**The Psychology behind Fake News & Applying the methodology and mechanisms to detect Fake News**

**MODULE DESCRIPTION AND GUIDELINES FOR THE INSTRUCTOR**

The module starts with an introduction to the topic followed by 5 chapters on the following content:

1. The Psychology behind Fake News

2. Activity: Fact or Fake?

3. Trust in Media Statistics 2021

4. Activity: Can you Build a Fake News Empire?

5. Activity: Reverse theory - Create fake news

Lastly, there will be the possibility to reflect and summarise the outcome and time for concluding remarks.

Below, each chapter will be explained briefly:

1. ***The Psychology behind Fake News***

Students will be introduced to the psychology behind fake news and the theme of the module through a short presentation. It’s important for students to understand the psychological reasons behind fake news and answer the question: Why do people fall for fake news?

We don’t fall for false news just because we’re dumb. Often, it’s a matter of letting the wrong impulses take over. In an era when the average human spends 24 hours each week online–when we’re always juggling inboxes and feeds and alerts–it’s easy to feel like we don’t have time to read anything but headlines. We are social animals, and the desire for likes can supersede a latent feeling that a story seems dicey. Political convictions lead us to lazy thinking. But there’s an even more fundamental impulse at play: our innate desire for an easy answer.

Humans like to think of themselves as rational creatures, but much of the time we are guided by emotional and irrational thinking. Psychologists have shown this through the study of cognitive shortcuts known as heuristics. It’s hard to imagine getting through so much as a trip to the grocery store without these helpful time-savers. “You don’t and can’t take the time and energy to examine and compare every brand of yogurt,” says Wray Herbert, author of On Second Thought: Outsmarting Your Mind’s Hard-Wired Habits. So, we might instead rely on what is known as the familiarity heuristic, our tendency to assume that if something is familiar, it must be good and safe.

These habits of mind surely helped our ancestors survive. The problem is that relying on them too much can also lead people astray, particularly in an online environment. In one of his experiments, MIT’s Rand illustrated the dark side of the fluency heuristic, our tendency to believe things we’ve been exposed to in the past. The study presented subjects with headlines–some false, some true–in a format identical to what users see on Facebook. Rand found that simply being exposed to fake news made people more likely to rate those stories as accurate later on in the experiment. If you’ve seen something before, “your brain subconsciously uses that as an indication that it’s true,” Rand says.

This is a tendency that propagandists have been aware of forever. The difference is that it has never been easier to get eyeballs on the message, nor to get enemies of the message to help spread it. The researchers who conducted the Pew poll noted that one reason people knowingly share made-up news is to “call out” the stories as fake. That might make a post popular among like-minded peers on social media, but it can also help false claims sink into the collective consciousness. (M03/S01 slide 3)

Following the general introduction to the theme of the chapter, 5 psychological explanations will be presented as an answer to the question: Why do people fall for fake news?

**Confirmation Bias**

Confirmation bias is our tendency to cherry-pick information that confirms our existing beliefs or ideas. Confirmation bias explains why two people with opposing views on a topic can see the same evidence and come away feeling validated by it. This cognitive bias is most pronounced in the case of ingrained, ideological, or emotionally charged views.

Our use of this cognitive shortcut is understandable. Evaluating evidence (especially when it is complicated or unclear) requires a great deal of mental energy. Our brains prefer to take shortcuts.

In “The Case for Motivated Reasoning,” Ziva Kunda wrote, “we give special weight to information that allows us to come to the conclusion we want to reach.” Accepting information that confirms our beliefs is easy and requires little mental energy. Contradicting information causes us to shy away, grasping for a reason to discard it. (M03/S01 slide 5-6)

**Naive realism**

The second concept is “naïve realism,” our tendency to believe that our perception of reality is the only accurate view, and that people who disagree with us are necessarily uninformed, irrational, or biased. Naïve realism helps explain the chasm in our political discourse: instead of disagreeing with our opponents, we discredit them. It is also why some are quick to label any report that challenges their worldview as fake.

“It happens across the political spectrum,” Waytz says, pointing to the false rumour — circulated by liberals — that President Trump changed the Bill of Rights to read “citizens” instead of “persons.” “We’re all quick to believe what we’re motivated to believe, and we call too many things ‘fake news’ simply because it doesn’t support our own view of reality.” (M03/S01 slide 7-8)

**Collective narcissism**

Another psychological factor that can lead to belief in conspiracies is what experts call “collective narcissism,” or a group’s inflated belief in its own significance. Marchlewska’s research suggests that collective narcissists are [apt to look for imaginary enemies](https://pubmed.ncbi.nlm.nih.gov/26511288/) and adopt conspiracy explanations that blame them.

This urge is particularly strong when narcissistic people fail, or members of their group fail. “For some people, conspiracy beliefs are the best way to deal with the psychological threat posed by their failure,” Marchlewska says, adding that this phenomenon was likely at work as rioters stormed the Capitol.

One perceived enemy that President Trump and his supporters have frequently blamed is the media. “The media is the biggest problem we have, as far as I’m concerned,” Trump said to his supporters on January 6 before they marched to the Capitol. During the mayhem that followed, some of those supporters [smashed media crews’ equipment](https://www.nytimes.com/2021/01/06/business/media/media-murder-capitol-building.html), [tied a camera cord into a noose](https://twitter.com/pdmcleod/status/1346942367543091200), and scrawled “[murder the media](https://twitter.com/rachaelpacella/status/1346987362014924806)” on a door in the Capitol building.

By singling out an adversary who has “qualities that represent your own culturally influenced view of evil,” people can gain a sense of control over what’s happening to them, says [Daniel Sullivan](https://psychology.arizona.edu/users/daniel-sullivan), a psychologist at the University of Arizona who studies how people cope with adverse life events.

People may also defend the viewpoints of groups they belong to on an even more instinctual level. Humans evolved in groups that competed with one another, sculpting our minds to be wary of outsiders and loyal to our factions, Ditto says. His [2019 study](https://sites.uci.edu/peterdittolab/files/2019/10/Clark-et-al-2019.pdf) found that this kind of bias “is a natural and nearly ineradicable feature of human cognition.”

“I think the temptation is always to look at this as a clinical phenomenon—there's something about *those* people,” Ditto says. “But your social surroundings can have a huge effect if you happen to be in a group with people who believe in something, or are mad about something.”

Ongoing research in the UK and US suggests that people who agreed with the statements on the collective narcissism scale were significantly more likely to report that they voted to leave the European Union in the June 2016 referendum in the UK. They were also more likely to report that they voted for Donald Trump in the US presidential election.

The scale includes statements such as “It really makes me angry when others criticise my group” and “My group deserves special treatment”. Participants are asked to think about a group they might belong to, such as a religion or a nationality, when considering the statements. (M03/S01 slide 9-10)

**Follow the leader**

While groups tend to share common beliefs, those beliefs are often sculpted by a handful of influential people. An October 2020 poll of more than 2,000 Americans conducted by [Joseph Uscinski](https://people.miami.edu/profile/uscinski%40miami.edu), an associate professor of political science at the University of Miami, found that what people believed was closely aligned with what they had been told by their political leaders. For example, 56 percent of people who identified as Democrats agreed that there was a conspiracy to stop the U.S. Post Office from processing mail-in ballots, compared to only 31 percent of Republicans.

People “who believe in conspiracy theories usually seek a savior—someone who will help them protect their in-group from conspiring enemies,” Marchlewska says. She points to QAnon, a conspiracy theory that proliferated online and falsely alleges [a powerful group of Satanic paedophiles is plotting against President Trump](https://www.nytimes.com/article/what-is-qanon.html).

Celebrities are “super-spreaders” of fake news and conspiracy theories during times of crisis — including the coronavirus pandemic, experts say.

Researchers from Queensland University in Australia blamed stars, such as Woody Harrelson and Whiz Khalifa, in a study probing how far-fetched fringe internet theories become front-page news.

Researchers found that spikes in the circulation of COVID-19-related misinformation online were almost always linked to celebrity or media endorsements.

In one example, they examined the recent fake news that 5G cellphone towers spread the coronavirus and found that most “shares” about it happened after “The Hunger Games” actor Woody Harrelson [promoted the conspiracy theory on Instagram](https://nypost.com/2020/04/05/woody-harrelson-sharing-coronavirus-conspiracy-theory-tied-to-5g/), and rapper Whiz Khalifa spoke about it in a Facebook video.

In a now-deleted Instagram post, Harrelson, 58, told his more than 2 million followers that he found a report about “the negative effects of 5G” and its supposed role in the coronavirus pandemic “very interesting.” (M03/S01 slide 11-12)

**Identifying the truth**

Once people believe something, it can be almost impossible to dissuade them. [Emily Thorson](https://www.maxwell.syr.edu/psc/Thorson%2C_Emily/), a political scientist at Syracuse University, refers to this psychological phenomenon as [belief echoes](https://repository.upenn.edu/dissertations/AAI3564225/)—an “obsessive, emotional response to information that can linger even after we know it’s false.”

When misinformation is covered in the news—often in an attempt to disprove falsehoods—the coverage can inadvertently aid in creating familiarity with incorrect beliefs. A [recent study](https://allianceforscience.cornell.edu/wp-content/uploads/2020/10/Evanega-et-al-Coronavirus-misinformation-submitted_07_23_20-1.pdf) found this was especially true amid the pandemic, as media reports sometimes amplified the voices of people who “advocated unproven cures, denied what is known scientifically about the nature and origins of the novel SARS-CoV-2 coronavirus, and proposed conspiracy theories which purport to explain causation and often allege nefarious intent.”

But experts say that educating people about the ways misinformation spreads can make a difference. In a [recent study](https://www.nature.com/articles/s41599-019-0279-9), van der Linden looked at whether pre-emptively warning people about the techniques that are used to spread falsehoods can help them gain immunity against fake news. He found that once people were warned about common misinformation techniques—including appealing to people’s emotions or expressing urgency in a message—participants were more likely to identify unreliable information.

By the end of this chapter students will be able to understand the psychological reasons behind the spread of fake news. This will equip them with the knowledge needed in order to approach discussions on fake news differently and more efficiently. (M03/S01 slide 13-14)

1. ***Activity: Fact or Fake?***

Group activity

This activity intends to reflect on the methodologies and critical thinking developed through the modules. Students will be divided into groups. The teacher will present one example at a time and then will allow some time for the group to research the example using one or more of the methodologies explained on previous modules in order to distinguish between fact and fake.

The groups will be encouraged to explain their research method and the outcome of their research with the plenum. The presenter will then proceed by revealing the state of the example (fact or fake and why). (M03/S02 slide 4)

**Example 01: “Australia’s New Vaccination Policy Removes Children From Parental Authority”**

(Fake)

In August 2021, government officials in the state of New South Wales (NSW) announced that, in addition to adults of most age brackets, high school students aged between 16 and 18 would soon be invited to get their first dose of the Pfizer vaccine at the Qudos Arena (also known as the Super Dome) in the state capital of Sydney.

Mindful that high school students are expected to sit the Higher School Certificate (HSC) exams in October, officials in the state urged that cohort of students to get vaccinated in order to facilitate the smooth running of the exams, and prevent further outbreaks.

The story was posted to Twitter without any context, forming the basis of the subsequent online articles. What those articles did not made clear was that: the mass vaccination was voluntary, not forced; the “children” in question were aged 16-18, effectively young adults; they were invited to come to the stadium, not “seized.” (M03/S02 slide 5-6)

**Example 02: “CNN reporter Clarissa Ward before and after the fall of Kabul”**

(Mixture)

These images show a single example and are not necessarily indicative of how all women reporters dressed before and after the Taliban seized power. Furthermore, Ward explained on Twitter that the "before" image showed her in a private area, and that she had regularly worn a head scarf while in public in Afghanistan. However, Ward acknowledged that she decided to wear an abaya (a full-length outer garment) and cover her hair after the Taliban takeover in August 2021. (M03/S02 slide 7-8)

**Example 03: “Imeach Biden”**

(Fact)

On the afternoon of Sept. 24, Boebert issued a news release in which she announced she had prepared articles of impeachment against both Biden and Harris. That announcement contained exactly the misspelled logo shared on social media by Sherman and many others, and by later on that afternoon, [#IMEACHBIDEN](https://twitter.com/search?q=%23imeachbiden&src=typeahead_click) was a trending topic on Twitter.

A second version of the announcement, with the spelling of the word “impeach” corrected, was quickly issued. (M03/S02 slide 9-10)

**Example 04: “Bill Gates: Depopulation Through Forced Vaccination”**

(Fake)

On 21 January 2016, dubious news and conspiracy theory site Your News Wire (now NewsPunch) published an [article](http://archive.is/fqvuk) with the headline “Bill Gates Admits ‘Vaccines Are Best Way to Depopulate’”. The article opened with a damning assertion: “Bill Gates has openly admitted that vaccinations are designed so that governments can depopulate the world.”

To support this claim, the site presented a February 2011 video [clip](http://transcripts.cnn.com/TRANSCRIPTS/1102/05/hcsg.01.html) of Bill Gates being interviewed by CNN’s Sanjay Gupta about his foundation’s vaccination efforts:

* Dr. Sanjay Gupta: Ten billion dollars over the next 10 years to make it “the year of the vaccines.” What does that mean exactly?
* Bill Gates: Over this decade, we believe unbelievable progress can be made, in both inventing new vaccines and making sure they get out to all the children who need them … We only need about six or seven more — and then you would have all the tools to reduce childhood death, reduce population growth, and everything — the stability, the environment — benefits from that.

This is a point Gates has made repeatedly, and his views were clearly articulated in the 2009 Bill and Melinda Gates Foundation Annual [Letter](http://www.gatesfoundation.org/who-we-are/resources-and-media/annual-letters-list/annual-letter-2009):

A surprising but critical fact we learned was that reducing the number of deaths actually reduces population growth … Contrary to the Malthusian view that the population will grow to the limit of however many kids can be fed, in fact parents choose to have enough kids to give them a high chance that several will survive to support them as they grow old. As the number of kids who survive to adulthood goes up, parents can achieve this goal without having as many children.

By the end of this activity students will understand the application of the methodologies learned and will be able to apply these methodologies in real life scenarios. (M03/S02 slide 11-12)

1. ***Trust in Media Statistics 2021***

This chapter aims to highlight the real impact of fake news impact through statistics. Ten statistical facts will be presented which will enhance students' understanding about fake news:

1. Media trust worldwide has dropped by 8% between 2020 and 2021.

(Edelman)

Each year, more and more people are losing trust in mainstream media, statistics show.

According to a 2021 survey, 53% of people worldwide still trust the media. While this is more than half the world’s population, it’s a significant decrease from 61% in 2020. Most people (61%) cite the lack of objectivity as the main reason for their loss of trust. Furthermore, 59% say that news organizations exaggerate or entirely fabricate information to support their ideology. (M03/S03 slide 4)

2. 27% of male and 26% of female news consumers believe that mainstream media reports false information most of the time.

(Statista)

It seems that gender is not a major determiner when it comes to one’s aptitude to believe or doubt mainstream media. According to a recent survey, 27% of male and 26% of female participants believe that mainstream media spreads fake news most of the time.

Concerning the people who believe that the media sometimes reports fake news, stats show the difference between the two genders is negligible. The most significant is the 6-point difference among those who said they were “not sure” — 13% of women vs. 7% of men. (M03/S03 slide 5)

3. 32% of people over 65 say that mainstream media outlets spread false news.

(Statista)

While the younger demographic is often accused of scepticism, it’s the older demographic that predominantly blames mainstream outlets for spreading fake news and alternative facts. In fact, 32% of Americans over the age of 65 believe that popular media distributes false information. On the other hand, only 22% of people under 30 share this belief. (M03/S03 slide 6)

4. 35.5% of millennials read political news via Facebook.

(YPulse)

With more than a third of US millennials getting their news from Facebook, hoax shares are a severe threat in this information age. Only 14.2% of Gen-Zers look for news on Facebook, but they’re not immune to fake news, either — 34.8% of them get news updates from YouTube, a site known for giving content creators a platform to share falsified information. The biggest concern here is how these sites will address the rising trend of social media misinformation. (M03/S03 slide 7)

5. Social media is the least trusted news source worldwide.

(Statista)

In a 2020 global survey, only 35% of people said they trusted social media — down from 40% in 2019 and a historical low. As the world faced a global pandemic, the fake news influence also contributed to the loss of trust in other outlets. Search engines are currently the most trusted news source worldwide, with 56% of people saying they believe the information they find there. (M03/S03 slide 8)

6. When it aligns with their beliefs, 56% of Facebook users can’t recognize fake news, social media statistics show.

(SSRN)

Due to the so-called confirmation bias, people will trust the news that confirms their existing beliefs and values — even if the information is entirely fabricated. A recent study found this applies to most Facebook users, regardless of their education or political affiliation. According to the results, Facebook users will correctly identify fake headlines in just 44% of the cases. (M03/S03 slide 9)

7. 71% of people believe that fake news negatively affects their own political discussions with their friends and family members.

(Statista)

The majority of people are willing to believe the news that aligns with their own political views. This often happens regardless of the source since most people don’t bother to verify the content. This is why 71% of people believe in the negative effects of news media and false information on their political discussions with friends and family members. (M03/S03 slide 10)

8. 67% of Americans have come across fake news on social media.

(Ipsos, Statista)

Americans believe that false information is most prevalent on social media — 67% say they’ve personally encountered it there. Furthermore, 69% of them think that platforms aren’t doing enough to prevent this, while some even directly blame the sites for deliberately spreading misinformation. This also shows the perception of social media’s impact on the news. (M03/S03 slide 11)

9. 53% of American adults read the news on social media.

(Pew Research Center)

According to a 2020 survey, just over half of American adults (53%) [get their news from social media](https://letter.ly/how-many-people-get-their-news-from-social-media/). Sadly, not many users have the habit of making an active effort to flag down polarizing content. According to some, platforms themselves should encourage such behavior and raise user immunity through education. (M03/S03 slide 12)

10. 28% of authors post both fake and true stories.

(arXiv)

Using the author’s reputation to estimate how credible the story is might not be the most reliable method. Namely, one study found that 28% of all authors posted both fake and true stories. This almost completely ruins the idea of categorizing authors into fake and true news authors. (M03/S03 slide 13)

1. ***Activity: Can you build a fake news empire?***

Navigating the world of social media often feels like a game, where likes and retweets are currency. The more points you have, the more influence you gain. But while some play the game honestly, others use tactics like [misinformation, emotional manipulation, and impersonation to game the system](https://www.fastcodesign.com/3066586/the-year-dark-patterns-won). In the last few years, one of the ways [nefarious actors have gamed the social media system](https://www.fastcodesign.com/90155285/what-facebooks-fight-against-fake-news-got-wrong-and-right) is through [fake news](https://www.fastcodesign.com/3069075/inside-the-fake-news-fight-at-apple-snapchat-facebook-and-more)–conspiracy theories, hyperbole, and plain old lies designed to get people angry, and crucially, to get them to click.

A new online game puts you in the shoes of these sowers of false information, all with the goal of teaching you how to [recognize their tactics](https://www.fastcodesign.com/90108960/facebook-has-some-tips-to-help-you-spot-the-fake-news-it-serves-you) so you can spot fake news when you see it on the internet.

The game, called [*Bad News*](https://www.getbadnews.com/), was created by social psychology professor [Sander van der Linden](https://www.psychol.cam.ac.uk/people/sander-van-der-linden/), the director of Cambridge University’s Social Decision-Making Lab, his colleague Jon Roozenbeek, and the Dutch organization [Drog](https://wijzijndrog.nl/), composed of journalists and designers who are committed to fighting misinformation online.

The game goes like this: your goal is to gain as many Twitter followers as possible while retaining your credibility, a combination Van der Linden is using as a proxy for influence. Once you “send” one tweet through a simple, conversational interface that guides you through the game, it asks you to complete a survey about fake news. Van der Linden plans to use this information to see how much your understanding of fake news changes after playing the game. (M03/S04 slide 4)

Students will visit the website of the game individually and experiment with the game. After their interaction with the game there will be time for open discussion. If necessary, the discussion can be accompanied by asking the following questions to give some ideas:

* What are your first impressions of the game?
* What did you learn through the game?
* Has your view about fake news changed, and how?
1. ***Activity: Reverse Theory - Create Fake News***

45 min

The next slides will inform the students with the necessary elements in order to structure their fake news article. The students will be able to take inspiration from these slides and use them as a reference point during the activity. The six question/points are:

* Who is the author?
* What is the topic?
* What is the headline?
* When are you publishing your story?
* What tactics are you using?
* Who is the target?

Students will be encouraged to use the methodologies learned for detecting fake news in reverse, in order to create fake news. This reverse learning methodology will enhance their understanding about fake news and equip them with a spherical view to the topic. (M03/S04 slide 5)

One of the most critical things to keep in mind when researching fake news and misinformation is that these are not natural categories. When one makes reference to these things, it is actually a reference to whatever happens to exist as the present form of misinformation (or “true content”) that is occurring in the world. What this means is that using stimuli in a study (for the purpose of generalizing beyond the study) *has to* be informed by what is happening in the world.

If you wish to create your own fake news stimuli (as has been done in some studies; Pereira et al., 2020), you need to take extra care to make sure that your content is similar to what is seen in everyday life – otherwise your results cannot be taken to generalize (i.e., you won’t be researching fake news per se, but your own version of “fake news” which may or may not be representative of the larger category). Furthermore, many false headlines that sprout up on the internet are rarely shared; and, thus, the headlines that spread sufficiently widely to warrant a fact-check are pre-selected (in a sense) to be the type of content that contain the features that facilitate their spread on social media. For these reasons, it is often better (in our view) to obtain stimuli that actually has been spread on social media. Creating your own headlines means that you don’t (and can’t) know if they are the sort that would actually spread on social media, although there may be good theoretical reasons to do so. Nonetheless, it is critical that any investigation of fake news (and related) is sensitive to these issues and discusses them directly.

You’ve found an example of misinformation that you would like to include in a study, what next? It depends on the class of misinformation. The fact-checking website will sometimes have an image of the falsehood with their explanation of why it is incorrect – if so, you’re set! Just save the image and you have your stimuli. If not, you will have to decide how you want the falsehood to be presented. For example, in the context of fake news headlines, it is often desirable to present the image in “Facebook format” – i.e., in the way that the headline would look if it were shared on Facebook (which is a particularly common source for fake news, at least in North America; Allcott et al., 2019; Del Vicario et al., 2016; Guess, Nyhan, et al., 2020).

**Who is the author?**

(M03/S04 slide 6)

- Are you an expert on the topic?

- Are you keeping your identity private?

- Are you a freelancer?

- Do you work for a media outlet?

- Is it an online or printed source?

- What is the name of the media outlet? Is it credible?

- What are the main topics published on this media outlet?

- Is there another story shared on the media outlet on the same topic?

**What is the topic?**

(M03/S04 slide 7)

- Is it a personal experience?

- Is it misinformation or disinformation?

- Is it about politics, religion, health, science, technology, finance etc.?

- Is it a controversial topic?

- Is it based on an existing story?

- Is it a completely made-up story?

- Is it a sensitive topic for the majority of people?

**What is the headline?**

(M03/S04 slide 8)

- Does the headline reflect the content of the article? Is it clickbait?

- Is the headline controversial?

- Does it create emotion?

- Does it encourage people to click?

- Does it provide enough information for people to share? (even without reading the article)

**When are you publishing your story?**

(M03/S04 slide 9)

- Is it a current topic?

- Is it a recurring topic?

- Is it after a specific event?

- Is it before a specific event?

- Is it during a specific event?

**What tactics are you using?**

(M03/S04 slide 10)

- Creating emotion.

- Does it make the reader angry or scared?

- Do you use emotionally-loaded words or images?

- Do you include scientific references?

- Do you include scientific research results? Do you include graphs and figures?

- Do you include supportive evidence?

- Do you include your personal opinion?

- Do you show opposing viewpoints?

**Who is the target?**

(M03/S04 slide 11)

- What are the characteristics of the audience you want to attract?

- Are they going to base an important decision on your story?

- Describe your audience (age, education level, financial situation, general beliefs, etc.)

- Does the beliefs of the audience reflect the beliefs included in your story?

- Are you targeting a well-known person through your story (politician, celebrity, etc.)?

The students will be provided with individual study time in order to develop their fake news article. They should use the proposed template of two slides: one slide presenting their structure based on the six question points explained previously in the chapter and one slide with the fake news article. (M03/S04 slide 12-13) The students will have to present their fake news article, structure and methodology to the plenum and encourage discussion.

***Summary***

Open time to reflect and summarise what has been learned. Some inspiration for possible questions for reflection (M03/S04 slide 14):

* How did you feel about creating fake news?
* Which do you think is more work: creating fake news or reporting real news?
* Critical thinking: What can actually help prevent the spread of fake news?