and numerical data.
Some topics are difficult to quantify.	

There are many advantages that mixed-method approaches provide. By using a single method approach, either qualitative or quantitative, there are shortcomings of the method that cannot be remedied within the same study. By using a mixed-method approach the shortcoming of qualitative and quantitative methods can be supplemented with their unique benefits (Johnson et al., 2007; Petter & Gallivan, 2004). Another advantage of mixed-method is that a more diverse and wide range of research questions can be addressed that would otherwise not be possible using a single method approach. A mixed-method approach can also provide additional understanding of the results and data that may be overlooked using a single method (Petter & Gallivan, 2004).

There are challenges that researchers face when using a mixed-method approach. They will need the skills required to work with mixed methods by understanding how to work with qualitative and quantitative methods and how to integrate the data effectively. It requires more effort to combine all the data in a meaningful way and possible discrepancies that result from this could require future review. The researcher will therefore need knowledge

of both qualitative and quantitative methods that may be an additional challenge to the research process. The resources for mixed-method also need to be sufficient as it will likely require more time, a bigger budget, and software to conduct the research with (Creswell & Clark, 2010; Kroll & Neri, 2009). A brief overview of the advantages and disadvantages of a mixed-method is given in Table 4.2. Additionally, it is important to decide which mixed-method research design is the most appropriate for the study.

Table 4.3: Advantages and Disadvantages of Mixed method approach

Advantage	Disadvantage
Combined strengths of qualitative and quantitative methods.	The researcher needs to have knowledge about both qualitative and quantitative research.
Provides better insight and understanding of data.	Requires more time and resources to conduct mixed-method research
A broader scope of possible research questions.	Effective integration of qualitative and quantitative methods is needed for effective use.

For this study, two types of research approaches were used namely qualitative and quantitative approaches as well as two types of data analysis namely statistical and thematic (Tashakkori & Creswell, 2007). Both quantitative data and qualitative data were gathered. This study, therefore, used a mixed-method approach. By using a mixed-method approach we can draw better conclusions from our findings where there are convergences and supporting evidence from qualitative and quantitative data results. The findings from both quantitative and qualitative questions work together to support each other and provide a better understanding of the results (Petter & Gallivan, 2004). Using a questionnaire that utilises both closed-ended as well as open-ended questions does not mean that it is necessarily a mixed-method study (Kroll & Neri, 2009). A characteristic of a truly mixed method is where there is an integration of both the qualitative and quantitative findings during any point of the research process. This can be during data collection, analysis, or the interpretation stage (Kroll & Neri, 2009).

In Creswell's' (2021) book six main typologies were provided to help with the different mixed-method research designs namely the sequential explanatory design, sequential exploratory

design, concurrent triangulation design, concurrent embedded design, concurrent transformative design, and sequential transformative design. Each of these design methods will be discussed briefly to identify the main purpose of the strategy, the advantages, and the disadvantages. A summary of each strategy is given in Table 4.4.

The first design is sequential explanatory designs is a popular strategy and is often used where the research leans towards the quantitative method (Creswell, 2021). This design consists of two phases. In the first phase, quantitative data is gathered and analysed. In the second phase, the collection and analysis of qualitative data is used to build on the results from the first phase. Qualitative data and results are used to support the quantitative findings. This design is used often in educational research. The benefit of this design is that it is straightforward with clear and separate stages making it easy to implement. It is also useful if unexpected results are gathered from the first phase (Morse, 1991). This method can, however, be time-consuming to collect the data due to it being split into two phases and relies on the participant's relevant information needed for both phases of the design. The researcher also needs to make decisions based on the quantitative findings of the first phase that need to be explored and focussed on in the second phase.

The second design is the sequential exploratory design (Creswell, 2021). This design can be viewed as the reverse of the explanatory model where the weight leans more towards qualitative data. In the first phase qualitative data is gathered and analysed. In the second phase the collection and analysis of quantitative data is used to build on the results from the first phase. Qualitative data and results are used to support the qualitative findings. The benefits of this design are similar to those of sequential explanatory designs; the ease of implementation and to expand upon findings from the first phase. This design is time-consuming and there is the risk that participants may not be able or willing to participate in both phases if not planned out well and in advance. The researcher also needs to make decisions based on the qualitative findings that need to be explored and focussed on in the second phase such as themes and similarities among groups.

For the concurrent triangulation design both qualitative and quantitative data are gathered concurrently in one phase (Creswell, 2021). The data is then compared to determine if there are similarities, overlapping, and differences between the data sets. By using separate quantitative and qualitative methods the weaknesses of the two methods are offset by the

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strength of each method instead. There is ideally an equal weight placed on both methods, but priority may be given to either method in practice. The data gathered by the two methods are integrated for analysis and interpretation (Creswell, 2021; Fidel, 2008). This enables researchers, to improve consistency, identify contradictions and generalise their research findings to be more confident in their findings (Johnson et al., 2007). The benefit of this is that is intuitive to obtain information from multiple different sources gathered through different methods. Data collection is also less time-consuming compared to sequential approaches due to the qualitative and quantitative data being gathered at the same time. A drawback of this design is that it requires more effort and knowledge to study a phenomenon using this design. The comparison of data in different forms can be difficult and the researcher may not know how to adequately resolve discrepancies between data sets. There are however procedures that have emerged in recent years to address the problem of discrepancies (Creswell & Clark, 2010). One solution to this is to conduct additional data collection to remedy the discrepancies. The researcher can also revisit the original database to attempt to resolve conflicts or gain new insights from the data. A follow-up study can also be conducted to address the discrepancies.

The concurrent embedded design consists of one data collection phase and places one method (that can be either quantitative or qualitative) in a supportive secondary role to enable understanding and interpretation of the study as a whole (Creswell, 2021). The secondary method may sometimes address and explore a different question than the primary method. This design requires fewer resources and produces fewer data to analyse. This can be used in studies where the quantitative design is used with a small number of qualitative data is needed. Integration of results using this method can be challenging. There are very few examples of where this model is utilised and it can be difficult to use in qualitative research (Almalki, 2016). Discrepancies may arise between databases when compared that the researcher will need to address. Due to the unequal weights of the methods, the unequal evidence in the study may be a disadvantage to the final interpretation of the results.

The concurrent transformative design uses the theoretical perspective that is selected by the researcher as a guide (Creswell, 2021). The perspective is reflected in the research questions or the goal of the study. The theoretical perspective influences the methodological choices like defining the problem, design and data source selection, and the analysis and

interpretation of final results. Ideologies that can be used for this framework include theoretical or conceptual framework, critical theory, participatory research, or advocacy. This design may include design features from the other concurrent designs; triangulation and embedded design; one phase of data collection for qualitative and qualitative data that may have equal or unequal priority. It also shares the strengths and weaknesses of the other concurrent design approaches. Another advantage of this model is placing the mixed-method research within a transformative framework. This is appealing to researchers who already use a transformative framework in their research and use qualitative or quantitative methods.

Lastly, the sequential transformative design consists of two sequential phases and guides the study with a theoretical perspective (Creswell, 2021). The first phase can be qualitative or quantitative with the second phase using the opposite method to build on the first phase. Weight can be given to either method in either phase or can be distributed equally to both phases. A theoretical lens overlays the sequential procedures and is introduced in the introduction to the proposal. The theoretical lens is used to create a directional research question to explore the problem and draw attention to collect data from underrepresented groups for results and concludes with a proposal on how the problem or issue outlined should be addressed. This is achieved through the use of two phases to shed light on diverse perspectives, give voice to the participants, and provide a better understanding of the phenomenon being studied. The sequential transformative strategy aims to assist the researcher's theoretical perspective to guide the study. The strengths and weaknesses of this strategy has similar strengths and weaknesses as the previous two sequential designs discussed. The use of two distinct phases assists with the description, sharing, and globalisation of results. The process is however time-consuming due to the two separate phases of data collection and decisions about the focus of the second phase need to be made based on the findings of the first phase. With this design mixed method research is placed within a transformative framework making it potentially more appealing to researchers who already use a transformative framework witing a distinct methodology. This design is not used often resulting in a limited body of work surrounding it and provides little guidance for implementing the transformative vision.

For this study, the triangulation method was chosen due to the advantages of it being a one-phase approach and the shorter data collection time needed. Compared to the other

methods The other advantage of this method is that the priority of the quantitative and qualitative methods can be changed in practice.

Table 4.4: Mixed method strategy summary

Strategy	Key characteristics	Benefits	Drawbacks
Sequential explanatory	- Two sequential phases. - The first phase is quantitative followed by the second qualitative phase. - Qualitative data supports quantitative data. - Importance is placed on quantitative method.	- Straightforward - Clear stages. - Easy to implement.	- Time-consuming - Risk of participants not participating in both phases. - Need to decide the focus of the second phase based on the quantitative findings.
Sequential exploratory	- Two sequential phases. - The first phase is qualitative followed by the second quantitative phase. - Quantitative data supports qualitative data.	- Straightforward - Clear stages - Easy to implement	- Time-consuming - Risk of participants not participating in both phases. - Need to decide the focus of the second phase based on qualitative findings.

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Strategy	Key characteristics	Benefits	Drawbacks
	• Importance is placed on the qualitative method.		
Concurrent triangulation	• One phase to concurrently collect qualitative and quantitative data. • Data is compared. • Equal weight can be placed on both methods or priority can be placed on a single method.	• Improve research consistency. • Enables generalisation. • Identifies contradictions. • Intuitive design. • Less time-consuming.	• requires more effort and knowledge. • The comparison of data in different forms can be difficult. • The researcher may not know how to adequately resolve discrepancies between data sets.
Concurrent embedded	• One phase concurrent phase of data collection • One method is placed in a secondary supportive role	• Requires fewer resources • Less qualitative data is needed	• Integration of results may be challenging. • Few examples • Discrepancies between databases may arise. • Unequal weights of methods result in unequal evidence.

Strategy	Key characteristics	Benefits	Drawbacks
Concurrent transformative	• One phase concurrent phase of data collection. • Uses a theoretical perspective is used to create a directional research question. • May include design features from the triangulation or embedded design. • Data that may have equal or unequal priority.	• appealing to researchers who already use a transformative framework. • Improve research consistency. • Enables generalisation. • Identifies contradictions • Intuitive design • Less time consuming • Requires fewer resources • Less qualitative data is needed	• Integration of results may be challenging • Few examples • Discrepancies between databases may arise. • Unequal weights of methods result in unequal evidence. • Requires more effort and knowledge. • The comparison of data in different forms can be difficult • The researcher may not know how to adequately resolve discrepancies between data sets.
Sequential transformative	• Two sequential phases • The first can be qualitative or quantitative	• Provides better representation for minority and underrepresented groups • Straightforward	• Time-consuming • Risk of participants not participating in both phases

Strategy	Key characteristics	Benefits	Drawbacks
	• Uses a theoretical lens is used to create a directional research question	• Clear stages • Enables globalisation of results • Appealing to researchers who already use a transformative framework	• Need to decide the focus of the second phase based on the findings of the first phase • A limited existing body of work. • Lacks guidance for implementing transformative vision.

4.7. Research Strategy

There are two main research strategies/approaches to help guide researchers with their research namely deductive and inductive approaches (Bryman, 2016; Saunders et al., 2019).

With deductive strategies, a theory or conceptual framework is developed which is then tested using a research approach. First existing literature is reviewed to understand the phenomenon being studied and to assist with framework development. An appropriate research method is chosen. Data is collected and analysed to test the framework. In contrast, an inductive approach requires the researchers to first analyse the data to a theory or framework is developed. This is then compared to existing literature (Bryman, 2016; Saunders et al., 2019). In summary, deductive strategy moves from theory to data while inductive moves from data to theory.

Deductive strategy is typically used with the quantitative approach while inductive is more typically used with the qualitative approach. Deductive is structured and rigid while inductive is more flexible in structure and changes can be made as the research progresses. The deductive strategy requires less time for data collection and analysis than the inductive strategy. By using this strategy, the risk is low however there is the change of a low response

rate. In contrast, with an inductive strategy there is a higher risk associated with it due to researchers fearing not finding useful data patterns or themes (Bryman, 2008).

Additionally, a deductive approach requires a sufficient sample size for an outcome that is statistically large enough to allow for generalisation. An inductive strategy is not as concerned about generalization. With deductive research, the researchers are not a part of the research process while with inductive approaches they are independent of the data collection and analysis (Bryman, 2008).

Deductive approaches are sequential, and can be characterised by six stages (Bryman, 2016):

Stage 1: Reviewing theories (literature review)

Stage 2: Building hypothesis

Stage 3: Data collection

Stage 4: Analysing and reporting findings

Stage 5: Hypothesis confirmed or rejected

Stage 6: Revision of theory

For this study, the deductive strategy was used instead of inductive due to its more structured and sequential nature. The goal of this research was to develop a framework based on existing literature and to test it accordingly. The framework was first developed and then used for testing with the data gathered. A sufficient data size was also gathered, and the aim is to generalise the outcome of the study. These two approaches are compared in Table 4.5.

Table 4.5: Deductive and Inductive approach comparison

Deductive	Inductive
Typically used with the quantitative method.	Typically used with qualitative method.
Rigid and structure approach.	A flexible approach that is open to changes.
Less time-consuming for data collection and analysis.	Time-consuming approach.

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Deductive	Inductive
Data is collected and analysed to test the framework.	Data exploration is done first to develop the framework and theory from it.
Focus is placed on testing the hypothesis	Focus placed on observations.
Can explain relationships between concepts and variables.	Can lead to false conclusions.
Low risk associated	High risk associated
May limit creative thinking	Supports the generation of new theories.
Requires a sufficient sample size.	Sample size can typically be smaller and of less importance.
Risk of low response rate.	

4.8. Data Analysis

As this study utilises a mixed method approach, both qualitative and quantitative data analysis approaches were utilised. Each of these will be discussed in turn.

4.8.1. Qualitative Data Analysis

The analysis of qualitative research cannot use the same approaches and criteria used for quantitative research. Qualitative research provides different methods of data analysis, and it is crucial to apply the correct methods to the data for qualitative research to ensure reliable and dependable qualitative research. There are also criteria for conducting proper qualitative data collection and analysis (Silverman, 2000; Yardley, 2000).

The qualitative questions of the questionnaire required respondents to state whether an article was misinformation / fake news or real news based on the title of the article, source, and date of the article given. All the article titles used were real articles from online news websites. For the qualitative questions of the research [deductive] thematic analysis was used.

Thematic analysis is a commonly used qualitative analytic method (Boyatzis, 1998; Roulston, 2001) for identifying, analysing, and identifying themes within data to help with organising and describing qualitative data in detail (Braun & Clarke, 2006). There is a lack of agreement between researchers about what thematic analysis is and how to use it when conducting research (Attride-Stirling, 2001; Tuckett, 2005). Despite this, it is still a widely used qualitative analytic method. This method has the benefit of being a theoretically flexible and easily accessible approach (Braun & Clarke, 2006). This flexibility can provide detailed insight into complex data. There are however disadvantages of thematic analysis; it can be difficult for a researcher to decide what data to focus on and provides a limited interpretation of data if not used within an anchoring theoretical framework to support the claims (Braun & Clarke, 2006).

Lack of clear understanding about how the analysing of qualitative data is approached, and the assumptions that were made, makes comparing and evaluating studies on similar studies difficult for other researchers (Attride-Stirling, 2001). Clarity around how the analysing of data is done, and the processes and practice of the method is important; this is the main benefit that thematic analysis provides.

Braun and Clarke (2006) provide clear guidelines for conducting thematic analysis. The thematic analysis process can be broken into six different phases. Each one of these phases will be discussed below and was applied to the qualitative portion of the data gathered for this study.

Phase 1: Familiarising yourself with your data

The researcher needs to set up the initial questions so that they are familiar with the topic and what answers are to be expected broadly for the research topic. They need to read through the motivations (reasons) about what article titles respondents deducted to be fake news or real news. This helped to start seeing general patterns and similar responses between submissions.

Phase 2: generating initial codes

Once the researcher is familiar with the data, they can start to note down a general theme for each response. Notes on each response were made in a spreadsheet about the general

core idea of the reason given. The responses were then colour coded and grouped accordingly.

Phase 3: searching for themes

After each response has been coded and grouped a general theme for the grouping was decided on with main themes and sub-themes.

Phase 4: reviewing themes

Once candidate themes have been decided on the refinement process started. Similar themes were combined and diverse themes were further condensed into appropriate sub-categories where appropriate.

Phase 5: defining and naming themes

The themes identified are further refined for the analysis. For each theme identified a detailed analysis is written to describe what it encompasses and how it fits into the thesis and hypothesis, research questions, and how each theme related to the other. Each theme needs to capture a certain aspect of the data. The themes identified must not be too diverse and complex. If a theme is more complex and larger it can be divided into sub-themes. Sub-themes can provide structure and a hierarchy of the data.

Phase 6: producing the report

Lastly, phases 6 consists of documenting the findings and providing extract examples from the data collected. The extracts are analysed and related back to the literature and research questions to produce a report of the analysis.

In chapter 5 the results from the thematic analysis process are given. The categories extracted from the data will be given as well as extracts from the responses to support the categories identified. Phase one to five were followed as a guideline to produce the results. The findings will be discussed as outlined in the last phase of the thematic analysis phase.

4.8.2. Quantitative Data Analysis

The survey data will be examined to ensure that the respondents completed all the required questions and that the information provided is valid, that no answered incorrectly or outside of the restriction. The data will be cleaned if needed to remove any inconsistent spelling or

grammar mistakes that may affect the grouping or interpretation of the data. The questions from the questionnaire will be grouped according to the related factor from the model to align with the S-O-R theory to determine the impact that each of these variables related to the hypotheses.

A Correlation matrix will also be used to determine the correlation between variables. This data will be analysed using the scale to determine the correlation between different variables following the S-O-R theory and since the data is quantitative correlation and other statistical methods can be used to interoperate the data. For the interpretive approach, the data will be interpreted to prove or disprove the hypothesis set out in the research questions.

The focus will be on if the factors are correlated to intention to share. The findings will be tabulated, discussed, and be used to relate back to the research questions, objectives, and hypothesis.

The demographics will first be presented followed by descriptive statistics. Cronbach's coefficient alpha will be used to assess the reliability of the scales.

Factor analysis will be used to determine the smallest number of factors that can be used to represent the interrelationship between variables.

Regression analysis will be used to analyse and interpret the data gathered from the questionnaires. Regression will be used to determine the significance of the relationship between the different variables that will be used.

The Pearson product-moment correlation (r) statistic was be used for Correlation analysis to assess the direction and strength of the linear relationships between the variables and intention to share as proposed in hypotheses 1 to 8. The value indicates the strength of the relationship while the sign of the correlation indicates the direction of the relationship (Pallant, 2010).

4.9. Conclusion

In this chapter, the research philosophy, research strategy, research method, data collection plan, data analysis, and ethics surrounding the research was discussed. Three main research philosophies namely positivist, interpretive, and critical theory was discussed. For

this study, the interpretive approach was used in combination with the U&G framework. A mixed-method approach is used where the weight is placed on the quantitative method.

The Survey method was used, and the data was gathered through questionnaires. The sampling method selected was self-selection sampling. Lastly, ethics surrounding the collection of data from respondents was discussed as well as the procedures that were followed to ensure ethical data collection. In the next chapter qualitative data analysis of the results is given.

CHAPTER 5 : THEMATIC ANALYSIS OF QUALITATIVE DATA

5.1. Introduction

In this chapter, the responses gathered from the qualitative questions are presented and examined according to the data analysis method discussed in chapter 4.

5.2. Findings and analysis

In the following section, sample responses from each open-ended question will be provided. In the questionnaire, respondents were asked to identify whether a news article was fake news or real news based on the tile, source, and date given. The responses are grouped into the appropriate themes as well as if the article was correctly identified or incorrectly identified as fake news.

In total six main themes were identified and are shown in figure 3.
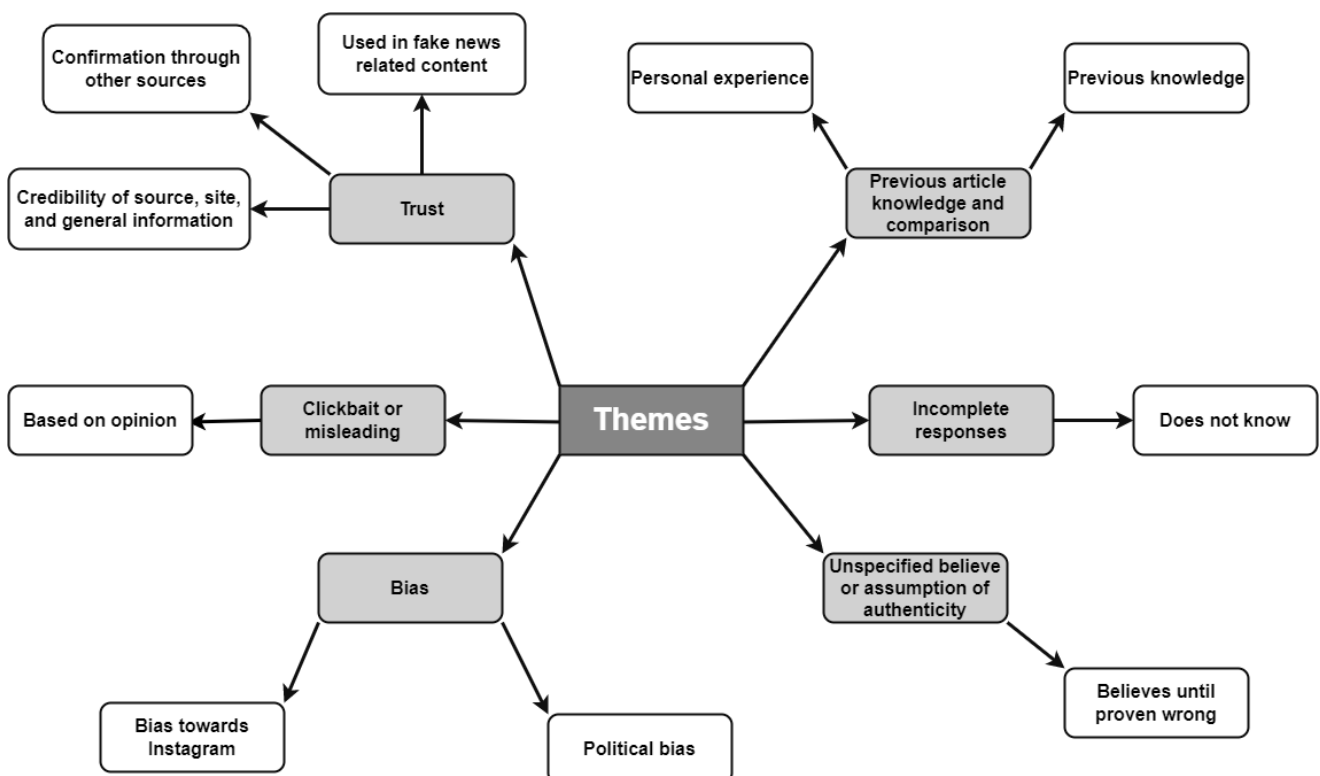
Figure 3: Themes identified from qualitative data

5.2.1. Article 1

The first article is a real article from CGNT and reports the surge of Zimbabweans crossing into South Africa as the borders reopen to buy goods. Table 5.1 gives sample responses for this article and is grouped according to the relevant themes identified.

Table 5.1: Sample answers of news article title "Zimbabwean shoppers rush into SA as borders open", CGNT Africa, 2 October 2020

Theme	Sub-theme	Sample comments from the participants	
		Correctly identified	Incorrectly identified
1 Trust		14 – "It's from a credible source" 32 – "Comes from reliable and well-known source or publisher" 23 – "CGNT Africa seems like a reliable source"	55 – "This is a Chinese state-owned organization and could be misleading" 161 – "Media company is state-owned. Not 100% sure but could be propaganda." 104 – "I don't know the website"
	The credibility of source, site, and general information provided.	3 – "They have cited the original author of the news on their site, which displays reliability and credibility of the news." 20 – "The date in the title coincides with the date the borders were reopened"	8 - "SA borders are not open" 33 – "No source" 121 – "Foreign nationals have been flooding our borders even before the borders opened and they don't usually come here for shopping but employment" 174 – "CGNT is not a real news site" 61 – "site spelled incorrectly"
	Confirmation through other sources	6 – "It is an event published by multiple (reputable) outlets (i.e. Al Jazeera & Yahoo Finance)"	None

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Theme	Sub-theme	Sample comments from the participants	
		60 – "Could find more than one article that stated the same"	
		107 – "If you search it gives you many sources stating the same thing"	
		169 – "There is actual footage of the border post. And more credible outlets reported on the illegal border crossings for food as well."	
	Was in an article about fake news	N/A	N/A
2 Previous article knowledge and comparison	Political bias	78 – "The borders were open, and Zimbabwe had a shortage of food and other essential items."	None
		143 – "Knowing the state of the Zimbabwe economy and the inflation of basic goods and services there, it would make sense for it to be real news"	
		134 – "There was a time during the lockdown in Zimbabwe where people could not access the basic needs due to collapsing economy which resulted in hiking of prices which frustrated the citizens and end up coming to South Africa"	
3 Bias		N/A	N/A
	Previous knowledge	165 – "Spoke to a friend who was from Zimbabwe and shared similar story"	61 – "There is no such news channel as CGNT Africa, it should be CGTN Africa"
		50 – "I've seen this"	

Theme	Sub-theme	Sample comments from the participants	
		151 – "Read about the article before" 52 – "I'm not sure if CGNT has accurate news, I never read it. But it might be true."	5 - "I'm unsure because I never read about this topic" 182 – "To be honest, I don't know if this is fake news or not. I'm not aware of the current state in Zimbabwe and if they would need to come into S.A for shopping or not. But I doubt this is true."
	Previous experience	154 – "Real-life events happening around us" 34 – "Seen it 1st hand"	None
4 Incomplete responses		None	155 – "Impossible" 189 - Blank
	Does not know	187 – "Not sure." 89 – "A lot of people were crossing the borders"	
5 Clickbait or misleading		None	133 – "Considering how rampant xenophobia is in SA, this news seems like it's been presented in a way that will make it more sensational."
	Opinion	N/A	N/A
	for tourist reasons	None	180 – "As our borders open loads of countries will flood to SA for our tourist attractions. I am sure Zimbabwe will not be an exception ??"
6 Unspecified beliefs or assumptions of authenticity		144 – "It is true" 175 – "This statement seems likely in our current context." 168 – "This sounds like something probable of	105 – "I'm sure there are shops in Zimbabwe." 130 – "Seems impractical to cross a border just to get shopping done"

Theme	Sub-theme	Sample comments from the participants	
		happening so I would be more inclined to believe it."	162 – "Sounds weird and exaggerated."
	believes until proven wrong	N/A	N/A

5.2.2. Article 2

The second article is a real article from Mail & Guardian and is about the views of Richard Calland about leadership styles in South Africa. Table 5.2 gives sample responses for this article and is grouped according to the relevant themes identified.

Table 5.2: Sample answers of news article "Richard Calland: South Africa needs a Roosevelt style of leadership", Mail & Guardian, 3 October 2020

Theme		Sample comments from the participants	
		Correctly identified	Incorrectly identified
1 Trust	Trust in source	14 – "It has a credible source" 35 – "Because the mail and guardian us the name of the information source, therefore it doesn't surprise me it shared the news. That is its duty." 121 – "I don't believe mail & Guardian would report fake news as they are one of the most trusted sources of information."	23 – "Mail and Guardian is a tabloid" 73 – "I think the title is misleading or taken out of context. But it might be true, I'm not sure. The mail and Guardian sometimes have accurate news." 23 – "Mail & Guardian is a rubbish news media."
	The credibility of source, site, and general information provided.	54 – "Details given about the source and date published." 109 – "The article references its source for the information."	163 – "No valid reason" 33 – "No source" 42 – "Can't find the article"
	Confirmation through other sources	40 – "Other sources support"	134 – "It most popular sources such as ENCA, news24 others

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Theme		Sample comments from the participants	
		25 – "I found the actual article that confirmed this" 176 – "Heard this quote on the radio. 5FM"	have not reported on this matter"
	Was in an article about fake news	N/A	N/A
2 Bias		90 – "SA parliamentary is not in order" 145 – "It is a real article that was published in the Mail and Guardian, however blatantly politically partial the content thereof may be."	57 – "This is an opinion and does not fall in the category of real or fake. Don't take the words as fact because he/she might still have the wrong info and a lot of bias." 112 – "Seems too controversial to be a public statement"
	Political bias	N/A	N/A
3 Previous article knowledge and comparison	Previous knowledge	None	105 – "I have never heard of this information." 151 – "Haven't seen this article before" 5 – "I'm unsure because I never read about this topic"
	Previous experience	N/A	N/A
4 Incomplete responses		39 – "Did not verify this" 143 – "I've guessed here"	135 – "Don't even know what Roosevelt is." 79 – "Did not read this"
	Does not know	153 – "I do not know"	97 – "I don't know"
5 Clickbait or misleading		N/A	N/A
	Opinion	6 – "More of an opinion piece than an article reflecting current events"	61 – "This is the opinion of Mail &

Theme		Sample comments from the participants	
		111 – "This is more of an opinion piece rather than "real news", but it's not fake."	Guardian and is not news backed by facts."
		169 – "Tricky since it is an opinion piece. But the author is an associate professor of public law at the University of Cape Town. The article also clearly mentions that the expressed views are those of the author"	185 – "This was the opinion of the author which is stated at the end of the article"
			45 – "It sounds like an assumption and opinion which news article generally state"
	for tourist reasons	N/A	N/A
6 Unspecified beliefs or assumptions of authenticity		177 – "Sounds like something someone would say sadly" 8 – "Sounds like a headline that would be accurate"	182 – "I'm not up to date with politics and who says what, so I am also not sure if this is fake news or not, but I doubt that it's true." 100 – "It sounds farfetched."
	believes until proven wrong	N/A	N/A

5.2.3.   Article 3

The third article is a fake news article from IJozi about South Africa's corruption and ranking compared to other Countries. Table 5.3 gives sample responses for this article and is grouped according to the relevant themes identified.

Table 5.3: Sample answers of news article "UN declares South Africa Most Corrupt Country in the World", IJozi 29 September 2016

Theme		Sample comments from the participants	
		Correctly identified	Incorrectly identified
1 Trust	Trust in source	3 – "The news doesn't appear on any of the UN sites and the	67 – "Reliable source" 35 – "Because the UN deals with almost all the matters

Theme	Sample comments from the participants	
	source is not well recognized." 112 – "The UN wouldn't declare something like that as far as I am aware"	faced with the African countries of which South Africa is one of them. In South Africa, people commit crimes and are not enforced to account for them, so that is much evidence that the South African crime rate is exponentially high which supports the above-outlined statement and makes it true."
The credibility of source, site, and general information provided.	44 – "The are no articles or references to the UN stating SA's corruption. There are other websites that compare SA to other countries." 86 – "I researched and found no other articles supporting this" 143 – "Old news, very unlikely in my opinion." 167 – "I won't believe or share it now; the date is too long ago."	7 – "A quick google search indicates that it is likely to be real news." 141 – "I searched for the article on Google"
Confirmation through other sources	57 – "The corruption index report from 2016 (is public) does not show South Africa as the most corrupt, the most corrupt country at the time was Somalia with a score of 10." 184 – "Looking at the corruption perceptions index of 2016 South Africa is not as darkly coloured as other areas in Africa"	74 – "I saw many places and people mention it."

Theme		Sample comments from the participants	
	Was in an article about fake news	6 – "No sources were given at the actual article and the headline was cited in a journal article about fake news" 132 - "Supported by other sources"	None
2 Bias		128 – "I'm aware that Brazil faces worse corruption" 157 – "Because South Africa is not the most corrupt land."	34 – "Seems legit, would not be surprised if we were the most corrupt country. Considering the politicians." 118 – "There are a lot of events that occur which show the level of corruption that [South Africa] has reached"
	Previous knowledge	139 – "I think I saw it somewhere" 151 – "Read about the article before"	5 – "I read an article about it" 165 – "I heard it on the radio and read articles from multiple sources as to why we were so corrupt."
	Previous experience	N/A	N/A
	Political bias	N/A	N/A
3 Previous article knowledge and comparison		9 – "I compared it to other sources, and it does not correspond to any." 20 – "Research is done by the UN suggests that Somalia is the most corrupt country in the world"	None
4 Incomplete responses		59 – "No reason"	27 – "I'm too lazy to look up if it's fake"
	Does not know	N/A	N/A
5 Clickbait or misleading		175 – "The statement is emotionally loaded and seems crafted for shock value. Even	N/A

Theme		Sample comments from the participants	
		though SA is indeed very corrupt, it seems very unlikely that SA is the *most* corrupt country in the entire world."	
		162 – "Sounds sensationalist and refers to something that seems hard to quantify."	
	Opinion	62 – "No evidence, it's not a fact, just an opinion not worthy of trust."	None
		154 – "Written by opinion without facts stated"	
	for tourist reasons	N/A	N/A
6 Unspecified beliefs or assumptions of authenticity		111 – "It is factually incorrect."	115 – "Sounds like it could be real"
		64 – "It looks like something that is not likely to be true."	
		130 – "Seems illogical for their business as banning them won't stop them from doing what they love"	
		28 – "Facebook would not ban users but would rather take down and prohibit posts that promote dangerous actions."	
	believes until proven wrong	N/A	N/A

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5.2.4. Article 4

The fourth article is a fake news article from The Onion about Facebook bans targeting potentially dangerous accounts. Table 5.4 gives sample responses for this article and is grouped according to the relevant themes identified.

Table 5.4: Sample answers of news article "Facebook Bans Thousands of Snowboarders, Base Jumpers in Crackdown on "Dangerous" Accounts", The Onion, 5 March 2019

Theme		Sample comments from the participants	
		Correctly identified	Incorrectly identified
1 Trust	Trust in source	7 – "The Onion is known are a disreputable source of information." 23 – "I think it's fake news because 'The Onion' doesn't sound like a proper source."	140 – "The Onion is a registered American satirical digital media company and newspaper organization" 147 – "The article is available on a trusted network source."
	The credibility of source, site, and general information provided.	75 – "There are no links to the legitimate source of the information provided such as a clip of Mark Zuckerberg declaring this in a video clip." 142 – "Not enough information to make the information sound credible."	127 – "I searched and found the article that speaks about the incident" 69 – "The source explains in detail."
	Confirmation through other sources	190 – "It can't be verified by other sources." 135 – "Cannot be verified."	16 – "It has been confirmed on other news sites as well" 106 – "There are multiple news articles to validate this statement."
	Was in an article about fake news	N/A	N/A
2 Bias		N/A	128 – "Dangerous accounts are not good" 99 – "Facebook is also a very well-known company, and it is believable that this

Theme		Sample comments from the participants	
			measure could be taken upon risky accounts and users."
			121 – "Facebook can ban accounts if one of their guidelines are not followed"
			100 – "Facebook would want to keep the content on their platform relatively family-friendly."
	Previous knowledge	N/A	N/A
	Previous experience	N/A	N/A
	Political bias	N/A	N/A
3 Previous article knowledge and comparison		None	176 – "This information would not be relevant to me. Therefore, I would suggest it be true."
4 Incomplete responses		59 – "No reason"	64 – "I cannot determine whether it is really fake." 144 – "This has been supported"
	Does not know	N/A	8 – "I am unsure about this" 38 – "I do not really know"
5 Clickbait or misleading		192 – "They did not target snowboarders and base jumpers" 36 – "Exaggeration" 77 – "How would one know the exact hobbies of account holders"	None
	Opinion	154 – "Written based on opinion"	None
6 Unspecified beliefs or		27 – "Sounds like a ridiculous headline"	17 – "Facebook has a reason to do this as it can cause harm to others."

Theme		Sample comments from the participants	
assumptions of authenticity		41 – "There was never such a ban, these were considered and still considered sports" 94 – "Sharing videos of extreme activities is a big part of social media so it would not make sense for Facebook to ban these accounts"	97 – "Seems likely"
	believes until proven wrong	None	29 – "In truth, I'm a bit unsure as I only found one mention of it, so I wouldn't share this information. However, doing such a ban is not out of the line of Facebook policies or current political trends - so I'm willing to tentatively believe it until it's proven otherwise." 57 – "I am not actually sure if it is real or fake news since we have no evidence to go off of. We should just take it as possible since the terms for social services change very frequently and could, at one time put a strict policy on extreme sports"

5.2.5.   Article 5

The fifth article is a fake news article from The Onion about the removal of the likes feature on Instagram. For this article it is important to note that the feature was removed for some users in certain countries and areas as part of a test group, however, this article's content is purely satirical and misleading. Table 5.5 gives sample responses for this article and is grouped according to the relevant themes identified.

Table 5.5: Sample answers of news article "Instagram Begins Hiding Likes", The Onion, 5 July 2019

Theme		Sample comments from the participants	
		Correctly identified	Incorrectly identified
1 Trust	Trust in source	20 – "The Onion is a troll news account that posts humorous fake news on multiple social media platforms" 38 – "It sounds like it is supposed to be satirical, which is what *The Onion* does."	49 – "Credible sources provided this news, The Onion website" 104 – "I know the onion is trustworthy"
	The credibility of source, site, and general information provided.	3 – "There is no embedded evidence (video, statement, post) from Instagram to prove the headline, which makes it less trustworthy." 154 – "No proof given for the statement made"	None
	Confirmation through other sources	None	109 – "This information can be verified by checking various sources such as BBC, business insider and CNN which all wrote corresponding articles" 182 – "I've seen this headline going around a few times, and from what I read about it, it sounded legit."
	Was in an article about fake news	N/A	N/A
2 Bias		N/A	N/A
3 Previous article knowledge and comparison	Previous knowledge	N/A	11 – "Consulted other sources, was only true for a test group in Canada"

Theme		Sample comments from the participants	
		51 – "Searched it and I found the exact article cited. It was true in certain regions" 109 – "This information can be verified by checking various sources such as BBC, business insider and CNN which all wrote corresponding articles"	
	Previous experience	106 – "It hasn't been implemented, not enough evidence to support this statement." 132 – "I can still see the likes"	69 – "I personally saw that feature on Instagram" 26 – "I use Instagram and know that it's true because you can only see the number of likes on your own posts."
4 Incomplete responses		59 – "No reason"	102 – "True"
	Does not know	None	163 – "It was a talked about topic on social media at some point in time" 105 – "I heard people talk about it."
5 Clickbait or misleading		9 – "Instagram is only testing it; it has not yet been "launched" according to CNN" 22 – "They only started hiding likes for a test group in Canada."	51 – "Searched it and I found the exact article cited. It was true in certain regions" 145 – "Although *The Onion* produces satirical content, Instagram did actually test out hiding likes on their platform. Multiple other reputable sources confirm this."
	Opinion	N/A	N/A
	for tourist reasons	N/A	N/A
6 Unspecified beliefs or assumptions		115 – "Seems Fake"	21 – "It is true" 125 – "Instagram has banned likes"

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Theme		Sample comments from the participants	
of authenticity		66 – "Instagram has not yet declared it will officially do such." 94 – "Instagram likes are the most appealing part for having Instagram therefore it would not make sense for Instagram to hide likes"	
	believes until proven wrong	N/A	N/A

5.3. Findings with regards to hypothesis

Certain themes emerged as the driver behind whether a respondent identified the article as fake news or real news. The focus here is on fake news identification. From previous research, it has been shown that people who are able to spot fake news will not intentionally share it in most cases (Barthel et al., 2016; Bordia et al., 2005). This means that people generally do not share fake news maliciously or knowingly. One study found that the majority of participants found it important to share news articles on social media only if they are accurate (Pennycook et al., 2021). We can then assume if people can identify fake news that they would most likely not share such content. People would also not intentionally share news that they believe is fake since it would negatively impact their self-image. For this section, we aim to understand the reasoning behind how individuals spot fake news and how it relates to the factors from the hypotheses.

The majority of the motivations fell under the theme of trust where the respondents looked at either one or multiple factors. Participants' trust in the website where the article was published was found to be the most prominent amongst the reasons given.

*"The article comes from **a credible source** and **various sources** such as ENCA **confirm these events**"*

*"**Mail & Guardian is a trusted** South African weekly newspaper and **website**"*

The respondent's awareness of sites also played a role in the correct identification of articles. Many respondents correctly identified *The Onion* as a satire news website, while a minority did not know it was a satirical site and identified incorrectly that the articles were true. Two articles used were from the relatively well-known satire news site, *The Onion*. This indicates that there is a need to more clearly identify to users the validity of the information they view even for platforms or sites where it is assumed that the reader knows it is satirical content.

*"The Onion is a **comedy news site** and is not meant to be taken seriously"*

*"The Onion is known are **a disreputable source** of information."*

"The Onion is a registered American satirical digital media company and newspaper organization"

*"[The Onion is a] **credible source** and I've read the article before"*

Along with trust in the new provider and site reasons given also included respondents consulting multiple sources to confirm the validity of the articles, checking for validity of the sources, references, date published, or other statistics provided. This finding is supported by previous research that shows trust has a significant impact on people's identification of fake news. Articles that lacked appropriate statistics, references, or resources were generally identified as being fake news.

*"**Multiple sites** shared the article with the same content"*

*"This information can be verified by **checking various sources** such as BBC, business insider and CNN which all wrote corresponding articles"*

It is also interesting to note that the article that was most misleading in the sense that the content was true to some extent was identified by many respondents as such. The title reflected a truthful statement, however, the contents of the article as well as the source *(The Onion)* was satire. A few respondents identified the article as being partially true or misleading

"Although The Onion produces satirical content, Instagram did actually test out hiding likes on their platform. Multiple other reputable sources confirm this."

"Searched it and I found the exact article cited. It was true in certain regions"

Regarding the article that was more sensationalist and exaggerated to elicit a stronger emotional response, it was identified by a few respondents as the reason for being fake news

"The statement is emotionally loaded and seems crafted for shock value. Even though SA is indeed very corrupt, it seems very unlikely that SA is the *most* corrupt country in the entire world."

Similarly, the article that was an opinion piece was also identified by respondents as not being real news.

"More of an opinion piece than an article reflecting current events"

Bias was also found to motivate reasoning behind determining whether an article was fake news where the content covered potentially controversial or largely debated topics such as social media platform policies and South African politics.

"Facebook is also a very well-known company, and it is believable that these measures could be taken upon risky accounts and users."

"With Zimbabwe being impoverished, it would make sense for Zimbabweans to rush into South Africa once the borders opened"

Many respondents cited previous experience with the topic of the article or previous knowledge as their reasons.

*"I did receive a lot of results on google but **personally have not seen this** happen as I do have Instagram and can see other people's likes"*

*"This has happened before, I'm confident in what I said because **I do use Instagram** and likes are a feature on the platform"*

*"**Spoke to a friend** who was from Zimbabwe and shared similar story"*

Some characteristics of the conscientiousness personality trait were found in some of the responses given. There were a few respondents whose reasons were given that the article

seemed to be fake news or gave no reason. Some respondents' reasoning was simply that it sounded fake or true based on the article sounding sensationalist or additional reasoning outside of the content of the article to justify it being real or fake. Most of the respondents incorrectly identified if the article was real or fake due to this reasoning. Conscientiousness includes characteristics such as being detail-oriented, and mindful. This lack of being detail-oriented or inability to provide a complete response indicates a potentially lower level of conscientiousness.

"Sharing videos of extreme activities is a big part of social media so it would not make sense for Facebook to ban these accounts"

"Seems impractical to cross a border just to get shopping done"

"This sounds like something that is probable of happening so I would be more inclined to believe it."

In contrast, many respondents who focussed on details of the article were able to correctly identify if it was a news article as real or fake in most cases. Their reasoning included that the source was credible, the statistics provided seemed correct, the date was in line with the event, and other similar. This could indicate a higher level of conscientiousness.

*"The **date** in the title coincides with the date the borders were reopened"*

*"The article **references its source** for the information."*

Two respondents' reasoning for identifying an article as real news incorrectly was motivated by their lack of experience on the topic and this being the only exposure to it.

"I am not actually sure if it is real or fake news since we have no evidence to go off of. We should just take it as possible since the terms for social services change very frequently and could, at one time put a strict policy on extreme sports"

From these findings, we determined that trust, bias, personal experience, previous knowledge, and the personality factor of conscientiousness have an influence on students' identification of fake news articles and can lead to increased intention to share.

5.4. Conclusion

In this chapter, the themes discovered from the qualitative findings were given as well as sample responses for each theme and sub-theme. It was found that trust, bias, and conscientiousness positively influences intention to share fake news. With these findings hypotheses 4 and 5 are supported while hypothesis 8 is partially supported. These findings provided no additional insight into the other proposed hypotheses. Previous knowledge about a subject or their personal experience was found to be additional factors that influence sharing behaviour that was not in the proposed hypotheses.

In the next chapter, the quantitative data are analysed and discussed. The qualitative findings are then combined with the quantitative findings to determine what hypotheses are supported.

CHAPTER 6 : ANALYSIS OF QUANTITATIVE FINDINGS

6.1. Introduction

In this chapter, the data analysis and findings will be discussed in depth. The data gathered from the questionnaire respondents will be transformed and analysed using the methods discussed in chapter 4.

6.2. Data Analysis Method

Before Path analysis was performed the data set was split into two parts, according to good practice. An exploratory factor analysis was run on the first part. The results from the exploratory factor analysis were used to build a path analysis on the remaining data. This provided a graphical representation of the algebraic relationship between all the variables in the model as well as the strength of the relationships and potential patterns within the system. Exploratory factor analysis was not performed due to the sample size (190 respondents) not being large enough.

The items in the questionnaire were grouped into constructs based on a literature review and hypothesis proposed in chapters two and three. The Cronbach alphas were calculated for these constructs (see section 6.4) and although the alphas were not always satisfactory, this was used to justify the composition of the constructs.

To try and compensate for the lack of degrees of freedom, separate path analyses were performed for the three major constructs in the model, namely platform (newspaper, social media, tv, radio, forums, word of mouth, and other personality (extraversion, agreeableness, conscientiousness, emotional stability and openness to experiences) and other constructs (conformity, TPP, trust, bias, social responsibility, and emotional influences). The separate models were trimmed by consecutively excluding those constructs whose parameter estimates had the highest p-values until only significant parameter estimates remained in the model.

Finally, the three resulting models were combined in one model and the process was repeated until only significant parameter estimates remained in the model.

The frequency distributions and descriptive statistics will first be discussed followed by the reliability test where Cronbach alphas were used. The normality of the models is shown using ketosis values.

6.3. Frequency Distributions and Descriptive Statistics for Survey Items

Usable responses from 190 students were collected over six months. In Table 6.1 the age distribution of the participants is shown. Most of the respondents fall between the age range of 18-20; 49.47% of the responses. 37.37% of respondents fall between the age range 21-23 and 11.58% of respondents fall in the 24-26 age range. The remaining 1.58% of respondents fall within the other grouping.

Table 6.1: Age groups

Age group	Number of Participants	Percentage (%)
18-20	94	49.47
21-23	71	37.37
24-26	22	11.58
Other	3	1.58
Total	190	100

In Table 6.2 the year of study of respondents is shown. 77 of respondents were in the first year of their degree, 40.53% of the sample population. 42 respondents (22.11%) were in the third year of their studies. 41 respondents were in their second year of studies (21.58%). The remaining 30 (17.79%) respondents were in their fourth year and higher.5

Table 6.2: Year into degree

Year	Number of Participants	Percentage (%)
First	77	40.53
Second	41	21.58
Third	42	22.11
Fourth	18	9.47
Fifth	2	1.05
Masters	1	0.53
Honours	3	1.58
Other	6	3.16
Total	190	100

Table 6.3 shows the time that students spend consuming news. 108 (56.84%) respondents reported spending 1-hour consuming news per day, 37 (19.47%) reported spending between 2- and 3-hours consuming news while 29 (15.26%) reported spending no time daily consuming news. The remaining 16 respondents spend more than 2 hours consuming news per day.

Table 6.3: Time spent consuming news

Hours	Number of Participants	Percentage (%)
0	29	15.26
1	108	56.84
1-2	37	19.47
2-3	9	4.74
More than 3	7	3.68
Total	190	100

Table 6.4 shows the most used devices among students to consume news. The most used device among student respondents was a phone with 82 (43.16%). A computer was the second most used with 78 (41.05%).

Table 6.4: Devices used

Device	Number of Participants	Percentage (%)
Phone	82	43.16
Tablet	6	3.16
Computer	78	41.05
TV	22	11.58
Other	2	1.05
Total	190	

Table 6.5 to 6.10 shows the frequency of media use for news consumption among respondents. Social media was the most popular media while Newspapers and Forums were shown to be used rarely or never by most respondents.

Table 6.5: Media platforms for news: Newspaper

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	101	53.16	53.16	53.16
Rarely	59	31.05	31.05	84.21
Sometimes	18	9.47	9.47	93.68
Often	9	4.74	4.74	98.42
Very often	3	1.58	1.58	100
Total	190	100	100	

Table 6.6: Media platforms for news: social media

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	5	2.63	2.63	2.63
Rarely	9	4.74	4.74	7.37
Sometimes	37	19.47	19.47	26.84
Often	56	29.47	29.47	56.32
Very often	83	43.68	43.68	100
Total	190	100	100	

Table 6.7: Media platforms for news: TV

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	31	16.32	16.32	16.32
Rarely	43	22.63	22.63	38.95
Sometimes	63	33.16	33.16	72.11
Often	32	16.84	16.84	88.95
Very often	21	11.05	11.05	100
Total	190	100	100	

Table 6.8: Media platforms for news: Radio

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	55	28.95	28.95	28.95
Rarely	45	23.68	23.68	52.63
Sometimes	53	27.89	27.89	80.53

	Frequency	Percent	Valid Percent	Cumulative Percent
Often	26	13.68	13.68	94.21
Very often	11	5.79	5.79	100
Total	190	100	100	

Table 6.9: Media platforms for news: Forums

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	114	60.00	60.00	60.00
Rarely	33	17.37	17.37	77.37
Sometimes	20	10.53	10.53	87.89
Often	15	7.89	7.89	95.79
Very often	8	4.21	4.21	100
Total	190	100	100	

Table 6.10: Media platforms for news: Word of mouth

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	15	7.89	7.89	7.89
Rarely	34	17.89	17.89	25.79
Sometimes	64	33.68	33.68	59.47
Often	61	32.11	32.11	91.58
Very often	16	8.42	8.42	100
Total	190	100	100	

Table 6.11 to 6.16 shows the frequency of social media platform use for news consumption among respondents. Half of the respondents reported never or rarely using Snapchat or Reddit. The most used sites were YouTube and Instagram. Facebook and Twitter were reportedly used less frequently. Phones were the most used device across all social media platforms followed by the computer.

Table 6.11: Social media platform use for news: Facebook

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	102	53.68	53.68	53.68
Rarely	31	16.32	16.32	70.00
Sometimes	21	11.05	11.05	81.05
Often	28	14.74	14.74	95.79
Very often	8	4.21	4.21	100
Total	190	100	100	

Table 6.12: Social media platform use for news: Twitter

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	97	51.05	51.05	51.05
Rarely	27	14.21	14.21	65.26
Sometimes	20	10.53	10.53	75.79
Often	19	10.00	10.00	85.79
Very often	27	14.21	14.21	100
Total	190	100	100	

Table 6.13: Social media platform use for news: Instagram

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	48	25.26	25.26	25.26
Rarely	24	12.63	12.63	37.89
Sometimes	37	19.47	19.47	57.37
Often	39	20.53	20.53	77.89
Very often	42	22.11	22.11	100
Total	190	100	100	

Table 6.14: Social media platform use for news: YouTube

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	19	10.00	10.00	10.00
Rarely	15	7.89	7.89	17.89
Sometimes	43	22.63	22.63	40.53
Often	49	25.79	25.79	66.32
Very often	64	33.68	33.68	100
Total	190	100	100	

Table 6.15: Social media platform use for news: Snapchat

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	151	78.24	79.47	79.47
Rarely	23	12.44	79.47	91.58
Sometimes	12	6.74	79.47	97.89
Often	4	2.59	79.47	100
Very often	0	0	79.47	100
Total	190	100	100	

Table 6.16: Social media platform use for news: Reddit

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	142	74.74	74.74	74.74
Rarely	18	9.47	9.47	84.21
Sometimes	15	7.89	7.89	92.11
Often	12	6.32	6.32	98.42
Very often	3	1.58	1.58	100
Total	190	100	100	

Table 6.17 to 6.23 shows the respondents' motivations for sharing news content. Political and escapism were shown to be the least frequent reason. Shocking, currently relevant, relevant to others, and entertainment motivators were moderate. The factor that showed to have the highest motivation was informative.

Table 6.17: Motivation for sharing news: Shocking

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	34	17.89	17.89	17.89
Rarely	38	20.00	20.00	37.89
Sometimes	49	25.79	25.79	63.68
Often	37	19.47	19.47	83.16
Very often	32	16.84	16.84	100
Total	190	100	100	

Table 6.18: Motivation for sharing news: Informative

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	5	2.63	2.63	2.63
Rarely	11	5.79	5.79	8.42
Sometimes	48	25.26	25.26	33.68
Often	65	34.21	34.21	67.89
Very often	61	32.11	32.11	100
Total	190	100	100	

Table 6.19: Motivation for sharing news: Culturally Relevant

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	53	27.89	27.89	27.89
Rarely	23	12.11	12.11	40.00
Sometimes	45	23.68	23.68	63.68
Often	38	20.00	20.00	83.68
Very often	31	16.32	16.32	100
Total	190	100	100	

Table 6.20: Motivation for sharing news: Political

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	61	32.11	32.11	32.11
Rarely	50	26.32	26.32	58.42
Sometimes	37	19.47	19.47	77.89
Often	26	13.68	13.68	91.58
Very often	16	8.42	8.42	100
Total	190	100	100	

Table 6.21: Motivation for sharing news: Relevant to others

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	29	15.26	15.26	15.26
Rarely	11	5.79	5.79	21.05
Sometimes	51	26.84	26.84	47.89
Often	56	29.47	29.47	77.37
Very often	43	22.63	22.63	100
Total	190	100	100	

Table 6.22: Motivation for sharing news: Entertainment

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	31	16.32	16.32	16.32
Rarely	16	8.42	8.42	24.74
Sometimes	43	22.63	22.63	47.37
Often	57	30.00	30.00	77.37
Very often	43	22.63	22.63	100
Total	190	100	100	

Table 6.23: Motivation for sharing news: Escapism

	Frequency	Percent	Valid Percent	Cumulative Percent
Never	98	51.58	51.58	51.58
Rarely	37	19.47	19.47	71.05
Sometimes	25	13.16	13.16	84.21
Often	19	10.00	10.00	94.21
Very often	11	5.79	5.79	100
Total	190	100	100	

The participants were asked to indicate what types of news categories they follow (see table 6.24). Each of these categories can be grouped into either soft news or hard news. The news categories that are followed most are entertainment with 142 responses and social with 140 responses. This is closely followed by health content with 114 responses. Most respondents follow news that falls under the soft news classification. There are two main types of news categories namely soft news and hard news (*Distinctions between Hard and Soft News*, 2016). Soft news is primarily seen as a type of journalism that is focused on entertainment and generally contains information of less importance and urgency. This type of news is usually centred around human-interest stories, gossip, and celebrity updates. Hard news on the other hand is generally more about politics, economics, international relations, scientific and health-related information.

Table 6.24: News categories followed

	Classification	Number of Participants
Entertainment	Soft news	142
Social	Soft news	140
Health	Hard news	114
World events	Hard news	110
Politics	Hard news	106
Education	Hard news	100
Business	Hard news	99

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When asked if the sites that they use most often included the sources of information (see Table 6.25) the majority reported that they do sometimes (59%), followed by 37.37% who reported yes.

Table 6.26 shows whether participants verify the validity of the information in news articles. Most participants (50%) indicated that they "only sometimes" confirm the validity of the information, followed by fewer answering "yes" (31.05%) and the remaining (18.95%) participants answering "no".

Table 6.27 shows whether participants consult multiple sources to confirm the validity of a news article. An equal number of respondents answered "yes" and "sometimes" (38.42%) with the remaining 22.11% answering "no". This is supported by the open-ended questions where respondents had to identify fake news and provide a reason. Many respondents cited their process for confirming if a news article was fake or real was through consulting multiple other sources.

Table 6.28 shows whether participants inform others if the information they shared is incorrect. Most respondents answered "yes" (54.74%). This is followed by participants answering "only sometimes" (27.37%) and "no" (17.89%).

Table 6.25: Question 11 - The media sites I use show or mention their sources.

	Number of Participants	Percentage (%)
Yes	71	37.37
No	6	3.16
Sometimes	113	59.47
Total	190	100

Table 6.26: Question 12 - I verify that the information from news articles is correct.

	Number of Participants	Percentage (%)
Yes	59	31.05
No	36	18.95
Sometimes	95	50.00
Total	190	100

Table 6.27: Question 13 - I consult multiple sources to verify the accuracy of the information.

	Number of Participants	Percentage (%)
Yes	75	39.47
No	42	22.11
Sometimes	73	38.42
Total	190	100

Table 6.28: Question 14 - If I find out the information is incorrect, I inform others

	Number of Participants	Percentage (%)
Yes	104	54.74
No	34	17.89
Sometimes	52	27.37
Total	190	100

In table 6.29 95.79% (182) of respondents said that they knew what fake news was while 4.21% (8) said that they did not know what fake news was. This is similar to the question where they were asked if they knew what misinformation was (see Table 6.30) where 95.79% (182) responded "yes" while 4.21% (8) said "no". When asked if they knew what disinformation was (see Table 6.31) fewer students knew but the majority of 70% (133) still reported "yes", 30% (57) answered "no".

Table 6.29: Question 15 - I know what fake news is

	Number of Participants	Percentage (%)
Yes	182	95.79
No	8	4.21
Total	190	100

Table 6.30: Question 16 - I know what misinformation is.

	Number of Participants	Percentage (%)
Yes	182	95.79
No	8	4.21
Total	190	100

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Table 6.31: Question 17 - I know what disinformation is.

	Number of Participants	Percentage (%)
Yes	133	70.00
No	57	30.00
Total	190	100

Table 6.32 shows the frequency distribution of respondents sharing fake news unknowingly. 32.1% reported a neutral answer. 25.8% of respondents agreed somewhat and 10% agreed strongly. Similarly, Table 6.33 shows the frequency distribution of respondents sharing fake news knowingly. This implies a more malicious spreading of information than the previous table where it is assumed more accidental. The majority of respondents (80.5%) disagreed; 59.5% strongly disagreed while 21.5% disagreed somewhat. 11.1% of respondents were neutral while 8.4% agreed, implying deliberate spreading of misinformation.

Table 6.32: Frequency table - I have shared fake news unknowingly.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Strongly disagree**	33	17.37	17.37	17.37
	Somewhat disagree	28	14.74	14.74	32.11
	Neutral	61	32.11	32.11	64.21
	Somewhat agree	49	25.79	25.79	90.00
	Strongly agree	19	10.00	10.00	100.00
	Total	190	100.0	100.0	

Table 6.33: Frequency table - I have shared fake news knowingly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Strongly disagree**	113	59.47	59.47	59.47
	Somewhat disagree	40	21.05	21.05	80.53
	Neutral	21	11.05	11.05	91.58
	Somewhat agree	11	5.79	5.79	97.37
	Strongly agree	5	2.63	2.63	100.00
	Total	190	100.0	100.0	

Kurtosis index is used to identify the normality of the data. Test of normality is important to decide the appropriate statistical methods that can be used for data analysis. A Kurtosis value between 1 and -1 can be considered normal (Yuan & Bentler, 2006). A value greater than +1 indicates that the distribution is too peeked while a value less than -1 indicates that the distribution is too flat and flatter than a normal curve with the same mean and standard deviation.

Other sources argue that a value between 2 and -2 or +3 and -3 is acceptable to prove normal univariate distribution (Chemingui & Lallouna, 2013; George & Mallery, 2016). Values that exceed 5 indicated that the data is not normally distributed (Yuan & Bentler, 2006). A kurtosis less than +/- 3 indicates lighter tails in the distribution. A kurtosis greater than +/- 3 indicates that the data is distributed more in the tails.

For the intention to share fake news the kurtosis value (shown in table 6.34) is 0.213 and therefore indicates a normal distribution. The mean value (2.34) is similar to the median value (2.5) indicating that the data is normally distributed. The data is also positively skewed with a value of 0.209.

Table 6.34: Descriptive statistics - Intention to share fake news

			Statistic	Std. Error
Intention to share fake	**Mean**		2.34	0.060
	95% Confidence Interval for Mean	Lower Bound	2.22	
		Upper Bound	2.46	
	5% Trimmed Mean		2.31	
	Median		2.5	
	Variance		0.695	
	Std. Deviation		0.834	
	Minimum		1	
	Maximum		5	

		Statistic	Std. Error
Range		4	
Interquartile Range		1	
Skewness		0.209	0.176
Kurtosis		0.213	0.351

The test rejects the hypothesis of normality since the p-value (shown in table 6.35) is less than 0.05. If the value is above 0.05 then no significant departure from the normality was found. If the value is below 0.05 that means that we can state with 95% confidence that the data does not fit the normal distribution. This is also depicted in Figures 4 and 5 for a clearer visual understanding of the data.

Table 6.35: Tests of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Intention to share fake news	0.145	190	0.000	0.932	190	0.000

a. Lilliefors Significance Correction

Figure 4 depicts a histogram and shows that intention to share is skewed to the right indicating that the sample population had a low intention to share with a mean of 2.34. This is supported by the box plot in figure 6 shows the median in the centre of the box with the whisker on the lower end shorter than the top indicating a positive/right skew of the distribution. Figure 5 also indicates the presence of two outliers. The 25th percentile is shown to be 2 and the 75th percentile is shown to be 3.

Intention to share fake news
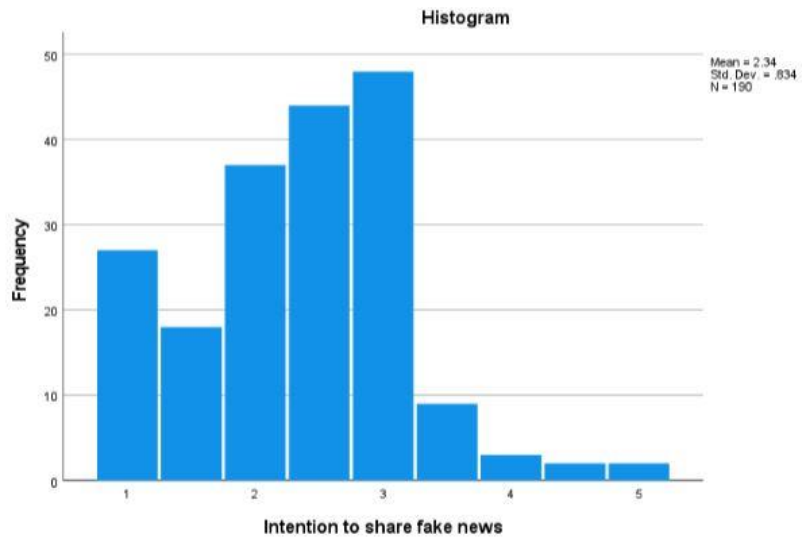
Figure 4: Histogram for intention to share fake news
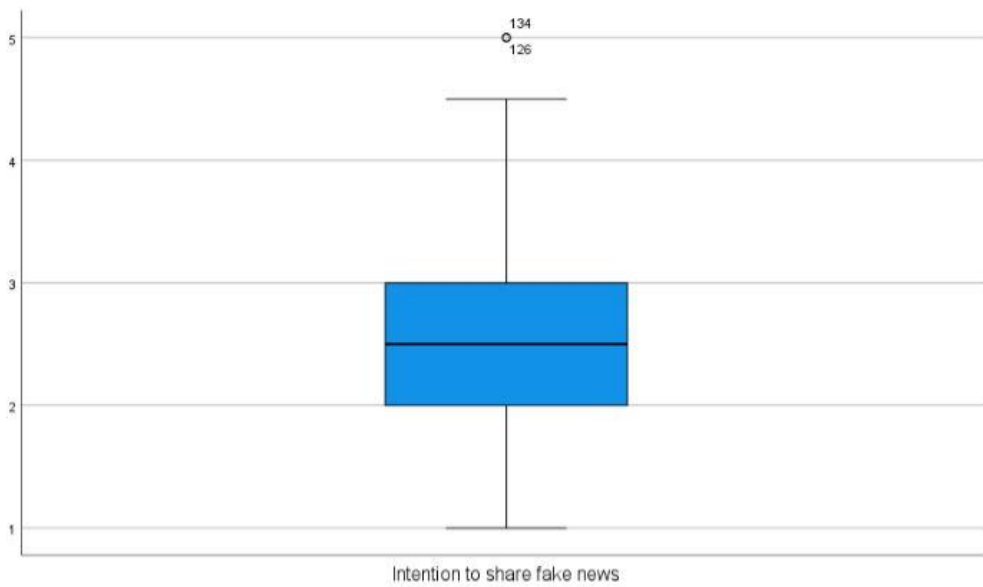
Figure 5: Box Plot for intention to share fake news

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Table 6.36 shows results from the section where students were asked to identify if a news article was fake or real based on the information given such as the title of the article, the date published, and the publication The majority of respondents were able to correctly identify fake news and real news articles. An average of 69.33% of respondents were able to correctly identify misleading news articles. 38% of respondents incorrectly identified real news articles as fake news.

Table 6.36: Fake news identification

		Correctly identified	Incorrectly identified	Total
UN declares South Africa Most Corrupt Country in the World, IJozi 29 September 2016	Fake	161 (84%)	32 (16%)	190
Facebook bans thousands of Snowboarders, base jumpers in crackdown on "dangerous" accounts, The Onion, 5 March 2019	Fake	125 (65%)	68 (35%)	190
Instagram Begins Hiding Likes, The Onion, 5 July 2019	Fake	113 (59%)	80 (41%)	190
Zimbabwean shoppers rush into SA as borders open, CGNT Africa, 2 October 2020	Real	149 (77%)	44 (23%)	190
Richard Calland: South Africa needs a Roosevelt style of leadership. Mail & Guardian, 3 October 2020	Real	144 (75%)	49 (25%)	190
		692 (71.71%)	273 (28.29%)	965

6.4. Constructs Reliability Test Result

Cronbach's α was selected to conduct the reliability test (see Table 6.37 to Table 6.40). The minimum values needed for an acceptable α coefficient depend on many different factors. Many methodologies recommend a minimum **α** of 0.65. **α** coefficients less than 0.5 are usually unacceptable.

Cronbach alpha was used to measure reliability / internal consistency. This allows us to test if the questionnaire questions that made use of the Likert scale are reliable. Cronbach alphas will allow us to see if items in a group are closely related. A value less than 0.5 is not acceptable, a value between 0.5 and 0.6 is poor, a value between 0.6 and 0.7 is questionable, and a value above 0.7 is acceptable as a rule of thumb. (Lavrakas, 2008; Tavakol & Dennick, 2011)

In table 6.37 the Cronbach's α values for the factors in the original model are given. The Emotionally driven construct had a coefficient of 0.791 which is ideal. The Social responsibility, TPP, bias, and platform coefficients are all above 0.6. The Conformity and Trust coefficients are above 0.55. The construct of personality as a whole is just below the acceptable range of 0.5. From the individual constructs of personality (Shown in table 6.39) only extraversion had a coefficient above 0.5.

In table 6.38 the Cronbach alphas are given for social media platforms broken into three categories. All the categories have values below the acceptable threshold.

Table 6.37: Cronbach alphas for all general factors

Construct	Cronbach's (α) Values
Conformity	0.570
Trust	0.580
Social responsibility	0.643
TPP	0.668
Emotionally driven	0.791
Bias	0.666
Personality	0.499
Platform	0.615

Table 6.38: Cronbach alphas for platform use

Construct	Cronbach's (α) Values
Traditional media use	0.396
Digital media use	0.162
Word of mouth and other use	-0.38

Construct	Cronbach's (α) Values
All media use	0.615

Table 6.39: Cronbach alphas for personality factors

Construct	Cronbach's (α) Values
Extraversion	0.677
Agreeableness	0.085
Conscientiousness	0.485
Emotional stability	0.406
Openness to experience	0.299

6.5. Item Statistics and outlier detection

To detect outliers standard deviation will be used. Standard deviation is recognized as the most commonly used and effective method to detect outliers (Hair et al., 2010; Pallant, 2010). Other methods such as scatter plots or box plots can also be used (Cousineau & Chartier, 2010; Hair et al., 2010; Shaari et al., 2009). The standard deviation values around the mean are calculated for each variable. This measures how dispersed the data is in relation to the mean. A low standard deviation value indicated that the data points are clustered to the meanwhile a high standard deviation value indicates that the data points are more spread out. Observations with standardised values exceeding +/- 2.5 are usually classified as outliers (Hair et al., 2010). Other research suggests that values exceeding +/- 3 can be classified as outliers (Pallant, 2010).

In the following sections, the standard deviation values for each variable will be given to determine if outliers are present. The Item-Total Statistics for each factor related to the questionnaire items is also given to determine if the correlation between the items is significant.

6.5.1. Combined factors

In table 6.40 the standard deviation for intention to share is less than 2.5 indicating that there are no outliers. Similarly, the standard deviation relating to the other model factors (trust, conformity, social responsibility, TPP, emotionally driven, bias and personality) are all well

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within the range of +/- 2.5 (see table 6.41 to 6.47). For these factors, no outliers are detected using standard deviation.

Table 6.40: Item Statistics for intention to share

How often do you use the following media platforms for news?			
	Mean	Std. Deviation	N
B10: I have shared fake news unknowingly.	2.96	1.221	190
B11: I have shared fake news knowingly.	1.72	1.060	190

Table 6.41: Item Statistics for conformity

How often do you use the following media platforms for news?			
	Mean	Std. Deviation	N
B1: I feel others make me doubt what news I should believe.	3.06	1.216	190
B3: I wonder what everybody might be thinking of me when I disagreed with the norm on a popular topic.	2.63	1.277	190
B4: I conform to others' beliefs on new subjects even if I disagree.	2.06	1.189	190

Table 6.42: Item Statistics for trust

How often do you use the following media platforms for news?			
	Mean	Std. Deviation	N
B6: I trust the news sources I use to provide correct and accurate information.	3.77	.925	190
B7: I would change platforms if I lost trust in the correctness of the news they provided.	3.96	1.012	190
B8: I often question the correctness of the information provided.	3.76	1.015	190
B28: My friends/family consistently share news with me.	3.47	1.203	190

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How often do you use the following media platforms for news?			
B29: I consistently share news with friends/family.	3.07	1.243	190

Table 6.43: Item Statistics for social responsibility

How often do you use the following media platforms for news?			
	Mean	Std. Deviation	N
B12: I think sharing fake news has an impact on matters I think are important.	3.97	1.208	190
B13: I think it is harmful for people to share fake news.	4.43	.983	190
B14: I think I can make an impact on the spread of fake news.	3.32	1.171	190
B19: I actively think about not sharing incorrect information.	3.92	1.033	190
B20: I share news to people in hopes of correcting their Misunderstanding of a topic.	3.64	1.168	190

Table 6.44: Item Statistics for TPP

How often do you use the following media platforms for news?			
	Mean	Std. Deviation	N
B15: I am confident in my ability to spot fake news.	3.50	0.969	190
B16: I think I am less likely to believe fake news than others.	3.68	0.980	190
B17: I think other people follow untrustworthy sources.	3.67	0.970	190
B18: I think people are easily influenced by what they read.	4.28	0.831	190

Table 6.45: Item Statistics for emotionally driven

How often do you use the following media platforms for news?			
	Mean	Std. Deviation	N

How often do you use the following media platforms for news?			
B21: It is important for me to share news about a topic I care about.	3.59	1.172	190
B22: It is important for me to share news about a topic I agree with.	3.38	1.119	190
B27: I find it enjoyable to share news.	2.89	1.165	190

Table 6.46: Item Statistics for bias

How often do you use the following media platforms for news?	Mean	Std. Deviation	N
B23: I tend to share news that I think is true.	3.65	1.077	190
B24: I share news with people who share my values.	3.59	1.073	190
B25: I encourage other people to also use my news sources.	2.93	1.105	190
B26: I would rather share an article that supports my view than one that is more informative.	2.36	1.059	190

Table 6.47: Item Statistics for personality

How often do you use the following media platforms for news?	Mean	Std. Deviation	N
P1: I see myself as: Extroverted or enthusiastic	4.28	1.864	190
P2_R: I see myself as: NOT Critical or quarrelsome	3.48	1.702	190
P3: I see myself as: Dependable or self- disciplined	5.63	1.430	190
P4_R: I see myself as: Relaxed or not easily upset	3.93	1.764	190
P5: I see myself as: Open to new experiences or complex	5.45	1.393	190
P6_R: I see myself as: Unreserved or load	3.52	1.970	190
P7: I see myself as: Sympathetic or warm	5.18	1.694	190
P8_R: I see myself as: Organized or careful	5.14	1.713	190
P9: I see myself as: Calm or emotionally stable	4.99	1.607	190

How often do you use the following media platforms for news?			
P10_R: I see myself as: Unconventional or creative	4.98	1.735	190

The correlation coefficient can be used to determine the strength of the relationship between variables (Pallant, 2010). A correlation below 0.1 represents a weak or small association, a correlation above 0.3 and below 3 is considered a moderate correlation, and a correlation above 0.5 is considered a large correlation.

The correlation between the items for intention to share (table 6.48) is very low (below 0.10) is problematic. The correlations between the first and third conformity items in table 6.49 are al moderate. The second item is just above 0.5 and can be considered large.

The correlations between all the trust items in table 6.50 are al moderate (between 0.1 and 0.3). The correlations between most of the social responsibility items in table 6.51 have moderate correlations (between 0.1 and 0.3).

The correlations between most of the social responsibility items in table 6.52 have moderate correlations (between 0.1 and 0.3). Item B16 has a strong correlation. The correlations between the first two emotionally driven items in table 6.53 have large correlations with only the last item having a moderate correlation value.

The correlations between the first two bias items in table 6.54 have large correlations and the last two items have correlations.

Table 6.48: Item-Total Statistics for intention to share

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B10: I have shared fake news unknowingly.	1.72	1.123	0.064	.
B11: I have shared fake news knowingly.	2.96	1.490	0.064	.

Table 6.49: Item-Total Statistics for conformity

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B1: I feel others make me doubt what news I should believe.	4.69	4.097	0.350	0.514
B3: I wonder what everybody might be thinking of me when I disagreed with the norm on a popular topic.	5.13	3.328	0.502	0.262
B4: I conform to others' beliefs on new subjects even if I disagree.	5.69	4.393	0.299	0.585

Table 6.50: Item-Total Statistics for trust

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B6: I trust the news sources I use to provide correct and accurate information.	14.26	8.288	0.350	0.521
B7: I would change platforms if I lost trust in the correctness of the news they provided.	14.07	8.487	0.254	0.567
B8: I often question the correctness of the information provided.	14.27	8.261	0.294	0.547

How often do you use the following media platforms for news?				
B28: My friends/family consistently share news with me.	14.55	7.074	0.389	0.493
B29: I consistently share news with friends/family.	14.96	6.824	0.407	0.482

Table 6.51: Item-Total Statistics for social responsibility

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B12: I think sharing fake news has an impact on matters I think are important.	15.30	7.989	0.496	0.537
B13: I think it is harmful for people to share fake news.	14.84	9.456	0.399	0.591
B14: I think I can make an impact on the spread of fake news.	15.95	9.252	0.310	0.633
B19: I actively think about not sharing incorrect information.	15.35	9.328	0.386	0.596
B20: I share news to people in hopes of correcting their misunderstanding of a topic.	15.63	8.700	0.402	0.588

Table 6.52: Item-Total Statistics for TPP

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

How often do you use the following media platforms for news?				
		Item Deleted		
B15: I am confident in my ability to spot fake news.	11.64	4.635	0.359	0.661
B16: I think I am less likely to believe fake news than others.	11.46	4.048	0.523	0.547
B17: I think other people follow untrustworthy sources.	11.46	4.356	0.438	0.608
B18: I think people are easily influenced by what they read.	10.85	4.634	0.488	0.581

Table 6.53: Item-Total Statistics for emotionally driven

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B21: It is important for me to share news about a topic I care about.	6.27	3.721	0.738	0.597
B22: It is important for me to share news about a topic I agree with.	6.48	4.008	0.709	0.636
B27: I find it enjoyable to share news.	6.97	4.692	0.473	0.880

Table 6.54: Item-Total Statistics for Bias

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
B23: I tend to share news that I think is true.	8.88	5.299	0.572	0.510
B24: I share news with people who share my values.	8.94	5.414	0.547	0.529
B25: I encourage other people to also use my news sources.	9.61	5.806	0.426	0.613
B26: I would rather share an article that supports my view than one that is more informative.	10.17	6.733	0.263	0.712

6.5.2. Individual personality factors

In table 6.55 to 6.59 the standard deviation for the individual personality factors are given. The standard deviation values are all well within the acceptable range of +/- 2.5 indicating no outliers.

Table 6.55: Item Statistics for Extraversion

How often do you use the following media platforms for news?			
	Mean	Std. Deviation	N
P1: I see myself as: Extroverted or enthusiastic	4.28	1.864	190
P6_R: I see myself as: Unreserved or load	3.52	1.970	190

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Table 6.56: Item Statistics for Agreeableness

How often do you use the following media platforms for news?	Mean	Std. Deviation	N
P7: I see myself as: Sympathetic or warm	5.18	1.694	190
P2_R: I see myself as: NOT Critical or quarrelsome	3.48	1.702	190

Table 6.57: Item Statistics for Conscientiousness

How often do you use the following media platforms for news?	Mean	Std. Deviation	N
P3: I see myself as: Dependable or self-disciplined	5.63	1.430	190
P8_R: I see myself as: Organized or careful	5.14	1.713	190

Table 6.58: Item Statistics for Emotional stability

How often do you use the following media platforms for news?	Mean	Std. Deviation	N
P9: I see myself as: Calm or emotionally stable	4.99	1.607	190
P4_R: I see myself as: Relaxed or not easily upset	3.93	1.764	190

Table 6.59: Item Statistics for Openness to experience

How often do you use the following media platforms for news?	Mean	Std. Deviation	N
P5: I see myself as: Open to new experiences or complex	5.45	1.393	190
P10_R: I see myself as: Unconventional or Creative	4.98	1.735	190

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The correlation values for the individual personality traits can be seen in Tables 6.60 to 6.64. For extraversion, the items have large correlations. For conscientiousness, extraversion, and openness the items have moderate correlations and for agreeableness the items have small correlations.

Table 6.60: Item-Total Statistics for Extraversion

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P1: I see myself as: Extroverted or enthusiastic	3.52	3.881	0.513	.
P6_R: I see myself as: Unreserved or load	4.28	3.474	0.513	.

Table 6.61: Item-Total Statistics for Agreeableness

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P7: I see myself as: Sympathetic or warm	3.48	2.897	0.044	.
P2_R: I see myself as: NOT Critical or Quarrelsome	5.18	2.871	0.044	.

Table 6.62: Item-Total Statistics for Conscientiousness

How often do you use the following media platforms for news?			
	Scale Mean if	Scale Variance if	Corrected Item-Total	Cronbach's

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How often do you use the following media platforms for news?				
	Item Deleted	Item Deleted	Correlation	Alpha if Item Deleted
P3: I see myself as: Dependable or self-disciplined	5.14	2.934	0.326	.
P8_R: I see myself as: Organized or careful	5.63	2.045	0.326	.

Table 6.63: Item-Total Statistics for Emotional stability

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P9: I see myself as: Calm or emotionally stable	3.93	3.112	0.255	.
P4_R: I see myself as: Relaxed or not easily upset	4.99	2.582	0.255	.

Table 6.64: Item-Total Statistics for Openness to experience

How often do you use the following media platforms for news?				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P5: I see myself as: Open to new experiences or complex	4.98	3.010	0.180	.

P10_R: I see myself as: Unconventional or creative	5.45	1.942	0.180	.

6.5.3. Platform use

In table 6.65 the standard deviations for the different media platforms are given. The standard deviation values are all well within the acceptable range of +/- 2.5 indicating no outliers.

The correlation values for the individual media platforms can be seen in table 6.66. TV, radio, social media, and forums have moderate correlations while newspaper has a small negative correlation.

Table 6.65: Item Statistics for all media use

How often do you use the following media platforms for news?			
	Mean	Std. Deviation	N
TV	2.88	1.226	190
Radio	2.48	1.233	190
Newspaper	1.71	0.936	190
Social media	4.08	1.033	190
Forums	1.81	1.199	190

Table 6.66: Item-Total Statistics for all media use

How often do you use the following media platforms for news?			
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
TV	15.95	14.246	0.334	0.576
Radio	16.35	14.854	0.259	0.603
Newspaper	17.13	18.090	-0.016	0.667
Social media	14.75	14.251	0.451	0.539
Forums	17.03	13.708	0.416	0.546

6.6. Models

In this section, all the models used to reach the final model with the meaningful constructs will be discussed.

6.6.1. General factor model

In this model, all the variables will be used. These variables are conformity, trust, social responsibility, TPP, emotional driver, and bias (figure 6). The individual factors of personality and platform are evaluated separately in the following sections.

From these factors, the only significant factors kept in the model are conformity, TPP, emotional driver, and bias. The trust and social responsibility were removed due to their high p-values (0.516 and 0.919 respectively) shown in table 6.67. These values were far above 0.05 and it is generally recommended to exclude these factors from the model.
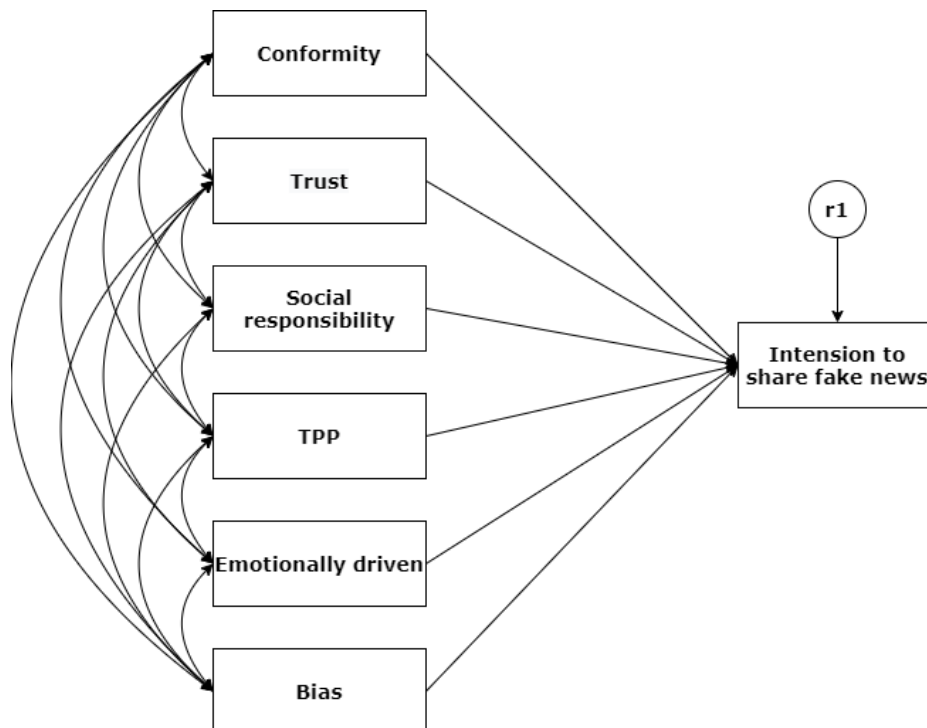
Figure 6: General factor model

Table 6.67: Regression weights of all variables

			Estimate	S.E.	C.R.	P
Intention to share	<---	Conformity	,210	,078	2,684	,007
Intention to share	<---	Trust	,086	,133	,650	,516

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Intention to share	<---	Social responsibility	,013	,127	,101	,919
Intention to share	<---	TPP	-,434	,131	-3,312	***
Intention to share	<---	Emotionally driven	-,321	,083	-3,843	***
Intention to share	<---	Bias	1,000			

6.6.1.1. Confirmatory factor analysis

The chi-square test is used to test the overall model fit. The chi-square value of the overall model is 67.173 with 1 degree of freedom and returns a probability value of less than 0.000. The probability value of the chi-square test is less than 0.05, indicating that the model does not fit the data.

Table 6.68 shows the regression weights of the general factors. The p-values between intention to share and Conformity, TPP, and Emotionally driven are less than 0.05, indicating that these factors are significant.

Table 6.68: Regression weights of first model general variables

			Estimate	S.E.	C.R.	P
Intention to share	<---	Conformity	,214	,078	2,746	,006
Intention to share	<---	TPP	-,389	,105	-3,711	***
Intention to share	<---	Emotionally driven	-,296	,072	-4,086	***
Intention to share	<---	Bias	1,000	-	-	-

6.6.1.2. Covariance

Covariance indicates the relationship of two variables in relation to one another. A positive covariance means that the variable moves in the same direction while negative covariance means they move in the opposite direction. All the covariances are shown in table 6.69. The covariance between conformity and TPP is negative indicating that the positive change in one has a negative change in the other. There are weak relationships between most variables; only the relationship between emotionally driven and bias is moderate.

Table 6.69: Covariances of the first model

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			Estimate	S.E.	C.R.	P
Conformity	<-->	TPP	-,114	,045	-2,549	,011
Conformity	<-->	Emotionally driven	,160	,065	2,462	,014
Conformity	<-->	Bias	,084	,051	1,667	,095
TPP	<-->	Bias	,149	,039	3,824	***
TPP	<-->	Emotionally driven	,120	,048	2,484	,013
Emotionally driven	<-->	Bias	,474	,064	7,386	***

6.6.1.3. Model fit summary

In table 6.70 the degrees of freedom and CMIN is shown. The CMIN value divided by DF less than 3 indicates an acceptable fit between hypothetical model and sample data (Kline, 1998). CMIN/DF less than 5 indicates a reasonable fit (Marsh & Hocevar, 1985). The CMIN/DF value for the general factors (shown in table 6.70) is above 5 and does not indicate a reasonable fit.

Table 6.70: CMIN of first model general factors

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	14	67,173	1	,000	67,173
Saturated model	15	,000	0		
Independence model	5	167,705	10	,000	16,770

In table 6.71 the Goodness-of-fit index (GFI) for the first model is shown. The GFI value is 0.892 indicating a good fit. A GFI value above 0.9 indicates a good fit while a value > 0.85 for a more liberal criterion. The Adjusted GFI (AGFI) however is -1,622 indicating a bad fit and indicating that the model is not acceptable.

Table 6.71: RMR, GFI of the first model

Model	RMR	GFI	AGFI	PGFI
Default model	,164	,892	-,622	,059
Saturated model	,000	1,000		
Independence model	,169	,748	,622	,498

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In table 6.72 the normed fit index (NFI) value for the first model is shown to be 0.599. An NFI above 0.9 indicates a satisfactory fit. The NFI value for this model, therefore, indicates it is not a good fit.

The Comparative fit index (CFI) values are shown in table 6.72. A CFI value of 0.95 or higher is accepted as an indicator of a good fit, 1 being a perfect fit (Hu & Bentler, 1999). The CFI for the general factors (0.580) indicates that it is not a good fit.

Table 6.72: Baseline comparisons of the first model

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,599	-3,005	,603	-3,196	,580
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

The Root-mean-square error of approximation (RMSEA) for the general factors is shown in table 6.73 to be 0.596. This is more than 0.001 and indicates and bad fit.

By evaluating the values of CMIN, RMR, GFI, Baseline comparisons, and RMSEA it is found that the model is not a good fit.

Table 6.73: RMSEA of the first model

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,596	,480	,722	,000
Independence model	,291	,253	,331	,000

6.6.2. Personality model

In this model, the variables are extraversion, agreeableness, conscientiousness, emotional stability, and openness to experiences (figure 7). The final personality model only has conscientiousness and openness to experience (figure 8).

From these factors the only significant factors kept in the model are conscientiousness and openness to experience. Extraversion, agreeableness, and emotional stability were

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removed due to their high p-values (see table 6.74). These values were far above 0.05 and it is generally recommended to exclude these factors from the model.
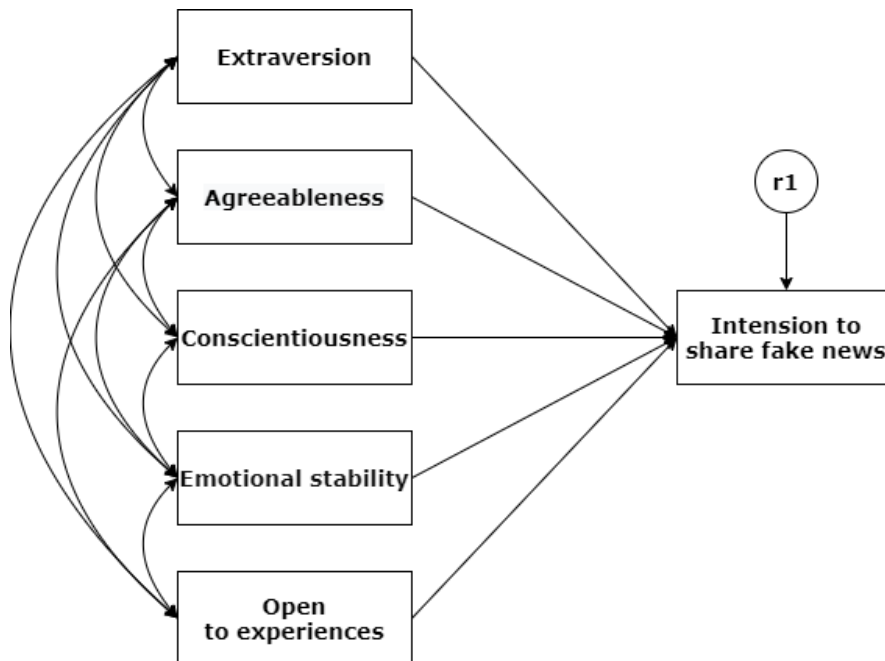
Figure 7: Personality initial factor model
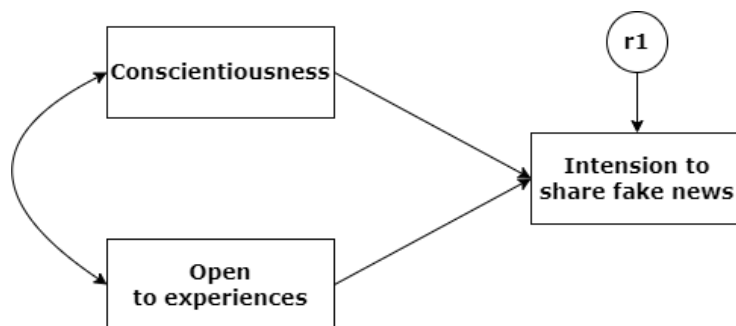

Figure 8: Personality model with significant factors

Table 6.74: Regression weights of all personality variables

			Estimate	S.E.	C.R.	P
Intention to share	<---	Extraversion	-,076	,065	-1,169	,243
Intention to share	<---	Agreeableness	-,075	,089	-,839	,401
Intention to share	<---	Conscientiousness	-,309	,085	-3,630	***
Intention to share	<---	Emotional stability	-,061	,081	-,755	,450
Intention to share	<---	Open to experiences	1,000	-	-	-

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6.6.2.1. Assessment of normality

Table 6.75 gives the assessment of normality. The kurtosis value is 0,103 and therefore indicates a normal distribution.

Table 6.75: Assessment of normality of personality model

Variable	min	max	skew	c.r.	kurtosis	c.r.
Open to experiences	1,500	7,000	-,480	-2,677	-,294	-,821
Conscientiousness	2,000	7,000	-,490	-2,735	-,583	-1,627
Intention to share	1,000	5,000	,194	1,084	,156	,436
Multivariate					,103	,129

6.6.2.2. Confirmatory factor analysis

The chi-square value of the overall model is 205.675 with 1 degree of freedom and returns a probability value of less than 0000. The probability value of the chi-square test is less than 0.05, indicating that the model does not fit the data.

Table 6.76 and 6.77 shows the regression weights of the individual personality traits. The p-value between intention to share and Conscientiousness is less than 0.05, indicating that this factor is significant.

Table 6.78 shows the standardized regression weights for the personality traits. The estimate for conscientiousness is negative and indicates a negative correlation between this variable and intention to share. Open to experiences is positive indicating a positive correlation. The estimate of conscientiousness is small indicating a small influence. Open to experiences has a value between 0.5 and 0.8 indicating a moderate influence.

Table 6.76: Regression weights of personality variables

			Estimate	S.E.	C.R.	P
Intention to share	<---	Conscientiousness	-,340	,083	-4,099	***
Intention to share	<---	Open to experiences	1,000			

Table 6.77: Regression weights of fist model openness to experiences factor

			M.I.	Par Change
Intention to share	<---	Open to experiences	112,147	-,933

Table 6.78: Standardized Regression weights of personality model

			Estimate
Intention to share	<---	Conscientiousness	-,236
Intention to share	<---	Open to experiences	,653

6.6.2.3. Covariance

The covariances are shown in table 6.79. The covariance between conscientiousness and openness to experiences is positive indicating that the positive change in one has a positive change in the other. There is a moderate relationship between these variables (0,484). The p-value is small and indicates that it is significant.

Table 6.79: Covariances personality of personality model

			Estimate	S.E.	C.R.	P
Conscientiousness	<-->	Open to experiences	,484	,118	4,090	***

6.6.2.4. Correlation Analysis

Correlation analysis measures the strength and direction of the linear relationship between two variables. The correlation coefficient is the measurement used to determine to what degree the movement of two different variables is associated. This value ranges from -1.0 to 1.0 where a negative value indicates a negative correlation (-1.0 perfect negative correlation) and a positive value indicates a positive correlation (1.0 perfect positive correlation). The Pearson product-moment correlation is most commonly used to measure the linear relationship between two variables. The value indicates the strength of the relationship (Pallant, 2010).

A small correlation is a value from 0.10 to 0.29. A moderate correlation is from 0.30 to 0.49 and a large correlation from 0.5 to 1 (1 being a perfect correlation) (Pallant, 2010).

Results from the correlation analysis of the personality factors are shown in Table 6.80. There is a positive correlation between conscientiousness and openness to experiences. This is a moderate correlation

Table 6.80: Correlation of personality model

			Estimate
Conscientiousness	<-->	Open to experiences	,314

6.6.2.5. Model fit summary

In table 6.81 the degrees of freedom and CMIN is shown. The CMIN value divided by DF less than 3 indicates an acceptable fit between hypothetical model and sample data (Kline, 1998). CMIN/DF less than 5 indicates a reasonable fit (Marsh & Hocevar, 1985). The CMIN/DF value for the second model (shown in table 6.81) is above 5 and does not indicate a reasonable fit.

In table 6.82 the Goodness-of-fit index (GFI) for the individual personality factors is shown. The GFI value is 0,692 indicating a good fit. The Adjusted GFI (AGFI) however is -0,851 indicating a bad fit and indicates that the model is not acceptable.

Table 6.81: CMIN of personality model

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	5	205,675	1	,000	205,675
Saturated model	6	,000	0		
Independence model	3	20,635	3	,000	6,878

Table 6.82: RMR, GFI of personality model

Model	RMR	GFI	AGFI	PGFI
Default model	1,235	,692	-,851	,115
Saturated model	,000	1,000		

Model	RMR	GFI	AGFI	PGFI
Independence model	,202	,933	,866	,466

Table 6.83 shows the baseline comparison, and the normed fit index (NFI) value is shown to be -8,967. This NFI value is problematic since it is negative and cannot be interpreted. The Comparative fit index (CFI) value is shown in table 6.83 and is 0.00 indicating that it is not a good fit.

The Root-mean-square error of approximation (RMSEA) for the general factors is shown in table 6.84 to be 1.049. This is more than 0.001 and indicates and bad fit.

Table 6.83: Baseline comparisons of personality model

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	-8,967	-28,901	-9,424	-33,818	,000
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

Table 6.84: RMSEA of personality model

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	1,049	,931	1,172	,000
Independence model	,178	,110	,254	,002

6.6.3. Platform model

In this model the variables are the different platforms that students use to consume news. These variables include newspaper, social media, tv, radio, forums, word of mouth, and other (figure 9). From these factors the only significant factors kept in the model are social media and other (figure 10). The other factors were removed due to their high p-values (see table 6.85). These values were far above 0.05 and it is generally recommended to exclude these factors from the model.

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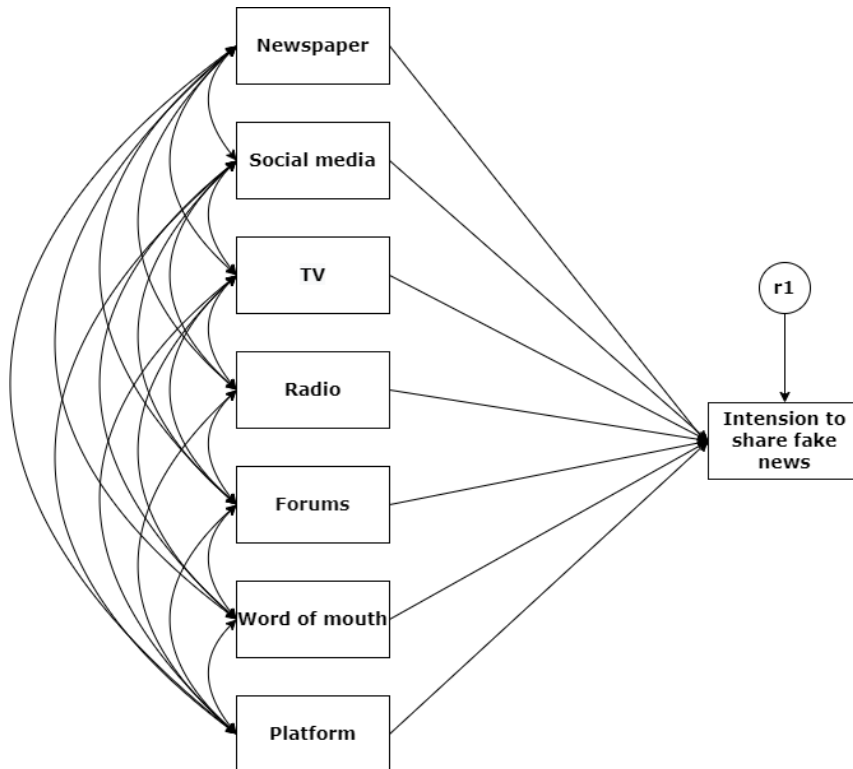
Figure 9: Platform model all variables
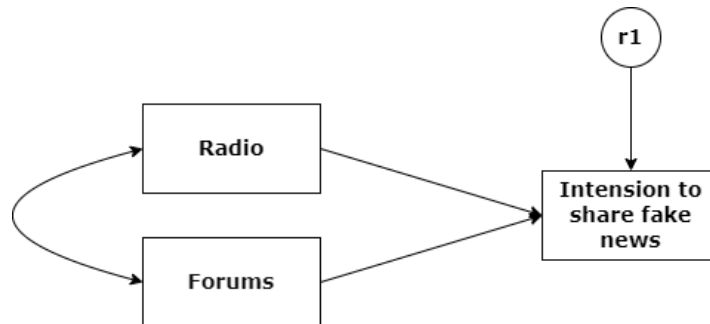
Figure 10: Platform model significant variables

Table 6.85: Regression weights of all platform variables

			Estimate	S.E.	C.R.	P
Intention to share	<---	Platform: social media	,200	,108	1,847	,065
Intention to share	<---	Platform: TV	,061	,091	,669	,503
Intention to share	<---	Platform: Radio	-,031	,085	-,362	,717
Intention to share	<---	Platform: Newspaper	-,151	,110	-1,375	,169
Intention to share	<---	Platform: Forums	-,068	,085	-,804	,422
Intention to share	<---	Platform: Word of mouth	,054	,099	,540	,589

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			Estimate	S.E.	C.R.	P
Intention to share	<---	Platform: Other	1,000			

6.6.3.1. Assessment of normality

Table 6.86 shows the assessment of normality. The kurtosis value is 3,874 indicates a nonnormal distribution.

Table 6.86: Assessment of normality of platform model

Variable	min	max	skew	c.r.	kurtosis	c.r.
Platform: Other	1,000	5,000	2,048	11,434	3,088	8,618
Platform: social media	1,000	5,000	-1,003	-5,600	,409	1,142
Intention to share	1,000	5,000	,194	1,084	,156	,436
Multivariate					3,874	4,836

6.6.3.2. Confirmatory factor analysis

The chi-square value of the overall model is 185.246 with 1 degree of freedom and returns a probability value of less than 0000. The probability value of the chi-square test is less than 0.05, indicating that the model does not fit the data.

Table 6.87 and 6.88 shows the regression weights for this model. The p-value between intention to share and Social Media platform is less than 0.05, indicating that these factors are significant.

Table 6.89 shows the standardized regression weights. The estimates for social media platform and other is positive and indicates that there is a positive correlation between these variables and intention to share. The estimate of social media platform is small indicating a small influence. Other has a value between 0.5 and 0.8 indicating a moderate influence.

Table 6.87: Regression weights of the platform model

	Estimate	S.E.	C.R.	P

Intention to share	<---	Platform: social media	,246	,097	2,543	,011
Intention to share	<---	Platform: Other	1,000			

Table 6.88: Regression weights of other

			Estimate	S.E.
Intention to share	<---	Platform: Other	115,206	-,996

Table 6.89: Standardized Regression weights of the platform model

			Estimate
Intention to share	<---	Platform: social media	,147
Intention to share	<---	Platform: Other	,621

6.6.3.3. Covariance

The covariances are shown in table 6.90. The covariance between social media and other is negative indicating that the positive change in one has a negative change in the other. There is a weak relationship between these variables (-0.149). The p-value is greater than 0.05.

Table 6.90: Covariances of the platform model

			Estimate	S.E.	C.R.	P
Platform: social media	<-->	Platform: Other	-,149	,082	-1,805	,071

Table 6.91: Covariances of other

			Estimate	S.E.
r1	<-->	Platform: Other	117,297	-1,154

6.6.3.4. Correlation Analysis

Results from the correlation analysis are shown in Table 6.92. There is a negative correlation between social media platform and other. The relationship between these variables is small.

Table 6.92: Correlation of platform model

			Estimate
Platform: social media	<-->	Platform: Other	-,134

6.6.3.5. Model fit summary

Table 6.93 shows the degrees of freedom and CMIN. The CMIN/DF for are above 5 and does not indicate a reasonable fit. This is also supported by the p-value being less than 0.95.

The GFI is shown in table 6.94 and the value 0,704 indicates a good fit. The AGFI however is -0,776 and cannot be interpreted (Heywood case).

The NFI is shown in table 6.95 is -26,733 and cannot be interpreted (Heywood case). The CFI value is shown in table 6.95. The CFI value is 0.00 and indicates that it is not a good fit. The RMSEA shown in table 6.96 is 0.995 and is more than 0.001. This indicates a very bad fit.

By evaluating the values of CMIN, RMR, GFI, Baseline comparisons, and RMSEA it is found that the model is not a good fit.

Table 6.93: CMIN of the platform model

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	5	185,246	1	,000	185,246
Saturated model	6	,000	0		
Independence model	3	6,680	3	,083	2,227

Table 6.94: RMR, GFI of the platform model

Model	RMR	GFI	AGFI	PGFI
Default model	1,054	,704	-,776	,117
Saturated model	,000	1,000		
Independence model	,078	,976	,952	,488

Table 6.95: Baseline comparisons of the platform model

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	-26,733	-82,198	-31,439	-149,212	,000
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

Table 6.96: RMSEA of the platform model

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,995	,877	1,119	,000
Independence model	,081	,000	,166	,206

6.6.4. Final model

For the final model all significant factors from the previous models were combined. These factors are conscientiousness, social media platform, conformity, TPP, and emotionally driven (see figure 11). From these factors the only significant factors kept in the model are conscientiousness, TPP, and bias (see figure 12). The other factors were removed due to their high p-values (see table 6.97). These values were far above 0.05 and it is generally recommended to exclude these factors from the model.
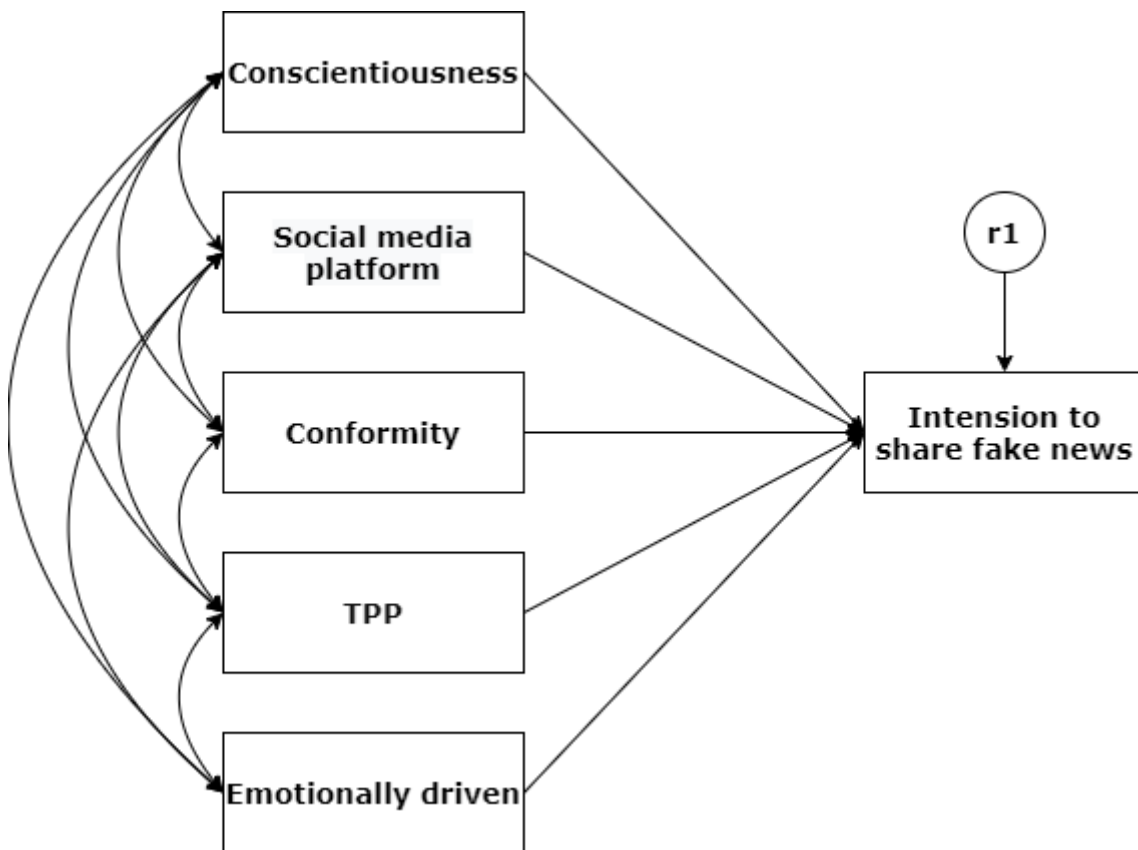
Figure 11: Initial final model
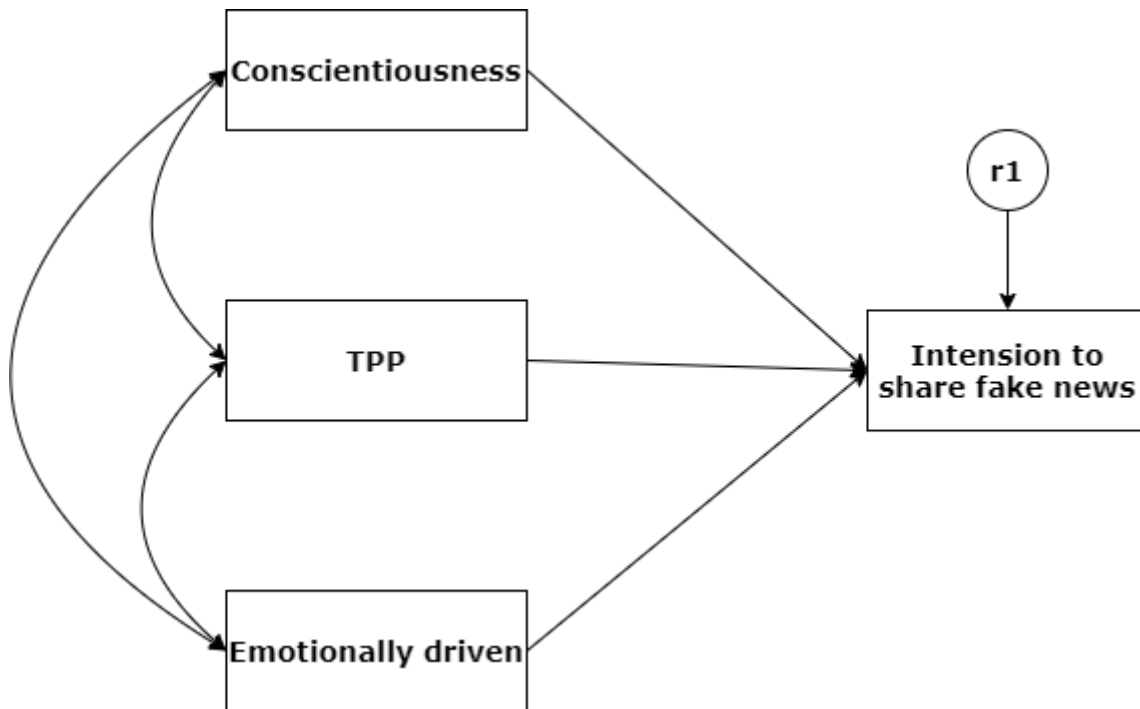
Figure 12: Final model with significant factors

Table 6.97: Regression weights of final variables

			Estimate	S.E.	C.R.	P
Intention to share	<---	Conformity	,059	,091	,647	,517
Intention to share	<---	TPP	-,404	,119	-3,396	***
Intention to share	<---	Emotionally driven	1,000			
Intention to share	<---	Social media platform	-,064	,077	-,830	,406
Intention to share	<---	Conscientiousness	-,170	,061	-2,778	,005

6.6.4.1. Assessment of normality

Table 6.98 gives the assessment of normality. The kurtosis value is 1,393 and is therefore indicates a normal distribution.

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Table 6.98: Assessment of normality of final model

Variable	min	max	skew	c.r.	kurtosis	c.r.
Conscientiousness	2,000	7,000	-,490	-2,735	-,583	-1,627
Emotionally driven	1,000	5,000	-,405	-2,259	-,475	-1,327
TPP	1,500	5,000	-,225	-1,255	,197	,550
Intention to share	1,000	5,000	,194	1,084	,156	,436
Multivariate					1,393	1,375

6.6.4.2. Confirmatory factor analysis

The chi-square value of the overall model is 107.985 with 1 degree of freedom and returns a probability value of less than 0000. The probability value of the chi-square test is less than 0.05, indicating that the model does not fit the data.

Tables 6.99 and 6.100 show the regression weights. The p-values between TPP and intention to share, and conscientiousness and intention to share are less than 0.05, indicating that these factors are significant.

Table 6.101 shows the standardized regression weights. The estimates for TPP and conscientiousness are negative; this indicates a negative correlation between these variables and intention to share. Emotionally driven is positive indicating a positive correlation. The estimates of TPP and conscientiousness are small indicating a small influence. Emotionally driven has a value between 0.5 and 0.8 indicating a moderate influence.

Table 6.99: Regression weights of the final model

			Estimate	S.E.	C.R.	P
Intention to share	<---	TPP	-0,417	0,117	-3,564	***
Intention to share	<---	Emotionally driven	1,000			
Intention to share	<---	Conscientiousness	-0,173	0,061	-2,825	0,005

Table 6.100: Regression weights of emotionally driven

			Estimate	S.E.
Intention to share	<-->	Emotionally driven	76,320	-0,701

Table 6.101: Standardized Regression weights of the final model

			Estimate
Intention to share	<---	TPP	-0,197
Intention to share	<---	Emotionally driven	0,682
Intention to share	<---	Conscientiousness	-0,156

6.6.4.3. Covariance

The covariances are shown in table 6.102. The covariances are all positive indicating that the positive change in one has a positive change in the other. All the relationships are however weak. The p-value for TPP and conscientiousness is greater than 0.05.

Table 6.102: Covariances All factors of the final model

			Estimate	S.E.	C.R.	P
TPP	<-->	Emotionally driven	0,120	0,048	2,484	0,013
TPP	<-->	Conscientiousness	0,106	0,063	1,686	0,092
Emotionally driven	<-->	Conscientiousness	0,255	0,093	2,752	0,006

6.6.4.4. Correlation Analysis

Results from the correlation analysis are shown in Table 6.103. All the correlations are positive. There are no relationships with a large or medium correlation for the final model. Relationships with a small correlation are:

- TPP and emotionally driven
- TPP and Conscientiousness
- Emotionally driven and Conscientiousness

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Table 6.103: Correlation of final model

			Estimate
TPP	<-->	Emotionally driven	0,185
TPP	<-->	Conscientiousness	0,125
Emotionally driven	<-->	Conscientiousness	0,206

6.6.4.5. Model fit summary

Table 6.104 shows the degrees of freedom and CMIN. The CMIN/DF for are above 5 and does not indicate a reasonable fit. This is also supported by the p-value being less than 0.95.

The GFI is shown in table 6.105 and the value 0,862 indicates a good fit. A GFI value above 0.9 indicates a good fit while a value > 0.85 for a more liberal criterion. The AGFI value is -0,805 indicating a bad fit.

The NFI is shown in table 6.106 and has a value of -1,992 and cannot be interpreted. The CFI value (shown in table 6.106) of 0.00 indicates that it is not a good fit. The RMSEA is shown in table 6.107 is 0,758 and is more than 0.001. This indicates a bad fit.

By evaluating the values of CMIN, RMR, GFI, Baseline comparisons, and RMSEA it is found that the model is not a good fit.

Although the number of constructs in the final model was reduced to TPP, conscientiousness, and emotional driver, the fit indices remained poor throughout the whole process. Future studies can address this by replicating this study with a larger sample population to improve the fit. The results from this study are however still valid and provide additional insight into fake news sharing behaviour.

Table 6.104: CMIN of the final model

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	9	107,985	1	0,000	107,985

Model	NPAR	CMIN	DF	P	CMIN/DF
Saturated model	10	0,000	0		
Independence model	4	36,090	6	0,000	6,015

Table 6.105: RMR, GFI All of the final model

Model	RMR	GFI	AGFI	PGFI
Default model	,464	,820	-0,805	0,082
Saturated model	0,000	1,000		
Independence model	0,117	0,920	0,867	0,552

Table 6.106: Baseline comparisons of the final model

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	-1,992	-16,952	-2,049	-20,333	0,000
Saturated model	1,000		1,000		1,000
Independence model	0,000	0,000	0,000	0,000	0,000

Table 6.107: RMSEA of the final model

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0,758	0,641	0,883	0,000
Independence model	0,164	0,115	,218	0,000

6.7. Regression Analysis

Regression analysis was used to determine the relationships between the dependent and independent variables. By using regression analysis it can be determined how well the independent variables are able to predict intention to share and which variable is the best prediction of intention to share (Pallant, 2010).

The group comparison function in AMOS was used instead of modeling the age group as a moderator to test whether the model is the same in structure for students ages 18 to 20 and

students ages 21 to 26. The same is done for the most followed content types: entertainment and health content. This tests whether the regression weights for the exogenous variables are the same in value across both groups.

The model in figure 13 shows the unstandardized parameter estimates (structural or regression weights) for the final model for the age group 21 – 26 years. The sample size was considered sufficient for regression analysis (62 respondents per independent variable).
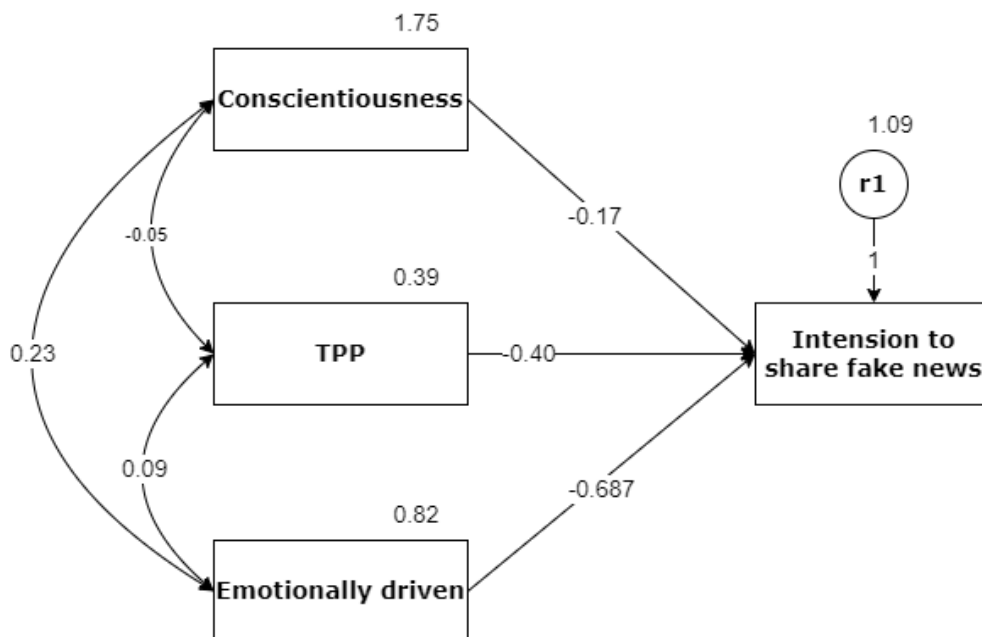
Figure 13: Parameter estimates: 21 – 26 years

The model in figure 14 gives the parameter estimates for the final model for the age group 18 – 20 years. Although the variances and covariances differ for the two age groups, the

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parameter estimates are the same. The parameter estimates are also significantly different from zero (p-values <0.05).

Figure 14: Parameter estimates: 18 – 20 years
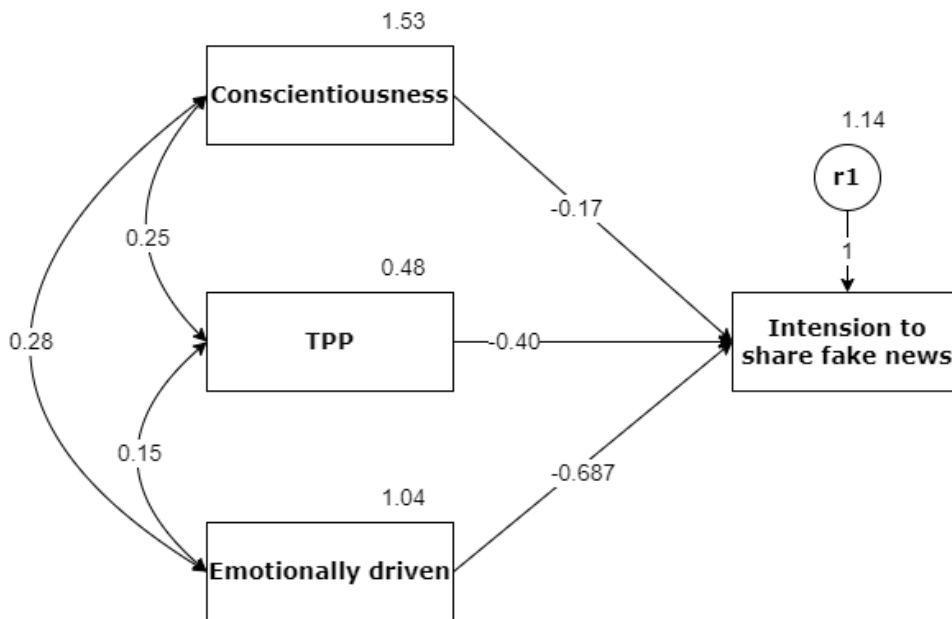
Figure 15 and 16 shows the parameter estimates for health-related content that was further split between does and does not follow respectively. The parameter estimates differ significantly between the two models. Both show small negative associations between conscientiousness and intention to share as well as a large negative association between emotionally driven and intention to share. The estimates of the TTP factor however differ significantly. Figure 15 shows a negligible positive association while Figure 16 large negative association.
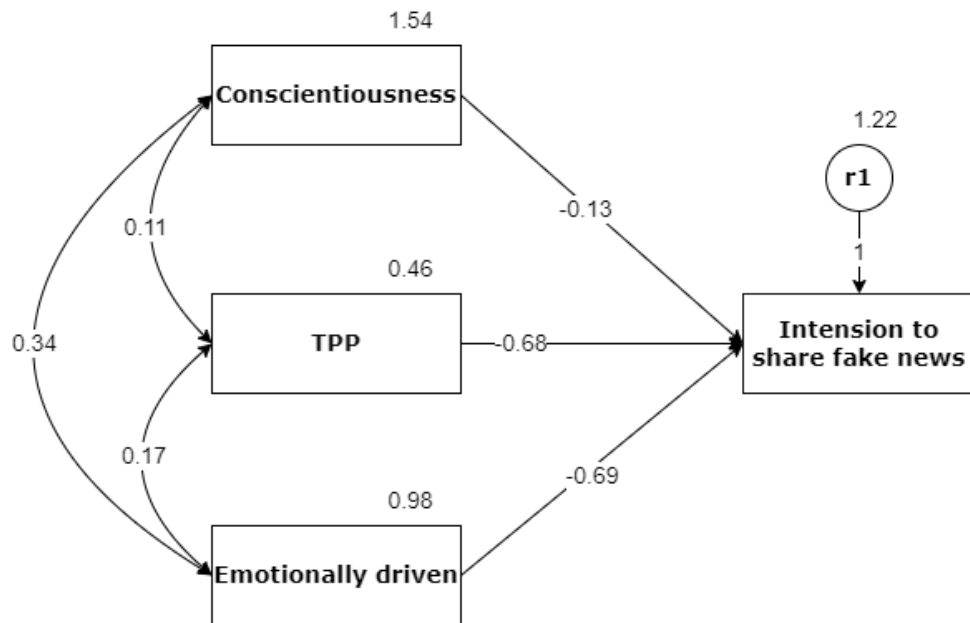
Figure 15: Parameter estimates - Follows health-related content
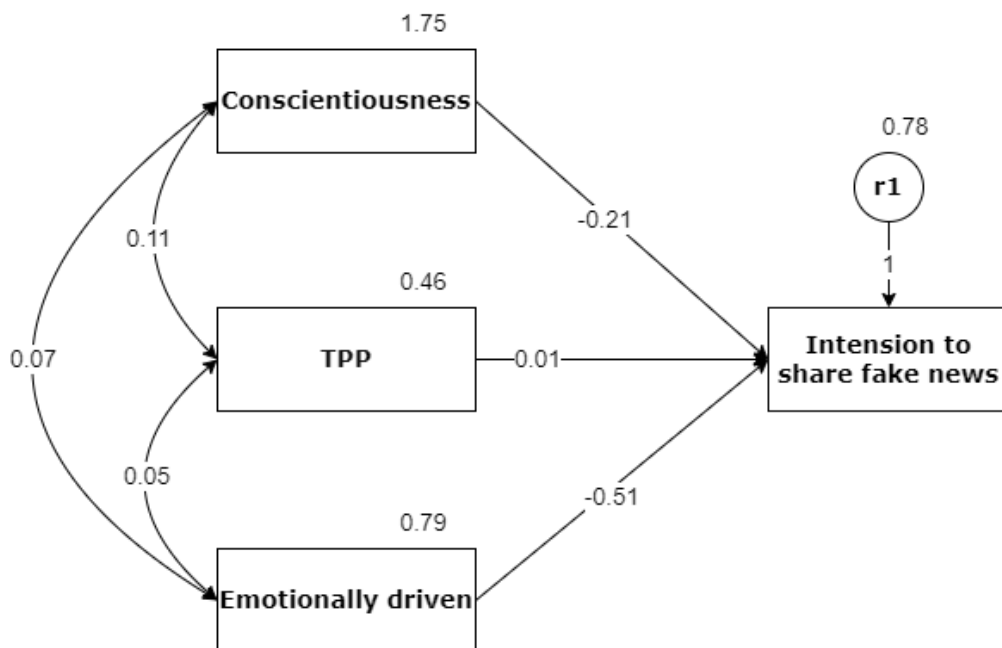
Figure 16: Parameter estimates - Does not follow health-related content

Figure 17 and 18 shows the parameter estimates for entertainment-related content that was further split between does and does not follow respectively. The parameter estimates differ slightly between the two models. Both show small negative associations between conscientiousness and intention to share as well as a moderate negative association between TPP and intention to share. The estimates of emotionally driven factor however

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differ significantly with Figure 17 showing a large negative association while Figure 18 moderate negative association.
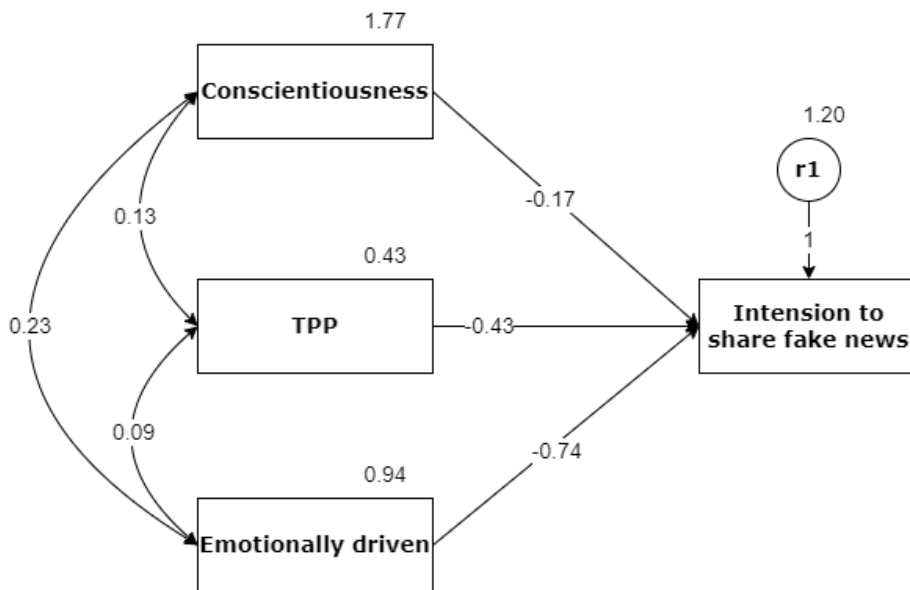
Figure 17: Parameter estimates - Follows entertainment related content
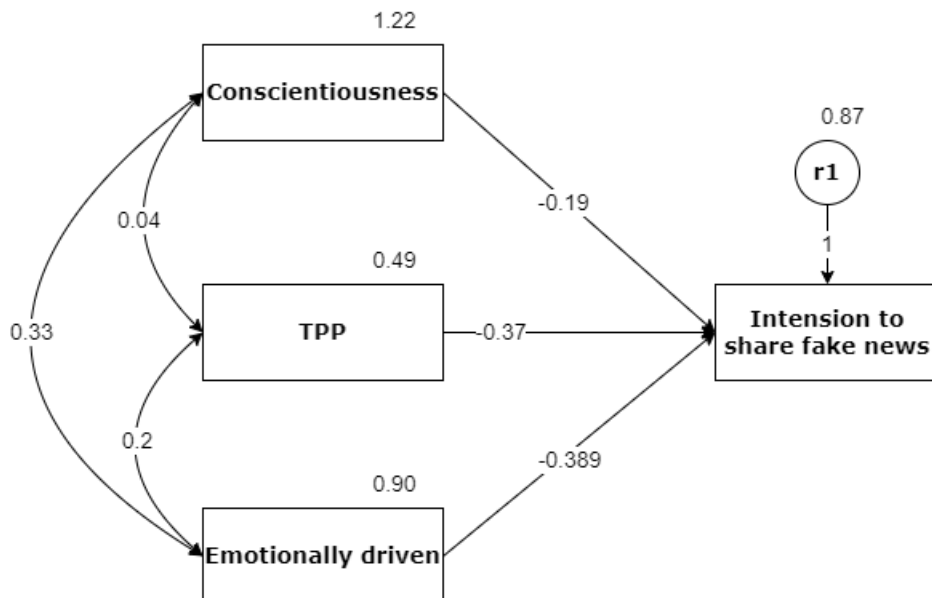
Figure 18: Parameter estimates - Does not follow entertainment related content

From the parameter estimates it can be determined that there is a small negative association between conscientiousness and intention to share, an overall large negative association between emotionally driven and intention to share, and a moderate negative association between TPP and intention to share.

6.8. Summary of Findings

In the table below a summary of the findings from both the quantitative as well as the qualitative data is given in relation to the hypotheses proposed in chapter 3.

Table 6.108: Summary of the findings in relation to the hypotheses

Hypothesis	Relationship		Data backing
H1	There is an association between platform type and intention to share.	Not Supported	Quantitative
H2	There is an association between emotionally charged content and intention to share.	Not Supported	Quantitative
H3	There is a positive association between social responsibility and intention to share	Not Supported	Quantitative
H4	There is a positive association between internal conformity and intention to share	Not Supported	Quantitative
H5	There is a positive association between internal bias and intention to share	Supported	Qualitative
H6	There is a positive association between trust and intention to share.	Supported	Quantitative & Qualitative
H7	There is a positive association between TPP and intention to share.	Not Supported	Quantitative
H8	There is an association between personality and intention to share	Partially Supported	Quantitative & Qualitative

Most respondents fell in the age group 18-20 and were in their first year of study. Most respondents reported spending at least one hour consuming new content and the most popular devices used were phones and computers. The most consumed news content was found to be entertainment and social, which both fall under soft news. This shows that technology plays a large role in how students consume information in their daily lives.

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Most reported that they knew what fake news was along with the subcategories of misinformation and disinformation. Most respondents reported that they have not shared fake news knowingly indicating that most of the sample population isn't motivated by malicious intentions. Most respondents were also able to correctly identify the news articles as real or fake news. The reasoning that respondents provided fell mainly into the categories of trust, bias, experience, and previous knowledge or incomplete reasons. Many respondents relied on previous knowledge about a subject or their personal experience to determine if an article was real or not. These factors from the qualitative findings provide additional insight that was not included in the original model.

In the following sections the findings from the correlation analysis will be related back to the proposed hypotheses.

6.8.1. Social media platform

Hypothesis 1 stated that there is an association between platform type and intention to share. Social media platform was removed from the model due to low significance from the quantitative data. From the qualitative findings no motivation was found between social media platform and intention to share. Therefore hypothesis 1 is not supported. Previous literature did however find associations between fake news sharing behaviour and certain social media platforms. Fake news Facebook was primarily used to spread misinformation during the 2016 U.S presidential election (Silverman, 2016) and in 2010 Twitter was used to spread rumours about the earthquake in Chile (Castillo et al., 2013)

6.8.2. Emotionally driven

Hypothesis 2 stated that there is an association between emotionally charged content and intention to share. There was found to be a high negative correlation between emotional influences and intention to share. Higher emotional influences were associated with a lower intention to share. From the qualitative findings no motivation was found between emotional influences and intention to share. Therefore hypothesis 2 is not supported due to the negative association from the quantitative findings. This is contradictory to previous studies that found content that contained negative or positive sentiments had higher sharing rates (Osatuyi & Hughes, 2018; Stieglitz & Dang-Xuan, 2013).

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6.8.3. Social Responsibility

Hypothesis 3 stated that there is a positive association between social responsibility and intention to share fake news. Social responsibility was also removed from the model due to low significance from the quantitative data. The qualitative findings provided no additional insight for this hypothesis. Therefore hypothesis 3 is not supported.

6.8.4. Conformity

Hypothesis 4 stated that there is a positive association between conformity and intention to share fake news. Conformity was removed from the model due to low significance from the quantitative data and the findings from the qualitative data also found no additional insight. Therefore hypothesis 4 is not supported. Previous research has found that people are driven to share content that is in line with the views of their online groups and community even if they disagree to promote their self-image and connection to the group (Hamilton et al., 2017; Cialdini & Goldstein, 2004; Tsikerdekis, 2013; Winter et al., 2015)

6.8.5. Bias

Hypothesis 5 stated that there is a positive association between bias and intention to share fake news. Bias was also removed from the model due to low significance from the quantitative data. Results from the qualitative data provided additional insight and found that bias impacted the reasoning for identifying some news articles as true or misleading. These news articles tended to be more divisive in nature and involved either a controversial or political aspect. Some examples from the responses gathered include "Knowing the state of the Zimbabwe economy and the inflation of basic goods and services there, it would make sense for it to be real news." and "[I] would not be surprised if we were the most corrupt country. Considering the politicians.". From the qualitative findings hypothesis 5 is therefore supported. This is supported by previous research that found people to be biased towards people, groups or companies they trust and share similar beliefs with (Houston et al., 2011).

6.8.6. Trust

Hypothesis 6 stated that there is a positive association between trust and intention to share fake news. Trust was removed from the model due to it now being significant. The findings from the qualitative data however did show that many respondents cited trust in the new site, source, or author to influence if they found a news article to be truthful or misleading. Some of these reasons are as follow: "Comes from reliable and well-known source or

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publisher" and "Details given about the source and date published." This hypothesis is therefore supported based on the qualitative findings.

This finding is also supported by previous studies regarding news sharing behaviour (Talwar et al., 2019; Verma et al., 2017). Most respondents' reasons for fake news identification fall in line with this, where trust in the news outlet, source, and statistics provided played a significant role in their level of trust. Social media platforms and creators on those platforms should provide additional and supplementary information to users to draw users' attention to the credibility of misleading news articles.

6.8.7. TPP

Hypothesis 7 stated that there is a positive association between TPP and intention to share fake news. There was found to be a moderate negative correlation between TPP and intention to share. Higher TPP ware associated with a lower intention to share. Therefore hypothesis 4 is not supported. This is contradictory to previous findings where it was found that people think they are less influenced by fake news and false attempts at persuasion (Salwen & Driscoll, 1997; Yang & Tian, 2021; Jang & Kim, 2018).

6.8.8. Personality

Hypothesis 8 stated that there is a positive association between personality and intention to share fake news. The overall category of personality did not support the hypothesis. The individual component of conscientiousness of the five-factor model of personality traits was shown to be a predictor of intention to share fake news.

There was found to be a low negative correlation between conscientiousness and intention to share. Higher conscientiousness ware associated with a lower intention to share. Influences of the conscientiousness trait were also observed in the qualitative findings. Many respondents who correctly identified news articles as real or fake tended to focus on the details of the article such as the website, sources, published date, and other details. Two examples of these responses are "The date in the title coincides with the date the borders were reopened" and "The article references its source for the information.". Other respondents who incorrectly identified news articles did not provide similar insight and gave either poor or no reasoning. Examples of such responses are "I'm unsure because I never read about this topic" or "I don't know". Therefore hypothesis 8 is partially supported.

This is only somewhat in line with previous research that found that openness, consciousness, agreeableness, and neuroticism did not have a moderation effect (Gumelar et al., 2018). However other studies suggest a relationship (in moderate effect) between extraversion (Ozer & Benet-Martínez, 2006; Hirsh, 2010) as well as greater sharing of fake news in individuals who score higher in agreeableness and conscientiousness (Hirsh, 2010).

6.9. Conclusion

Descriptive statistics showed that the most popular device used for news consumption was phones and the most popular social media platforms were found to be Instagram and YouTube. The majority of the sample population was able to correctly identify fake news and also reported to not share fake news intentionally. The motivation for sharing news among the respondents was found to be content that was informative, currently relevant, or entertaining.

Further analysis was done to determine the correlation between the different factors to determine if there is a significant correlation to intention to share.

From the data analysis associations between emotional drivers, bias, trust, TPP, experience, previous knowledge, and conscientiousness were found. From regression analysis it was also found that there is a positive association between emotional drivers and intention to share. Negative associations were found between TPP and the conscientiousness trait of the personality model. A summary of findings relating to the hypothesis can be found in section 6.8.

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CHAPTER 7 : CONCLUSION

7.1. Introduction

In chapter two the theoretical foundation was made and used in chapter three to build the hypotheses. In chapter four the methods used to analyse the data and test the hypothesis were discussed. The final results were presented and discussed in chapter five.

In this chapter, the key findings will be discussed and the implications that these findings have for future designers, practitioners, and researchers will be explored. These findings will be compared to the existing literature, objectives, and hypotheses set in previous chapters. Limitations of this study will be given as well as recommendations for future researchers.

7.2. Summary of Key Findings

This research aimed to determine the relationship between different factors that contribute to an individual's intention to share fake news. The following hypotheses were examined.

H1: There is an association between platform type and intention to share.

H2: There is an association between emotionally charged content and intention to share.

H3: There is a positive association between social responsibility and intention to share.

H4: There is a positive association between conformity and intention to share.

H5: There is a positive association between internal bias and intention to share.

H6: There is a positive association between trust and intention to share.

H7: There is a positive association between TPP and intention to share.

H8: There is an association between personality and intention to share.

A mixed-method approach using quantitative and qualitative data was used for data collection and analysis with more weight given to the quantitative method. The findings from the empirical study of 190 students found that hypotheses 5, 6, and 8 were partially supported. There was also found to be a negative correlation between TPP, conscientiousness, and emotional drivers. This confirms that people's emotional drive, bias, TPP, trust, and the conscientiousness trait of the big-five personality model have an effect

on their intention to share. Additionally, from the qualitative findings, the factors of previous experience and knowledge were also found to influence intention to share.

Through regression analysis we found that the factors that contribute the most to intention to share are emotional influences and the conscientiousness trait of personality that both had a negative association. TPP has small correlations to intention to share. From the qualitative findings, it was determined that trust, bias, conscientiousness, experience, and previous knowledge impacted students' identification of fake news articles.

Hypothesis 1 stated that there is an association between platform type and intention to share. The social media platform variables were removed from the model due to insignificance. From the qualitative data this hypothesis was not relevant, and the hypothesis is therefore not supported.

Hypothesis 2 states that there is an association between emotionally charged content and intention to share. was not supported. Through regression analysis, a strong negative correlation was found between emotional drivers and intention to share. From the qualitative findings no correlation was found between emotional influences and intention to share.

Hypothesis 3 stated that there is a positive relationship between social responsibility and intention to share. Social responsibility was removed from the final model due to insignificance and no evidence was found in the qualitative analysis of its significance and is therefore not supported.

Hypothesis 4 states that there is a positive association between conformity and intention to share. Conformity was removed from the final model due to insignificance and no evidence was found in the qualitative analysis of its significance and is therefore not supported.

Hypothesis 5 states that there is a positive association between internal bias and intention to share. Bias was removed from the final model due to insignificance but was found to partially influence fake news identification in the qualitative findings. News articles that contained information relating to potentially controversial topics or were based on events that the respondent did not have knowledge of had more biased responses. This hypothesis is therefore supported

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Hypothesis 6 states that there is a positive association between trust and intention to share. Trust was removed from the final model due to insignificance. It was however found to be a strong influence in the qualitative findings in fake news identification. Many respondents provided reasons of why they trusted the information in the articles provided based on the website, source, author, and other factors and supports this hypothesis.

Hypothesis 7 states that there is a positive association between TPP and intention to share. From the qualitative finding no correlation was found between TPP and intention to share. Based on the quantitative findings this hypothesis is not supported since there was found to be a moderate negative correlation between TPP and intention to share. Individuals with higher TPP are thus less likely to share fake news.

Hypothesis 8 which states that there is an association between personality and intention to share was partially supported by the individual trait of conscientiousness. The other individual traits were removed from the model due to insignificance. The conscientiousness trait was shown to be significant and had a moderate negative correlation to intention to share in the final model. No correlation was found from the qualitative findings between intention to share and conscientiousness.

In the next section the practical implications of these findings for practitioners will be discussed.

7.3. Answering the research questions

For this study the main research question was as follows:

- What factors predict South African students' intention to share fake news on social media platforms?.

The following three sub-research questions were formulated to answer the main research question:

- What content influences the student's intention to share fake news?
- How does students 'ability to identify fake news influence sharing behaviour?
- What factors influence users to share fake news?

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The first sub-research question was to determine what content influences students' intention to share fake news. It was found that the news content most commonly consumed by respondents was entertainment and health-related. Both of these content categories are classified as soft news. The motivation for sharing news among the respondents was found to be content that was informative, currently relevant, or entertaining. Fake news content that falls into these categories is therefore likely higher dissemination.

The second sub-research question aimed to determine how students' ability to identify fake news influences sharing behaviour. From the results, it was found that the majority of respondents would not share fake news intentionally. Most respondents were also able to correctly identify if an article was fake news based on the title and source. Some respondents incorrectly identified articles that were truthful as fake news. From these findings, it can therefore be determined that students will not intentionally share an article if they receive it to be misleading.

The final sub-research question was to determine what factors influence users to share fake news. From the data analysis associations between emotional drivers, bias, trust, TPP, experience, previous knowledge, and conscientiousness were found. From regression analysis it was also found that there is a positive association between emotional drivers and intention to share. Negative associations were found between TPP and the conscientiousness trait of the personality model. From the qualitative results associations were found between trust, bias, conscientiousness, experience, and previous knowledge. A summary of findings relating to the hypothesis can be found in section 6.8.

From these findings, it was determined that a combination of factors can predict a student's intention to share fake news. The ability to spot correctly spot fake news was determined to prevent the spread of fake news. Students' were also found to be inclined to share content that was informative, currently relevant, or entertaining. Individual factors such as emotional drivers, bias, experience, previous knowledge, and trust were associated positively with intention to share while TPP, and conscientiousness were found to be negatively associated with intention to share to share fake news.

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7.4. Practical implications

This study has a few implications that will be discussed with regards to the findings. This study's results suggest actions that can be taken to decrease the spread of fake news.

Trust was found to positively influence intention to share fake news based on the qualitative findings. To leverage this association online social media sites can focus on providing additional sources and references that people can trust. It was also found that many users do no further investigation to confirm the validity of news. To assist users with quick and easy identifications additional warnings should be shown to users on social media sites to draw their attention to the validity of articles; existing methods such as flagging should be promoted across social media platforms.

From the qualitative results bias was also found to positively influence users when consuming fake news. To prevent or lessen bias in online environments eco chambers should be prevented to provide users with a more rounded experience and more exposure to other opinions will potentially eliminate biases they form due to it. Users should be encouraged to comment on posts that have misinformation since this has been shown to deter the further spread or active online support for fake news due to users wanting to protect their self-image.

This study also found conscientiousness has a negative association with intention to share fake news based on the quantitative results. Since individuals who score higher in conscientiousness are prone to be more organized, detail-oriented, and mindful of how their behaviour impacts others social media platforms can introduce features to support this trait. Platforms can introduce a system where users who share real and informative information are given a rating to indicate to other users their trustworthiness. This feature can also be utilized for people who comment and draw attention to posts that promote fake news. Users who are motivated by popularity and the need to increase their self-image will be motivated to seek out and denounce fake news on social media platforms. This will also promote the user's self-image and serve as an opportunity for self-enhancement for upward social comparison (Festinger, 1954). Emphasis can be placed on the importance of users to confirm if the news they are sharing is true to prevent the negative impact that their sharing could have.

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Emotional drivers were found to be negatively associated with intention to share. Many fake news stories try to pull readers in by leveraging emotions such as fears, anxieties, anger, and curiosity in their content. Readers should be aware of how the news is trying to make them feel. If the news covering a sensitive topic sounds too interesting or funny to be true, is covering depressing or saddening stories, is trying to predict the future or offer a magical solution or cure it could be a sign of fake news (Zhang & Ghorbani, 2020).

Findings did not support an association between fake news sharing behaviour and social responsibility or conformity. There is still however a need to promote fake news awareness and literacy due to the additional findings that found that previous knowledge and experience influences intention to share. By including social media literacy in the school curriculum, it will promote more critical thinking in children and students. Along with educating the public about fake news, awareness of fake news and the effects thereof should be promoted on all possible platforms in any relevant form. This is especially important in areas where people may not have had the opportunity to complete their education or have not been made aware of fake news and the negative effects thereof. Additional workshops and programs can be introduced in communities that do not have sufficient resources to otherwise access this type of information. Individuals with personal experience dealing with fake news and the negative effects can share their stories in these programs as well.

The findings from this study contribute to the existing body of knowledge surrounding fake news and social media. Given the increased dissemination of fake news in the last two years regarding the ongoing pandemic, it is critical to address the issues that have become even more prevalent due to misinformation.

7.5. Reflection on methods used

This study followed a mixed-method approach that used the interpretivist philosophy. A triangulation mixed-method approach was used due to the benefits of it consisting of one phase that is less time-consuming and intuitive to implement. Additionally, this provided additional flexibility to give more weight to the quantitative method. The probabilistic sampling technique of self-selection sampling was used to gather data from students of

students through the use of an online questionnaire. This allowed for the data to be easily collected analysed through different statistical methods to draw a conclusion based on the sample population. A drawback of this technique is that the sample population may not be representative of the wider population due to self-selection bias where participants may have taken part due to existing knowledge and interest in the topic of fake news. The questionnaire was also shared on an online platform where users may have experience with online media and fake news.

This study also relied on self-report assessment where participants completed the questionnaire with no help from the researcher and direct questions were asked about their use of social media, news consumption, news consumption behaviour, and personality. This method can be potentially problematic since some questions are subjective and depend on the honestly, unbiasedness, and transparency of the subjects. If the respondents have an unreliable personal perception about themselves then the results can be impacted dramatically (Cabral, 2011). The questionnaire was also long, leading to potentially lower response rates and losing the attention of the respondents before it is concluded. This led to problems with model fit due to a lack of adequate sample size.

7.6. Recommendations

In this section, a general list of recommendations is listed that will assist in the prevention of fake news dissemination. These recommendations can be beneficial to policymakers, industry leaders, digital technology providers, and other relevant authorities.

Improve the awareness of fake news and the damaging impact it has on society. Emphasis should be placed on promoting fact-checking websites and platforms that are reliable sources of news. Along with this, users can be made aware of the tactics often used to promote fake news and how to resist these manipulation techniques. These solutions should be specifically tailored towards the targeted demographics such as age groups, region, culture, and so forth. Gamification can be used to further educate people about fake news identification and techniques commonly used to spread it. Two games were developed by the University of Cambridge's Social Decision-Making Lab to research the reducing susceptibility to false information. *Go viral* is the follow-up game from *Bad News* that builds on the initial pre-bunking research by Cambridge psychologists. Pre-bunking has been

found to be an effective way to combat misinformation before it can be spread (Linden et al., 2021; van der Linden, 2019). The research behind this found that exposing the techniques used to spread misinformation increases peoples' ability to identify misinformation in the future (Maertens et al., 2020).

Efforts should be made to improve social media literacy to enable users to critically analyse content as well as understand how various platforms work. Social media literacy should be encouraged and taught to younger age demographics due to the rise in popularity of social media use among children and teens. From a technical perspective, this includes understanding algorithms that promote certain content to users, what content can be posted and how content can be interacted with. From a cognitive perspective, users should be able to identify if the source is reliable based on information provided on the post such as publisher, reported, date, and tile. From an emotional perspective, users should be aware of what emotion the content is attempting to elicit and their reactions to the content due to these emotions to possibly promote fake news.

Regulations around the creation and spread of online content and the management therefore should be put in place or improved to address areas that have lacked oversite or unique problems that may arise on specific platforms or regions due to cultural, economic, or technical differences. The regularity authorities should be responsible for the enforcement and monitoring of the regulations put in place.

Fact-checking resources and flagging should be improved to slow the dissemination. The efficiency and reach of these resources can be improved by further development of the automatic and ai technologies used to detect misinformation. Early detection of fake news contributes to the concept of pre-bunking. Pre-bunking has been shown to be effective to counter the spread of misinformation more effectively than strategies that aim to change people's opinions about inaccurate information that they have already been exposed to (van der Linden, 2019). Users should also be provided with ways to easily report information that is misleading or false.

7.7. Delimitations and Limitations

For this study, there were a few limitations. The largest limitation was the sample size used. Due to the small sample size the model fit was not adequate for the number of variables. A

larger sample size can provide more accurate values for generalisation and additional insight.

The second limitation is that students were also from the same university. Only students from the EBIT facility participated. The responses gathered were from self-reporting. They are therefore subjective and rely on the truthful answers provided by the participants. Therefore, generalising the findings of the study to larger and more diverse demographics is difficult and should be addressed in future studies.

Additionally, this study only focussed on students with most of the respondents falling in the age group of 18-22. The respondents in these age ranges are more likely to be up to date with technology, internet culture, and online social media platforms than people who are in older age ranges. This may have an impact on the results of the study. Studies have found that fake news sharing is prevalent among elders (Grinberg et al., 2019), potentially due to a lack of social media literacy and the ability to spot fake news among older age groups. Future studies can be expanded to various age groups and demographics. can broaden the age range of respondents for a greater impact

Other factors that influence fake news sharing can be examined such as FOMO, social media fatigue, attention-seeking, and confirmation bias, among others. Future studies can be extended to include these factors. Additional moderating effects of socio-demographic variables such as technical skill, location, and gender can also be investigated. Future scholars should address these limitations and shortcomings in future studies.

7.8. Future research opportunities

By identifying reasons and motivations that people would spread fake news further research can be done to determine if providing people with additional training can become better at identifying fake news. The degree to which outside factors play a role can also be explored such as education and socio-economic status of the individual.

For this study, respondents were aware that the questionnaire was for a study about fake news. This could potentially have skewed the answers in certain questions where respondents had to determine if an article was real or fake news. Future studies can address this by presenting fake news in a way that was not mentioned to the participant beforehand

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to determine if they are able to identify it correctly. Future studies can also include a section with articles and ask if respondents would share the article.

7.9. Conclusion

It is important to ensure with the continuous evolution of fake news and online social media platforms that the ways that people are potentially exploited or used to spread misinformation are understood. This is to ensure that the factors that influence the spread can be addressed, and applicable changes can be made on platforms through regulations and behaviour adjustments of users who are potentially at risk. Therefore, this study aimed to provide a better understanding with regards to potential factors that influence users' behaviour to share fake news online. The responses from a questionnaire of 190 students were used to determine if the hypotheses of factors that motivate intention to share fake news were supported. These hypotheses included positive associations between intention to share and platform, trust, bias, emotional influences, toom social responsibility, and personality.

In conclusion, this study aimed to explore the factors that motivate students to share fake news. By providing insight and a better understanding of these motivators we encourage not only social media sites, regulators, and other role players to understand the drivers behind fake news sharing but also to motivate users to improve their online behaviour and consequently contribute to society in a small but meaningful way.

"The betterment of society is not a job to be left to a few. It's a responsibility to be shared by all."

- David Packard

REFERENCES

Ahmed, H., Traore, I., & Saad, S. (2017). *Detection of Online Fake News Using N-Gram Analysis and Machine Learning Techniques*. 127–138. https://doi.org/10.1007/978-3-319-69155-8_9

Akerlof, G. A. (1980). A Theory of Social Custom, of which Unemployment may be One Consequence. *The Quarterly Journal of Economics*, *94*(4), 749–775. https://doi.org/10.2307/1885667

Alajmi, B. M. (2012). The intention to share: Psychological investigation of knowledge sharing behaviour in online communities. *Journal of Information & Knowledge Management*, *11*(03), 1250022.

Allcott, H., & Gentzkow, M. (2017a). Social Media and Fake News in the 2016 Election. *Journal of Economic Perspectives*, *31*(2), 211–236. https://doi.org/10.1257/jep.31.2.211

Allcott, H., & Gentzkow, M. (2017b). Social Media and Fake News in the 2016 Election. *Journal of Economic Perspectives*, *31*(2), 211–236. https://doi.org/10.1257/jep.31.2.211

Almalki, S. (2016). Integrating Quantitative and Qualitative Data in Mixed Methods Research—Challenges and Benefits. *Journal of Education and Learning*, *5*(3), 288. https://doi.org/10.5539/jel.v5n3p288

An, L., Zhou, W., Ou, M., Li, G., Yu, C., & Wang, X. (2021). Measuring and profiling the topical influence and sentiment contagion of public event stakeholders. *International Journal of Information Management*, *58*, 102327. https://doi.org/10.1016/j.ijinfomgt.2021.102327

Anisfeld, M., Bogo, N., & Lambert, W. E. (1962). Evaluational reactions to accented English speech. *The Journal of Abnormal and Social Psychology*, *65*(4), 223–231. https://doi.org/10.1037/h0045060

Apuke, O. D., & Omar, B. (2021). Fake news and COVID-19: Modelling the predictors of fake news sharing among social media users. *Telematics and Informatics*, *56*, 101475. https://doi.org/10.1016/j.tele.2020.101475

Apuke, O., & Omar, B. (2020). FAKE NEWS PROLIFERATION IN NIGERIA: CONSEQUENCES, MOTIVATIONS, AND PREVENTION THROUGH AWARENESS STRATEGIES. *Humanities & Social Sciences Reviews*, *8*, 318–327. https://doi.org/10.18510/hssr.2020.8236

Asch, S. E. (1956). Studies of independence and conformity: I. A minority of one against a unanimous majority. *Psychological Monographs: General and Applied*, *70*(9), 1.

Athique, A. (2017). *Transnational audiences: Media reception on a global scale*. John Wiley & Sons.

Attride-Stirling, J. (2001). *Thematic networks: An analytic tool for qualitative research*. https://doi.org/10.1177/146879410100100307

Balakrishnan, V., Ng, K. S., & Rahim, H. A. (2021). To share or not to share – The underlying motives of sharing fake news amidst the COVID-19 pandemic in Malaysia. *Technology in Society*, *66*, 101676. https://doi.org/10.1016/j.techsoc.2021.101676

Barnidge, M., & Rojas, H. (2014). Hostile Media Perceptions, Presumed Media Influence, and Political Talk: Expanding the Corrective Action Hypothesis. *International Journal of Public Opinion Research*, *26*(2), 135–156. https://doi.org/10.1093/ijpor/edt032

Barthel, M., Mitchell, A., & Holcomb, J. (2016, December 15). Many Americans Believe Fake News Is Sowing Confusion. *Pew Research Center's Journalism Project*. https://www.journalism.org/2016/12/15/many-americans-believe-fake-news-is-sowing-confusion/

Bayard, D. (1995). Kiwitalk: Sociolinguistics and New Zealand society. *Undefined*. https://www.semanticscholar.org/paper/Kiwitalk%3A-Sociolinguistics-and-New-Zealand-society-Bayard/cea8d32842ef5be081a81f78c4bff8f4cf963323

Beam, M. A., Hutchens, M. J., & Hmielowski, J. D. (2016). Clicking vs. sharing: The relationship between online news behaviors and political knowledge. *Computers in Human Behavior*, *59*, 215–220. https://doi.org/10.1016/j.chb.2016.02.013

Benedict, T., Richter, J., & Gast, A. (2019). The influence of misinformation manipulations on evaluative conditioning. *Acta Psychologica*, *194*, 28–36. https://doi.org/10.1016/j.actpsy.2019.01.014

Bentler, P., & Chou, C.-P. (1987). Practical Issues in Structural Equation Modeling. *Sociological Methods & Research*, *16*. https://doi.org/10.1177/0049124187016001004

Berger, J., & Milkman, K. L. (2012). What Makes Online Content Viral? *Journal of Marketing Research*, *49*(2), 192–205. https://doi.org/10.1509/jmr.10.0353

Berinsky, A. J. (2017). Rumors and Health Care Reform: Experiments in Political Misinformation. *British Journal of Political Science*, *47*(2), 241–262. https://doi.org/10.1017/S0007123415000186

Bernheim, B. D. (1994). A theory of conformity. *Journal of Political Economy*, *102*(5), 841–877.

Biocca, F., Harms, C., & Burgoon, J. (2003). Towards A More Robust Theory and Measure of Social Presence: Review and Suggested Criteria. *Presence*, *12*, 456–480. https://doi.org/10.1162/105474603322761270

Boichak, O., Hemsley, J., Jackson, S., Tromble, R., & Tanupabrungsun, S. (2021). Not the Bots You Are Looking For: Patterns and Effects of Orchestrated Interventions in the U.S. and German Elections. *International Journal of Communication*, *15*(0), 26.

Bordia, P., DiFonzo, N., Haines, R., & Chaseling, E. (2005). Rumors Denials as Persuasive Messages: Effects of Personal Relevance, Source, and Message Characteristics1. *Journal of Applied Social Psychology*, *35*(6), 1301–1331. https://doi.org/10.1111/j.1559-1816.2005.tb02172.x

Bowler, Wm. M., Halbesleben, J. R. B., Stodnick, M., Seevers, M. T., & Little, L. M. (2009). The Moderating Effect of Communication Network Centrality on Motive to Perform Interpersonal Citizenship. *Journal of Managerial Issues*, *21*(1), 80–96.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development* (pp. xvi, 184). Sage Publications, Inc.

Boyd, D., Golder, S., & Lotan, G. (2010). Tweet, Tweet, Retweet: Conversational Aspects of Retweeting on Twitter. *2010 43rd Hawaii International Conference on System Sciences*, 1–10. https://doi.org/10.1109/HICSS.2010.412

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*, 77–101. https://doi.org/10.1191/1478088706qp063oa

Breitsohl, J., Wilcox-Jones, J., & Harris, I. (2015). Groupthink 2.0: An empirical analysis of customers' conformity-seeking in online communities. *Journal of Customer Behaviour*, *14*, 87–106. https://doi.org/10.1362/147539215X14373846805662

Brewer, P. R., Young, D. G., & Morreale, M. (2013). The Impact of Real News about "Fake News": Intertextual Processes and Political Satire. *International Journal of Public Opinion Research*, *25*(3), 323–343. https://doi.org/10.1093/ijpor/edt015

Bronstein, M. V., Pennycook, G., Bear, A., Rand, D. G., & Cannon, T. D. (2019). Belief in Fake News is Associated with Delusionality, Dogmatism, Religious Fundamentalism, and Reduced Analytic Thinking. *Journal of Applied Research in Memory and Cognition*, *8*(1), 108–117. https://doi.org/10.1016/j.jarmac.2018.09.005

Brown, H. D. (2001). *Teaching by Principles: An Interactive Approach to Language Pedagogy*. https://www.cuhk.edu.hk/ajelt/vol8/rev1.htm

Bryman, A. (2016). *Social research methods* (Fifth Edition). Oxford University Press.

Bunker, D. (2020). Who do you trust? The digital destruction of shared situational awareness and the COVID-19 infodemic. *International Journal of Information Management*, *55*, 102201. https://doi.org/10.1016/j.ijinfomgt.2020.102201

Calvillo, D. P., Garcia, R. J. B., Bertrand, K., & Mayers, T. A. (2021). Personality factors and self-reported political news consumption predict susceptibility to political fake news. *Personality and Individual Differences*, *174*, 110666. https://doi.org/10.1016/j.paid.2021.110666

Cameron, R. (2009). A sequential mixed model research design: Design, analytical and display issues. *School of Commerce and Management Papers*, *3*. https://doi.org/10.5172/mra.3.2.140

Castillo, C., Mendoza, M., & Poblete, B. (2013). Predicting information credibility in time-sensitive social media. *Internet Research*, *23*(5), 560–588. https://doi.org/10.1108/IntR-05-2012-0095

Cauwenberge, A. V., d'Haenens, L., & Beentjes, H. (2010a). Emerging Consumption Patterns among Young People of Traditional and Internet News Platforms in the Low Countries. *Observatorio (OBS*)*, *4*(3). https://doi.org/10.15847/obsOBS432010400

Cauwenberge, A. V., d'Haenens, L., & Beentjes, H. (2010b). Emerging Consumption Patterns among Young People of Traditional and Internet News Platforms in the Low Countries. *Observatorio (OBS*)*, *4*(3). https://doi.org/10.15847/obsOBS432010400

Celliers, M., & Hattingh, M. (2020). *A Systematic Review on Fake News Themes Reported in Literature* (pp. 223–234). https://doi.org/10.1007/978-3-030-45002-1_19

Chang, S. E., Liu, A., & Shen, W.-C. (2016). User trust in social networking services: A comparison of Facebook and LinkedIn. *Computers in Human Behavior*, *69*. https://doi.org/10.1016/j.chb.2016.12.013

Chaubey, A., & Sahoo, C. K. (2021). Assimilation of business intelligence: The effect of external pressures and top leaders commitment during pandemic crisis. *International Journal of Information Management*, *59*, 102344. https://doi.org/10.1016/j.ijinfomgt.2021.102344

Chemingui, H., & ben Iallouna, H. (2013). Resistance, motivations, trust and intention to use mobile financial services. *The International Journal of Bank Marketing*, *31*. https://doi.org/10.1108/IJBM-12-2012-0124

Chen, S., Mao, J., Li, G., Ma, C., & Cao, Y. (2020). Uncovering sentiment and retweet patterns of disaster-related tweets from a spatiotemporal perspective—A case study of Hurricane Harvey. *Telematics Informatics*. https://doi.org/10.1016/j.tele.2019.101326

178

Chen, Y., Lu, F., & Zhang, J. (2017). Social comparisons, status and driving behavior. *Journal of Public Economics*, *155*, 11–20. https://doi.org/10.1016/j.jpubeco.2017.08.005

Choi, J. (2016). Why do people use news differently on SNSs? An investigation of the role of motivations, media repertoires, and technology cluster on citizens' news-related activities. *Computers in Human Behavior*, *54*, 249–256. https://doi.org/10.1016/j.chb.2015.08.006

Choi, J., & Lee, J. K. (2015). Investigating the effects of news sharing and political interest on social media network heterogeneity. *Computers in Human Behavior*, *44*, 258–266. https://doi.org/10.1016/j.chb.2014.11.029

Choi, J., Lee, J. K., & Metzgar, E. T. (2017). Investigating effects of social media news sharing on the relationship between network heterogeneity and political participation. *Computers in Human Behavior*, *75*, 25–31. https://doi.org/10.1016/j.chb.2017.05.003

Chung, M., Munno, G. J., & Moritz, B. (2015). Triggering participation: Exploring the effects of third-person and hostile media perceptions on online participation. *Computers in Human Behavior*, *53*, 452–461.

Cialdini, R. B., & Goldstein, N. J. (2004). Social Influence: Compliance and Conformity. *Annual Review of Psychology*, *55*(1), 591–621. https://doi.org/10.1146/annurev.psych.55.090902.142015

Clark-Carter, D. (2009). *Quantitative Psychological Research: The Complete Student's Companion*. https://doi.org/10.4324/9780203870709

Cohen, J., Mutz, D., Price, V., & Gunther, A. (1988). Perceived impact of defamation: An experiment on third-person effects. *Public Opinion Quarterly*, *52*(2), 161–173. https://doi.org/10.1086/269092

Colliander, J. (2019). "This is fake news": Investigating the role of conformity to other users' views when commenting on and spreading disinformation in social media. *Computers in Human Behavior*, *97*, 202–215. https://doi.org/10.1016/j.chb.2019.03.032

Conroy, N. J., Rubin, V. L., & Chen, Y. (2015). Automatic deception detection: Methods for finding fake news: Automatic Deception Detection: Methods for Finding Fake News. *Proceedings of the Association for Information Science and Technology*, *52*(1), 1–4. https://doi.org/10.1002/pra2.2015.145052010082

Cousineau, D., & Chartier, S. (2010). Outliers detection and treatment: A review. *International Journal of Psychological Research*, *3*(1), 58–67. https://doi.org/10.21500/20112084.844

Creswell, J. W. (2021, November 11). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications Inc. https://us.sagepub.com/en-us/nam/research-design/book255675

Creswell, J. W., & Clark, V. L. P. (2010). *Designing and Conducting Mixed Methods Research* (Second edition). SAGE Publications, Inc.

Cunningham, S. B. (2002). *The idea of propaganda: A reconstruction*. Greenwood Publishing Group.

Davison, W. P. (1983). The Third-Person Effect in Communication. *Public Opinion Quarterly*, *47*(1), 1–15. https://doi.org/10.1086/268763

De Waal, E., Schönbach, K., & Lauf, E. (2005). Online newspapers: A substitute or complement for print newspapers and other information channels? *Communications*, *30*(1), 55–72.

Del Vicario, M., Bessi, A., Zollo, F., Petroni, F., Scala, A., Caldarelli, G., Stanley, H. E., & Quattrociocchi, W. (2016). The spreading of misinformation online. *Proceedings of the National Academy of Sciences*, *113*(3), 554–559. https://doi.org/10.1073/pnas.1517441113

Deutskens, E., de Ruyter, K., Wetzels, M., & Oosterveld, P. (2004). Response Rate and Response Quality of Internet-Based Surveys: An Experimental Study. *Marketing Letters*, *15*(1), 21–36. https://doi.org/10.1023/B:MARK.0000021968.86465.00

Diddi, A., & LaRose, R. (2006). Getting hooked on news: Uses and gratifications and the formation of news habits among college students in an Internet environment. *Journal of Broadcasting & Electronic Media*, *50*(2), 193–210.

Dillman, D. A. (2007). *Mail and internet surveys: The tailored design method, 2nd ed* (pp. xviii, 523). John Wiley & Sons Inc.

Distinctions between Hard and Soft News. (2016, May 27). Reuters Institute Digital News Report. https://www.digitalnewsreport.org/survey/2016/hard-soft-news-2016/

Dodd, D. H., & Bradshaw, J. M. (1980). Leading questions and memory: Pragmatic constraints. *Journal of Verbal Learning and Verbal Behavior*, *19*(6), 695–704. https://doi.org/10.1016/S0022-5371(80)90379-5

Dutta-Bergman, M. J. (2004). Complementarity in consumption of news types across traditional and new media. *Journal of Broadcasting & Electronic Media*, *48*(1), 41–60.

Dwivedi, Y. K., Hughes, D. L., Coombs, C., Constantiou, I., Duan, Y., Edwards, J. S., Gupta, B., Lal, B., Misra, S., Prashant, P., Raman, R., Rana, N. P., Sharma, S. K., & Upadhyay, N. (2020). Impact of COVID-19 pandemic on information management

research and practice: Transforming education, work and life. *International Journal of Information Management*, *55*, 102211. https://doi.org/10.1016/j.ijinfomgt.2020.102211

Einstein, K. L., & Glick, D. M. (2015). Do I think BLS data are BS? The consequences of conspiracy theories. *Political Behavior*, *37*(3), 679–701. https://doi.org/10.1007/s11109-014-9287-z

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*(2), 117–140.

Fidel, R. (2008). Are we there yet?: Mixed methods research in library and information science. *Library & Information Science Research*, *30*(4), 265–272. https://doi.org/10.1016/j.lisr.2008.04.001

Flaxman, S., Goel, S., & Rao, J. M. (2013). Ideological Segregation and the Effects of Social Media on News Consumption. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2363701

Flaxman, S., Goel, S., & Rao, J. M. (2016). Filter Bubbles, Echo Chambers, and Online News Consumption. *Public Opinion Quarterly*, *80*(S1), 298–320. https://doi.org/10.1093/poq/nfw006

Fu, P.-W., Wu, C.-C., & Cho, Y.-J. (2017). What makes users share content on facebook? Compatibility among psychological incentive, social capital focus, and content type. *Computers in Human Behavior*, *67*, 23–32. https://doi.org/10.1016/j.chb.2016.10.010

Gaozhao, D. (2021). Flagging fake news on social media: An experimental study of media consumers' identification of fake news. *Government Information Quarterly*, *38*(3), 101591. https://doi.org/10.1016/j.giq.2021.101591

George, D., & Mallery, P. (2016). *IBM SPSS Statistics 23 Step by Step: A Simple Guide and Reference* (14th ed.). Routledge. https://doi.org/10.4324/9781315545899

Gillham, B. (2008). *Developing a Questionaire; Real World Research*.

Goldkuhl, G. (2012). Pragmatism vs interpretivism in qualitative information systems research. *European Journal of Information Systems*, *21*(2), 135–146. https://doi.org/10.1057/ejis.2011.54

Goreis, A., & Voracek, M. (2019). A Systematic Review and Meta-Analysis of Psychological Research on Conspiracy Beliefs: Field Characteristics, Measurement Instruments, and Associations With Personality Traits. *Frontiers in Psychology*, *10*, 205. https://doi.org/10.3389/fpsyg.2019.00205

Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, *37*, 504–528.

Grinberg, N., Joseph, K., Friedland, L., Swire-Thompson, B., & Lazer, D. (2019). Fake news on Twitter during the 2016 U.S. presidential election. *Science*, *363*(6425), 374–378. https://doi.org/10.1126/science.aau2706

Gumelar, G., Akbar, Z., & Erik, E. (2018, January 1). *Engagement and the spread of fake news: Personality Trait as moderator*. https://doi.org/10.2991/iccsr-18.2018.34

Hair, J. F., Black, B., Babin, B. J., Anderson, R. E., & Black, W. C. (2010). Multivariate Data Analysis. *Faculty Publications*. https://digitalcommons.kennesaw.edu/facpubs/2925

Halpern, D., Valenzuela, S., Katz, J., & Miranda Orrego, J. (2019). *From Belief in Conspiracy Theories to Trust in Others: Which Factors Influence Exposure, Believing and Sharing Fake News* (pp. 217–232). https://doi.org/10.1007/978-3-030-21902-4_16

Hamilton, R. W., Schlosser, A., & Chen, Y.-J. (2017). Who's Driving this Conversation? Systematic Biases in the Content of Online Consumer Discussions. *Journal of Marketing Research*, *54*(4), 540–555. https://doi.org/10.1509/jmr.14.0012

Han, Y., Lappas, T., & Sabnis, G. (2020). The Importance of Interactions Between Content Characteristics and Creator Characteristics for Studying Virality in Social Media. *Information Systems Research*, *31*(2), 576–588. https://doi.org/10.1287/isre.2019.0903

Heinrich, A. (2012). Foreign reporting in the sphere of network journalism. *Journalism Practice*, *6*(5–6), 766–775.

Hirsh, J. B. (2010). Personality and environmental concern. *Journal of Environmental Psychology*, *30*(2), 245–248. https://doi.org/10.1016/j.jenvp.2010.01.004

Hoang, T. B. N., & Mothe, J. (2018). Predicting information diffusion on Twitter – Analysis of predictive features. *Journal of Computational Science*, *28*, 257–264. https://doi.org/10.1016/j.jocs.2017.10.010

Houston, J. B., Hansen, G., & Nisbett, G. (2011). Influence of User Comments on Perceptions of Media Bias and Third-Person Effect in Online News. *Electronic News*, *5*, 79–92. https://doi.org/10.1177/1931243111407618

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Hu, S., Liu, H., & Gu, J. (2018). What role does self-efficacy play in developing cultural intelligence from social media usage? *Electronic Commerce Research and Applications*, *28*, 172–180. https://doi.org/10.1016/j.elerap.2018.01.009

Huygens, I., & Vaughan, G. M. (1983). Language attitudes, ethnicity and social class in New Zealand. *Journal of Multilingual and Multicultural Development*, *4*(2–3), 207–223. https://doi.org/10.1080/01434632.1983.9994112

Itti, L., & Baldi, P. (2009). Bayesian surprise attracts human attention. *Vision Research*, *49*(10), 1295–1306. https://doi.org/10.1016/j.visres.2008.09.007

Jang, K. L., Livesley, W. J., & Vemon, P. A. (1996). Heritability of the Big Five Personality Dimensions and Their Facets: A Twin Study. *Journal of Personality*, *64*(3), 577–592. https://doi.org/10.1111/j.1467-6494.1996.tb00522.x

Jang, S. M., Geng, T., Queenie Li, J.-Y., Xia, R., Huang, C.-T., Kim, H., & Tang, J. (2018). A computational approach for examining the roots and spreading patterns of fake news: Evolution tree analysis. *Computers in Human Behavior*, *84*, 103–113. https://doi.org/10.1016/j.chb.2018.02.032

Jang, S. M., & Kim, J. K. (2018). Third person effects of fake news: Fake news regulation and media literacy interventions. *Computers in Human Behavior*, *80*, 295–302. https://doi.org/10.1016/j.chb.2017.11.034

Johnson, R., Onwuegbuzie, A., & Turner, L. (2007). Toward a Definition of Mixed Methods Research. Journal of Mixed Methods Research, 1, 112-133. *Journal of Mixed Methods Research*, *1*, 112–133. https://doi.org/10.1177/1558689806298224

Jolley, D., & Douglas, K. M. (2014). The social consequences of conspiracism: Exposure to conspiracy theories decreases intentions to engage in politics and to reduce one's carbon footprint. *British Journal of Psychology (London, England: 1953)*, *105*(1), 35–56. https://doi.org/10.1111/bjop.12018

Jones, E. E. (1984). *Social stigma: The psychology of marked relationships*. WH Freeman.

Kahneman, D. (2011). *Thinking, Fast and Slow*. https://criticalthinkeracademy.com/courses/72617/lectures/1058384

Kang, H., Bae, K., Zhang, S., & Sundar, S. S. (2012). Source Cues in Online News: Is Proximate Source more Powerful than Distal Sources. *Journalism & Mass Communication Quarterly*, *88*, 719–736. https://doi.org/10.1177/107769901108800403

Karlova, N. A., & Fisher, K. E. (2013). *"Plz RT": A Social Diffusion Model of Misinformation and Disinformation for Understanding Human Information Behaviour*. 17.

Kemp, S. (2021a). *Digital 2021 October Global Statshot Report*. https://datareportal.com/reports/digital-2021-october-global-statshot

Kemp, S. (2021b). *Digital in South Africa: All the Statistics You Need in 2021*. https://datareportal.com/reports/digital-2021-south-africa

King, K. K., & Wang, B. (2021). Diffusion of real versus misinformation during a crisis event: A big data-driven approach. *International Journal of Information Management*, 102390. https://doi.org/10.1016/j.ijinfomgt.2021.102390

Kline, R. B. (1998). *Principles and practice of structural equation modeling* (pp. xiv, 354). Guilford Press.

Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling, Fourth Edition*. Guilford Publications.

Krassner, A. M., Gartstein, M. A., Park, C., Dragan, W. Ł., Lecannelier, F., & Putnam, S. P. (2017). East-West, Collectivist-Individualist: A Cross-Cultural Examination of Temperament in Toddlers from Chile, Poland, South Korea, and the U.S. *The European Journal of Developmental Psychology*, *14*(4), 449–464. https://doi.org/10.1080/17405629.2016.1236722

Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet Paradox Revisited. *Journal of Social Issues*, *58*(1), 49–74. https://doi.org/10.1111/1540-4560.00248

Kroll, T., & Neri, M. (2009). Designs for Mixed Methods Research. In S. Andrew & E. J. Halcomb (Eds.), *Mixed Methods Research for Nursing and the Health Sciences* (pp. 31–49). Wiley-Blackwell. https://doi.org/10.1002/9781444316490.ch3

Laney, C., & Loftus, E. (2008). Emotional content of true and false memories. *Memory (Hove, England)*, *16*, 500–516. https://doi.org/10.1080/09658210802065939

Lavrakas, P. (2008). *Encyclopedia of Survey Research Methods*. Sage Publications, Inc. https://doi.org/10.4135/9781412963947

Lazer, D. M. J., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., Metzger, M. J., Nyhan, B., Pennycook, G., Rothschild, D., Schudson, M., Sloman, S. A., Sunstein, C. R., Thorson, E. A., Watts, D. J., & Zittrain, J. L. (2018). The science of fake news. *Science*, *359*(6380), 1094–1096. https://doi.org/10.1126/science.aao2998

Lee, C. S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior*, *28*(2), 331–339. https://doi.org/10.1016/j.chb.2011.10.002

Lee, K., Mahmud, J., Chen, J., Zhou, M., & Nichols, J. (2014). Who Will Retweet This? Automatically Identifying and Engaging Strangers on Twitter to Spread Information. *ArXiv:1405.3750 [Physics]*. http://arxiv.org/abs/1405.3750

Lewandowsky, S., Stritzke, W., Freund, A., Oberauer, K., & Krueger, J. (2013). Misinformation, Disinformation, and Violent Conflict From Iraq and the "War on Terror" to

Future Threats to Peace. *The American Psychologist*, *68*, 487–501.
https://doi.org/10.1037/a0034515

Li, M., Wang, X., Gao, K., & Zhang, S. (2017). A Survey on Information Diffusion in Online Social Networks: Models and Methods. *Information*, *8*(4), 118.
https://doi.org/10.3390/info8040118

Lim, J. S. (2017). *The Third-Person Effect of Online Advertising of Cosmetic Surgery: A Path Model for Predicting Restrictive Versus Corrective Actions*.
https://doi.org/10.1177/1077699016687722

Lim, J. S., Hwang, Y., Kim, S., & Biocca, F. (2015). How social media engagement leads to sports channel loyalty: Mediating roles of social presence and channel commitment. *Comput. Hum. Behav.* https://doi.org/10.1016/j.chb.2015.01.013

Lima Quintanilha, T., Torres da Silva, M., & Lapa, T. (2019). Fake news and its impact on trust in the news. Using the Portuguese case to establish lines of differentiation. *Communication & Society*, *32*(3), 17–33. https://doi.org/10.15581/003.32.3.17-33

Linden, S. van der, Dixon, G., Clarke, C., & Cook, J. (2021). Inoculating against COVID-19 vaccine misinformation. *EClinicalMedicine*, *33*.
https://doi.org/10.1016/j.eclinm.2021.100772

Little, A. T. (2017). Propaganda and credulity. *Games and Economic Behavior*, *102*, 224–232. https://doi.org/10.1016/j.geb.2016.12.006

Liu, L., Lee, M. K. O., Liu, R., & Chen, J. (2018). Trust transfer in social media brand communities: The role of consumer engagement. *International Journal of Information Management*, *41*, 1–13. https://doi.org/10.1016/j.ijinfomgt.2018.02.006

Liu, X., & LaRose, R. (2008). Does Using the Internet Make People More Satisfied with Their Lives? The Effects of the Internet on College Students' School Life Satisfaction. *CyberPsychology & Behavior*, *11*(3), 310–320. https://doi.org/10.1089/cpb.2007.0040

Lutzke, L., Drummond, C., Slovic, P., & Árvai, J. (2019). Priming critical thinking: Simple interventions limit the influence of fake news about climate change on Facebook. *Global Environmental Change*, *58*, 101964. https://doi.org/10.1016/j.gloenvcha.2019.101964

Ma, W., & Chan, A. (2014). Knowledge sharing and social media: Altruism, perceived online attachment motivation, and perceived online relationship commitment. *Computers in Human Behavior*, *39*, 51–58. https://doi.org/10.1016/j.chb.2014.06.015

Maertens, R., Roozenbeek, J., Basol, M., & van der Linden, S. (2020). Long-Term Effectiveness of Inoculation Against Misinformation: Three Longitudinal Experiments. *Journal of Experimental Psychology Applied*, *27*. https://doi.org/10.1037/xap0000315

Mai, L. (2018). *When Is Fake News Propaganda?*
http://facingtoday.facinghistory.org/when-is-fake-news-propaganda-

Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First- and higher order factor models and their invariance across groups. *Psychological Bulletin*, *97*(3), 562–582. https://doi.org/10.1037/0033-2909.97.3.562

McCrae, R., & John, O. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*. https://doi.org/10.1111/J.1467-6494.1992.TB00970.X

McKenna, K. Y. A., & Bargh, J. A. (2000). Plan 9 from cyberspace: The implications of the Internet for personality and social psychology. *Personality and Social Psychology Review*, *4*(1), 57–75. https://doi.org/10.1207/S15327957PSPR0401_6

McLeod, D. M., Detenber, B. H., & Eveland, W. P., Jr. (2001). Behind the Third-Person Effect: Differentiating Perceptual Processes for Self and Other. *Journal of Communication*, *51*(4), 678–695. https://doi.org/10.1111/j.1460-2466.2001.tb02902.x

Metzger, M. J., Flanagin, A. J., Eyal, K., Lemus, D. R., & Mccann, R. M. (2003). Credibility for the 21st Century: Integrating Perspectives on Source, Message, and Media Credibility in the Contemporary Media Environment. *Annals of the International Communication Association*, *27*(1), 293–335. https://doi.org/10.1080/23808985.2003.11679029

Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, *40*(2), 120–123.

Nelson-Field, K., Riebe, E., & Newstead, K. (2013). The emotions that drive viral video. *Australasian Marketing Journal (AMJ)*, *21*(4), 205–211. https://doi.org/10.1016/j.ausmj.2013.07.003

Newberg, A., & Waldman, M. R. (2006). *Why We Believe What We Believe: Uncovering Our Biological Need for Meaning, Spirituality, and Truth*. Simon and Schuster.

News | Definition of news in English by Oxford Dictionaries. (2018). Oxford Dictionaries | English. https://en.oxforddictionaries.com/definition/news

News Use Across Social Media Platforms 2018 | Pew Research Center. (2018, September 10). https://www.journalism.org/2018/09/10/news-use-across-social-media-platforms-2018/

Newspapers ABC Q3 2018: First decline for total newspaper category. (2018, November 8). https://www.bizcommunity.com/Article/196/90/183866.html

Nielsen, R. K. (2016). News media, search engines and social networking sites as varieties of online gatekeepers. In *Rethinking journalism again* (pp. 93–108). Routledge.

Oates, B. J. (2006). *Researching Information Systems and Computing*. SAGE.

Oh, O., Agrawal, M., & Rao, H. R. (2013). Community Intelligence and Social Media Services: A Rumor Theoretic Analysis of Tweets During Social Crises. *MIS Quarterly*, *37*(2), 407–426.

Oh, O., Kwon, K., & Rao, H. (2010). An Exploration of Social Media in Exteme Events: Rumor Theory and Twitter During the Haiti Earthquake 2010. *ICIS 2010 Proceedings*. https://aisel.aisnet.org/icis2010_submissions/231

Osatuyi, B., & Hughes, J. (2018, January 3). *A Tale of Two Internet News Platforms-Real vs. Fake: An Elaboration Likelihood Model Perspective*. https://doi.org/10.24251/HICSS.2018.500

Ozer, D. J., & Benet-Martínez, V. (2006). Personality and the prediction of consequential outcomes. *Annual Review of Psychology*, *57*, 401–421. https://doi.org/10.1146/annurev.psych.57.102904.190127

Paek, H.-J., Hove, T., Jeong, H. J., & Kim, M. (2011). Peer or expert? The persuasive impact of YouTube public service announcement producers. *International Journal of Advertising*, *30*, 161–188. https://doi.org/10.2501/IJA-30-1-161-188

Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS* (4th ed). Open University Press/McGraw-Hill.

Pariser, E. (2011). *The filter bubble: What the Internet is hiding from you*. Penguin Press.

Parra, C. M., Gupta, M., & Mikalef, P. (2021). Information and communication technologies (ICT)-enabled severe moral communities and how the (Covid19) pandemic might bring new ones. *International Journal of Information Management*, *57*, 102271. https://doi.org/10.1016/j.ijinfomgt.2020.102271

Paul, R., & Elder, L. (2019). *The Miniature Guide to Critical Thinking Concepts and Tools*. Rowman & Littlefield.

Pennycook, G., Epstein, Z., Mosleh, M., Arechar, A. A., Eckles, D., & Rand, D. G. (2021). Shifting attention to accuracy can reduce misinformation online. *Nature*, *592*(7855), 590–595. https://doi.org/10.1038/s41586-021-03344-2

Pennycook, G., & Rand, D. G. (2018). Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning. *Cognition*. https://doi.org/10.1016/j.cognition.2018.06.011

Perik, H. T. M. (2014). Research into factors that influence the intention to share knowledge on a knowledge community platform within youth care: The case of "Jeugdkwartier". [Master's Thesis]. University of Twente.

Petter, S. C., & Gallivan, M. J. (2004). Toward a framework for classifying and guiding mixed method research in information systems. *37th Annual Hawaii International Conference on System Sciences, 2004. Proceedings of The*, 10 pp. https://doi.org/10.1109/HICSS.2004.1265614

Phuluwa, L., & Hattingh, M. (2017). Understanding how the City of Johannesburg Metropolitan Municipality's social media platforms are perceived by young citizens. *2017 IST-Africa Week Conference (IST-Africa)*, 1–10. https://doi.org/10.23919/ISTAFRICA.2017.8102337

Pittman, M., & Reich, B. (2016). Social Media and Loneliness. *Comput. Hum. Behav.*, *62*(C), 155–167. https://doi.org/10.1016/j.chb.2016.03.084

Plume, C. J., & Slade, E. L. (2018). Sharing of Sponsored Advertisements on Social Media: A Uses and Gratifications Perspective. *Information Systems Frontiers*, *20*(3), 471–483. https://doi.org/10.1007/s10796-017-9821-8

Podberesky, R., Deluty, R. H., & Feldstein, S. (1990). Evaluations of Spanish- and Oriental-accented English speakers. *Social Behavior and Personality: An International Journal*, *18*(1), 53–63. https://doi.org/10.2224/sbp.1990.18.1.53

Przybylski, A. K., Murayama, K., Gladwell, V., & DeHaan, C. R. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, *29*(4), 1841–1848. https://doi.org/10.1016/j.chb.2013.02.014

Quan-Haase, A., & Young, A. L. (2014). The Uses and Gratifications (U&G) Approach as a Lens for Studying Social Media Practice. *Fortner/The Handbook of Media and Mass Communication Theory*, 269–286.

Rammstedt, B., & Danner, D. (2017). Die Facettenstruktur des Big Five Inventory (BFI): Validierung für die deutsche Adaptation des BFI. [The facet structure of the Big Five Inventory (BFI): Validation for the German adaptation of the BFI.]. *Diagnostica*, *63*(1), 70–84. https://doi.org/10.1026/0012-1924/a000161

Ranasinghe, S. B., & Dharmadasa, P. (2013). Intention to knowledge sharing: From planned behavior and psychological needs perspectives. *International Journal of Knowledge Management (IJKM)*, *9*(4), 33–50.

Rapp, D. (2016). The Consequences of Reading Inaccurate Information. *Current Directions in Psychological Science*, *25*, 281–285. https://doi.org/10.1177/0963721416649347

Robinson, S., & DeShano, C. (2011). 'Anyone can know': Citizen journalism and the interpretive community of the mainstream press. *Journalism*, *12*(8), 963–982. https://doi.org/10.1177/1464884911415973

Rocco, T. S., Bliss, L. A., Gallagher, S., & Pérez-Prado, A. (2003). *Taking the Next Step: Mixed Methods Research in Organizational Systems*.

Rojas, H., Shah, D. V., & Faber, R. J. (1996). For the Good of Others: Censorship and the Third-Person-Effect. *International Journal of Public Opinion Research*, *8*(2), 163–186. https://doi.org/10.1093/ijpor/8.2.163

Rosenstiel, T., Sonderman, J., Loker, K., Ivancin, M., & Kjarval, N. (2015). *Twitter and the News: How people use the social network to learn about the world*. 44.

Rosenthal-von der Pütten, A. M., Hastall, M. R., Köcher, S., Meske, C., Heinrich, T., Labrenz, F., & Ocklenburg, S. (2019). "Likes" as social rewards: Their role in online social comparison and decisions to like other People's selfies. *Computers in Human Behavior*, *92*, 76–86. https://doi.org/10.1016/j.chb.2018.10.017

Roulston, K. (2001). Data analysis and 'theorizing as ideology.' *Qualitative Research*, *1*(3), 279–302. https://doi.org/10.1177/146879410100100302

Roy, K. C., Hasan, S., Sadri, A. M., & Cebrian, M. (2020). Understanding the efficiency of social media based crisis communication during hurricane Sandy. *International Journal of Information Management*, *52*, 102060. https://doi.org/10.1016/j.ijinfomgt.2019.102060

Rubenking, B. (2019). Emotion, attitudes, norms and sources: Exploring sharing intent of disgusting online videos. *Computers in Human Behavior*, *96*, 63–71. https://doi.org/10.1016/j.chb.2019.02.011

Salwen, M. B., & Driscoll, P. D. (1997). Consequences of Third-Person Perception in Support of Press Restrictions in the O. J. Simpson Trial. *Journal of Communication*, *47*(2), 60–78. https://doi.org/10.1111/j.1460-2466.1997.tb02706.x

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (Eighth Edition). Pearson.

Scharrer, E., & Leone, R. (2008). First-Person Shooters and the Third-Person Effect. *Human Communication Research*, *34*(2), 210–233. https://doi.org/10.1111/j.1468-2958.2008.00319.x

Schlenker, B. R., Helm, B., & Tedeschi, J. T. (1973). The effects of personality and situational variables on behavioral trust. *Journal of Personality and Social Psychology*, *25*(3), 419.

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting Structural Equation Modeling and Confirmatory Factor Analysis Results: A Review. *The Journal of Educational Research*, *99*(6), 323–338. https://doi.org/10.3200/JOER.99.6.323-338

Schweidel, D. A., & Moe, W. W. (Eds.). (2014). Why Do We Share Our Opinions? In *Social Media Intelligence* (pp. 37–52). Cambridge University Press. https://doi.org/10.1017/CBO9781139381338.006

Shaari, F., Bakar, A. A., & Hamdan, A. R. (2009). Outlier detection based on rough sets theory. *Intelligent Data Analysis*, *13*(2), 191–206. https://doi.org/10.3233/IDA-2009-0363

Silverman, C. (2016, November 16). *This Analysis Shows How Viral Fake Election News Stories Outperformed Real News On Facebook*. https://www.buzzfeednews.com/article/craigsilverman/viral-fake-election-news-outperformed-real-news-on-facebook

Silverman, C., & Singer-Vine, J. (2016, December 6). *Most Americans Who See Fake News Believe It, New Survey Says*. https://www.buzzfeednews.com/article/craigsilverman/fake-news-survey

Silverman, D. (2000). *Doing Qualitative Research. A Handbook*.

Sindermann, C., Elhai, J. D., Moshagen, M., & Montag, C. (2020). Age, gender, personality, ideological attitudes and individual differences in a person's news spectrum: How many and who might be prone to "filter bubbles" and "echo chambers" online? *Heliyon*, *6*(1), e03214. https://doi.org/10.1016/j.heliyon.2020.e03214

Singer, J. B. (2014). User-generated visibility: Secondary gatekeeping in a shared media space. *New Media & Society*, *16*, 55–73. https://doi.org/10.1177/1461444813477833

Sinha, A., Kumar, P., Rana, N. P., Islam, R., & Dwivedi, Y. K. (2019). Impact of internet of things (IoT) in disaster management: A task-technology fit perspective. *Annals of Operations Research*, *283*(1), 759–794. https://doi.org/10.1007/s10479-017-2658-1

Social media: Worldwide penetration rate 2019 | Statistic. (2019). Statista. https://www.statista.com/statistics/269615/social-network-penetration-by-region/

Søe, S. O. (2017). Algorithmic detection of misinformation and disinformation: Gricean perspectives. *Journal of Documentation*, *74*(2), 309–332. https://doi.org/10.1108/JD-05-2017-0075

Stahl, B. C. (2006). On the Difference or Equality of Information, Misinformation, and Disinformation: A Critical Research Perspective. *Informing Science*, *9*.

Stark, C., Okado, Y., & Loftus, E. (2010). Imaging the reconstruction of true and false memories using sensory reactivation and the misinformation paradigms. *Learning & Memory (Cold Spring Harbor, N.Y.)*, *17*, 485–488. https://doi.org/10.1101/lm.1845710

Stewart, K. J. (2003). Trust transfer on the world wide web. *Organization Science*, *14*(1), 5–17.

Stieglitz, S., & Dang-Xuan, L. (2013). Emotions and Information Diffusion in Social Media—Sentiment of Microblogs and Sharing Behavior. *Journal of Management Information Systems*, *29*(4), 217–248. https://doi.org/10.2753/MIS0742-1222290408

Su, M.-H., Liu, J., & McLeod, D. M. (2019). Pathways to news sharing: Issue frame perceptions and the likelihood of sharing. *Computers in Human Behavior*, *91*, 201–210. https://doi.org/10.1016/j.chb.2018.09.026

Sun, Y., Pan, Z., & Shen, L. (2008). Understanding the third-person perception: Evidence from a meta-analysis. *Journal of Communication*, *58*(2), 280–300.

Sundar, S. S., Xu, Q., & Oeldorf-Hirsch, A. (2009). *Authority vs. peer: How interface cues influence users*. 4231–4236. https://doi.org/10.1145/1520340.1520645

Talwar, S., Dhir, A., Kaur, P., Zafar, N., & Alrasheedy, M. (2019). Why do people share fake news? Associations between the dark side of social media use and fake news sharing behavior. *Journal of Retailing and Consumer Services*, *51*, 72–82. https://doi.org/10.1016/j.jretconser.2019.05.026

Talwar, S., Dhir, A., Singh, D., Virk, G. S., & Salo, J. (2020). Sharing of fake news on social media: Application of the honeycomb framework and the third-person effect hypothesis. *Journal of Retailing and Consumer Services*, *57*, 102197. https://doi.org/10.1016/j.jretconser.2020.102197

Tandoc, E. C., Lim, Z. W., & Ling, R. (2018). Defining "Fake News." *Digital Journalism*, *6*(2), 137–153. https://doi.org/10.1080/21670811.2017.1360143

Tashakkori, A., & Creswell, J. W. (2007). Editorial: The New Era of Mixed Methods. *Journal of Mixed Methods Research*, *1*(1), 3–7. https://doi.org/10.1177/2345678906293042

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53–55. https://doi.org/10.5116/ijme.4dfb.8dfd

Taylor, P. M. (1992). *War and the media: Propaganda and persuasion in the Gulf War*. Manchester University Press.

The Lancet Infectious Diseases. (2020). Challenges of coronavirus disease 2019. *The Lancet Infectious Diseases*. https://doi.org/10.1016/S1473-3099(20)30072-4

These are the biggest social media and chat platforms in 2019. (2019, February 2). https://businesstech.co.za/news/internet/296752/these-are-the-biggest-social-media-and-chat-platforms-in-2019/

Thurman, N. (2011). Making 'The Daily Me': Technology, economics and habit in the mainstream assimilation of personalized news. *Journalism*, *12*(4), 395–415.

Trigueros, R., Juan, M., & Sandoval, F. (2017). *QUALITATIVE AND QUANTITATIVE RESEARCH INSTRUMENTS Research tools*.

Tsay-Vogel, M. (2015). Me versus them: Third-person effects among Facebook users. *New Media & Society*, *18*. https://doi.org/10.1177/1461444815573476

Tschiatschek, S., Singla, A., Rodriguez, M. G., Merchant, A., & Krause, A. (2018). Fake News Detection in Social Networks via Crowd Signals. *ArXiv:1711.09025 [Cs]*. http://arxiv.org/abs/1711.09025

Tsikerdekis, M. (2013). The effects of perceived anonymity and anonymity states on conformity and groupthink in online communities: A Wikipedia study. *Journal of the American Society for Information Science and Technology*, *64*(5), 1001–1015. https://doi.org/10.1002/asi.22795

Tuckett, A. (2005). Applying Thematic Analysis Theory to Practice: A researcher's experience. *Contemporary Nurse*, *19*, 75–87. https://doi.org/10.5172/conu.19.1-2.75

Union (EBU), E. B. (2021). *Trust in Media*. https://www.ebu.ch/publications/research/login_only/report/trust-in-media

Uses and Gratification Theory. (2016, January 26). *Learning Theories*. https://www.learning-theories.com/uses-and-gratification-theory.html

van der Linden, S. (2015). The conspiracy-effect: Exposure to conspiracy theories (about global warming) decreases pro-social behavior and science acceptance. *Personality and Individual Differences*, *87*, 171–173. https://doi.org/10.1016/j.paid.2015.07.045

van der Linden, S. (2019). Countering science denial. *Nature Human Behaviour*, *3*(9), 889–890. https://doi.org/10.1038/s41562-019-0631-5

Venkatesh, V., Brown, S., & Bala, H. (2013). Bridging the Qualitative-Quantitative Divide: Guidelines for Conducting Mixed Methods Research in Information Systems. *MIS Quarterly: Management Information Systems*, *37*, 21–54. https://doi.org/10.25300/MISQ/2013/37.1.02

Verma, N., Fleischmann, K. R., & Koltai, K. S. (2017). Human values and trust in scientific journals, the mainstream media and fake news. *Proceedings of the Association for*

Information Science and Technology, *54*(1), 426–435.
https://doi.org/10.1002/pra2.2017.14505401046

Vornik, L., Sharman, S., & Garry, M. (2003). The power of the spoken word: Sociolinguistic cues influence the misinformation effect. *Memory*, *11*(1), 101–109.
https://doi.org/10.1080/741938170

Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, *359*(6380), 1146–1151. https://doi.org/10.1126/science.aap9559

Wang, Y., McKee, M., Torbica, A., & Stuckler, D. (2019). Systematic Literature Review on the Spread of Health-related Misinformation on Social Media. *Social Science & Medicine (1982)*, *240*, 112552. https://doi.org/10.1016/j.socscimed.2019.112552

Warner-Søderholm, G., Bertsch, A., Sawe, E., Lee, D., Wolfe, T., Meyer, J., Engel, J., & Fatilua, U. N. (2018). Who trusts social media? *Computers in Human Behavior*, *81*, 303–315.

Weeks, B. E., & Holbert, R. L. (2013). Predicting dissemination of news content in social media: A focus on reception, friending, and partisanship. *Journalism & Mass Communication Quarterly*, *90*(2), 212–232.

Weinreich, H., Obendorf, H., Herder, E., & Mayer, M. (2008). Not quite the average: An empirical study of Web use. *TWEB*, *2*.

Wieselquist, J., Rusbult, C. E., Foster, C. A., & Agnew, C. R. (1999). Commitment, pro-relationship behavior, and trust in close relationships. *Journal of Personality and Social Psychology*, *77*(5), 942.

Winter, S., Brückner, C., & Krämer, N. C. (2015). They Came, They Liked, They Commented: Social Influence on Facebook News Channels. *Cyberpsychology, Behavior and Social Networking*, *18*(8), 431–436. https://doi.org/10.1089/cyber.2015.0005

Xu, J., & Gonzenbach, W. J. (2008). Does a Perceptual Discrepancy Lead to Action? A Meta-analysis of the Behavioral Component of the Third-Person Effect. *International Journal of Public Opinion Research*, *20*(3), 375–385. https://doi.org/10.1093/ijpor/edn031

Yang, F., Zhang, K., & Yu, L. (2020). Adaptive Super-Twisting Algorithm-Based Nonsingular Terminal Sliding Mode Guidance Law. *Journal of Control Science and Engineering*, *2020*, e1058347. https://doi.org/10.1155/2020/1058347

Yang, J., & Tian, Y. (2021). "Others are more vulnerable to fake news than I Am": Third-person effect of COVID-19 fake news on social media users. *Computers in Human Behavior*, *125*, 106950. https://doi.org/10.1016/j.chb.2021.106950

Yardley, L. (2000). Dilemmas in qualitative research. *Psychology & Health - PSYCHOL HEALTH*, *15*, 215–228. https://doi.org/10.1080/08870440008400302

Yuan, K.-H., & Bentler, P. (2006). Asymptotic robustness of standard errors in multilevel structural equation models. *Journal of Multivariate Analysis*, *97*, 1121–1141. https://doi.org/10.1016/j.jmva.2005.06.003

Zareie, A., & Sakellariou, R. (2021). Minimizing the spread of misinformation in online social networks: A survey. *Journal of Network and Computer Applications*, *186*, 103094. https://doi.org/10.1016/j.jnca.2021.103094

Zhang, X., & Ghorbani, A. A. (2020). An overview of online fake news: Characterization, detection, and discussion. *Information Processing & Management*, *57*(2), 102025. https://doi.org/10.1016/j.ipm.2019.03.004

Zhang, X., Habibi Lashkari, A., & A. Ghorbani, A. (2017). A Lightweight Online Advertising Classification System using Lexical-based Features: *Proceedings of the 14th International Joint Conference on E-Business and Telecommunications*, 486–494. https://doi.org/10.5220/0006459804860494

Zhao, X., Zhan, M., & Wong, C.-W. (2018). Segmenting and Understanding Publics in a Social Media Information Sharing Network: An Interactional and Dynamic Approach. *International Journal of Strategic Communication*, *12*(1), 25–45. https://doi.org/10.1080/1553118X.2017.1379013

Zhu, H., & Huberman, B. A. (2014). To Switch or Not To Switch: Understanding Social Influence in Online Choices. *American Behavioral Scientist*, *58*(10), 1329–1344. https://doi.org/10.1177/0002764214527089

Zohrabi, M. (2013). Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. *Theory and Practice in Language Studies*, *3*(2), 254–262. https://doi.org/10.4304/tpls.3.2.254-262

APPENDIX A – SURVEY QUESTIONNAIRE

FACTORS THAT MOTIVATE SOUTH AFRICAN STUDENTS TO SHARE FAKE NEWS THROUGH DIFFERENT MEDIA PLATFORM

Letter of Introduction and Informed Consent

Dept. of Informatics

Factors that motivate South African students to share fake news.

Research conducted by:

Ms. C. Forte (15071988)

Cell: 078 108 8878

Dear Participant

You are invited to participate in an academic research study conducted by Cindy Forte, Masters student from the Informatics Department at the University of Pretoria.

The purpose of the study is to determine factors that could potentially motivate students to share fake news either knowingly or unknowingly.

Please note the following:

- This is an anonymous study survey as your name will not appear on the questionnaire. The answers you give will be treated as strictly confidential as you cannot be identified in person based on the answers you give.
- Your participation in this study is very important to us. You may, however, choose not to participate and you may also stop participating at any time without any negative consequences.
- Please answer the questions in the attached questionnaire as completely and honestly as possible. This should not take more than 20 minutes of your time
- The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

- Please contact my study leader, Dr M. Hattingh at marie.hattingh@up.ac.za if you have any questions or comments regarding the study.

In research of this nature the study leader may wish to contact respondents to verify the authenticity of data gathered by the researcher. It is understood that any personal contact details that you may provide will be used only for this purpose, and will not compromise your anonymity or the confidentiality of your participation.

Section A

1. What is your age? (Barthel et al., 2016; Allcott and Gentzkow, 2017)

18-20	
21-23	
24-26	
Other	

2. What year are you into your degree? (Allcott and Gentzkow, 2017)

First year	
Second year	
Third year	
Fourth year	
Fifth year	
Other	

3. How much time do you spend reading/ listening/ watching news per day on average? (Allcott and Gentzkow, 2017)

0 hours	
1 hour	
1-2 hours	
2-3 hours	
more than 3 hours	

4. What devices do you use most often for news?

Phone	
Tablet	
Computer	
Other	

5. How often do you use the following media platforms? (Choi and Lee, 2015 ; Allcott and Gentzkow, 2017; De Waal et al., 2005)

	Never	Rarely	Sometimes	Often	Very Often
Newspaper					
Social media					

TV					
Radio					
Forums					
Word of mouth					
Websites					
Other					

6. How often do you use the following social media platforms for news?

    ((Cauwenberge et al., 2010; Allcott and Gentzkow, 2017)

	Never	Rarely	Sometimes	Often	Very Often
Facebook					
Twitter					
Instagram					
YouTube					
Snapchat					
Pinterest					
Reddit					
LinkedIn					
Other					

7. From your most used platform(s): In your experience, how easy do these platforms make it to share information with an individual / a group of people on the device you use most often. For example, the presence and visibility of share buttons?

Yes	
No	
Sometimes	

8. From your most used platform(s): What devices do you use most often for news? (Cauwenberge et al., 2010b)

	Never	Rarely	Sometimes	Often	Very Often
Shocking					
Informative					

198

Culturally Relevant					
Political					
Relevant to others					
Entertaining					
Escapism					
Other					

9. What topics do you follow on these platforms? (De Waal et al., 2005)

Topic	Follow
Politics	
Culture	
Social	
Health	
Education	
Environment	
Economy	
Business	
Entertainment	
World events	
Quirky or unusual events	
Sports	
Literature	
Celebrity reports	
Accident and crime reports	
Local news	
Other	

10. What are your motivations for sharing news? Is it: (Cauwenberge et al., 2010)

	Never	Rarely	Sometimes	Often	Very Often
Shocking					
Informative					

199

Culturally Relevant					
Political					
Relevant to others					
Entertainment					
Escapism					
Other (please specify)					

11. The media sites I use show or mention their sources.

Yes	
No	
Sometimes	

12. I verify that the information from news articles is correct.

Yes	
No	
Sometimes	

13. I consult multiple sources to verify the accuracy of the information.

Yes	
No	
Sometimes	

14. If I find out the information is incorrect, I inform others.

Yes	
No	

15. I know what fake news is.

Yes	
No	

16. I know what misinformation is.

Yes	
No	

17. I know what disinformation is.

Yes	
No	

Please answer if the following news article are fake news or real news and provide a reason:

1. "UN declares South Africa Most Corrupt Country in the World", IJozi 29 September 2016

Fake news	
Real news	

Reason:

2. "Facebook Bans Thousands Of Snowboarders, Base Jumpers In Crackdown On 'Dangerous' Accounts", The Onion, 5 March 2019
https://www.theonion.com/facebook-bans-thousands-of-snowboarders-base-jumpers-i-1834509533

Fake news	
Real news	

Reason:

3. Zimbabwean shoppers rush into SA as borders open, CGNT Africa, 2 October 2020
https://www.enca.com/news/zimbabwean-shoppers-rush-sa-borders-open

Fake news	
Real news	

Reason:

4. Instagram Begins Hiding Likes, The Onion, 5 July 2019
https://www.theonion.com/instagram-begins-hiding-likes-1836737294

Fake news	
Real news	

Reason:

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5. Richard Calland: South Africa needs a Roosevelt style of leadership. Mail & Guardian, 3 October 2020
https://mg.co.za/opinion/2020-10-03-richard-calland-south-africa-needs-a-roosevelt-style-of-leadership/

Fake news	
Real news	

Reason:

Section B

Please evaluate each statement by ticking the option that describes your opinion best.

1. I feel others make me doubt about what news I should believe. (Asch, 1956)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

2. I have been proven right to believe / not believe something that others did not agree with based on news I read. (Asch, 1956)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

3. I wonder what everybody might be thinking of me when I disagreed with the norm on a popular topic.. (Asch, 1956)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

4. I conform to others' beliefs on new subjects even if I disagree. (Asch, 1956)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

5. I trust printed media more than electronic media.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

6. I trust the news sources I use to provide correct and accurate information. (Allcott and Gentzkow, 2017)

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Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

7. I would change platforms if I lost trust in the correctness of the news they provided.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

8. I often question the correctness of the information provided.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

9. I believe media is credible and trustworthy. (Chung et al., 2015)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

10. I have shared fake news **unknowingly**. (Barthel et al., 2016)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

11. I have shared fake news **knowingly**. (Barthel et al., 2016)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

12. I think sharing fake news has an impact on matters I think are important.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

13. I think it is harmful for people to share fake news.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

14. I think I can make an impact on the spread of fake news.

Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree

15. I am confident in my ability to spot fake news. (Barthel et al., 2016)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

16. I think I am less likely to believe fake news than others. (Barthel et al., 2016)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

17. I think other people follow untrustworthy sources.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

18. I think people are easily influenced by what they read. (Chung et al., 2015)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

19. I actively think about not sharing incorrect information. (Barthel et al., 2016)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

20. I share news to people in hopes of correcting their misunderstanding of a topic.

(Barthel et al., 2016)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

21. It important for me to share news about a topic I care about.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

22. It important for me to share news about a topic I agree with.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

23. I tend to share news that I think is true.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

24. I share news with people who share my values.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

25. I encourage other people to also use my news sources.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

26. I would rather share an article that supports my view than one that is more

informative. (Barthel et al., 2016)

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

27. I find it enjoyable to share news.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

28. My friends / family consistently share news with me.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

29. I consistently share news with friends / family.

Strongly Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Strongly Agree

Section C: (Gosling et al., 2003)

I see myself as:

1. Extraverted or enthusiastic

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

2. Critical or quarrelsome

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

3. Dependable or self-disciplined

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

4. Anxious or easily upset

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

5. Open to new experiences or complex

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

6. Reserved or quiet

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

7. Sympathetic or warm

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

8. Disorganized or careless

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

9. Calm or emotionally stable

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

10. Conventional or uncreative

Strongly Disagree	Moderately Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Moderately Agree	Strongly Agree

Thank you for your participation in this survey

APPENDIX B – ETHICAL CLEARANCE FORM

Faculty of Economic and Management Sciences

APPLICATION FOR RESEARCH ETHICS CLEARANCE

- **Literature review and the research design should be completed <u>prior</u> to application.**
- **Electronic forms available on Faculty website > *Committees > Ethics Committee*.**
- **Supervisor to submit <u>original</u> application form to Marcel Deysel, EMS Building, Room 2-16.**
- **Incomplete applications cannot be reviewed.**
- **Documentation required before <u>final</u> approval can be granted, submit with application:**

Approved Title Registration	Research proposal & Turnitin report
Data collection instrument	Introduction, Permission, Informed Consent letter(s)
For proposed surveys amongst UP stakeholders, also complete the Registrar permission request attached hereto	

SECTION A: PROJECT INFORMATION					
Title, initials, surname	**Ms. C. Forte**				
Student or personnel no.	U15071988				
Degree	Bcom Informatics (Hons)				
Department	Informatics				
E-mail	U15071988@tuks.co.za				
Application	**First application X**		**Resubmission ☐**		
Title of research	*Factors that contribute to the compulsive use of social media among students.*				
Supervisor/Co-supervisor	Dr. M Hattingh				
Proposed period for data collection		August 2018 – September 2018			
Purpose of research					
Master's		**Doctoral**		**Honours**	X

Problem statement:

Social media has become a growing trend among the youth of today with 67% of people using smartphones or accessing the internet (Poushter, 2016). Students have formed a compulsive habit with the use of social media and this may be attributed to different aspects of their personality traits. There have been studies about the effect that social media has had on people and what the effects

could be on their self-esteem and personal growth (Raymer, 2015). The focus in previous years has mainly been on the internet addiction as a whole; however, with the social media industry rising in popularity (Chaffey, 2016) there is a growing need to examine compulsive use of social media independently of internet addiction.

There seems to be a lack of knowledge surrounding social media addiction among students and what specific factors may be contributing to the addition itself. To move forward in the treatment of social media addiction and similar addictions facing society today the exact factors that cause addiction need to be examined. This research will attempt to determine the addiction factors that lead to social media addition and help explain the levels of dependency that students have on social media.

Research objectives in bulleted format:

- To determine the factors that contribute to the compulsive use of social media.
- To provide evidence of the compulsive use of social media among a diverse group of students.
- To argue that certain factors can determine vulnerability that leads to the compulsive use of social media.

Research design

Qualitative		Quantitative		Mixed method	X

To whom will the research results be made available?

Academia	X	Popular media, etc		Other (provide detail)	

In which format will the results be made available? (Mark all applicable)

UPeTD website		Scientific article journal(s)		Conference paper(s)	X
Lay article		Research report	X	Other (provide detail)	

Research data should be stored for ten (10) years. The final electronic dataset of raw material (such as the completed survey questionnaires, interview transcripts and/or field notes and Letters of Introduction, Permission, Informed Consent) should also be stored. **Data storage is the responsibility of the researcher, supervisor and, ultimately, the Head of the Department.**

DATA COLLECTION

HUMANS	NON-HUMAN (Secondary data)	COMBINATION

Continue   with Section B   Skip to Section C   Complete all sections

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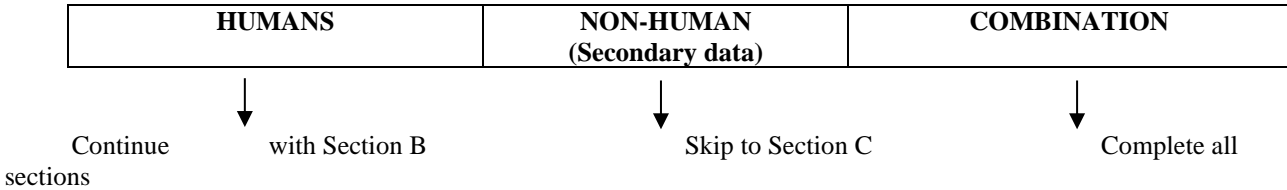
Number of participants

Female ☐   Male ☐   Both **X**

Age range   ……19 - 27…………..

Methods to be used to obtain data

Survey questionnaire Hard copy or electronic	X	Interview schedule In-depth personal interviews/focus groups		Other Please specify	

PLEASE NOTE THE DIFFERENCE BETWEEN THE FOLLOWING
(These documents may be combined – see example attached hereto)

LETTER OF INTRODUCTION	PERMISSION LETTER	INFORMED CONSENT
↓	↓	↓
Letter on UP letterhead to institution(s)/participants to introduce research. **Approval must also be obtained from the Registrar when using UP staff or students.**	Letter from the organisation (**on official letterhead or per e-mail**) granting permission to conduct research at their company, bank, school or NGO/NPO, etc.	Consent from participants to take part in research. **Use a tick box at the top of a self-completion survey questionnaire.**

PERSONAL RECORDS *

* This may only be done in highly exceptional cases, if records are fully anonymous and application is brought in terms of Act 2 of 2000. Individual informed consent to access personal records is therefore preferred. Specify the nature of these records and indicate how these records will be selected.

Indicate which secondary data will be used, e.g.: Records/databases/financial statements/reports.
If published secondary sources will be used, specify the nature of the data. Indicate how these sources will be selected. If secondary data are available in the public domain, indicate the source(s).

DECLARATION

I hereby undertake to:

1. Execute the investigation and research in a scientific and ethically responsible way;

2. Act in a *bona fide* and honest manner towards my research;

3. not to use and/or apply the research and information in a manner that is detrimental to the UP

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or other persons or outside institutions unless it can be scientifically-academically justified; and

4. I have familiarised myself with the University of Pretoria's policy regarding plagiarism http://www.library.up.ac.za/plagiarism/index.htm. as plagiarism is regarded as a serious violation and may lead to suspension from the University.

RESEARCHER	
Name in capital letters	CINDY FORTE
Signature	
Date	1 - 08 - 2018
I, as researcher, undertake to ensure the appropriate **archiving of the research data** for a minimum **period of ten (10) years.**	
SUPERVISOR	
Name in capital letters	Dr. MARIE HATTING
Signature	
Date	1 - 08 - 2018
CHAIR: DEPARTMENTAL RESEARCH COMMITTEE	
Name in capital letters	
Signature	
Date	
HEAD OF DEPARTMENT	
Name in capital letters	
Signature	
Date	

FINAL APPROVAL	
CHAIR: FACULTY RESEARCH ETHICS COMMITTEE	
Name in capital letters	
Signature	
Date	

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REQUEST FOR PERMISSION TO CONDUCT RESEARCH RELATING TO UNIVERSITY OF PRETORIA POPULATIONS AND DATA

Name of researcher:	Cindy Forte
Student/Personnel number:	u15071988
Project title:	Factors that contribute to the compulsive use of social media among students.
Department:	Informatics

Staff research		Doctorate		Honours	X
Brief description of the overall aim, objectives and methodology of the research:		The aim of this research is to determine the factors that contribute to the compulsive use of social media among students			

Will the research findings be published in a scientific journal?		Yes		No	X

UP population from whom primary data will be collected (if applicable):	Students
UP secondary data (if applicable):	
Proposed period for data collection:	

Signed: Researcher		Date:

APPENDIX C – LETTER OF APPROVAL

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

Reference number: EBIT/66/2020

Miss C Forte
Department: Informatics
University of Pretoria
Pretoria
0083

Dear Miss C Forte

FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY

Your recent application to the EBIT Research Ethics Committee refers.

Conditional approval is granted.

This means that the research project entitled "Factors that motivate students to share fake news on social media" is approved under the strict conditions indicated below. If these conditions are not met, approval is withdrawn automatically.

Conditions for approval
Only SIT students in EBIT are to be surveyed. No bulk unsolicited emails/messages will be sent to all UP students. The storage of the research data as per the university guideline (https://up-za.libguides.com/c.php?g=356288&p=6340909)

This approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Code of Ethics for Scholarly Activities of the University of Pretoria, or the Policy and Procedures for Responsible Research of the University of Pretoria. These documents are available on the website of the EBIT Ethics Committee.

If action is taken beyond the approved application, approval is withdrawn automatically.

According to the regulations, any relevant problem arising from the study or research methodology as well as any amendments or changes, must be brought to the attention of the EBIT Research Ethics Office.

The Committee must be notified on completion of the project.

The Committee wishes you every success with the research project.

Prof K.-Y. Chan
Chair: Faculty Committee for Research Ethics and Integrity
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY