DIALOGUE

The Interdisciplinary Journal of
Popular Culture and Pedagogy

Three Years of Misinformation: A Case Study of Information Literacy Methods

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ABSTRACT

Misinformation is an ever-evolving digital issue. As the internet evolves, so too does misinformation and the ways in which it is propagated. Information literacy methods, such as the CRAAP test, the RADAR framework and the SIFT method, can help information users discern between real and fake information, and prevent the spread of misinformation. Unfortunately, the speed with which misinformation evolves often makes information literacy methods obsolete when they are designed and implemented. Furthermore, when people trust misinformation, they struggle with identifying correct information. Visual misinformation presents another concern: people trust what they see, and new misinformative developments such as deepfakes are especially convincing. I chose to explore three examples in 2004, 2013 and 2020, as these years were each dubbed "the year of fake news" by various media outlets. I evaluated the examples using methods popular in each year, and further evaluated how effective the method is at identifying misinformation. Each method is relatively effective when evaluating news and information in its time; however, each possesses its own drawbacks. A better understanding of the methodology used to identify each year's misinformation will allow us to understand the misinformation of the past and look forward to potential future threats. More research into information literacy methods and their implementation is necessary.

Keywords: information literacy, information literacy methods, misinformation, news outlets

INTRODUCTION

When was the definitive year of fake news? In 2004, 2013, and 2020, news reporters argued that each respective year was the year that Americans were duped by fake news stories. These stories ranged from a 100% restaurant tip to a miracle cure for COVID-19. Unfortunately, none of these years were the final "year of fake news." While misinformation in all media is concerning, online misinformation presents a particular threat. Online misinformation spreads up to six times faster than true information (Vosoughi, 2018). In most cases, information seekers choose to trust information based on its source instead of its quality (Pennycook, 2020). Once someone believes misinformation in either textual or visual form, it is difficult to convince them of the truth (Cook, 2015). Therefore, one major way of preventing the spread of misinformation is information literacy. Information literacy is the ability to discern between real and fake information (Campbell, 2008). Unfortunately, while researchers define and teach information literacy methods, new methods of misinformation evolve quicker. Re-examining information literacy methods allows information seekers to identify which elements of information literacy endure. I chose to explore a news example from each previously stated year, and evaluate its credibility based on a corresponding information literacy method from the same year. This article does not aim to determine sources of misinformation: rather, it seeks to test methods of information literacy. Although information literacy is one effective method in combating misinformation, its evolution cannot simply mirror the evolution of misinformation. Rather, we must develop information literacy methods with the evolution of misinformation in mind.

LITERATURE REVIEW

Misinformation is a growing concern. Specifically, online misinformation is a current problem (Cooke, 2015; Shao, 2018). Cook et al (2015) explored online misinformation, arguing that a multidisciplinary approach is necessary to stop its spread and impact. They also explained that retracting misinformation is insufficient: once a message spreads, it is hard to convince people that the message is wrong. Shao et al (2018) corroborated this in a network study, finding that misinformation, even if originally propagated by bots, is retweeted and believed by humans. Because some social media sites, such as Twitter and Facebook, do not vet their users' qualifications and content, misinformation may be posted and potentially spread quickly even if it is untrue. Waszak et al (2018) found that social media is a source of medical misinformation, and that information seekers may incorrectly label it as correct information. They then share this misinformation over social media. Allcott et al (2019) further explained that Facebook and Twitter are both major sources of misinformation. Specifically, they found that fake news stories rose on social media in 2016. Other researchers disagree with the severity of misinformation online. Khan and Idris (2018) found that users often relied on their experience level with the internet when determining whether or not to share potential misinformation, although more educated individuals were more hesitant to share information. People who unintentionally spread misinformation often misidentify it as correct information. Researchers have identified misinformation and its ability to spread as a major problem; unfortunately, there is no current history of the evolution of severity of misinformation, or analysis of the effectiveness of current solutions for misinformation.

Information literacy presents a solution to the problem of mis- and disinformation. Keshavarz (2014) explained that methods of evaluating traditional information are insufficient when applied in a web-based setting, as "in new information environments, the users are responsible for credibility judgements about the information that they receive" (Keshavarz, 3). Cooke (2018) discussed information literacy as a solution for misinformation, arguing that "Information literacy considers the context in which information is found and consumed, and it seeks information that is relevant and that has long-term potential to be useful" (Cooke, 45). Many people overestimate their information literacy abilities. Mahmood (2016) found that people

overestimated their information literacy skills. Plencner (2014) found that people incorrectly believe they are skilled at discerning between real and fake information on the internet, using emotional cues instead of logical reasoning when presented with incorrect information. When conducting a user study regarding fake news, Paskin (2018) found that "Even though respondents could have checked whether the stories were real or fake by simply opening a new tab on their browser and comparing the information with that of other sites, they chose not to do so" (Paskin, 17). This shows that even if the duplicitous nature of fake news is obvious, users will ignore fact-checking in favor of the information presented immediately in front of them. Once information users trust a source, they may trust its information without verification. Pennycook et al (2020) found that information seekers share information before reading it. In many cases, "instead of attending to central elements (i.e., the quality of information), consumers seem to attend to peripheral cues, such as the source of the information" (p. 863). While many people may use their own information literacy skills to identify misinformation, many still fail.

Based on the current literature, I chose to explore the impact of information literacy methods, and their effectiveness when combatting news examples presented in three different years of fake news.

SELECTION OF METHODS

When determining which stories to examine for the case study, I chose to analyze three examples. I selected examples based on their potential to misinform. Specifically, I sought case studies that had a wide reach. When examining the different news articles declaring 2004, 2013 and 2020 the year of fake news, I identified potential examples to use. I chose to use three different news outlets to obtain articles to demonstrate misinformation as a widespread problem. This paper does not evaluate the reliability of certain news outlets. Instead, the selected news articles are the case studies on which I tested the information literacy methods. I specifically omitted articles from sources that advertise themselves as satirical, such as The Onion or Clickhole. Future work could potentially explore their satire and its gravity.

Once I obtained my case studies, I determined which information literacy method to use. I chose to use the CRAAP test, the RADAR method and the SIFT method to analyze the articles. Each of these methods was designed in the same year their corresponding article was created. Each method is widely known by the information science community as a useful information literacy method. Not only are CRAAP and RADAR important methods, but they are still recommended by librarians when analyzing misinformation (McLean, 2015; Neely-Sardon, 2018). Although new, the SIFT method has become popular among both information literacy professionals and students alike (Baer, 2020; Ziv, 2020). Each of these methods is still used today when evaluating information. Due to this longevity, I selected these three methods. For historical accuracy, I chose to use time-specific evidence: for example, as the Ad Fontes Media Bias Chart was developed in 2018, after 2004 and 2013, I did not use it to evaluate potential bias in either the 2004 or 2013 example.

In each example, I further explain both the article selected and the method used.

2004 FAKE IMAGE->CRAAP

According to the New York Times, 2004 was the year of fake news. Satirical news outlets such as the Onion, were popular, as were satirical news shows (Williams, 2018). These news outlets used fake news to spoof current events. Specifically, the New York Times article explained that although the fake news was used to entertain, most viewers were able to determine which news was real and which was fake.

The article I reviewed from 2004 originated from the New York Times, on February 13, 2004. The article was titled "Conservatives Shine Spotlight on Kerry's AntiWar Record" and cited a photograph of John Kerry and Jane Fonda at an antiwar protest (Stolberg, 2004). Released by a retired Green Beret, the photograph

circulated throughout the internet (Hafner, 2004; Stolberg, 2004; Todd, 2004). Many reputable news outlets used and cited it, discussing John Kerry's anti-war protests (Novak, 2004). The photograph discussed was a composite of two other photographs: one of John Kerry at a Mineola, New York anti-war rally and one of Jane Fonda speaking at a Miami Beach, Florida anti-war rally (Light, 2004). Although each of them had spoken at an anti-war rally, they did not speak together. Within the week of the original article's publication, the copyright owner of the original Kerry image provided the negatives and explained that someone else photo-doctored the photo, arguing that encryption or other digital protection for images was necessary (Light, 2004). The New York Times later published an article discussing the use of photoshop in creating the image (Hafner, 2004). It is still unknown who doctored the image (Light, 2004). Unfortunately, people continue to cite and circulate the image as proof that John Kerry is anti-American and unfit for his 2021 appointment as Secretary of State to the United States (Horwitz, 2016; Fact Check-Old altered photo of Jane Fonda and John Kerry at an anti-war rally resurfaces, 2021).

One such method that the reader could utilize to determine the factualness of this article is the CRAAP test. The CRAAP test allows users to determine which sources are trustworthy. CRAAP stands for Currency, Relevance, Authority, Accuracy and Purpose. Sarah Blakesee developed the CRAAP test at California State University in 2004. The CRAAP test can help readers determine whether or not a source can be trusted. Focusing on credibility and reliability, the CRAAP test is an excellent way to determine which information to use. However, some researchers criticize the CRAAP test for using jargon that students may not understand and requiring students to evaluate using what some consider an outdated methodology (Kantor, 2018; Caulfield, 2019). Similarly, Fielding stated that the expansion of misinformation and disinformation may result in the test's obsolescence. Certainly, some trusted information may be old. Users may struggle with identifying the difference between scholarly and media literature, as well as checking anyone who is cited in the piece of information. This test is effective as a rule of thumb and a quick check of a resource's information. During 2004, the CRAAP test was a prominent method for evaluating an article's integrity. The following is an analysis using the CRAAP method of the 2004 New York Times article.

CURRENCY: The article was indeed current, as it was published in February 2004, during the Presidential election campaign of John Kerry. The image was not current, as it was created during the 1970s. This article passes the Currency check. However, the image does not pass the Currency check.

RELEVANCE: Because the article was reporting on a current event, it is relevant. This article was written during a United States Presidential Election year, and John Kerry was the presumptive Democrat nominee. At the time of the article's publication, the New York Times had also published an article about the current president, Republican George W. Bush's war record and opinions (Bumiller, 2004). Because the New York Times reported on other political news related to war, this article was pertinent to the New York Times. The article passes the Relevancy check.

AUTHORITY: The article was found on Conservatives Shine Spotlight on Kerry's Antiwar Record - The New York Times (nytimes.com). The URL provides some authority. The Pew Research Center reported that online information seekers often trusted websites of major news organizations, such as the New York Times. Therefore, the story may seem more credible (Pew Research Center, 2005). This provides authority to the claim made about John Kerry. When the photo's original author explained that the photo was doctored, their authority overrode the New York Times' authority. As the original photographer, they were the authority on the photo. Therefore, although initially the photo and article initially pass the Authority check, they ultimately fail this check.

ACCURACY: An information seeker could search other news outlets to determine if they corroborate this story. Other news outlets initially corroborated this image and agreed with its accuracy (Novak, 2004; Cable News Network, 2004). The article passes the Accuracy check.

PURPOSE: The purpose of the article is to report on John Kerry and discuss his antiwar stance. Overall, the article's purpose is not to sway someone's opinion about the 2004 election. However, the disseminator of the photograph stated outright in the article that he was searching for photographs that presented John Kerry unfavorably. Therefore, the person who provided the photograph had an ulterior purpose: to argue that John Kerry was not a good presidential candidate. Although the photo and article initially pass the Purpose check, they ultimately fail the Purpose check.

ACCEPT or **REJECT**?

Overall, using the CRAAP test to evaluate the article regarding John Kerry's anti-war stance shows us the importance of authority and purpose. The article's legitimacy is verified by the different parts of the acronym (accuracy, credibility, relevance, and partially both authority and purpose). However, the article and image are inaccurate.

Had the author of the image not spoken out, this misinformative image would have been disseminated; even when the photographer explained that the photo was doctored, some people stated that it was not (Reuters Fact Check, 2021).

2013 FAKE ARTICLE->RADAR

In 2013, the Wall Street Journal published an article, "A Year of Fake Hoaxes," in which the author discussed a number of fake news stories, such as a fake news story about a waitress, and a fake "twerking fail" video. Dewey claims that "if 2013 was the year of the Internet hoax, it was also the year that Internet narratives eclipsed their medium" (Dewey, 2013). She argues that these hoaxes have become news, covered by news media outlets as well as the larger internet community.

I chose to examine an article titled "New study says threat of man-made global warming greatly exaggerated." The article was released by Fox News and details a study that stated that global warming was not an issue. At the time that this article was written, the United Nations Panel on Climate Change, also known as the Intergovernmental Panel on Climate Change, had released a report stating that global warming was a result of human activity (Stocker, 2014). Citing this report, many news outlets such as NPR and CNN had argued that climate change is caused by reliance on fossil fuels and other man-made activity (Harris, 2013; Hennen, 2013). Conversely, this article argues that climate change fears are exaggerated and unrealistic. Citing a paper written by the Nongovernmental International Panel on Climate Change, the author explains that manmade global warming is not a current concern. Specifically, the author claims that humans have little to no effect on the natural climate system. The article criticizes then-President Obama's decision to create policy against fossil fuels. It also cites the Heartland Institute's explanation that there will be no increase in natural disasters due to man-made climate change. Overall, this article claims that man-made climate change due to reliance on fossil fuels is not an issue (McKelway, 2013).

Jane Mandalios developed the RADAR method in 2013. The RADAR method is specifically designed for online resources. RADAR stands for Relevance, Authority, Date, Appearance, and Reason. It is a set of questions and understandings that can allow information users to analyze the information presented. RADAR is uniquely helpful, as it was meant for an online forum. Indeed, it can be used for all online platforms. Although RADAR is useful, it focuses on honesty on a scale rather than a binary. Since the RADAR test requires many questions, it can be time-consuming, sacrificing speed for accuracy. This can be concerning for those who seek the most unbiased information and will not settle for less. Similarly, this can be overwhelming for those who are new to reading and evaluating articles. The following is an analysis of the Fox News article using the RADAR method.

RELEVANCE: This article is certainly relevant to the climate change discourse. By 2013, global warming was a

significant concern. Because global warming is both an existential and partisan issue, a news article discussing the level of the threat would be relevant to potential readers. A reader interested in understanding humanity's role in perpetuating global warming might choose to read this article to further their understanding. The article would pass the relevancy check.

AUTHORITY: To better understand the authors behind this article, an information seeker must explore both the author and those that they cite as forms of authority. The author of this article works for Fox News and has written a number of articles about climate change; therefore, the reader may assume that they are a source of authority. Fox News is a conservative news outlet (Jones, 2012; Jurkowitz, 2012). A potential reader may understand that Fox News's political slant could potentially skew its coverage of an event. Viewers who utilized Fox News were also more likely to distrust scientists' arguments regarding global warming (Krosnick, 2010).

Although examining the author of the article is important, an information seeker must also focus on the authorities cited. Specifically, the article only cites conservative, climate skeptic organizations as reliable climate change sources (Cann, 2015). Both the Heartland Institute and its housed panel, the Nongovernmental International Panel on Climate Change, state that there is currently no consensus proving climate change (About the NIPCC, 2019; Bast, 2013; Cann, 2015). Both organizations downplay the threat of climate change (Judson, 2013; Theel, 2014; Inzerillo; Dunlap, 2013; Taylor, 2013). The article does not display balanced authority.

The article would not pass the authority check.

DATE: The article was originally published on September 19, 2013. Therefore, at the time, it was a timely article and appropriate to use as a current source. The article would pass the date check.

APPEARANCE: The source's appearance further lends to its credibility. It looks polished and professional. The article is written for an adult audience and does not advertise anything. The article contains citations and quotes from sources. However, since the article is on a commercial website, there are pop-up ads displayed alongside the article. As a result, the different advertisements on the website may confuse readers or even prevent them from reading the whole article. The article would not pass the appearance check.

REASON: When understanding the reason that the article was written, an information seeker must focus on the content because the article is meant to inform a reader about an issue: climate change. This piece is meant to persuade readers into ignoring climate change. The website is not a spoof site. There is a definite lack of balance in the article's argument: rather than explaining the perspectives of scientists who both believe that humans have influenced global warming as well as those who believe that humans have not influenced global warming, Fox News has simply explained the perspectives of the Heartland Institute and the Nongovernmental International Panel on Climate Change. (Although the Intergovernmental Panel on Climate Change's report was mentioned, the article is briefly referenced, rather than discussed in depth.) Because both organizations state that humans have not contributed to global warming, and no opposing opinion is fully presented, it is evident that this article is meant to convince people that climate change is not a threat. The reasons for the article demonstrate that it may not be a credible source. The article would not pass the reason check.

ACCEPT or **REJECT**?

Based on the RADAR method, we would reject the article.

2020 FAKE IMAGE->SIFT

At the end of 2020, Vox published a news article titled "America's Growing Fake News Problem on Social Media, in One Chart." This article detailed fake news stories such as a hoax that the 2020 election was "stolen" by fraudulent voters (Stewart, 2020). The "stolen election" theory, also known as the "big lie," is a

conspiracy theory that states that there was massive voting fraud during the 2020 United States presidential election. Although this alleged voter fraud took many forms, such as false ballots and fraudulent voting machines, all elements of this theory have been disproven (Eggers, 2021; Rowley, 2021).

I evaluated a Newsmax article that detailed the events of the United States presidential election of 2020. The article's title is "Election Investigation Needed Now to Preserve Our Democracy." The article details the events of the 2020 election, in which Democrat Joe Biden beat then-president Republican Donald Trump. Due to the large number of absentee ballots and each state's rules regarding their count (some states' laws meant that the ballots were counted before Election Day and other states' laws meant that the ballot count began on Election Day), the winner was not determined until days after the election. News outlets had discussed the ramifications of these laws; however, many were still confused. This Newsmax article was written and published on November 9, 2020, days after the election had been called for Joe Biden. However, the author argues that the election is far from over. The author argues that the number of absentee ballots were overwhelmingly in Joe Biden's favor, the software used for the election was glitchy, Pennsylvania's election law was illegal, and Trump poll watchers were denied entry into voting polls. Therefore, the author explains, the election was illegitimate. The author concludes by explaining that all claims must be examined and litigated (Hirsen, 2020).

I chose to use the SIFT method to evaluate the Newsmax article. Emerging in the aftermath of the 2016 US election, lateral reading, also known as investigating and verifying information while reading it, chooses to explore a different aspect of information consumption (Heick, 2022). Also known as SIFTing, lateral reading can allow readers to focus on fact-checking an article as they read it. SIFT stands for Stop, Investigate, Find and Trace. SIFT forces the information seeker to find corroborating, trusted resources to support any information they may find. This allows the reader to process the information slower, while evaluating it. Mike Caulfield developed SIFT in 2019. SIFT has gained more recognition in recent years. Specifically, SIFT is meant to help students avoid being deceived by clickbait and fake news. The method assumes that an information seeker is analyzing an online source and can fact-check this source against other online sources. Because of SIFT's relative novelty, it bears more examination in the context of information literacy. The following is an analysis of the above Newsmax article using the SIFT method.

STOP: Most internet users know that Newsmax is a conservative news organization. Specifically, Newsmax is a largely online resource. Its reputation is that of a right-wing news outlet (Mitchell, 2021). Newsmax has shared disproven conspiracy theories, such as the idea that COVID-19 is a bioweapon, and voter fraud is rampant (Bell, 2020a; Bell, 2020b; Imhoff, 2020; Pennycook, 2020). This knowledge about Newsmax that a casual information user may possess can result in discounting the source. The article would fail the Stop check.

INVESTIGATE: When googling Newsmax, an information seeker may see results that indicate its untrustworthiness. For example, Newsmax had retracted an article spreading misinformation about Dominion voting machines (Birkeland, 2021). Other reporters and researchers have discussed Newsmax's partisan leaning and links to misinformation (Hasen, 2021). Both the Ad Fontes Media Chart classifies Newsmax as a "Strong Right" news outlet while the AllSides Media Bias Chart classifies Newsmax as "Leans Right" (Ad Fontes, 2022; AllSides Media Bias Chart, 2022). Investigating the source clearly demonstrates that the source's partisan leaning may result in the spread of deceptive or false information. The article would fail the Investigate check.

FIND: The Newsmax article states that in Michigan, President Biden received a block of votes, all of which were in his favor. However, both the New York Times and USA Today disprove this claim, explaining that there had been a typo in reporting local data, which was quickly corrected (Nicas, 2020; Stanglin, 2020).

The Newsmax article explains that the rate of rejected mail-in ballots is 30 times lower in 2020 than it was in 2016. Once again, Ballotpedia has disproved this statement, showing that it was only a 42% decrease. (Ballotpedia, 2021).

The Newsmax article states that votes were swapped from Trump to Biden; this has been contradicted by Politifact (Politifact - inaccurate early vote count in one Michigan County was a human error, not a failure of the software, 2021). The author claims that this may have happened in 47 other counties; there are no other sources that corroborate or dispute this statement. The author also claims that the Supreme Court rejected a fraudulent Pennsylvania law stating that ballots could be counted after November 3; this was once again untrue (Fessler, 2021). Finally, the author explains that poll watchers were denied entry. This may have been for a number of reasons. CBS has explained that poll watchers were not removed. Furthermore, there are a number of reasons that poll watchers may have been denied entry: wearing partisan clothing is one such reason (Link, 2020; Quinn, 2020). The article would fail the Find check.

TRACE: Due to the fact that the majority of these claims can be traced back to Twitter or verbal sources, tracing these claims at the time of writing was largely obfuscated.

One example is the idea that vote tabulators swapped votes from Trump to Biden. This claim has only been supported on Twitter. However, both the Washington Post and CBS News have shown that these videos were doctored (Kelly, 2020; Lewis, 2020). Therefore, while there are many claims made, most of them were difficult to trace and often they were rebutted.

Another example of unsubstantiated claims is the claim that poll watchers were denied entry into the polls. I found a video of someone being denied entry on Twitter: Will Chamberlain on Twitter: "A poll watcher in Philly was just wrongfully prevented from entering the polling place #StopTheSteal https://t.co/iJTFtRk0Id" / Twitter. In the video, an unmasked man in a brown shirt is being told to leave a poll site. Initially this was due to confusion regarding his poll watching certificate (Chamberlain, 2020). However, once again, further evidence demonstrates that this mistake was rectified, and the man allowed to serve as a poll watcher (Reuters, 2020).

Although some of these claims are traceable, a number of them are difficult to identify and confirm. Overall, the claims are incredibly difficult to trace, and therefore lack credibility. This article would fail the Trace check.

ACCEPT or **REJECT**?

Based on the SIFT method, we would reject the article.

DISCUSSION:

I found three interesting evolutions to discuss: the evolution of misinformation's severity, the evolution of information literacy methods and finally the evolution of the information user and their purpose for finding information.

THE EVOLUTION OF SEVERITY OF MISINFORMATION

Misinformation has evolved over time. Although internet-based misinformation was initially viewed as satire and comedy, online misinformation has quickly become prominent and serious. In the case of the John Kerry and Jane Fonda image, the stakes were relatively low: supporters of John Kerry would no doubt support Jane Fonda's presence in the campaign. John Kerry already had a reputation as an anti-war protester, as did Jane Fonda. The article was disproven quickly, as the original photographer issued a statement days after its publication. Meanwhile, there is severity in arguing that man-made global warming is a nonissue. The article discussing global warming also exists to refute claims rather than making any unique statements. Furthermore, it acknowledges an alternative perspective, citing the idea that global warming does exist, albeit as a natural part of the climate. Although global warming is a scientific consensus, and resources disproving this article are available, there are still many people who believe global warming is a nonissue or afforded disproportionate attention (Cook, 2019; Hong, 2020). Finally, arguing that the results of the 2020 United States election directly

and negatively affect voters' faith in the democratic system. By only focusing on one party, the author of the article ignores other issues caused by the other party. Similarly, the article does not provide substantiated evidence to support their claims. There is no evidence that ballot boxes were stuffed, or that the 2020 election was fraudulent; however, people believe and spread this claim (Beber, 2012; Chiu, 2022). Although the articles evaluated by CRAAP and RADAR provided flawed evidence, it was still evidence. The article evaluated by SIFT does not provide evidence to support its claims. This demonstrates that misinformation has evolved from entertaining to serious and cited to unsubstantiated. Misinformation has escalated significantly through accessibility, evolving from simple manipulation of facts to clear and blatant falsehoods.

THE EVOLUTION OF METHODS

While misinformation continues to evolve, so too do information literacy theories. Each of these theories has their own benefits and drawbacks.

CRAAP chooses to focus on a binary in determining whether or not a resource is credible. Because CRAAP is so rigid, researchers may struggle with identifying which part of the method is most important. Most information users regard CRAAP as one of the first information literacy methods, and therefore is treated with reverence. CRAAP is still useful as an information literacy method: many information science professionals still teach it in schools.

RADAR focuses on a specific set of details. RADAR builds on CRAAP through its explanation of information as a non-binary method. Because RADAR allows some resources to be deemed more credible than others, rather than a simple binary, this can encourage the information seeker to determine which information is best. Due to its range, RADAR is considered better than CRAAP. RADAR is a very useful framework as well and could be used in tandem with the CRAAP test for maximum effectiveness.

SIFT explores both the source of the information and the content. As an internet-specific information literacy method, it not only assumes that the information seeker will also be able to quickly correlate and search for information pertaining to the source it also presents an information user with a built-in group of articles to use or cite for an assignment. Unfortunately, it is time consuming. Someone may choose to use either RADAR or CRAAP instead of SIFT due to time constraints. Overall, however, SIFT responds best to the information as a part of the information ecosystem.

These information literacy methods also share major elements. CRAAP and RADAR both use Relevance and Authority. They both utilize a specific set of details. Information seekers should use CRAAP and RADAR due to the range of misinformation spread by authority figures in a timely manner. SIFT shares no words with these methods; however, SIFT builds on CRAAP and RADAR in that it evaluates both the authority of the source, and the content. Specifically, SIFT expands on CRAAP and RADAR while simultaneously serving as a potential complement to both. This is particularly helpful, as it ensures that the most effective parts of an information literacy method are passed from method to method.

EVOLUTION OF THE INTERNET AND INFORMATION SEEKER

Misinformation has evolved alongside the internet. Specifically, the ability of information users to both read and spread misinformation has grown explosively. Because of social media sites such as Twitter and Facebook, information users may find misinformation reposted by either malicious users or duped individuals. With regards to the John Kerry article analyzed by the CRAAP test, the user would only be able to read the article and potentially email it to their friends and family. An information user may have been able to share or tweet the Fox News article evaluated by RADAR to a number of subscribers. In fact, when examining the reach of this article, I found 38 tweets spreading this article. Fox News tweeted the article and

received 228 retweets and 78 likes. Although this is hardly viral, it is still an interesting change in spread. The Newsmax article was also tweeted, though it only received 1 retweet and 6 likes. However, this may be due to a migration: by November 2020, people had begun to migrate to alt-right social media, leaving Twitter for Parler and MeWe. This clearly demonstrates the insidious nature of misinformation and its spread due to the evolution of the internet. It is also interesting to note that although Facebook and Twitter remove accounts that spread misinformation, it was still relatively easy to find tweets about these articles. Migration to echo chambers and false information literacy are two major results of believing misinformation (Törnberg 2018; Zak, 2023). Therefore, although removal of misinformation has been touted as a solution, misinformation is still on these platforms after some removal of handles.

While information literacy and misinformation have evolved and changed, so too has our perception and use of the internet. We must also note that the internet is no longer viewed as a source of dubious information. The internet is a source of reliable information. Many information seekers often turn to the internet when trying to find sources for papers, research, and general information. RADAR and CRAAP are meant for not only the internet, but sources such as books, and periodicals. Meanwhile, SIFT is a method that focuses specifically on internet tools. CRAAP explains that if a news source ends in .com or .org, it may be untrustworthy. However, as the internet has continued to evolve, website endings are less important when identifying a source's legitimacy. Since SIFT is a method designed for internet materials, this demonstrates a general perception that the internet can and should be used when obtaining information for schoolwork and beyond. While misinformation still exists, there are even more online resources that may help identify, correct, and disprove misinformation. Further research evaluating media such as TikTok and Youtube videos, as well as graphs and their creators is necessary. Information professionals and researchers must design information literacy methods with the internet in mind.

CONCLUSION

Understanding information literacy is essential when determining which information is real and which is fake. In an online world, information literacy methods can allow users to quickly check a source before believing it. Although information literacy methods were initially meant to determine which resource could be used for academic work, their use case has evolved to include everyday information analysis. Misinformation appears in all types of sources, whether news outlets or social media. Future work could potentially focus on the evolution of misinformation on specific social media platforms, or information literacy methodology designed for specific types of misinformation. This work is both theoretical and practical: as misinformation evolves, so too must new information literacy methods in the classroom and beyond. While new information literacy methods are helpful in combat ing misinformation, we must also recognize the importance and relationship to old information literacy techniques.

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SUGGESTED REFERENCE CITATION

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Zak, E. (2024). Three years of misinformation: A case study of information literacy methods. *Dialogue: The Interdisciplinary Journal of Popular Culture and Pedagogy, 11*(1). http://journaldialogue.org/v11-issue-1/three-years-of-misinformation-a-case-study-of-information-literacy-methods/

MLA

Zak, Elizabeth. " Three Years of Misinformation: A Case Study of Information Literacy Methods". *Dialogue: The Interdisciplinary Journal of Popular Culture and Pedagogy*. 2024, vol. 11, no. 1. http://journaldialogue.org/v11-issue-1/three-years-of-misinformation-a-case-study-of-information-literacy-methods/