Chapter 4

Can We Save Ourselves?

Most people have no clue how the technology that envelops them works or what physical principles underlie its operation. . . . Thus, the 'limits of plausibility' have vanished, and the 'knowledge of the audience' is constructed from Facebook feeds, personal experience, and anecdote."[1] Notwithstanding, there are some things individuals can do and tools that can be used to mitigate the spread of fake news. While we might not be able to stop the creation of fake news, individuals can take steps to help themselves and others.

Learn about Search Engine Ranking

A first strategy to foiling the purveyors of fake news is to educate ourselves about how fake news is created and how it spreads. For example, when people search for information, they often use a search engine. The amount of information that is retrieved is always overwhelming. The vast majority of searchers do not look at links beyond the first page of results, and most people never get beyond the second link on the first page.[2] This makes the placement of information on the page of results very important. The criteria that drive the placement of information are complex and often opaque to the general public. The result is that search engine users accept whatever information appears at the top of the search results. This makes users very vulnerable to receiving and accepting misleading or even fake information. Learning how the ranking of websites is accomplished can at least forewarn users about what to look for.[3]

Be Careful about Who You "Friend"

In the world of social media, information is brought directly to us, rather than requiring us to search for it. That information is often shared and commented on with friends and followers. One reason fake news can spread is because we are not as careful as we should be about accepting friend requests. It is great to be popular, and one way of measuring popularity is to have a long list of friends and followers. It makes us feel good about ourselves. Because those friends and followers generally agree with what we already believe, having a lot of friends feeds our confirmation bias, which also makes us feel good about ourselves.

If and when friend requests are accepted, we make a psychological transition from thinking about the requestor as a stranger to thinking about the requestor as a friend. A certain amount of trust accompanies the change in status from stranger to friend. That new friend becomes privy to the inner circle of information in our lives and is also connected to our other friends and followers. We trust those friends to "do no harm" in our lives. We can unfriend or block someone if we change our minds, but that often happens after something bad occurs.

The friends list can be great when everybody on it is a human. However, it is possible for social media friends to be bots. These bots are, at best, programmed to gather and provide information that is similar to what we like. Unfortunately, bots are sometimes programmed to gather and spread misinformation or disinformation. "A recent study estimated that 61.5% of total web traffic comes from bots. One recent study of

Twitter revealed that bots make for 32% of the Twitter posts generated by the most active account."[4] About 30 percent of the bot accounts are "bad" bots.[5]

If we accept a bot as a friend, we have unknowingly made the psychological shift to trust this bot-friend, making any mis- or disinformation it shares more plausible. After all, friends don't steer friends wrong. If an individual likes a posting from a bot, it sends a message to the individual's other friends that the bot-posted information is trustworthy. "A large-scale social bot infiltration of Facebook showed that over 20% of legitimate users accept friendship requests indiscriminately and over 60% accept requests from accounts with at least one contact in common. On other platforms like Twitter and Tumblr, connecting and interacting with strangers is one of the main features."[6] People with large numbers of friends or followers are more likely to accept friend requests from "people" they don't know. This makes it easy for bots to infiltrate a network of social media users.

It is very difficult to identify a friend or follower that is actually a bot. Even Facebook and Twitter have a hard time identifying bots. Bots are programmed to act like humans. For example, they can be programmed to send brief, generic messages along with the links they share. That makes them seem human. They can be programmed to do that sharing at appropriate times of day. If they don't post anything for an eight-hour span, it makes them look like a human who is getting a good night's sleep. They can also mimic human use of social media by limiting the amount of sharing or likes for their account. If they share thousands of links in a short period of time, they seem like machines. If the number of items shared by each bot is limited, they seem more like humans. Bots can even be programmed to mimic words and phrases we commonly use and can shape messages using those words and phrases. This makes their messages look and feel familiar, and they are, therefore, more believable.

If we friend a bot, that bot gets access to a wide variety of networked social media accounts and can spread fake news to our list of friends and followers. Those people can then share the fake news in an ever-widening circle. This means bots can influence a large number of people in a short period of time. Bots can also be linked into networks called botnets, increasing their ability to reshape a conversation, inflate the numbers of people who appear to be supporting a cause, or direct the information that humans receive.

ID Bots

It is possible to watch for bots, and we should make it a habit to do so before accepting friend requests. Some things we can do to protect ourselves from bots follow:

1. Accounts that lack a profile picture, have confused or misspelled handles, have low numbers of Tweets or shares, and follow more accounts than they have followers are likely to be bots. "If an account directly replies to your Tweet within a second of a post, it is likely automatically programmed."[7] Look for these signs before accepting a friend request.
2. Should a possible bot be identified, it should be reported. Everyone can learn how to report a suspected bot. Social media sites provide links to report misuse and propaganda.
3. Using a wide variety of hashtags and changing them on a regular basis, rather than relying on a single hashtag, can keep bots from smoke screening (disrupting) those hashtags.
4. If accounts you follow gain large numbers of followers overnight, that is probably an indication that bots are involved. Check the number of followers for new friends.
5. For those with the skills to do so, building bots that can counter the bad bots can be effective.[8]

Read before Sharing

Another reason fake news spreads and "goes viral" is because people (and bots) click Share without having read beyond the headline or without thinking about the content of the message. A headline may be misleading or may be unrelated to the story it is attached to. Headlines are meant to capture the attention, and they are often written to provoke a strong reaction. It is easy to provoke an emotional response with a sensational headline. Sharing the link with others without looking at the story attached can result in the spread of fake news. Read the content of a link before sharing it.

In 2015, Allen B. West posted a picture of US Muslims who were serving in the US military attending a regular prayer time. The caption for the picture was "Look at what our troops are being FORCED to do." This caption implied that all US servicemen and -women were being required to participate in Muslim prayer services during the month of Ramadan. The picture was widely shared until it was revealed to be "fake news."[9]

The idea that the US government would require its military personnel to participate in any religious observance is provocative. It elicits an emotional response, which often leads us to share both the story and our outrage with others—to spread the word. That knee-jerk reaction often causes us to react rather than take the time to consider what the plausibility of the story really is.

A strong emotional response to a picture, caption, or headline should act as a warning to slow down, think, and ask questions. The US military is part of

the US government. A strict separation of religion and government is guaranteed by the Constitution of the United States. The contradiction between the picture caption and what we know about how the US is governed should cause us to question the information. Yes, soldiers must follow orders, but why would soldiers be ordered to participate in a religious ceremony of any kind? Such orders would violate a fundamental principle on which the country was founded. If the information were true, that would mean that the democracy had failed and all those people sworn to uphold the rules of the democracy deposed. If that had happened, we would probably have heard about it from other sources. This brief thought process should bring the veracity of the posting into question. From there it takes just a minute to find out that the picture is of a regular Muslim prayer service in which US servicemen who are Muslims were participating—voluntarily. Invoking that brief moment of skepticism can prevent the spread of fake news.

Fact-Check

There are a growing number of fact-checking sites that make it their business to find out whether a story, caption, or headline is true or false. Instead of sharing the fake story with others, it is a good practice to check with a fact-checking site first to see what it has to say about the story. It's a good idea to keep a list of fact-checking sites handy for that purpose. Snopes maintains a list of known fake news websites. FactCheck's Spiral Viral page shows its findings about information most often questioned. It lists all questions and answers at its site as well.[10]

Some Fact-Checking Sites

Snopes (specializes in political fact checking)
www.snopes.com/

PolitiFact
www.politifact.com/

Hoax-Slayer (email and social media hoaxes)
www.hoax-slayer.com/

StopFake (fighting false information about events in Ukraine)
www.stopfake.org

FactCheck
www.factcheck.org

Factmata (fact checks chain email)
http://factmata.com/ (fact checking using AI)

LazyTruth
www.lazytruth.com

SciCheck (fact checking for science-based claims)
www.scicheck.com

Twitter and Facebook are attempting to make use of fact-checking organizations so they can more readily identify fake news and, perhaps, identify bots that spread the fake news. Making regular use of fact-checking sites before sharing information with others on social media can help stop the spread of fake news. We can also engage with social media sites to encourage changes that will benefit users. For example, instead of counting clicks to determine popularity, metrics rating the amount of time spent at a site or page might be a better measure of interest. Moving away from the current popularity ratings based on click counting could help limit the spread of fake news. If enough users made it known that the current popularity ratings are not adequate, it might be possible to influence the social media makers to count something more meaningful.

Evaluate Information

We can help ourselves and our students by understanding how to evaluate sources and by routinely applying that knowledge to the sources we use.[11] What is a source? What source can be relied on to be accurate and reliable? What signs can help to identify a trustworthy source?

The word *source* can mean several things, even in the context of information literacy and fake news. A source can be the person who supplied information. A source can be the person who wrote a news article, report, or other piece. A source can be an organization that puts its name and reputation behind a piece of writing. There are also anonymous sources of two kinds: the first is the person who does not want his or her name revealed as the one who supplied the information to a reporter; the second is a person who hides his or her identity or affiliations while publishing his or her own information.

According to Dr. Anders Ericksson and colleagues, it takes 10,000 hours of practice to become an expert on something.[12] Whether it is playing baseball, playing the violin, or reporting the news, at least 10,000 hours of practice is required. That means that an expert will usually have at least 10,000 hours more experience than a novice. While some controversy exists about the exact number of hours required, the nub of the

argument is that it requires substantial experience and knowledge of a subject to make one an expert. Experts always know more about their subject than nonexperts do.

It is important to remember that experts are usually experts in one or two specific things. No one is an expert in everything. If we are looking for expertise in the history of the Civil War, we would not seek out an expert in open heart surgery. For information seekers, it should be habitual to look for biographical information about authors to get some idea of how much experience that author has with the subject being written about. Education, years on the job, applied experience, prizes won—all these items serve as credentials to help verify an author's level of expertise. It is relatively easy to check the veracity of biographical information using the internet.

Because the internet is available to everyone, anyone can write and post what they like, whether they have any expertise or experience with the subject. A teenager in Macedonia invented news stories about Donald Trump for months before the US presidential election in 2016.[13] Those stories appeared along with stories written by reputable journalists working for trusted news sources. The algorithms that make stories from legitimate news sources and fake news sources appear on a social media newsfeed are based on information that people have responded to (clicked on, liked, commented on, or shared) previously. That means if a social media user clicks on an article written by the Macedonian teenager, it is much more likely that user will see more of the same, rather than articles from real news sources. It is unlikely that a teenager in Macedonia would know more about a US political figure than a seasoned political journalist from the United States. Checking the credentials of an author is another way of avoiding fake news.

Experience and education do not always result in unbiased reporting. The reputation of the organization that supports (employs) a reporter also serves as a means of evaluating a source. Publishers that have been in the news business for a while get a reputation based on the accuracy, reliability, and slant of the stories they publish. The *New York Times*, *Wall Street Journal*, Fox News, and CNN have built their reputations by selecting reporters who write the stories and then by selecting the stories those authors produce. The publishers act as gatekeepers for the news. For those publishers with a track record for providing accurate reporting, their reputation can serve as a credential and can reflect that reputation on their reporters.

It is true that reporters with valid credentials who write for reputable news outlets sometimes mislead or misinform. The monetization of internet-based news is responsible for at least some misinformation. The relentless 24/7 flow of news also puts pressure on reporters and publishers to release information quickly, sometimes before the facts have been completely verified. The need for speed can also cause one news outlet to simply repost a report from another news outlet, even if the facts have not been verified.

Producers of *On the Media* have provided informational sheets in their "Breaking News Consumer's Handbook." Several points they list speak to the pressure for legitimate news sources to release information quickly. They offer pointers about the language reporters use and what specific phrases mean regarding the reliability of the information they supply.[14] *On the Media* also suggests that part of the verification process for news stories should be geographic. Sources geographically close to the incident being reported are more likely to have reporters at the site and will therefore be closest to the unfolding event. Checking the geographic location of a story can help to evaluate its authenticity.

It is good practice to follow any links or citations given in a story. Fake news writers often include links and citations to make their posts seem more credible. However, those links may not connect to any information that is relevant to the original post. A FactCheck report posted on November 18, 2016, found the following:

> Another viral claim we checked a year ago was a graphic purporting to show crime statistics on the percentage of whites killed by blacks and other murder statistics by race. Then-presidential candidate Donald Trump retweeted it, telling Fox News commentator Bill O'Reilly that it came "from sources that are very credible." But almost every figure in the image was wrong—FBI crime data is publicly available—and the supposed source given for the data, "Crime Statistics Bureau—San Francisco," doesn't exist.[15]

A quick and easy check for the veracity of a source that seems questionable is to go to the homepage of the news source and look at what other articles are being posted. While one story may sound plausible, there may be others that are less so. By looking at the site in the aggregate, it is sometimes possible to determine the purpose and tone that will help identify the site as legitimate or bogus.

Some fake news sites will reuse older information retrieved from other sites to mislead by association. For example, President Donald Trump credited himself with convincing Ford Motor Company, after his election, to move the production of one of their vehicles from Mexico to Ohio. However, the original publication date of the announcement by Ford was August 2015, long before Mr. Trump was elected. Similarly, in 2015, then-candidate Trump suggested that he had influenced Ford to move its plant, citing a story on Prntly.com. In fact, the original story came from CNN in March 2014 and referred to moving some assembly work to Ohio. The plant to be built in Mexico was still being built in Mexico.[16]

Seek Information beyond Your Filter Bubble

We can avoid fake news by leaving our filter bubbles and seeking out opinions that do not agree with our own. Comparing sources is always a good idea. Comparing sources that illustrate different points of view can often give some context to the interpretation of the information being offered. If CNN says one thing about a news story, it is likely that Fox will also cover the same story. The differences between the two stories will often identify the "middle ground" where the truth often lies.

We can subscribe to publications that specifically provide information opposite from what we would get on social media. Escape Your Bubble is an online publication that gathers information about your political preferences and then provides you with information that comes from sources outside your political bubble. Its goal is to help people understand each other better. There are reasons why Republicans champion certain causes or hold certain opinions. They often do not agree with Democrats about the reasons a problem exists or how to fix it. It's good to get input from both sides in order to understand why people do what they do. Getting the facts from different perspectives can help to identify fake news.

Escape Your Bubble
https://www.escapeyourbubble.com/

We all have biases and preferences. It is important to acknowledge those biases and to keep them in mind, especially when confronted with information that does not support what that bias tells us. We must work hard to overcome confirmation bias because without effort we tend to dismiss information that does not agree with what we already believe is true. By at least considering information that disagrees, we can make a more informed decision or form a reasonable opinion. This is something we need to remember and consider in this era of fake news.

Be Skeptical

Approach news with skepticism. The psychology literature shows that in order to process information, we must initially accept or believe it. Just to make sense of something, the default is for the brain to believe it. It takes an additional (and more difficult) step to reject the information as false. As time passes, we tend to remember as true the first information we heard, read, or saw, even if it was not true and even if we know it was not true. The more times we hear something, the better we remember it.[17] So if we read, see, or hear fake news from a number of friends, followers, or bots, that information sticks in our memories, even if it is not true and even if we know it is not true. Finally, if some information contradicts a dearly held belief, the normal reaction is to reject that information and to more firmly believe what we already believe. This psychological fact allows humans to process information, but it also makes us vulnerable to those who manipulate information. Remaining skeptical is one way to combat the biases and psychological preferences built into our brains, at least long enough to consider alternatives.

Use Verification and Educational Tools

A wide variety of reliable news agencies provide information and tips to both their reporters and their readers for avoiding fake news. There are several projects underway to increase levels of trust in the legitimate media. The Trust Project at Santa Clara University in California is working to "develop digital tools and strategies to signal trustworthiness and ethical standards in reporting."[18] The Trust Project brings together news reporters and editors with the goal of restoring trust in the news media. This project has identified indicators for journalism including a series of checks that can be applied to news stories to indicate that the information has been vetted for honesty, reliability, ethical treatment, and so on. Articles are flagged with indicators that show fact verification has taken place, ethical standards have been observed, conflicts of interest have been exposed, and reporting versus opinion and sponsored content articles are flagged. Over seventy news organizations are collaborating on this project.

The Trust Project
http://thetrustproject.org/

The National Institute for Computer-Assisted Reporting is part of the 4,500-member association Investigative Reporters and Editors. NICAR provides the ability to combine information from varied digital sources, allowing reporters to verify information and to extract facts and data more easily. New tools help reporters with analysis, visualization, and presentation of structured data: Google Refine, ManyEyes (IBM), TimeFlow (Duke University), Jigsaw (Georgia Tech), the Sphinx Project (CMU), DocumentCloud, and ProPublica. All of these groups are working to help legitimate news sources provide readers with accurate and reliable content.[19]

National Institute for Computer-Assisted Reporting
https://ire.org/nicar/database-library/

Investigative Reporters and Editors Association
https://www.ire.org/

DocumentCloud
https://www.documentcloud.org

The Public Data Lab publishes *A Field Guide to Fake News*.[20] This guide describes "digital methods to trace production, circulation and reception of fake news online."[21] This publication was prepared for release at the International Journalism Festival in Perugia in April 2017. Its goal is to investigate fake news in its context including where it appears and how it circulates online.

A number of educational institutions have created classroom curricula to help students learn to be smart consumers of information, especially news.[22] The Stanford History Education Group has created a classroom curriculum that includes a bank of assessments to test the ability to judge credibility of news reports.

Stanford History Education Group
https://sheg.stanford.edu/

The News Literacy Project is a nonpartisan national educational program that aims at teaching middle and high school students how to read and evaluate news stories. It has developed an online modular curriculum called Checkology that walks students, middle school through college, through the process of reporting the news, from on-site reporting to publication. Students can also learn how to create their own news stories, giving them practice in creating fair and unbiased reports, which, in turn, helps them to evaluate news stories from others.

News Literacy Project
www.thenewsliteracyproject.org

Consistent and persistent use of a handful of simple practices could help to identify fake news and to stop its spread. Putting those practices to use could remove or at least reduce the incentives that drive the creators of fake news. There are tools and techniques available to help people become informed and savvy news consumers. Legitimate news media sources are creating criteria and tagging to help people to identify and select "real" news. There are easy means to escape our information bubbles and echo chambers. In the end, it is up to all individuals to do what they can to educate themselves about fake news and the technology that brings fake news to their doorstep. While we educate ourselves, we can help to educate our students and patrons.

Notes

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