Misinformation & Media Literacy Studies

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Abstract

News has been ready since modern society has started, from word of mouth to newspaper to currently social media. With news being something of importance for centuries it has created several problems and one which many are not completely aware of is fake news. Sure everybody has heard of it to an extent "don't believe everything you see on the internet" is a common saying yet people still continue to do so. What many do not realize is how many problems this has caused and will continue to if society doesn't make an effort to combat it.

I. Introduction

A. Background and significance of fake news

Fake news (refer to figure 3.4) has become a major issue in this day and age. Although the internet does plenty of good for society we have all become victims of fake news (refer to figure 3.4). This issue has been prevalent for many decades before the internet existed. Articles filled with propaganda (refer to figure 1.1) would be put into newspapers in order to take advantage of the public. An example that affected a large scale would be Hitler and his wrongdoings. Currently fake news (refer to figure 3.4) is done through the internet, a large example would be social media. Millions of users post countless videos because it is an easy way to make money and gain followers. People can post fake things for money or to gain power over others. Many do not realize because social media is often seen as a place to relax causing people to think less critically. In the future fake news is only set to grow and cause more arguments than it already has. People will continue to get attacked by their opinions because there is so much content many don't know what to believe. Fortunately there are ways that are currently being used and developed to combat the issue. This includes tools that one can add to their computer in order to alert them of untrustable websites. Nevertheless this also has to do with the public and advocating for the public to be more skeptical of what they read or watch. Although fake news is such a big issue there are ways to reduce the effects.

II. Understanding Fake News

A. Definition and characteristics of fake news

Figure 1.1
Misinformation VS Disinformation VS Malinformation VS Truth Decay

Misinformation	Disinformation	Malinformation	Truth Decay	Propaganda

can be true or false, but shared unknowingly without the sole purpose of misleading people	False information that is used in more serious situations Government, Military, Etc. Can be made to harm others	information that is false and made to harm people	Information that starts out true but slowly deteriorates	Information, especially of a biased or misleading nature, used to promote or publicize a particular political cause or point of view.

Different types of fake news/terms we are going to refer to throughout the paper.

Fake news - false news stories, often of a sensational nature, created to be widely shared or distributed for the purpose of generating revenue, or promoting or discrediting a public figure, political movement, company, etc.:

Indicators of Fake News:

Some indicators of fake news (refer to figure 3.4) include, the news being spread by bots or users that have previously been flagged. Another sign is only seeing one article talking about that story, then the story is unreliable because there is one source and they can spin the story as they please. If the issue were so prevalent there would be multiple sources. Another issue that leads into mis/disinformation (refer to figure 1.1) is when an article only offers a single perspective doing this they are creating an image they want the viewer to agree with oftentimes without the viewer realizing. Another way is to see which demographic is talking about a certain story and find out what other demographics think (this is found out since users' information is sold to the dark web). Stories are often targeted by certain demographics and getting multiple will ensure that you know all sides of the story. The best way to avoid fake news all in all is to be skeptical, and put in thought to the information you are reading.

B. Historical context and the rise of digital misinformation

Historical Context:

Fake news (refer to figure 3.4) has dated back centuries, now it is commonly seen in social media but back then it was spread by word of mouth or newspaper, a well known example being Hitler. Through anti semitic ideas Hitler spread the hatred of the Jews to the Germans. So much so to the point that *Hitler created the Nazi's through propaganda* (refer to figure 1.1) in order to put the Jews under attack, he made the Germans go against them and in return they would get a more suitable life. The Germans, seeing this as a good opportunity, agreed. This brought the beginning to the Holocaust, in which Jews were put into concentration camps where they were abused and killed. This was all due to Hitler being able to correctly spread propaganda (refer to figure 1.1).

Figure 1.2
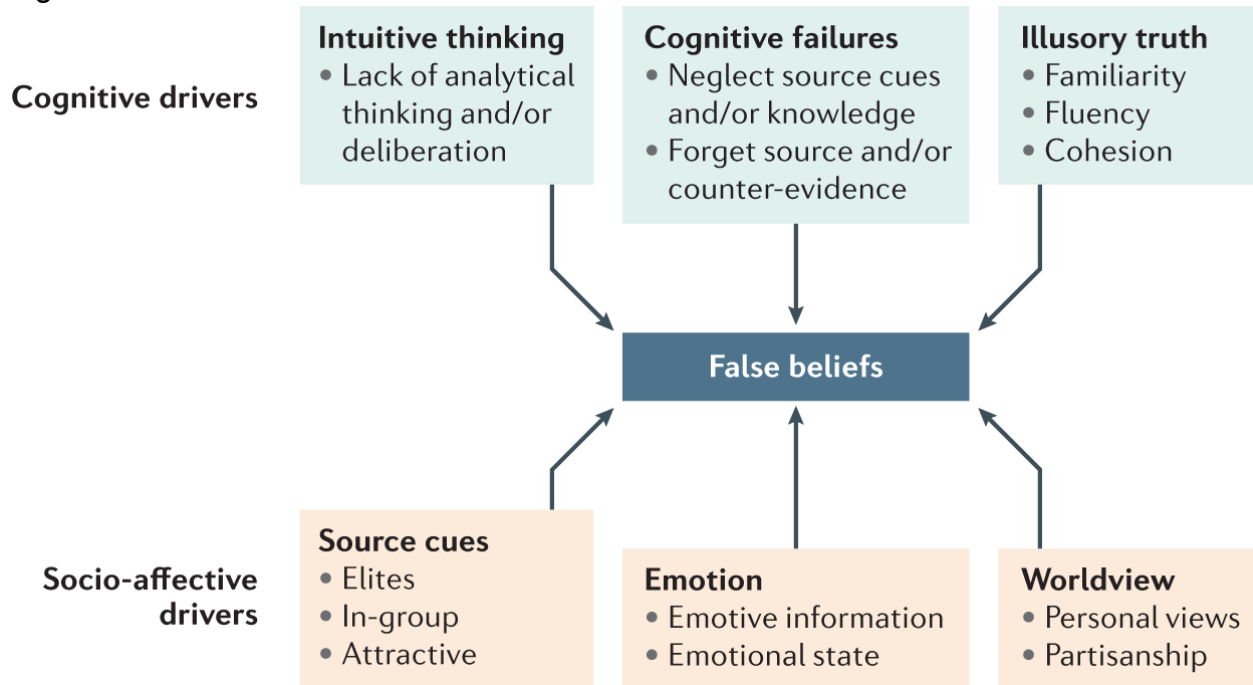
How False News really impacts humans; all the possibilities

Rise of Digital Misinformation:

In today's world it is easier to spread news than ever before thanks to social media. Although there are upsides to the platforms, the dark sides affect people as well. Fake news (refer to figure 3.4) is spread online because it is easy and effective, the people who spread the misinformation (refer to figure 1.1) gain views and followers by doing so. This leads to more money, brand deals, fame, etc.. But this is *not only done by content creators it is done by bots as well*, there is often some piece of misinformation (refer to figure 1.1) that humans agree with causing them to spread it while spending more time with the app, once they spread it to their friends they then start spending more time on the app causing an ongoing cycle.

C. Identification of common types of fake news

Figure 1.3

Decepetive Advertising VS Native Advertising VS Political Native Advertising (Types of Fake News)

Deceptive Advertising	Native Advertising	Political Native Advertising

- Two companies against one another; one may spread false news/propaganda - Can be used with countries & politics	- A company would sponsor a nonprofit in order for publicity - Commercial Funders	- Politicians participating in native advertising - Used to sway votes - Publicity

Different types of advertising big commercial companies partake in.

Figure 1.4
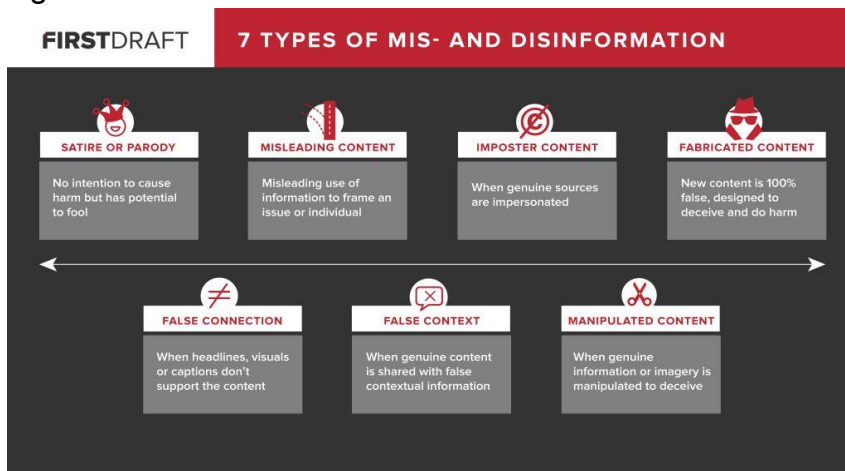
Different Types of Misinformation. Which of these have you seen when reading news? How has this changed your perspective?

Types of fake news:
There are several types of fake news (refer to figure 3.4) including, *deep fakes* which is machine learning used to automate computer graphics. Such as CGI, or videos edited of a person that are not real. These can be complete fake videos or audio deep fakes that make it seem as if someone said something when they did not. Essentially steal somebody's identity
Another type includes *propaganda* (refer to figure 1.1), the person sharing it knows that the information is incorrect yet they share it anyway, a memorable example could include Hitler. This is almost always for their benefit so they can get people to do something.
Another form of fake news (refer to figure 3.4) is when a title isn't accurate towards an article, this is seen as 'clickbait' or false connection, this way authors, video creators, ect., can draw in viewers.
A result of *truth decay* (refer to figure 1.1) can be false context, in which the story can be true but the context will be false.
Another part of fake news (refer to figure 3.4) is *bias*ed (refer to figure 2.3) media/news in which the things said have a baseline true story but the person saying them could be on one side of the story making that one look better than the other. Such example includes democrats and republicans, on certain news channels there are drastically different things said due to bias (refer to figure 2.3) or preference of one side over another making it hard for the viewer to see the content from a raw perspective yet it can be useful to compare and contrast points in order to choose one's view on situations or parties.
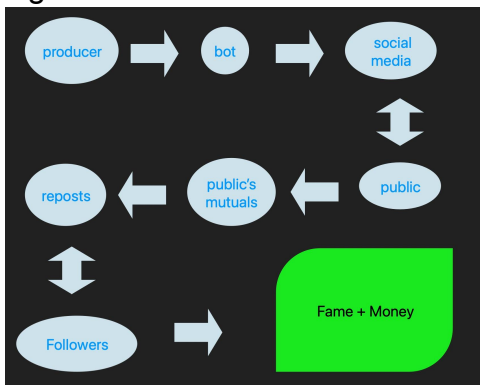
Edited Pictures/CGI:

This image shows how painfully accurate photoshop and other AI can be in pictures. Among the pictures it can be seen how realistic the edited picture is; this is manipulated content (refer to figure 1.4).

III. Impacts of Fake News
A. Social and political polarization

Fake News Creator Cycle
Figure 2.1

Motivation behind fake news, how it is benefiting the creator but never you.

With a surge in fake news (refer to figure 3.4) the US is more divided than ever, causing protests and fights among different communities. This was seen in the *COVID 19 pandemic, people believed that it was not real, the vaccines killed people, masks were useless*, and more. This was a time in which it was very easy to post fake news (refer to figure 3.4) and get someone to read it. With everyone brought at home, people were on the internet more than average causing them to consume more content. The amount of fake news (refer to figure 3.4) increased because people were sure that others would read it causing them to make more money; resulting in protests and riots. Also making it tough socially because there was a stigma created based on beliefs of COVID 19 on both sides of the spectrum making it hard to voice opinions without being judged.
In the last few years people have become *scared of social media due to the negative impacts of posting one's opinions online*, because the US is so divided it has become so easy to judge one another making society not want to voice their opinions because of the fear of hate that they inevitably will receive. Everyone has been affected by this because the people who end up posting all the fake news (refer to figure 3.4) and hate are usually on accounts without so if they get in trouble they will not be harmed in the real world. Since people cannot safely express their opinions it has made the world more lonely *causing depression and suicide rates to spike* since everyone around them in real life or over the internet is fake. Continuing on this path will cause these health issues to increase more and more until they are treated like everyone has them. Nowadays depression, anxiety, and suicide are more common and normalized more than

evebefore, since they exist so frequently no one questions or is surprised with their close family and friends fighting these issues.

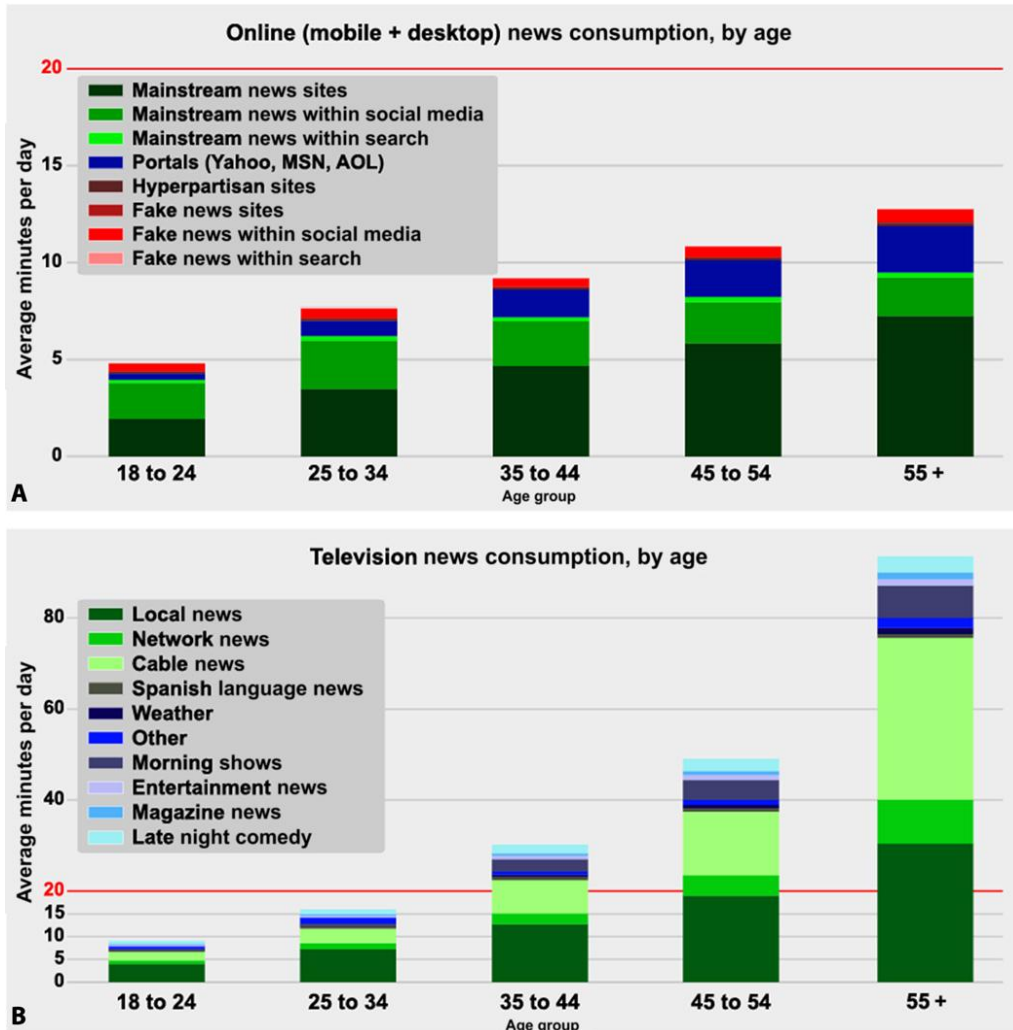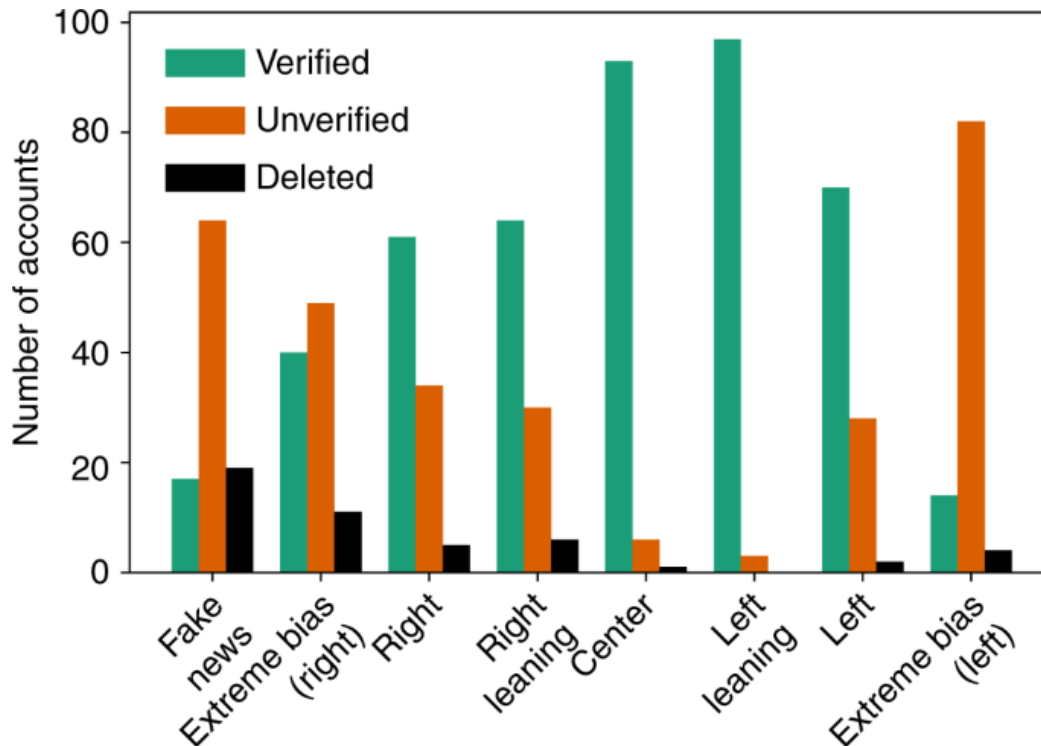B. Undermining trust in media and institutions
Figure 2.2

Figure 2.3
As seen, we are often on our electronics, since the amount of important information we consume radically increases as we age.

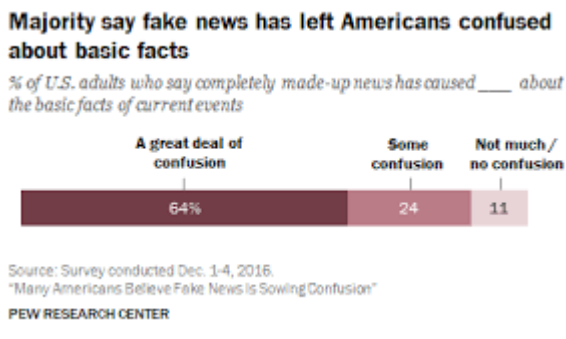Data on social media accounts and how much bias they put into their content.

Big news outlets are the main source in which people get their news therefore they easily influence people. This can also cause damage when they are wrong, it is not often but when they are they make things a whole lot harder. For example, CNN and Fox News talked about an arrest and shared the details with them. This later happened to be incorrect with the FBI saying "Over the past day and a half, there have been a number of press reports based on information from unofficial sources that have been inaccurate. Since these stories often have unintended consequences, we ask the media, particularly at this early stage of the investigation, to exercise caution and attempt to verify information through appropriate official channels before reporting."

This can undermine trust from the public because they realize that the news outlets displayed the story before having solid evidence and this was partially done for money and fame. Another reason is bias, during COVID so many news outlets were saying so many different things because they targeted different demographics. This caused the public to deter from certain outlets while others did not like the bias so they moved away from new outlets altogether.
Another reason big media institutions are being undermined is because people have gotten used to getting their news from social media since it is seen as a more 'entertaining' way to receive information. Then they start getting blind sighted of what is true and what is not. Leading big institutions to lose their pull, if this gets to an extreme case this can put people out of jobs. Another aspect includes when creating big movements and voicing plenty of people they are all doing this on different platforms causing there to be a smaller impact since people are saying things from so many different platforms.

C. Influence on public opinions and decision-making processes

American Consequences of Fake News
Figure 2.4

Majority say fake news has left Americans confused about basic facts

% of U.S. adults who say completely made-up news has caused ____ about the basic facts of current events

A great deal of confusion	Some confusion	Not much / no confusion
64%	24	11

Source: Survey conducted Dec. 1-4, 2016.
"Many Americans Believe Fake News Is Sowing Confusion"

PEW RESEARCH CENTER

This shows how deceptive Americans are to the news. Due to lack of learning media literacy (refer to figure 3.2 & 3.3) they have had basic knowledge taken from them. Without understanding fake news (refer to figure 3.4) it has been given to Americans leaving them stripped of knowledge.

CIE is when information is first said to be correct but it is then later found out that that information is incorrect, this affects humans in several different ways for better and worse. For example it would increase skepticism but may cause information overload causing people to mix up details. What most do not realize is that social media is all catered towards them, based on one's demographics they show you certain content that people of your demographic see. This is in order to keep you on the app longer, apps like Google are not just search engines. A rule to follow is that if something is free your attention is the product. One way to make critical thinking and understanding if your news is real is education priming. This is essentially *learning something very briefly so understanding news will be easier as well as understanding if it is real*.

IV. Mitigating Fake News

A. Fact-checking and verification initiatives

Funders for Fake News Resources (Mitigating Fake News)

Figure 3.1

Nonprofits	Civil Donors	Commercial Funders

|		
- Take initiatives to fight fake news - Not often seen in the media; no money to promote the resource - Free to use	- Foundations/Philanthropies dedicated to funding resources against fake news	- Big companies taking initiative against fake news - Done for publicity - Ulterior Motive

These are the origins of fake news (refer to figure 3.4) , and depending on where it came from it can have different intentions. Being aware of this can make one more conscious of what they are reading.

B. Role of media literacy and critical thinking education

Lack of Media Literacy in the US
Figure 3.2
Figure 3.3
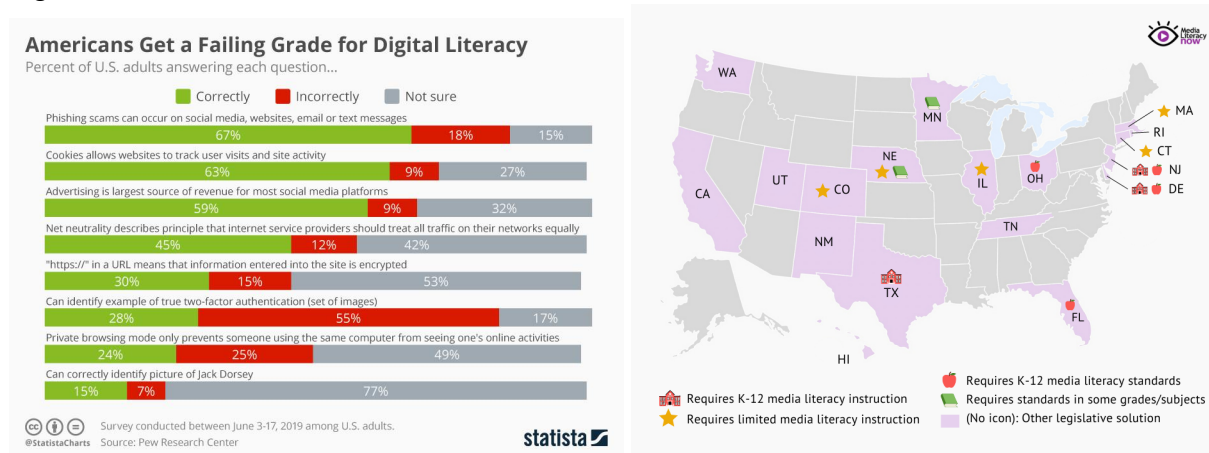
These show how behind America is with their media literacy programs after fake news (refer to figure 3.4) being such a big issue. But this also shows how more states are spending time to implement it into their education system as a basic standard.

Media literacy (refer to figure 3.2 & 3.3)is currently required in 18 states in the US with Delaware setting the all-time high for the amount of media literacy required. More states are starting media literacy (refer to figure 3.3) and increasing to the degree it is taught. This is an effort to create critical thinkers to *teach them to use the media as a resource* rather than something that affects your personal feelings, teaching so young creates a habit that will be useful in today's world. A *law was signed in January 2023 that requires New Jersey schools to teach media literacy (refer to figure 3.3);* this is the first time it has ever been mandated.

There are multiple degrees to media literacy (refer to figure 3.2) some just learn the differences between .com and .org but others analyze how bias (refer to figure 2.3) affects their personal opinions. Others take news from different outlets and start to form opinions accordingly.

62% of adults have not been given the opportunity to see how media affects their feelings and beliefs
4 out of 10 adults were able to analyze news stories for bias and credibility in High School
84% of adults agreed that more media literacy education needs to be required in school across more states

C. Technological solutions and AI-driven approaches to combat fake news
Figure 3.4
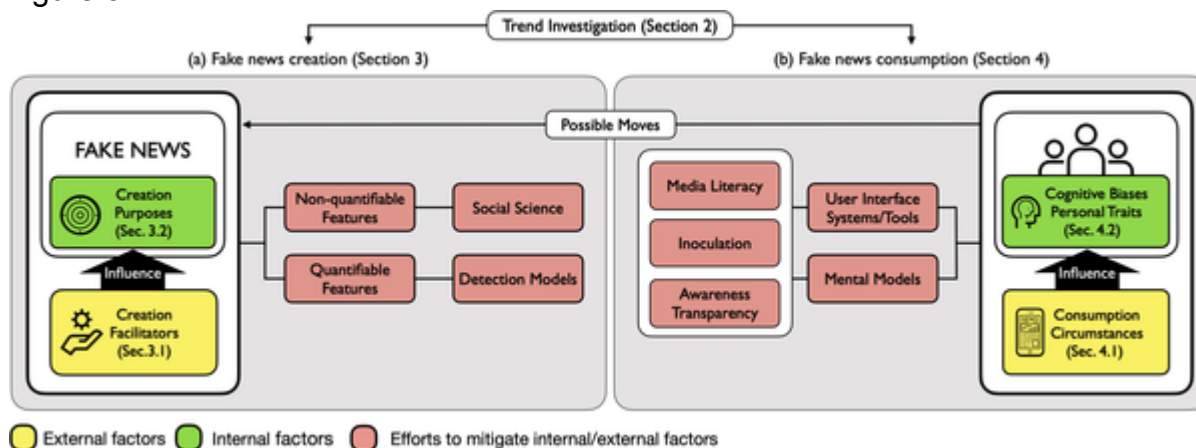
Ways to stop the effects of fake news as well as the effects they may have on society.

Different Types of Resources to Combat Fake news

*Bot and Spam Detector*s detect bots and spam in order to keep one away from fake news (refer to figure 3.4) as a whole; but this can be ineffective because programs are able to get around it; the same community is blocking bots and creating bots. *Credibility Scoring* gives someone access to all types of information, even from bots and tells the user the probability of the news being real. *Codes and Standards* are a standard set of principles so it can be easy to identify whether the news is misinformation (refer to figure 1.1) or not. *Verification* verifies that information is true. *Whitelisting* creates trusted lists of IP addresses to distinguish users and websites; gives the user a warning before going on a website that is not on the list of IP addresses. *Education and Training* are courses or games that teach concepts of misinformation (refer to figure 1.1); often being implemented in schools.

Solutions (Resources that Currently Exist to Combat Fake News)

Botometer classifies Twitter accounts as either bots or humans. *Both Slayer* flags hashtags and accounts. *Web Dashboard* is a way to browse on Twitter without campaigns. There are also private company options: *ShieldSquare, a bot* detector and blocking service.

V. Conclusion

A. Recap of the prevalence and effects of fake news
Through following various methods there are ways to escape from the burden of fake news. This starts one by one with people making a change while using the internet. An easy example is using the resources previously mentioned, learning about topics before reading about them, being skeptical, and finding multiple sources to get multiple perspectives. Understand the value of your attention and educate yourself and those around you on media literacy. If this is done by the general public we will create a more united nation and have a more worry free society.

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