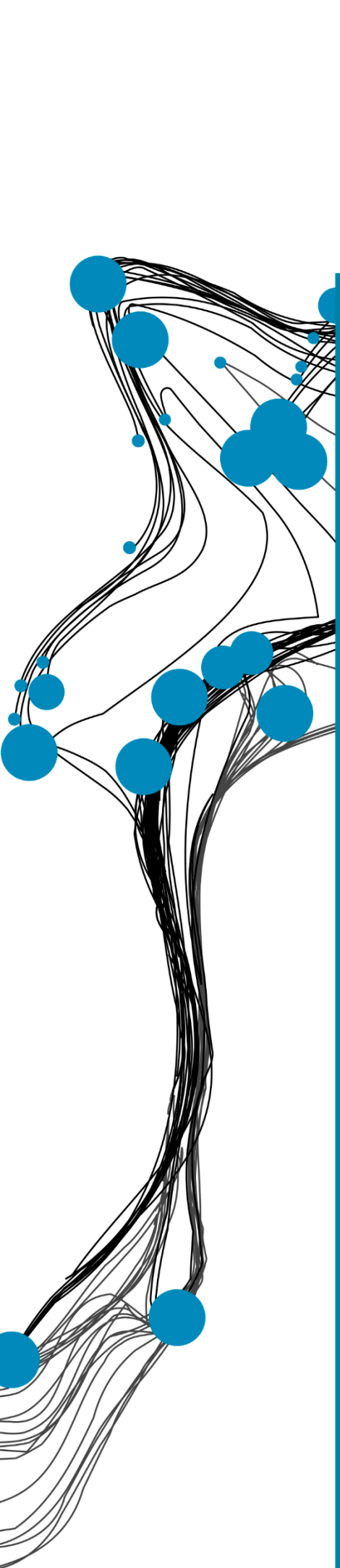

MASTER THESIS

“Fake it till you make it”

An experiment of fake news perception by use of experts and support

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A B S T R A C T

Aim. Little research has been conducted in the field of fake news since fake news is a relative new phenomenon. Fake news can be found frequently in daily (digital) life. This form of deceptive news violates the fundaments of democratic norms and values, as it tries to influence the public agenda. Fake news is not only disrupting a functioning democratic system but contributes to a polarised society too, particularly during political events. Furthermore, fake news has the potential to affect international relations. This research defines some basic concepts of fake news. Furthermore, the aim of this research is to provide organisations and news readers with factors influencing fake news perception. Literature suggests that perception of fake news is explained by credibility, quality, liking and representativeness; credibility and quality are used in this study. Further, credibility and quality are explained by experts and support. This study aimed at answering the following RQ: "*To what extent do people have fake news perception and what are the effects of credibility and quality of news in fake news perception?*".

Method. The relationships in this research are tested in an experimental 2 (expert: present vs. not present) X 2 (support: present vs. not present) design. An online survey was used in which respondents were exposed to four manipulated news articles with use of an expert and support. The news articles were created in a news website format.

Results. Results show that credibility and quality have an effect on fake news perception. Furthermore, both credibility and quality of news are higher when experts or support are present compared to not present. Support present resulted in a higher credibility and quality evaluation compared to experts present. Further, no effects were found for experts and support combined on credibility and quality. In addition, effects were found for either experts or support on fake news perception.

Conclusion. In conclusion, this research shows that credibility and quality are important indicators of fake news perception. Furthermore, the absence of an expert and the presence of support results in the optimum credibility and quality of a news article. Thereby, for news publishers it is recommended to only use support in future news articles. A combination of support and expert in a news article is not recommended, since this combination results in a negative credibility and quality perception. Results show that news consumers have developed a perception of fake news. They can identify features related to credibility and quality that explain fake news perception. Thereby, news consumers have the basic tools to protect themselves against the harmful effects of fake news. However, these basic tools are not a guarantee for protection of harmful effects in the future since fake news articles become more "realistic". Furthermore, the development of a new scale for measuring fake news perception was successful and can be used in further research. This study is a valuable addition to research of fake news perception and serves as a steppingstone for further research.

KEYWORDS: Fake news, perception, support, experts, quality, credibility, story quality, Facebook, SNSs, News articles

Contents

1. Introduction

People who have access to digital media have a great chance being confronted with fake news (Corner, 2017). This relative new phenomenon can be found frequently in daily (digital) life. For example, in the news, different headlines related to fake news can be found: “How President Trump took 'fake news' into the mainstream” (Business Insider, 2018) and “How Russia pioneered fake news” (Business Insider, 2018). These headlines are examples that make people severely questioning the credibility and quality of news articles (Rubin, Chen, & Conroy, 2015). Since most of the people have not developed the perception to know when they come across fake news, they find it difficult to distinguish credible and qualitative news articles from fake news articles (Business Insider, 2018). In addition, Corner (2017) states fake news articles can have a realistic character, what makes the distinction between credible and fake news difficult as well.

The dissemination of fake news is partly caused by social networking sites (SNSs). SNSs serve as a platform where content can be spread all over the world with little effort, what makes dissemination of fake news relatively easy and makes information flows more complex (Business Insider, 2018). A person’s social networking site consists of ‘friends’ on Facebook, or ‘followers’ on Twitter. These SNSs mostly consist of people with shared norms and values (Valdez & Ziefle, 2018). By use of these personal networks SNSs connects people with other people that have a similar mindset. A single fake news article is easily shared within these large networks, large audiences can be reached in no-time. Many people read news on SNSs, thereby fake news has the potential to deceive many people that are not aware they might be reading fake news (Valdez & Ziefle, 2018).

Rubin, Chen and Conroy (2015) describe fake news as falsehoods masked as legitimate news with the intent to manipulate the public. This form of deceptive news violates the fundaments of democratic norms and values, as it tries to influence the public agenda (Guo & Vargo, 2018). Furthermore, fake news contributes to a polarised society, particularly during political events. The Russian interference in the US presidential elections is an example of an attempt to polarise the public opinion (Business Insider, 2018). In addition, fake news stories can not only polarise different groups within a nation but also affect international relations (Business Insider, 2018). Finally, fake news articles are growing in media attention every day, resulting in a credibility threat for news media (Allcott & Gentzkow, 2017). In conclusion, fake news is a threat for democracies as it undermines the confidence in credible media.

The aim of this research is to provide organisations and news readers with factors influencing fake news perception. By identifying the factors influencing fake news perception, organisations can develop or modify a strategy in the battle against fake news. Credibility and quality are introduced as factors influencing fake news perception. Further, experts and support are introduced as factors influencing both credibility and quality. In this study experts are defined as professors. Whereas support is defined as (statistical) institutions that have a credible reputation when it comes to collecting and presenting data.

Before conceptualizing credibility and quality, fake news is defined in the theoretical framework. Currently little research has been done in the field of fake news perception, therefore, this research aims to contribute to the gaps missing is this field of research. The theoretical framework will elaborate both credibility and quality of news as well as fake news perception. After the theoretical framework, the research design will be elaborated in the method section. The results are presented after the method section. Finally, the results will be discussed in the last section of this paper. Based on the theoretical framework the following research question is formulated: “*To what extent do people have fake news perception and what are the effects of credibility and quality of news in fake news perception*?”.

2. Theoretical Framework

2.1 Authentic or Fake?

Alcott and Gentzkow (2017) indicate that fake news originates from different sources. They note that fake news is created by different grounds and persons, differing from individuals to arranged news platforms, all with the intention to deceive people. Since fake news is created by different ground and persons it is a difficult process to trace down creators of fake news. In addition, fake news is mostly shared on SNSs. (Finneman & Thomas, 2017; Alcott & Gentzkow, 2017). SNSs make the process of tracing down creators more difficult, since any SNSs user can share any post. The original publisher of fake news becomes vaguer with every shared post of SNSs users (Alcott & Gentzkow, 2017).

As it is difficult to trace producers of fake news, mass media - including well-established media outlets - are facing a continuing decline in credibility (Gallup, 2018). SNSs contribute to the declining credibility by providing a platform for every user to create and spread information easily (Allcott & Gentzkow, 2017). Since content can spread among SNSs users with no fact-checking or editorial judgment, credibility is not guaranteed. In addition, an individual user with no track record or reputation has the potential to reach as many readers as credible outlets such as Fox News, CNN, and the New York Times (Allcott & Gentzkow, 2017). In conclusion, SNSs and no editorial judgement on news articles result in a decrease of credibility regarding news platforms.

In general, credible news is reported by well-established media outlets (Rubin, Chen, & Conroy, 2015). Examples of these news outlets are: www.nos.nl and www.derspiegel.de. However, knowing if the source is actually credible is difficult as explained by Rubin, Chen and Conroy (2015). They describe that sources can be interpreted as credible unless proven otherwise. Rubin, Chen and Conroy (2015) give the ability of fake news creators in developing “realistic” news articles as an explanation. These impressive skills make the line between fake news and credible news even more blurry. Thus, knowing if a news article is authentic or fake can be very difficult.

2.2 Dissemination and Motives of Fake News

Dissemination of fake news is relatively easy as the financial resources to create fake news are low (Business insider, 2018). The costs for creating fake news has significantly decreased since the rise of SNSs and computer software (Finneman & Thomas, 2017). Further, the use of SNSs and computer software makes it easier to reach a large audience compared to traditional media (e.g., newspapers). Since the costs for creating fake news are low and reaching a large audience is easy, anybody can be a potential creator and spreader of fake news (Allcott & Gentzkow, 2017).

The involvement of Russia in the presidential elections of America in 2016 is one of the best-known examples of fake news in which the creators are known (Mazzetti & Shane, 2018). The Russians created thousands of advertisements in different forms and spread them on SNSs like Facebook. Price (2018) reported the following: “Over 600,000 Americans followed a series of fake Instagram and Facebook accounts suspected to be linked to Russia that were detected and removed just days before the 2018 midterms”. These forms are called hoaxes and are the main form of fake news used by the Russians (Price, 2018). It is believed that Russia was in favour of Trump instead of other presidential candidates. Trump was a better promoter for the interests of Russia (Guo & Vargo, 2018). In other words, politics can be heavily influenced by fake news articles.

By the use of fake news, Russia tried to influence the importance of certain topics by placing them on the public agenda (Guo & Vargo, 2018). This manipulation leads to a disruption of the democratic society. Furthermore, fake news contributes to a polarised society, particularly during political events such as the US presidential elections (Business Insider, 2018). Fake news stories can not only polarise

different groups within a nation but also affect international relations. Countries possibly base important decisions based on fake news (Guo & Vargo, 2018). In summary, fake news has the potential to disrupt a functioning democratic system.

2.3 Forms of Fake News

Rubin, Chen, and Conroy (2015) describe three forms of deceptive news: serious fabrications, large scale hoaxes and humorous fakes. The first form is a typical fraudulent form of journalistic writing and is called yellow journalism (Rubin, Chen & Conroy, 2015). Yellow journalism is an American term for newspapers that have no or little legitimate news (Vivian, 2002). This form is time consuming for creators to make and has five characteristics: scare headlines in huge print, lavish use of pictures, the use of fake interviews or misleading headlines, the use of fake experts and dramatic sympathy with the "underdog" against the system (Vivian, 2002). Serious fabrications are frequently found in tabloids. The second form, large scale hoaxes, are mostly found on social media. This form may seem legitimate in first instance but is not legitimate at all. The form is deliberately fabricated to masquerade the truth. These fakes can be found by errors in judgement or observation (Rubin, Chen & Conroy, 2015). The last form, humorous fakes, uses sarcasm and irony to bring political and societal themes to the public (Rubin, Chen & Conroy, 2015). People that are not aware of this satire can interpret humorous fakes as factual news. In this research is focussed on the form serious fabrications, since news articles are mostly presented in this form.

Some forms of news are considered 'fake' but not as fake news. Starting with finger pointing. In political events, territorial conflicts, wars or other current controversies, news channels or individual reporters may be accused of partisanship, blindness, or straight out lies (Rubin, Chen, & Conroy, 2015). Such situations do not meet the intentional lying criterion, since reporting is likely to be consistent with the reporter's beliefs, worldview, biases, or affiliations. Allcott and Gentzkow (2017) defined additional aspects that are not fake news. First, unintentional reporting mistakes. For example, an incorrect uploaded report. Second, conspiracy theories. For example, people claiming that the US government assassinated J.F. Kennedy (Business Insider, 2018). Third, politicians or public official providing false statements. For example, the denial of the Holocaust (Staff, 2019). And last, misleading reports that or not necessarily untrue.

2.4 Perception of Fake News

Perception of fake news is the main topic in this research. Thereby it is important to identify the public's perception of fake news. Rubin, Chen and Conroy (2015) describe characteristics which measure perception of fake news. For example, many fakes are created upon data that is not existing or is not traceable. In other words, facts that cannot be verified. Rubin, Chen and Conroy (2015) and Rijksoverheid (2019) both developed the following criteria to measure fake news perception: realism, corresponding image, correct statements, truthful facts and lay-out. These criteria are used by the Rijksoverheid in their campaign against fake news.

According to Sundar (1999) news perception is measured according four core principles: credibility, quality, liking and representativeness. In this study credibility and quality are chosen for as principles for measurement. These principles are chosen because they measure two different aspects of news articles. Sundar (1999) describes credibility as the accuracy and objectivity of an individual news story. Whereas quality is defined as the degree of overall excellence of an individual news story (Sundar, 1999). In other words, credibility focusses on the context of news articles whereas quality is focusses on the content of an individual news article. The principles liking and representativeness are more focussing on the reputation of news publishers instead of perception of news articles (Sundar, 1999). Thereby, liking and representativeness are not useful in this research.

2.5 Credibility

Authentic news is based on credible research and reliable journalism (Rubin, Chen & Conroy, 2015). The study of Robinson and Kohut (1988) describes that the public in general believes most of what it hears and sees in the countries' press. Journalists have more faith in offline news platforms compared to online news platforms. The majority of the journalists believe that traditional media are the most credible news platforms and that the credibility of news articles published online is rather low (Sundar, 1999; Kovačič, Erjavec & Štular, 2009; Valdez & Ziefle, 2018). Since online news platforms fulfil the need for the majority of the people to read news, a challenge for the credibility of online news media lays ahead (Valdez & Ziefle, 2018). In this study credibility will be measured according the criteria developed by The Hutchins Commission on Freedom of the Press: biased, fairness, objectivity, accuracy and believability (Blanchard, 1977).

In order to enable the public to spot fake news, the International Federation of Library Associations and Institutions (IFLA, 2019) developed a leaflet. The leaflet can be found in appendix A. The IFLA (2019) describes that it is important to determine if the information given in news articles substantiates the story. In other words, is the news article providing verifiable arguments for the facts presented in the article. This is in the literature defined as credibility (Visentin, Pizzi, Pichierri, 2019). In addition, Rubin, Chen and Conroy (2015) note that verifiable arguments are a condition for news articles to be credible. However, these verifiable arguments are often not presented at all (Rich, 2001). Further, Rubin, Chen and Conroy (2015) describe that a news article without credible features as verifiable arguments leads to a higher perception of fake news. Therefore, it is hypothesized:

H1: A news article without credible features results in a high fake news perception.

Pjesivac, Geidner and Cameron (2018) focused on the credibility of online news outlets. They describe that an online news article is perceived as more credible when experts (e.g., scientists) are present in news articles compared to the absence of experts (IFLA, 2019; Pjesivac, Geidner & Cameron, 2018). Expertise can be found in different forms and persons. One can think of a scientist, a consumer representative body or a doctor (Pjesivac, Geidner & Cameron, 2018). Since an expert contributes to the credibility of a news article, it is the expectation that news articles are perceived as more credible when experts are present compared to not present. This results in the following hypothesis:

H2: Credibility of news is higher when experts are present (vs. not present) in a news article.

Credible news articles are based on existing and traceable data (Rich, 2001). In this research existing and traceable data are referred to as 'support'. Credible support originates from (statistical) institutions that have a credible reputation when it comes to collecting and presenting data (Rich, 2001). Credibility depends on the support given in news articles, genuine facts define the credibility in a news article (Visentin, Pizzi, Pichierri, 2019). On the contrary, news articles that are not provided with genuine support make a news article not credible (Rubin, Chen & Conroy, 2015). Since news credibility depends on genuine support, it is the expectation that support present in a news article leads to higher news credibility compared to not present. This results in the following hypothesis:

H3: Credibility of news is higher when support is present (vs. not present) in a news article.

The study by Warnick (2004) describes that online news credibility relies on multiple factors as traceability of core information of a news article (e.g., author, source and support) and involvement of experts. The fulfilment of multiple factors in a news article leads to a higher overall credibility score (Warnick, 2004). However, many news articles are not published with (easily) traceable support, that makes is difficult for news readers to determine if a news article is credible (Rubin, Chen & Conroy, 2015). Not only support is a credible feature, Warnick (2004) describes experts are an important factor

for news credibility too. The best credibility for experts is achieved when they have clear and easily readable placement in the text of a news article (Winter & Krämer, 2014). Since Warnick (2004) describes that the best credibility of a news article is achieved with multiple factors as experts and support, it is the expectation that expert and support present combined result in a higher credibility compared to both not present. This results in the following hypothesis:

> *H4: Credibility of news is higher when experts and support are both present (vs. both not present) in a news article.*

2.6 Quality of news

Fake news has many characteristics, the content (quality) of a specific article is one of these characteristics. According to Sundar (1999) quality is one of the core principles to measure news perception. Quality is defined as the degree of overall excellence of an individual news story. Where credibility is defined as a source related attribute, quality is focusing on the content of the article itself (Sundar, 1999). In other words, credibility is more derived from aspects that are related to the source itself that created a news article (e.g., nos.nl). In multiple studies quality is referred to as story credibility, in this research the term quality is used (Sundar, 1999; Thorson, Vraga & Ekdale, 2010). Quality is useful to measure the reporting and writing standards of an article itself, so separate from the source. Thereby, quality is an important indicator for an authentic news article. Quality can be measured with adjectival items like coherent, clear, comprehensive, well-written, grammar and language. These items are appropriate descriptors to measure quality (Sundar, 1999; Rubin, Chen & Conroy, 2015).

Together with credibility, quality is a driving factor in fake news perception according to Flintham, Karner, Bachour, Creswick, Gupta and Moran (2018). They concluded that two third of the people that were confronted with fake news found that the article was lacking features related to quality. The article was, for example, not clear, coherent or comprehensive. These features triggered the respondents' perception of fake news. Since these features are related to quality and important in fake news perception the following hypothesis is proposed:

> *H5: A news article without qualitative features results in a high fake news perception*

According to Arpan (2009) experts can have a positive influence on the quality of a news article. In order to achieve a positive effect on quality, expert involvement in news articles should be nuanced and should be an addition to the content of a news article (Arpan, 2009). When experts are applied correctly a higher quality perception is achieved compared to no experts involved in the news article (Arpan, 2009; Thorson, Vraga & Ekdale, 2010). It is thereby expected that the quality of a news article is higher with experts involved compared to no experts involved. This results in the following hypothesis:

> *H6: Quality of news is higher when experts are present (vs. not present) in a news article.*

The study of Arpan (2009) also describes support can have a positive and negative effect on quality. In order to achieve a positive effect on quality, support must be precisely defined. An exaggerative definition of support (e.g., "most of the people"; "75 percent of the population") leads to a decline in quality because people do not know how to interpret the information and thereby develop another perception then the reality (Arpan, 2009). If support is precisely defined and aligned with the content of the news article, support has a positive effect on the quality of a news article. Furthermore, Arpan (2009) and Thorson, Vraga and Ekdale (2010) describe that a news article without decent support leads to a lower quality perception. Thereby is expected that support present leads to a higher perception of quality in a news article compared to not present. This results in the following hypothesis:

> *H7: Quality of news is higher when support is present (vs. not present) in a news article.*

Arpan (2009) describes that quotes of experts and support in news articles can positively and negatively influence quality when combined. Again, both factors need to be consistent and aligned with the content of a news article. Exaggeration of both factors leads to a negative quality perception of a news article (Arpan, 2009). In order to achieve a positive quality perception, the expert and support need to be consistent and shed light on multiple sides of a news article (Arpan, 2009). For example: "one out of three farmers lose money every year" (support) and only citations of agricultural experts (lobbyist) that claim that the agricultural sector is losing money does not provide the public with a qualitive news article, it only sheds light on one side of the story. Furthermore, Arpan (2009) and Thorson, Vraga and Ekdale (2010) describe that a news article without decent support or experts leads to a lower quality perception. It is thereby the expectation that expert and support combined contribute to a higher quality perception of a news article compared to both not present. This results in the following hypothesis:

H8: Quality of news is higher when experts and support are both present (vs. both not present) in a news article.

2.7 Demographics

In this paragraph, age, gender and education are introduced as demographics. It is expected that demographics have an effect on the credibility, quality and fake news perception.

The first demographic is age. Different age categories react differently to technology (Czaja & Sharit, 1998; Dijck, 2013). Ageing, for example, influences the decrease of reaction time. On the other hand, knowledge of world events and wisdom may expand at a higher age category, that can lead to a better perception of fake news (Desjardins & Warnke, 2012). Furthermore, young people have more experience with the use of social media (Arifon & Vanderbiest, 2016). This skill can lead to a better processing of features related to credibility and quality and fake news perception. It is the expectation that younger people look more at the context of a news article because of the experience with the use of social media (Dijck, 2013). Furthermore, it is expected that older age categories tend to look at the article itself first and look at the context of the news article later (Dijck, 2013). It is thereby the expectation that younger age categories have a better perception of credibility, quality and fake news.

H9a: Younger age categories (vs. older age categories) have a better perception of credibility in news articles.

H9b: Younger age categories (vs. older age categories) have a better perception of quality in news articles.

H9c: Younger age categories (vs. older age categories) have a better perception of fake news regarding news articles.

The second demographic is gender. Udry (1994) found differences in the credibility of news regarding men and women. He explained that women are more precise and alert compared to men when reading articles. These competences could be of great importance when it comes to the credibility and quality in fake news perception. It is thereby the expectation that women have a better perception of credibility, quality and fake news.

H10a: Women (vs. men) have a better perception of credibility in news articles.

H10b: Women (vs. men) have a better perception of quality in news articles.

H10c: Women (vs. men) have a better perception of fake news regarding news articles.

The final demographic is education level. Ng, Schweitzer and Lyons (2010) describe that people with a higher education level are more critical compared to people with a lower education level. They explain that people with a higher education level are better capable of processing and structuring information.

Processing time can be of great importance because scrolling through timelines on social media platforms is a constant flow of information (Dijck, 2013). It is thereby the expectation that higher educated have a better perception of credibility, quality and fake news.

> *H11a: Higher educated (vs. lower educated) have a better perception of credibility in news articles.*
>
> *H11b: Higher educated (vs. lower educated) have a better perception of quality in news articles.*
>
> *H11c: Higher educated (vs. lower educated) have a better perception of fake news regarding news articles.*

2.8 Research Question

Based on the literature the following research question is formulated: "*To what extent do people have fake news perception and what are the effects of credibility and quality of news in fake news perception?*"

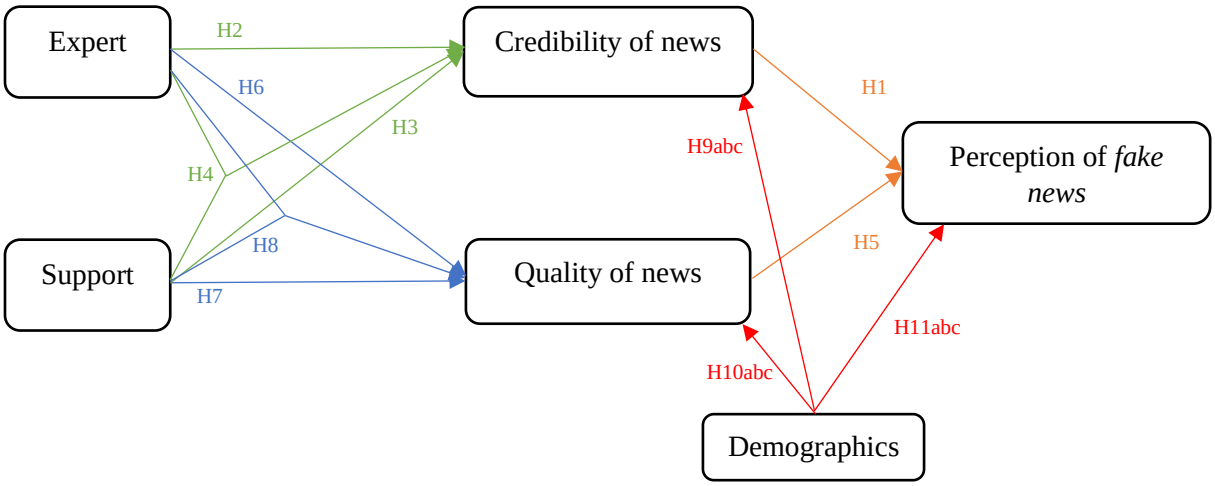

Figure 1: Research model

3. Method

3.1 Research Design

In this study an experiment was used to test the hypotheses. An experiment provides insight into cause-and-effect by measuring what outcome occurs when a specific factor is manipulated. The independent variables are expert and support. It is expected that these independent variables will influence the dependent variables credibility of news, quality of news. Then is expected that credibility and quality will influence fake news perception. For the independent variable expert, a scientist is presented in a news article. For the independent variable support, multiple statistical institutions are presented in a news article. Demographics are included to measure differences in gender, age and education.

This research will test the relationships in an experimental 2 (expert: present vs. not present) X 2 (support: present vs. not present) design.

Respondents are exposed to one of the following conditions:

1. A news article presented with an expert and support on a news website.
2. A news article presented with only support on a news website.
3. A news article presented with only an expert on a news website.
4. A news article presented without an expert and support on a news website.

A visualisation of the design is shown in figure 2.

		Expert	
		Present	Not Present
Support	Present	*Condition 1*	*Condition 2*
	Not Present	*Condition 3*	*Condition 4*

Figure 2: Experimental design

3.2 Procedure

The data was gathered with the survey tool Qualtrics. This tool made it possible to design a questionnaire in which the manipulations are randomly assigned to the respondents.

The questionnaire started with an introduction of the research. After the introduction, respondents were asked for their consent. Then respondents were randomly and equally assigned to one of the four conditions mentioned above. The news articles were presented in a news website format. After that, questions related the dependent variables were presented, followed by questions for the manipulation check. Finally, respondents were asked for demographics such as age, gender, and education level.

The respondents were collected by a non-probability sample in the local network of the researcher. The language of the survey was Dutch, because the region of research was the Netherlands. To determine if the created stimulus material was designed correctly, a pre-test was conducted.

3.3 Pre-test

A pre-test is used to validate whether the stimulus materials are designed as intended. In total, 14 respondents completed the pre-test (42.9% female). The respondents' age ranged from 20 to 60 years old (M = 31.14, SD = 14.93).

3.3.1 Stimulus material

Different stimulus materials were randomly provided to respondents. The randomization consisted of exposure to one of the 4 conditions. Five respondents saw condition 1, three respondents saw condition 2, four respondents saw condition 3, two respondents saw condition 4. The distribution of the conditions is uneven, because some respondents were removed from the dataset. The respondents were removed because they failed to complete the pre-test.

In the survey, respondents were explicitly asked if they saw an expert in the news article. The following elements were presented: 'Professor Ira Helstoot', 'Senior lecturer Jan de Vries', 'Researcher Pieter Wilmstra' and 'None'. 12 out of 14 respondents gave the correct answer. Further, respondents were explicitly asked if they saw a form of support in the news article. The following elements were presented: 'CBS', 'TNO, University of Utrecht, Radboud University and Crisislab', 'TSO, CPB and University of Twente' and 'None'. 11 out of 14 respondents gave the correct answer.

Last, a factor analysis was performed in order to test if the items measured the correct dependent variable: component 1 is quality (Cronbach's Alpha, .65), component 2 is credibility (Cronbach's Alpha, .46) and component 3 is recognition (Cronbach's Alpha, .74). Some items measured the wrong dependent variable. This was due to the negative questions, these questions were put in the survey mixed with positive questions, since respondents read the questions quickly, they did not encounter the negative character of the question, resulting in incorrect measurements. In the final survey these questions were rephrased into positive questions. Further, additional questions measuring perception of fake news were added to the final survey, replacing the component recognition.

3.3.2 Conclusion pre-test

In the final survey some adjustments were made. First, two new survey questions related to fake news perception were added. Second, questions of fake news perception were formulated in a more clear and direct manner. Finally, a timeslot of nine seconds was introduced in the final survey to ensure respondents took at least nine seconds to read the news article.

3.4 Stimuli Material

3.4.1 Manipulations

A news article from the NOS.nl was chosen as an outlet for the creation of the stimuli. The news article was about the safety requirements of asbestos. In the news article was explained that the safety requirements for asbestos are often to excessive, leading to high costs of asbestos removal. The independent variable expert was operationalized with the following sentence: "Professor Ira Helstoot, one of the researchers: "In many cases the health risks are negligible and the use of extreme protective equipment is unnecessary."". The independent variable support was manipulated with the following sentence: "Conducted by TNO, Utrecht University, Radboud University and Crisislab, at the request of a number of housing associations and branch organisation Aedes". In figure 3 and 4, 2 out of 4 stimuli can be found, red underlined text shows the manipulation of the expert and blue underlined text shows the manipulation of the support. A complete overview of the four conditions can be found in appendix B.

Figure 3: News article: expert and support present (condition 1)

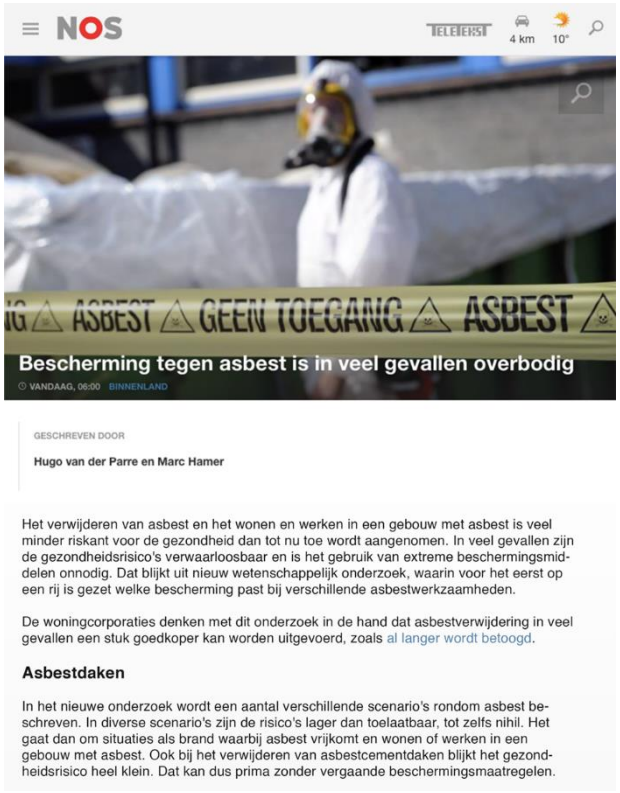

Figure 4: News article: expert not present, and support not present (condition 4)

3.4.2 Measures

A new scale for fake news perception was developed for this research since no scale for fake news perception was developed yet. This scale was developed with existing items related to credibility and quality. For fake news perception, no items were available in the literature, thereby nine items were introduced that are expected to measure fake news perception. The items were based on statements of news recognition. A complete overview of the scale can be found in appendix B.

Perception of fake news was measured according to the nine requirements of recognition as defined by Rubin, Chen, and Conroy (2015). Some example statements were: "I believe the article is fabricated"; "I believe the statistical facts are fabricated". All statements (9) were measured on a 5-point Likert-scale (1 = strongly disagree, 5 = strongly agree). The scale proved to be reliable with a Cronbach's Alpha of .88 in the main study.

Credibility was measured according to the requirements as defined by the Hutchins Commission on Freedom of the Press for believability of news. Some example statements were: "I believe the news article is authentic"; "I believe the news is objective". All statements (5) were measured on a 5-point Likert-scale (1 = strongly disagree, 5 = strongly agree). The scale proved to be reliable with a Cronbach's Alpha of .87 in the main study.

Quality was measured with adjectival items like coherent, clear, concise, comprehensive and well-written as defined by the study of Sundar (1999). All statements (5) were measured on a 5-point Likert-scale (1 = strongly disagree, 5 = strongly agree). The scale proved to be reliable with a Cronbach's Alpha of .85 in the main study.

3.4.3 Demographics

The respondents were asked to report their age at the end of the questionnaire along with other demographics as gender and education level. These demographics were asked in order to measure relationships on credibility, quality and fake news perception.

3.5 Sample Characteristics Main Study

In total, 357 respondents took part in the questionnaire. 279 respondents succeeded to complete the full questionnaire, resulting in a response rate of 78.2%. Six respondents indicated they did not want to participate in the research and were therefore excluded from further analysis. Deleting these responses, remained this study with 273 valid responses.

Of the 273 valid responses, 63% of the respondents identified themselves as female. Their mean age was 29.32 (*SD* = 13.1). The education level of the respondents was as following: 109 academic (39.9%); 103 applied science degree (37.7%); 20 high school or equivalent (7.3%); 26 Associate Degree (9.5%) and 15 respondents indicated a different form of education (5.5%).

3.6 Randomization and Manipulation Check

Because some respondents were deleted from the dataset, an equal randomization slightly failed. Of the 273 respondents 72 were assigned to condition one (26.4%); 57 to condition two (20.9%); 72 to condition three (26.4%) and last 72 to condition four (26.4%).

To check whether the demographics of the respondents differed per condition, an ANOVA was conducted. The ANOVA showed there is a significant difference on education level ($F(1, 271) = 4.22$, $p = .04$), but not on age ($F(1, 271) = 0.01$, $p = .97$) or gender ($F(1, 271) = 1.82$, $p = .18$). Table 1 shows that most of the respondents have an academic or applied science degree, indicating that the respondents in this study are highly educated.

Table 1: Education level for each condition

Education level	Condition 1		Condition 2		Condition 3		Condition 4	
	N	%	*N*	%	*N*	%	*N*	%
Academic	33	45.8%	27	47.4%	24	33.3%	25	34.7%
Applied science degree	25	34.7%	22	38.6%	28	38.9%	28	38.9%
High school or equivalent	6	8.3%	1	1.8%	9	12.5%	4	5.6%
Associate Degree	5	6.9%	5	8.8%	7	9.7%	9	12.5%
Different	3	4.2%	2	3.5%	4	5.6%	6	8.3%

The respondents were asked if they saw an expert in the news article. To check whether the manipulation was successful an independent samples t-test was conducted. A Levene's Test for Equality of variances showed no violations ($p < .01$). Results indicate that expert present ($N = 144$, $M = 2.88$, $SD = 1.28$) and no expert present ($N = 129$, $M = 2.17$, $SD = 1.02$), $t(271) = 4.97$, $p < .01$. results in a successful manipulation.

Another independent samples *t*-test was performed to check the manipulation for support. A Levene's Test for Equality of variances showed no violations ($p < .01$). Results indicate that support present ($N = 129$, $M = 2.49$, $SD = 1.19$) and no support present ($N = 144$, $M = 2.08$, $SD = .99$), $t(271) = 3.08$, $p < .01$. results in a successful manipulation.

4. Results

In the results, the data is analysed with various tests. The results are structured in this way: first, fake news perception (H1 + H5), followed by credibility (H2, H3, and H4), and quality (H6, H7, H8). The results are concluded with an analysis of the demographic data (H9, H10, and H11).

4.1 Fake News Perception

Hypothesized was that a news article without credible features results in a high fake news perception (*Hypothesis 1)*. This is analysed with two tests, a Pearson's *r* data analysis of credibility and a simple linear regression. The Pearson's *r* data analysis of credibility (N = 273, M = 3.15, SD = .85) and fake news perception (N = 273, M = 3.14, SD = .77) showed a strong positive correlation, r = .84. Further, the simple linear regression analyses showed that for credibility a significant regression equation was found $F(1, 271) = 640.24$, $p < .01$, with an R^2 of .70. This result shows that the absence of credible features triggers a news readers' fake news perception. In other words, credibility has an effect on fake news perception. Thereby, H1 is accepted.

For hypothesis 5 (*A news article without qualitative features results in a high fake news perception*) another Pearson's *r* data analysis and simple linear regression is performed. The Pearson's r data analysis of quality (N = 273, M = 3.51, SD = .72) and fake news perception (N = 273, M = 3.14, SD = .77) showed a strong positive correlation, r = .70. Further, the simple linear regression analysis showed that for quality a significant regression equation was found $F(1, 271) = 254.86$, $p < .01$, with an R^2 of .49. This result shows that the absence of qualitative features triggers a news readers' fake news perception. Thereby, H5 is also accepted. Meaning that both credibility and quality have a significant effect on fake news perception.

Table 3: Scores for credibility and quality on fake news perception

		Pearson's *r*	Simple linear regression			
Hypothesis	Independent variable	*r*	*F*-value	*p*	R^2	Result
1	Credibility	.84	640.24	<.01	.70	Accepted
5	Quality	.70	254.86	<.01	.49	Accepted

Since no interaction effects have been found (*H4 & H8, results presented in §4.2 & §4.3*) additional tests are performed to measure expert's and support's direct influence on fake news perception, no hypothesis were formulated regarding these new tests.

Two independent samples *t*-tests were conducted. The first *t*-test shows that no experts present (N = 129, M = 3.26, SD = .77) results in a significant higher fake news perception compared to experts present (N = 144, M = 3.01, SD = .76), $t(271) = 2.70$, $p < 0.01$. Test for Equality of variances showed no violations (p = .62).

Another sample *t*-test was performed to measure support's influence on fake news perception. The *t*-test shows that no support present (N = 144, M = 3.37, SD = .73) results in a significant higher fake news perception compared to support present (N = 129, M = 2.94, SD = .75), $t(271) = 4.75$, $p < .01$. Test for Equality of variances showed no violations (p = .69). These results indicate that an article with no expert or support involved leads to a higher fake news perception.

Furthermore, a two-way between groups ANOVA test is performed in order to measure the interaction effect of expert and support on fake news perception. No interaction effect has been found, $F(1, 269) = 2.38$, $p = .12$.

Table 4: Scores of expert and support on fake news perception

	Present		Not present			
Independent variable	*M*	*SD*	*M*	*SD*	*t*/*F*-Value	*p*-value
Expert	3.01	.76	3.26	.77	(*t*) = 2.70	<.01
Support	2.94	.75	3.37	.73	(*t*) = 4.75	<.01
Expert x support					(*F*) = .02	.12

4.2 Credibility

Three hypotheses were formulated regarding credibility: hypothesis 2 (*Credibility of news is higher when experts are present (vs. not present) in a news article*); hypothesis 3 (*Credibility of news is higher when support is present (vs. not present) in a news article*) and last hypothesis 4 (*Credibility of news is higher when experts and support are both present (vs. both not present) in a news article*).

For hypothesis 2 an independent samples *t*-test was conducted to examine expert's influence on credibility. A Levene's Test for Equality of variances showed no violations ($p = .90$). Results indicate that expert present ($N = 144$, $M = 3.23$, $SD = .85$) results in higher credibility compared to no expert present ($N = 129$, $M = 3.06$, $SD = .83$), $t(271) = 1.69$, $p < .05$. Hypothesis 2 is accepted.

For the third hypothesis another independent samples *t*-test was conducted to examine support's influence on credibility. A Levene's Test for Equality of variances showed no violations ($p = .95$). Results indicate that support present ($N = 129$ $M = 3.33$, $SD = .83$) results in higher credibility compared to no support present ($N = 144$, $M = 2.99$, $SD = .82$), $t(271) = 3.34$, $p < .01$. Hypothesis 3 is also accepted. Results indicate that support present is slightly more significant compared to an expert present.

To test the interaction effect of expert and support on credibility (hypothesis 4) a two-way between groups ANOVA test is performed. No effect was found, $F(1, 269) = 2.06$, $p = .15$. Thereby hypothesis 4 is rejected.

Table 5: Scores of expert and support on credibility

		Present		Not present				
Hypothesis	Independent variable	*M*	*SD*	*M*	*SD*	*t*/*F*-Value	*p*-value	Result
2	Expert	3.23	.85	3.06	.83	(*t*) = 1.69	.05	Accepted
3	Support	3.33	.83	2.99	.82	(*t*) = 3.34	< .01	Accepted
4	Expert x support					(*F*) = .02	.15	Rejected

4.3 Quality

Also, three hypotheses were formulated regarding quality: hypothesis 6 (*Quality of news is higher when experts are present (vs. not present) in a news article.*); hypothesis 7 (*Quality of news is higher when support is present (vs. not present) in a news article*.) and last hypothesis 8 (*Quality of news is higher when experts and support are both present (vs. both not present) in a news article.*).

For hypothesis 6 an independent samples *t*-test was conducted to examine expert's influence on quality. A Levene's Test for Equality of variances showed no violations ($p = .22$). Results indicate that expert present ($N = 144$, $M = 3.6$, $SD = .74$) results in higher quality compared to no expert present ($N = 129$, $M = 3.41$, $SD = .68$), $t(271) = 2.19$, $p < .02$. Hypothesis 6 is accepted.

For the seventh hypothesis another independent samples *t*-test was conducted to examine support's influence on quality. A Levene's Test for Equality of variances showed no violations ($p = .34$). Results indicate that support present ($N = 129$ $M = 3.65$, $SD = .67$) results in higher quality compared to no support present ($N = 144$, $M = 3.39$, $SD = .73$), $t(271) = 2.99$, $p < .01$. Hypothesis 7 is therefore also accepted. Results indicate that support present is slightly more significant compared to an expert present.

To test the interaction effect of expert and support on quality (hypothesis 8) a two-way between groups ANOVA test is performed. Again, no effect was found, $F(1, 269) = .02$, $p = .89$. Thereby hypothesis 8 is rejected.

Table 6: Scores of expert and support on quality

		Present		Not present				
Hypothesis	Independent variable	*M*	*SD*	*M*	*SD*	*t*/*F*-value	*p*-value	Result
6	Expert	3.60	.74	3.41	.68	(*t*) = 2.19	.02	Accepted
7	Support	3.65	.67	3.39	.73	(*t*) = 2.99	< .01	Accepted
8	Expert x support					(*F*) = .02	.89	Rejected

4.4 Demographics

In order to measure the demographic hypotheses, one way-ANOVA tests were performed. Results show that for hypothesis 9a (*Younger age categories (vs. older age categories) have a better perception of credibility in news articles*), no significant effect has been found for credibility $F(1, 272) = 2.32$, $p < .13$. For hypothesis 9b (*Younger age categories (vs. older age categories) have a better perception of quality in news articles)* no significant effect is found $F(1, 272) = .28$, $p < .60$. Again, no significant effect is found for hypothesis 9c (*Younger age categories (vs. older age categories) have a better perception of fake news regarding news articles*) $F(1, 272) = .10$, $p = .75$. Results show that age does not effect credibility, quality and fake news perception. Thereby hypothesis 9a, 9b and 9c are rejected.

Furthermore, results show that for hypothesis 10a (*Women (vs. men) have a better perception of credibility in news articles*), no significant effect has been found for credibility $F(1, 272) = .37$, $p = .54$. For hypothesis 10b (*Women (vs. men) have a better perception of quality in news articles)* no significant effect is found $F(1, 272) = .11$, $p < .75$. Again, no significant effect is found for hypothesis 10c (*Women (vs. men) have a better perception of fake news regarding news articles*) $F(1, 272) = .24$, $p < .63$. Results show that gender does not effect credibility, quality and fake news perception. Thereby hypothesis 10a, 10b and 10c are rejected.

Results show that for hypothesis 11a (*Higher educated (vs. lower educated) have a better perception of credibility in news articles*), no significant effect has been found for credibility $F(4, 272) = .21$, $p = .93$.

For hypothesis 11b (*Higher educated (vs. lower educated) have a better perception of quality in news articles)* no significant effect is found $F(4, 272) = .96$, $p = .43$. Again, no significant effect is found for hypothesis 11c (*Higher educated (vs. lower educated) have a better perception of fake news regarding news articles*) $F(4, 272) = .52$, $p < .72$. Results show that education does not effect credibility, quality and fake news perception. Thereby hypothesis 11a, 11b and 11c are rejected.

Table 7: Demographic hypotheses

Hypothesis	Independent variable	Dependent variable	*F*-value	*p*-value	Result
9a		Credibility	2.32	< .13	Rejected
9b	Age	Quality	.28	< .60	Rejected
9c		Fake news perception	.10	.75	Rejected
10a		Credibility	.37	.54	Rejected
10b	Gender	Quality	.11	< .75	Rejected
10c		Fake news perception	.24	< .63	Rejected
11a		Credibility	.21	.93	Rejected
11b	Education	Quality	.96	.43	Rejected
11c		Fake news perception	.52	< .72	Rejected

5. Discussion

5.1 Discussion of the Results

This study aimed to examine whether fake news perception was influenced by credibility and quality. Further, this study aimed to examine the effect of experts and support on both credibility and quality. The results show expected outcomes for the main effects, however, no interaction effects were found. Furthermore, unexpected outcomes for the demographics were found.

5.1.1 Fake news perception

The results show that credibility has an effect on fake news perception, in line with previous research (Rubin, Chen & Conroy, 2015). Rubin, Chen and Conroy (2015) described that credible features in a news article are essential in fake news perception, indicating that credibility is an important factor in fake news perception. A news article without credible features results in a high fake news perception among news readers.

Further, the results show that quality has an effect on fake news perception as well. Again, in line with previous described literature (Flintham, Karner, Bachour, Creswick, Gupta & Moran, 2018). Flintham et all. (2018) described that if a news article was lacking elements (e.g., comprehensive and coherency) that define quality, a respondent's fake news perception was triggered. Indicating that a news article without qualitative features results in a high fake news perception among news readers. Therefore, quality is an important concept for fake news perception.

Not only effects for credibility and quality on fake news perception are found. Results show that experts or either support have an effect on perception of fake news too. The absence of either experts or support in a news article results in a high fake news perception. Indicating that presence of experts and support as well are influencing fake news perception.

5.1.2 Credibility

As expected, credibility of news is higher when experts are presented compared to the absence of experts, this is in accordance with previous discussed literature (Pjesivac, Geidner & Cameron, 2018). According to Pjesivac, Geidner and Cameron (2018) experts contribute to the overall credibility of a news article. This research has proven that an expert (e.g., a professor) directly contributes to the credibility of a news article. Also, support present results in a higher credibility compared to the absence of support, in line with previous described literature (Rubin, Chen & Conroy, 2015). Rubin, Chen and Conroy (2015) describe that only a news article based on genuine support is credible. In other words, (statistical) institutions (e.g., CBS) contribute to the overall credibility of news articles.

An interesting effect regarding credibility shows that support present results in a higher credibility compared to an expert present. Both dependent variables lead to a higher credibility of news. Although the presence of support results in a higher credibility of news compared to the presence of an expert. Rich (2001) described that credible news articles are based on existing and traceable data, which was the definition of support in this study. Results of this research show that news readers prefer support rather than experts as a credible factor in news articles. Since journalists seek to achieve the optimum credibility in a news article it is advised to present solely a support in the news article (Blanchard, 1977).

An effect of both experts and support on credibility was not found. Warnick (2004) describes that online news credibility relies on multiple factors such as traceability of core information of a news article (e.g., author, source and support) and involvement of experts. Further, Warnick (2004) explained that when a news article is presented with too many credible features, readers can become suspicious. Since the news article is presented with both support and an expert, respondents might have interpreted this as too many credible features. Thereby, respondents might have become suspicious of the news article and as a result interpreted the news article as not credible.

Results presented in the news article showed that less stricter safety rules regarding asbestos are required. For years, studies described that working with asbestos comes with enormous health risks and therefore strict safety rules should obtained (Environmental Protection Agency, 2019). The news article in the survey proposed the contrary. It claimed that health risks are less risky than previously assumed and therefore less safety measures are required. This conflicts with current beliefs of the news readers regarding asbestos safety measures. News readers are year after year presented with research that describe that safety measures for working with asbestos are required (Business Insider, 2019). The opposite reasoning in the content of the news article presented in the survey in combination with too many credible features is another explanation that no effect of both experts and support on credibility is found. It also suggests that prior believes have an effect on the proposed relationships in this study. This could indicate that prior believes are influencing credibility, quality and fake news perception.

5.1.3 Quality

Next, as expected, quality of news is higher when experts are present compared to the absence of experts, this is in accordance with previous found literature (Arpan, 2009; Thorson, Vraga & Ekdale, 2010). Arpan (2009) described that when an expert is positioned in a not too prominent place in a news article a high quality is achieved. Indicating that the expert in this research is placed correctly in the news article, thus, not too prominent. This means that the addition of the expert in this study results in a higher quality interpretation of the news readers regarding the news article. Also, support present results in a higher quality compared to the absence of support, as expected with previous discussed literature (Arpan, 2009; Thorson, Vraga & Ekdale, 2010). In Arpan's study is described that when support is precisely defined in a news article, a higher quality evaluation is achieved. This means that when support is defined as in this research, the quality of a news article is perceived as better by news readers.

Another effect shows that support present results in a higher quality evaluation compared to the presence of an expert. Both dependent variables lead to a higher quality of news. Although the presence of support results in a slightly higher quality evaluation of news compared to the presence of an expert. Since news readers would like to have access to news articles with the maximum quality it is advised to present solely a support in news articles.

An effect of both experts and support on quality is not found. Arpan (2009) describes that experts and support need to be consistent and aligned with the content of a news article in order to achieve a positive quality evaluation of news articles. Exaggeration of support and experts can lead to inconsistency and misalignment in news articles and can thereby result a negative quality evaluation (Arpan, 2009; Thorson, Vraga & Ekdale, 2010). The expert and support in the news article specifically stated that in most of the situations of working with asbestos less safety measures are required than assumed by previous research. Although it is not stating that in all conditions of working with asbestos less safety measures are possible. The respondents probably interpreted this solely "in favour" arguments as exaggerative leading to a misalignment and thereby resulting in a negative quality.

In addition, a news article should shed light on multiple sides of a story to prevent a negative quality evaluation (Arpan, 2009; Thorson, Vraga & Ekdale, 2010). In first instance news readers can interpret the news article in this research as one-sided. First, the asbestos study as described in the news article is conducted by order of a housing cooperation, the stakeholder bearing the cost of working with asbestos. And second, the study as described in the news article is conflicting with previous research as it is one of the first studies claiming that health risks in most of the working conditions are less risky than previously assumed (Business Insider, 2019). Probably news readers interpreted this news articles as one-sided resulting . Although the study in the news article is not stating: "in all conditions of working with asbestos less safety measures are required" it is recommended to news platforms to be very precise in their formulation of research results in delicate matters as asbestos, precise formulation prevents misalignment and inconsistency (Arpan, 2009). Furthermore, is recommended to news publishers to use a more neutral institution a principal for research instead of a housing cooperation. Rubin, Chen and

Conroy (2015) describe neutral institutions have a better reputation of providing fairer research results compared to commercial institutions as a housing cooperation.

5.1.4 Demographics

No effects for age were found. This suggests that age does not affect credibility, quality and fake news perception. Desjardins and Warnke (2012) described that wisdom and knowledge of world events expand at higher age categories. On the contrary, Gray (2018) described that age differences in knowledge are significant but cannot always be applied to online platforms. As an explanation for no effects regarding age, Gray (2018) described that older age categories can struggle with the use of online platforms. Thereby, the increased knowledge of older age categories can be difficult to apply in an online environment as used in this study. In addition, Arifon & Vanderbiest (2016) described that young people have more experience in an online environment, this experience serves as compensator for the knowledge gap between the age categories.

Regarding gender differences on credibility, quality and fake news perception, no effects were found. Udry (1994) found differences in the credibility of news regarding man and woman. Blomfield and Barber (2014) found that sharing intention and credibility regarding online platforms is more associated with personality (self-esteem) of people compared to gender. SNSs users that communicated within a peer group that shared personality characteristics resulted in a high sharing intention. This could be a possible explanation that no differences are found for gender regarding credibility, quality and fake news perception. New variables are required to measure credibility, quality and fake news perception, they are influenced by more complex variables as personality, self-esteem and sharing intention (Blomfield & Barber, 2014).

No effects regarding education are found. This suggests that the level of education does not affect credibility, quality and fake news perception. It should be noted that respondents in this study are highly educated, other education categories are not well represented. Thereby, testing hypotheses with a failed representation of all education categories is not feasible. Ng, Schweitzer and Lyons (2010) described that people with a higher education level are better capable of processing and structuring information. Since differences regarding education level between respondents are found, this result suggests that there are differences regarding education levels.

5.2 Theoretical Implications

As mentioned before, not much research has been conducted in the field of fake news, even less in combination with perception, credibility and quality. However, the research area of fake news is getting more interest of the academic world every year. This study provides basic understanding of some relevant concepts related to fake news. In this study, relatively new published articles have been used to study fake news. For the dimension's credibility and quality mostly literature regarding offline platforms was available, literature regarding online platforms was more difficult to find. In paragraph 2.1 was described that knowing if a news article is actually credible can be difficult (Rubin, Chen & Conroy, 2015). Results of this study show that experts and support are important factors for credibility, quality and fake news perception. On their turn credibility and quality are important factors for fake news perception. These variables make it easier for news platforms and news readers to make a distinction between fake news article and authentic news articles. Thereby, these variables make the line between credible, qualitative and fake news clearer.

Since no scale for fake news perception was available because it was lacking in the literature, a scale was developed based on multiple offline items measuring perception. This new scale for fake news perception succeeded, therefore this scale can serve as a tool for future research to measure fake news perception. The scale can be found in appendix B. Although the search for literature regarding online platforms was difficult, this study found relevant literature regarding these platforms. Future researchers can benefit from this relevant literature. Since many effects were found, the manipulations used in this research serve as predictors of fake news perception. Further, results from this study can be used to

research further effects of credibility and quality which lead to fake news perception. This study is one of the first in measuring credibility and quality on fake news perception with use of experts and support, other researchers can benefit from this design.

5.3 Practical Implications

The results show that respondents have a well-developed perception of fake news. Thereby, news platforms publishing news articles containing experts or support are perceived as more credible and qualitative, whereas the presence of support compared to expert presents results in the optimum credibility and quality in news articles. It should be noted that the combination of experts and support does not lead to a higher credibility and quality of news articles and thereby does not result in a higher fake news perception.

The publishers of news articles can benefit of the results of this study, since this study describes that experts and support are important identifiers for credible and qualitative news articles. Further, publishers of news should note that credibility and quality are important dimensions in the prediction of fake news perception. It is advised to news publishers to add solely support in a news article to achieve the maximum credibility and quality. When news publishers choose to present an expert in a news article it is recommended to add an independent expert, that sheds light on multiple sides of a story, since a one-sided story can result in misalignment and inconsistency. The use of experts and support combined in a news article is not recommended for news publishers, since the combination results in a negative credibility and quality perception of news articles. News consumers can interpreted this combination as exaggerative.

News consumers benefit from this study too. Results show that news consumers have a good fake news perception, they can identify features related to credibility and quality. Thereby, news consumers already have the basic tools to protect themselves against the harmful effects of fake news. However, fake news is also "improving" in credibility and quality appearance (Business Insider, 2019). So, fake news articles will become more realistic. Thereby, news readers' basic tools for identification of fake news articles are probably not sufficient to identify more "realistic" fake news articles created in the nearby future. This study presents news consumers with a solid foundation in factors that are related to fake news perception, with this study they can better identify the differences between authentic and fake news articles. Since fake news will become more "realistic" it is recommended to news consumers to keep paying attention to aspects defining credibility and quality in news articles as provided in this research and governmental institutions. Governmental institutions (e.g., Rijksoverheid) frequently provide news consumers with new information of how to identify fake news.

5.4 Future Research and Limitations

A survey was used to conduct this research. Meaning that respondents were only able to provide fixed answers. In future research is recommended to use more qualitative research techniques in order to have a better in-depth research, resulting in more detailed information. Since the manipulations were presented in a news website format other platform for news publishing have been neglected. In future research is recommended to conduct more research into the effects of different platforms (e.g., Facebook, Instagram) and their effects on fake news perception since SNSs contribute significantly in the dissemination of fake news. Further, in this research education levels were not equally distributed, in future research it is recommended to have a fairer distribution regarding education levels. This results in a more valid and reliable outcome for the differences regarding education level.

Furthermore, this research is conducted with a news article that is not aligned with prior beliefs regarding asbestos. Opinions of respondents regarding the news article presented in the survey are not measured, this is a limitation. In future research it is recommended to measure the opinion of respondents to have a better understanding of believes regarding a news article. Furthermore, it can be of interest in future

research to compare the results of this study to study that makes use of a news article that is consistent with prior beliefs.

No effects for both experts and support regarding credibility and quality were found. Warnick (2004) explained that when a news article is presented with too many credible features, readers can become suspicious and interpret these features as exaggerative. In future research is recommended to test the (possible) correct balance between experts and support in a news article which does not result in an exaggerative interpretation. The correct balance could result in a successful interaction effect possibly resulting in an even higher fake news perception as already found in this study.

Furthermore, Arpan (2009) describes that experts and support in news articles need to be consistent and aligned with the content of a news article. Since this research failed to test the correct consistency and alignment in news article, it is recommended in future research to test the correct consistency and alignment in news articles. A clear presentation of multiple sides of a news story is also recommended in future research, since this research failed to present a clear news story that sheds light on multiple perspectives. A successful balance can result in an acceptance of the effects described in the previous paragraph.

Credibility and quality are possibly affected by more aspects than experts and support (e.g., biases, sources, deception). More research is needed to test whether new aspects have interesting effects. Furthermore, the effect of experts and support on fake news perception requires more research to identify the variables causing these effects. Many concepts have the potential to effect fake news perception, in this research is focussed solely on credibility and quality. More research in needed to understand the effects of other concepts influencing fake news perception. As previously described, many forms of fake news exist, this research solely focused on serious fabrications, neglecting hoaxes and humorous fakes.

5.5 Conclusion

This study examined the following research question: "*To what extent do people have fake news perception and what are the effects of credibility and quality of news in fake news perception?*". The results show that credibility and quality are important concepts in the explanation of fake news perception. The presence of support in a news article is slightly more important compared to the presence of an expert for credibility as well for quality. This effect shows that the presence of support and the absence of an expert results in the optimum credibility and quality in a news article. Furthermore, experts and support, in turn define the credibility and quality of a news article. However, effects for experts and support combined on credibility and quality has not been found. This indicates that respondents solely focus on either experts or support. The results show that respondents have a good fake news perception, this applies even more to respondents that are highly educated.

The development of a new scale for measuring fake news perception was successful and can be used in further research. This study significantly contributes to the gap missing in the field of fake news perception. Although the interaction effects are not significant, the effect of experts and support in credibility and quality are proven. In addition, a basic understanding of credibility and quality in fake news perception have been shown. This research is a valuable addition in the field of fake news perception and can serve as a steppingstone for further research.

Bibliography

Afroz, S., Brennan, M., & Greenstadt, R. (2012). Detecting Hoaxes, Frauds, and Deception in Writing Style Online. *2012 IEEE Symposium on Security and Privacy*,. https://doi.org/10.1109/sp.2012.34

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

Arifon, O., & Vanderbiest, N. (2016). Integrating social networks in a lobbying campaign: The case study of Intermarché, a supermarket chain. *Telematics and Informatics*, *33*(4), 1105–1118. https://doi.org/10.1016/j.tele.2016.03.007

Arpan, L. M. (2009). The Effects of Exemplification on Perceptions of News Credibility. *Mass Communication and Society*, *12*(3), 249–270. https://doi.org/10.1080/15205430802136721

Barker, V. (2009). Older Adolescents' Motivations for Social Network Site Use: The Influence of Gender, Group Identity, and Collective Self-Esteem. *CyberPsychology & Behavior*, *12*(2), 209–213. https://doi.org/10.1089/cpb.2008.0228

Belvins, F. (1997, April 1). The Hutchins Commission Turns 50: Recurring Themes in Today's Public and Civic Journalism. Retrieved March 2, 2019, from https://mtprof.msun.edu/Fall1997/Blevins.html

Berghel, H. (2017). Alt-News and Post-Truths in the fake news Era. *Computer*, *50*(4), 110–114. https://doi.org/10.1109/mc.2017.104

Blanchard, M. A. (1977). The Hutchins Commission: the press and the responsibility concept. *Association for Education in Journalism*, *1*(49), 1–55. Retrieved from https://books.google.nl/books/about/The_Hutchins_Commission.html?id=eoYtAQAAIAAJ&redir_esc=y

Business Insider. (2018, July 29). 'A crisis in our democracy': Lawmakers warn fake news and targeted ads put elections at risk. Retrieved February 28, 2019, from https://www.businessinsider.nl/british-mps-fake-news-crisis-2018-7/

Business Insider. (2019, January 13). Baby boomers share nearly 7 times as many 'fake news' articles on Facebook as adults under 30, new study finds. Retrieved March 28, 2019, from https://www.businessinsider.nl/baby-boomers-more-likely-to-share-fake-news-on-facebook-study-2019-1/

Business Insider. (2019a, February 4). 7 of the weirdest and most fascinating royal conspiracy theories. Retrieved June 28, 2019, from https://www.businessinsider.nl/royal-conspiracy-theories-2018-5/

Business Insider. (2019b, June 29). UK lecturer accused of anti-Semitism and Holocaust denial is dismissed. Retrieved June 28, 2019, from https://www.timesofisrael.com/uk-lecturer-accused-of-anti-semitism-holocaust-denial-is-dismissed/

Calero Valdez, A., & Ziefle, M. (2018). Believability of News. *Advances in Intelligent Systems and Computing*, 469–477. https://doi.org/10.1007/978-3-319-96077-7_50

Conroy, N. J., Rubin, V. L., & Chen, Y. (2015). 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

Corner, J. (2017). Fake news, post-truth and media–political change. *Media, Culture & Society*, *39*(7), 1100–1107. https://doi.org/10.1177/0163443717726743

Czaja, S. J., & Sharit, J. (1998). Age Differences in Attitudes Toward Computers. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *53B*(5), 329–340. https://doi.org/10.1093/geronb/53b.5.p329

Desjardins, R. and A. Warnke (2012), "Ageing and Skills: A Review and Analysis of Skill Gain and Skill Loss Over the Lifespan and Over Time", *OECD Education Working Papers*, No. 72, OECD Publishing, Paris, https://doi.org/10.1787/5k9csvw87ckh-en.

Elliott, D., & Culver, C. (1992). Defining and Analysing Journalistic Deception. *Journal of Mass Media Ethics*, *7*(2), 69–84. https://doi.org/10.1207/s15327728jmme0702_1

Environmental Protection Agency. (2019, April 17). Asbestos | US EPA. Retrieved May 8, 2019, from https://www.epa.gov/asbestos

Finneman, T., & Thomas, R. J. (2018). A family of falsehoods: Deception, media hoaxes and fake news. *Newspaper Research Journal*, *39*(3), 350–361. https://doi.org/10.1177/0739532918796228

Gallup, Inc. (2018, October 12). U.S. Media Trust Continues to Recover From 2016 Low. Retrieved December 3, 2018, from https://news.gallup.com/poll/243665/media-trust-continues-recover-2016-low.aspx

Gray, L. (2018). Exploring how and why young people use social networking sites. *Educational Psychology in Practice, 34*(2), 175–194. https://doi.org/10.1080/02667363.2018.1425829

Guo, L., & Vargo, C. (2018). "Fake News" and Emerging Online Media Ecosystem: An Integrated Intermedia Agenda-Setting Analysis of the 2016 U.S. Presidential Election. *Communication Research*, 009365021877717. https://doi.org/10.1177/0093650218777177

König, L., & Jucks, R. (2019). When do information seekers trust scientific information? Insights from recipients' evaluations of online video lectures. *International Journal of Educational Technology in Higher Education*, *16*(1). https://doi.org/10.1186/s41239-019-0132-7

Kovačić, M., Erjavec, K., & Štular, K. (2010). Credibility of traditional vs. online news media: A historical change in journalists' perceptions? *Medijska istraživanja*, *16*(1), 113–130. Retrieved from http://hrcak.srce.hr/58486

Lasorsa, D. L., & Dai, J. (2007). Newsroom's normal accident? *Journalism Practice*, *1*(2), 159–174. https://doi.org/10.1080/17512780701275473

Levin, S. (2018, March 29). Facebook offers plan to tackle fake news ahead of US midterms. Retrieved December 3, 2018, from https://www.theguardian.com/technology/2018/mar/29/facebook-fake-news-political-ad-security-us-midterms-2018

McGonagle, T. (2017). "Fake news". *Netherlands Quarterly of Human Rights*, *35*(4), 203–209. https://doi.org/10.1177/0924051917738685

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2019, March 8). Checklist 'Is die informatie echt?'. Retrieved April 5, 2019, from https://www.rijksoverheid.nl/onderwerpen/desinformatie-nepnieuws/checklist-tips-tegen-nepnieuws-desinformatie

Ng, E. S. W., Schweitzer, L., & Lyons, S. T. (2010). New Generation, Great Expectations: A Field Study of the Millennial Generation. *Journal of Business and Psychology*, *25*(2), 281–292. https://doi.org/10.1007/s10869-010-9159-4

NY Times. (2018, November 2). Collecting the Details of the Russia Investigation in One Place. Retrieved December 3, 2018, from https://www.nytimes.com/2018/09/20/insider/russia-investigation-details-so-far.html

Pjesivac, I., Geidner, N., & Cameron, J. (2018). Social credibility online: The role of online comments in assessing news article credibility. *Newspaper Research Journal*, *39*(1), 18–31. https://doi.org/10.1177/0739532918761065

Price, R. (2018, November 14). Over 600,000 Americans followed fake Russia-linked Instagram accounts that were detected days before the midterms. Retrieved December 3, 2018, from https://www.businessinsider.nl/600000-us-instagram-users-followed-suspected-russian-trolls-midterms-2018-11/?international=true

Rich, A. (2001). The Politics of Expertise in Congress and the News Media. *Social Science Quarterly*, *82*(3), 583–601. https://doi.org/10.1111/0038-4941.00044

Richter, F. (2018, November 8). Infographic: Americans' Trust in Media Recovers From Historic Low. Retrieved December 3, 2018, from https://www.statista.com/chart/5883/trust-in-mass-media/

Robinson, M. J., & Kohut, A. (1988). Believability and the Press. *Public Opinion Quarterly*, *52*(2), 174. https://doi.org/10.1086/269093

Rubin, V. L., Chen, Y., & Conroy, N. J. (2015). Deception detection for news: Three types of fakes. *Proceedings of the Association for Information Science and Technology*, *52*(1), 1–4. https://doi.org/10.1002/pra2.2015.145052010083

Stover, D. (2018). Garlin Gilchrist: Fighting fake news and the information apocalypse. *Bulletin of the Atomic Scientists*, *74*(4), 283–288. https://doi.org/10.1080/00963402.2018.1486618

Sundar, S. S. (1999). Exploring Receivers' Criteria for Perception of Print and Online News. *Journalism & Mass Communication Quarterly*, *76*(2), 373–386. https://doi.org/10.1177/107769909907600213

Thorson, K., Vraga, E., & Ekdale, B. (2010). Credibility in Context: How Uncivil Online Commentary Affects News Credibility. *Mass Communication and Society*, *13*(3), 289–313. https://doi.org/10.1080/15205430903225571

Udry, J. R. (1994). The Nature of Gender. *Demography*, *31*(4), 561. https://doi.org/10.2307/2061790

Van Dijck, J. (2013). The Culture of Connectivity. *Oxford Scholarship Online*,. https://doi.org/10.1093/acprof:oso/9780199970773.001.0001

Vendemia, M. A., Bond, R. M., & DeAndrea, D. C. (2019). The strategic presentation of user comments affects how political messages are evaluated on social media sites: Evidence for robust effects across party lines. *Computers in Human Behavior*, *91*, 279–289. https://doi.org/10.1016/j.chb.2018.10.007

Visentin, M., Pizzi, G., & Pichierri, M. (2019). Fake News, Real Problems for Brands: The Impact of Content Truthfulness and Source Credibility on consumers' Behavioral Intentions toward the Advertised Brands. *Journal of Interactive Marketing*, *45*, 99–112. https://doi.org/10.1016/j.intmar.2018.09.001

Vivian, J. (2002). Yellow Journalism: Puncturing the Myths, Defining the Legacies by W. Joseph Campbell. Westport, CT: Praeger, 2001. 248 pp. *American Journalism*, *19*(2), 99–101. https://doi.org/10.1080/08821127.2002.10677885

Voormolen, S. (2019, April 19). Eén vezel is al riskant. Hoe ga je daarmee om? Retrieved May 8, 2019, from https://www.nrc.nl/nieuws/2019/04/19/een-vezel-is-al-riskant-hoe-ga-je-daarmee-om-a3957558

Warnick, B. (2004). Online Ethos. *American Behavioral Scientist*, *48*(2), 256–265. https://doi.org/10.1177/0002764204267273

Appendix

A. Leaflet: how to spot fake news

B. Scale fake news perception

Scale fake news perception

Credibility	**Source**
Biased	Sundar (1999)
Fair	Sundar (1999)/Hutchins Commission on Freedom of the Press
Objective	Sundar (1999)/Hutchins Commission on Freedom of the Press
Accurate	Sundar (1999)/Hutchins Commission on Freedom of the Press
Believable	Sundar (1999)
Quality	
Clear	Sundar (1999)/Hutchins Commission on Freedom of the Press
Coherent	Sundar (1999)
Comprehensive	Sundar (1999)
Well-written	Sundar (1999)
Grammar	Rubin, Chen, and Conroy (2015)
Language	Rubin, Chen, and Conroy (2015)
Perception	
fake news	Rubin, Chen, and Conroy (2015)/ Rijksoverheid (2019)
Realistic	Rubin, Chen, and Conroy (2015)/ Rijksoverheid (2019)
Image	Rubin, Chen, and Conroy (2015)/ Rijksoverheid (2019)
Statements	Rubin, Chen, and Conroy (2015)/ Rijksoverheid (2019)
Truthful facts	Rubin, Chen, and Conroy (2015)/ Rijksoverheid (2019)
Lay-out	Rubin, Chen, and Conroy (2015)/ Rijksoverheid (2019)
Believable source	Rubin, Chen, and Conroy (2015)/ Rijksoverheid (2019)

C. Manipulations

Condition 1: expert present x support present

GESCHREVEN DOOR

Hugo van der Parre en Marc Hamer

Het verwijderen van asbest en het wonen en werken in een gebouw met asbest is veel minder riskant voor de gezondheid dan tot nu toe wordt aangenomen. Dat blijkt uit nieuw wetenschappelijk onderzoek, waarin voor het eerst op een rij is gezet welke bescherming past bij verschillende asbestwerkzaamheden. Professor Ira Helstoot, een van de onderzoekers: "In veel gevallen zijn de gezondheidsrisico's verwaarloosbaar en is het gebruik van extreme beschermingsmiddelen onnodig."

Het onderzoek is uitgevoerd door TNO, de Universiteit Utrecht, de Radboud Universiteit en Crisislab, op verzoek van een aantal woningcorporaties en brancheorganisatie Aedes. De woningcorporaties denken met dit onderzoek in de hand dat asbestverwijdering in veel gevallen een stuk goedkoper kan worden uitgevoerd, zoals al langer wordt betoogd.

Condition 2: expert not present x support present

GESCHREVEN DOOR

Hugo van der Parre en Marc Hamer

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Condition 3: expert present x support not present

GESCHREVEN DOOR

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De woningcorporaties denken met dit onderzoek in de hand dat asbestverwijdering in veel gevallen een stuk goedkoper kan worden uitgevoerd, zoals al langer wordt betoogd.

Asbestdaken

In het nieuwe onderzoek wordt een aantal verschillende scenario's rondom asbest beschreven. In diverse scenario's zijn de risico's lager dan toelaatbaar, tot zelfs nihil. Het gaat dan om situaties als brand waarbij asbest vrijkomt en wonen of werken in een gebouw met asbest. Ook bij het verwijderen van asbestcementdaken blijkt het gezondheidsrisico heel klein. Dat kan dus prima zonder vergaande beschermingsmaatregelen.

Condition 4: expert not present x support not present

GESCHREVEN DOOR

Hugo van der Parre en Marc Hamer

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De woningcorporaties denken met dit onderzoek in de hand dat asbestverwijdering in veel gevallen een stuk goedkoper kan worden uitgevoerd, zoals al langer wordt betoogd.

Asbestdaken

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C. Survey questions

Onderzoek nieuws

Start of Block: Inleiding

Q0 Beste respondent,

Dank voor uw deelname aan dit onderzoek dat uitgevoerd wordt voor mijn Master Thesis voor de opleiding Communication Studies aan de Universiteit Twente. Tijdens dit onderzoek krijgt u een nieuwsbericht te zien waarna enkele vragen hierover volgen. Het onderzoek zal ongeveer 5 minuten van uw tijd in beslag nemen.

Dit onderzoek is ethisch goedgekeurd door de Universiteit Twente. Dit betekent dat u de garantie heeft dat alle gegevens die u invoert anoniem worden verwerkt en niet aan anderen worden verstrekt.

Mocht u vragen of opmerkingen hebben dan kunt u contact opnemen met de onderzoeker via het volgende e-mailadres: j.terijdt@student.utwente.nl

Hartelijk dank voor uw medewerking!

Met vriendelijke groet,

Jasper te Rijdt

Master Student Communication Studies

Page Break

Q1 Wilt u meewerken aan dit onderzoek?

- ○ Ja
- ○ Nee

Skip To: End of Survey If Wilt u meewerken aan dit onderzoek? = Nee

Q0.1
U krijgt nu een nieuwsartikel te zien. Neem even de tijd om dit nieuws artikel goed te door te lezen! Hierna volgen enkele vragen over dit artikel. U kunt pas na enkele ogenblikken op volgende klikken.

U kunt niet meer op vorige klikken!

End of Block: Inleiding

Start of Block: Conditie 1

Q1.1 Timing

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Q1.2

GESCHREVEN DOOR

Hugo van der Parre en Marc Hamer

Het verwijderen van asbest en het wonen en werken in een gebouw met asbest is veel minder riskant voor de gezondheid dan tot nu toe wordt aangenomen. Dat blijkt uit nieuw wetenschappelijk onderzoek, waarin voor het eerst op een rij is gezet welke bescherming past bij verschillende asbestwerkzaamheden. Professor Ira Helstoot, een van de onderzoekers: “In veel gevallen zijn de gezondheidsrisico's verwaarloosbaar en is het gebruik van extreme beschermingsmiddelen onnodig.”

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End of Block: Conditie 1

Start of Block: Conditie 2

Q2.1 Timing

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Q2.2

GESCHREVEN DOOR

Hugo van der Parre en Marc Hamer

Het verwijderen van asbest en het wonen en werken in een gebouw met asbest is veel minder riskant voor de gezondheid dan tot nu toe wordt aangenomen. In veel gevallen zijn de gezondheidsrisico's verwaarloosbaar en is het gebruik van extreme beschermingsmiddelen onnodig. Dat blijkt uit nieuw wetenschappelijk onderzoek, waarin voor het eerst op een rij is gezet welke bescherming past bij verschillende asbestwerkzaamheden.

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End of Block: Conditie 2

Start of Block: Conditie 3

Q3.1 Timing

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Q3.2

GESCHREVEN DOOR

Hugo van der Parre en Marc Hamer

Het verwijderen van asbest en het wonen en werken in een gebouw met asbest is veel minder riskant voor de gezondheid dan tot nu toe wordt aangenomen. Dat blijkt uit nieuw wetenschappelijk onderzoek, waarin voor het eerst op een rij is gezet welke bescherming past bij verschillende asbestwerkzaamheden. Professor Ira Helstoot, een van de onderzoekers: “In veel gevallen zijn de gezondheidsrisico's verwaarloosbaar en is het gebruik van extreme beschermingsmiddelen onnodig.”

De woningcorporaties denken met dit onderzoek in de hand dat asbestverwijdering in veel gevallen een stuk goedkoper kan worden uitgevoerd, zoals al langer wordt betoogd.

Asbestdaken

In het nieuwe onderzoek wordt een aantal verschillende scenario's rondom asbest beschreven. In diverse scenario's zijn de risico's lager dan toelaatbaar, tot zelfs nihil. Het gaat dan om situaties als brand waarbij asbest vrijkomt en wonen of werken in een gebouw met asbest. Ook bij het verwijderen van asbestcementdaken blijkt het gezondheidsrisico heel klein. Dat kan dus prima zonder vergaande beschermingsmaatregelen.

End of Block: Conditie 3

Start of Block: Conditie 4

Q4.1 Timing

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Q4.2

GESCHREVEN DOOR

Hugo van der Parre en Marc Hamer

Het verwijderen van asbest en het wonen en werken in een gebouw met asbest is veel minder riskant voor de gezondheid dan tot nu toe wordt aangenomen. In veel gevallen zijn de gezondheidsrisico's verwaarloosbaar en is het gebruik van extreme beschermingsmiddelen onnodig. Dat blijkt uit nieuw wetenschappelijk onderzoek, waarin voor het eerst op een rij is gezet welke bescherming past bij verschillende asbestwerkzaamheden.

De woningcorporaties denken met dit onderzoek in de hand dat asbestverwijdering in veel gevallen een stuk goedkoper kan worden uitgevoerd, zoals al langer wordt betoogd.

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End of Block: Conditie 4

Start of Block: Credibility

Q5 In hoeverre bent u het eens met de volgende stellingen?

	Sterk mee oneens	Mee oneens	Niet eens/niet oneens	Eens	Sterk mee eens
Ik vind het artikel bevooroordeeld	○	○	○	○	○
Ik vind het artikel eerlijk	○	○	○	○	○
Ik vind het artikel objectief	○	○	○	○	○
Ik vind het artikel nauwkeurig	○	○	○	○	○
Ik vind het artikel geloofwaardig	○	○	○	○	○

End of Block: Credibility

Start of Block: Quality

Q6 In hoeverre bent u het eens met de volgende stellingen?

	Sterk mee oneens	Mee oneens	Niet eens/niet oneens	Eens	Sterk mee eens
Ik vind het artikel duidelijk	○	○	○	○	○
Ik vind het artikel samenhangend	○	○	○	○	○
Ik vind het artikel volledig	○	○	○	○	○
Ik vind het artikel goed geschreven	○	○	○	○	○
Ik vind de grammatica in het artikel goed	○	○	○	○	○
Ik vind de zinsopbouw in het artikel goed	○	○	○	○	○

End of Block: Quality

Start of Block: Perception

Q7 In hoeverre bent u het eens met de volgende stellingen?

	Sterk mee oneens	Mee oneens	Niet eens/niet oneens	Eens	Sterk mee eens
Ik vind het artikel realistisch	○	○	○	○	○
Ik vind de afbeelding die ik zag bij het artikel passen	○	○	○	○	○
Ik denk dat de stellingen in het artikel waar zijn	○	○	○	○	○
Ik denk dat het artikel gebaseerd is op feiten	○	○	○	○	○
Ik vind de lay-out van het artikel professioneel	○	○	○	○	○
Ik denk dat het artikel geschreven is door een geloofwaardig nieuwsplatform	○	○	○	○	○
Ik vind dat er onderbouwingen ontbreken voor bepaalde stellingen	○	○	○	○	○
Ik vind dat er deskundigen ontbreken in het artikel	○	○	○	○	○
Ik denk dat het artikel fake news is	○	○	○	○	○

End of Block: Perception

Start of Block: Manipulation check

Q8 In hoeverre bent u het eens met de volgende stellingen?

	Sterk mee oneens	Mee oneens	Niet eens/niet oneens	Eens	Sterk mee eens
In het artikel werd een deskundige geciteerd	○	○	○	○	○
In het artikel werden één of meerdere onderzoeksinstanties genoemd	○	○	○	○	○

End of Block: Manipulation check

Start of Block: Manipulatie check

Q9 Waar heeft u het artikel gelezen?

- ○ op Facebook
- ○ op Twitter
- ○ op een nieuws website
- ○ op een blog

End of Block: Manipulatie check

Start of Block: Moderators

Q10 Wat is uw geslacht?

- ○ Man
- ○ Vrouw

Q11 Wat is uw leeftijd?

_____

Q12 Wat is uw hoogst genoten opleidingsniveau?

- WO
- HBO
- VWO/HAVO
- MBO
- Anders

End of Block: Moderators