The **Bad News** game confers resistance against bad online information by putting players in the position of the people who create it. This document provides background information on how the game was developed, how it works, and what it is based on. It also goes into the concept of disinformation in a broader sense, and explains how the game covers its various aspects. This document is meant as an explainer for educators who wish to use the Bad News game as a teaching tool. It also provides links to additional information that educators might find useful.
HOW WAS THIS GAME DEVELOPED?

The first version of this game was written in Dutch and launched in November of 2017. This Dutch-language version can be played at www.slechtnieuws.nl. The content of both the Dutch and the English-language version of Bad News was written by DROG (www.aboutbadnews.com), a Dutch organisation working against the spread of disinformation, in collaboration with researchers at Cambridge University in the United Kingdom. The visual and graphic design was done by Gusmanson (www.gusmanson.nl).

WHAT IS DISINFORMATION?

The term ‘fake news’ has become ubiquitous in media coverage. While it certainly has its uses, it doesn't do a very good job at describing the full breadth of the concept. What we call ‘fake news’ refers to news that has been entirely fabricated or made up. Snopes is one of the websites that keeps track of stories like this. Examples are not hard to find: headlines like “Australia to forcibly vaccinate citizens via chemtrails”, “Melania Trump bans White House staff from taking flu shot” and “Muslim doctor refuses to treat Christian girl on board a flight” are but a Google search away.

However, a news item doesn't have to be entirely made up to be insidious or misleading. To capture the broader scope of the various ways to mislead audiences, we prefer to use the term ‘disinformation’. Unlike ‘misinformation’, which is simply information that is incorrect, disinformation involves the intent to deceive. Propaganda, then, is disinformation with an explicit or implicit political agenda.

WHY IS DISINFORMATION A PROBLEM?

Disinformation is commonly used by a variety of parties, including some governments, to influence public opinion. Social media are a particularly fertile breeding ground for such attempts. To give an example: around 47 million Twitter accounts (approximately 15%) are bots. Many of these bots are used to spread political disinformation, for example during election campaigns. Recent examples of influential disinformation campaigns include the MacronLeaks during the French presidential elections in 2017, the Pizzagate controversy during the 2016 US elections, the various “alternative” explanations surrounding the downing of Malaysia Airlines flight MH17 in July 2014 and the rumors circulating in Sweden about the country's cooperation with NATO.

Disinformation works because many people fail to recognize false information when it's presented to them. For example, a recent British study indicated that only 4% of participants was able to tell fake news from real. In some ways, this is
not surprising: people are bombarded with excessive amounts of information as they scroll through their news feeds or social media page. Much of this information was shared by friends, whom people tend to trust to tell them the truth. A fake or disinformative news article shared and shown to someone by a friend is therefore more likely to be seen as trustworthy.

WHAT SOLUTIONS ARE THERE?

Disinformation can be countered in numerous ways: by changing search engines’ or social media sites’ search and display algorithms, by improving fact-checking tools, through regulation, or through education.

First: Google and Facebook are figuring out how to tweak their algorithms to disincentivize fake or unreliable news sites and prevent fake content from showing up on people’s newsfeeds in the same way as reliable news sites. While this could potentially be a very effective tool, algorithms are never 100% effective at detecting unreliable sources or pieces of output. There is always a risk of false positives (meaning that the algorithm says something is fake that isn’t) and/or false negatives (flagging something as real that is fake).

A second example is fact-checking tools. Social media platforms are experimenting with real-time fact-checking. Articles that are found to be unreliable get a label that says ‘disputed’ or something similar. Fact-checking is a necessary element to combating disinformation, but its biggest flaw lies in the fact that limited resources lead to an ‘implied truth’-effect: since it is impossible to fact-check all news articles, some disreputable output will remain unchecked and thus not acquire a ‘disputed’-label. Research shows that people rate even obviously fake articles as more reliable if they know that they could be given a label but weren’t.

Third, some governments and other agencies are working out ways to regulate the spread of fake news. A prominent example is France’s ‘Fake News Law’, which during election time would place tougher restrictions on media outlets as to what content they are allowed to put online. In some countries, such as the United States, laws like this are not likely to be passed due to constitutional frameworks protecting free speech. In countries without such constitutional protection, it’s unclear what form laws like this would end up taking, and some are voicing concerns over their potential risk to freedom of speech and expression.

The most effective method of combating disinformation is to foster critical and well-informed news consumers. Knowledge and education are by far the best weapons against disinformation. However, such solutions are costly, as they require an individual (or at least classroom-level) approach.
INOCULATION THEORY

Inoculation theory, which has its roots in social psychology, states that people are able to build up a resistance against false or misleading information by being presented with a weakened version of a misleading argument before being exposed to the “real” information. One can see this as giving people a kind of “vaccine” against misleading information. If you can recognize it, you can resist it. The Bad News game draws on inoculation theory for its theoretical justification.

THE BAD NEWS GAME

HOW DOES IT WORK?

The Bad News Game confers resistance against disinformation by putting players in the position of the people who create it, and as such gain insight into the various tactics and methods used by ‘real’ fake news-mongers to spread their message. This, in turn, builds up resistance. The game works in a simple and straightforward way: players are shown a short text or image (such as a meme or article headline) and can react to them in a variety of ways. There are two ways in which their score is measured: ‘followers’ and ‘credibility’. Choosing an option that is in line with what a ‘real’ producer of disinformation would choose gets them more followers and credibility. If, however, they lie too blatantly to their followers, choose an option that is overtly ridiculous or act too much in line with journalistic best practices, the game either takes followers away or lowers their credibility. The aim of the game is to gather as many followers as possible without losing too much credibility.

As it is impossible to cover all aspects of disinformation in great detail, we have chosen to cover the most common aspects of it in the game. The game breaks down into 6 badges: impersonation, emotion, polarization, conspiracy, discredit, and trolling. These badges are partially based on the report ‘Digital Hydra’ by NATO’s East Strategic Command (East StratCom), which details the various forms that disinformation can take. A breakdown of what each badge covers is found below.
BADGE BREAKDOWN

IMPERSONATION

It's very easy to start a website and publish content that looks entirely legitimate. Since there's almost no entry barrier in terms of costs, pretty much anyone can do it. The purpose of this badge is to show how easy this process is and how a professional look or strong-sounding name does not necessarily imply legitimacy. In the game, ‘impersonation’ refers to two things:

- Impersonating a real person or organization by mimicking their appearance, for example by using a slightly different username.

- Posing as a legitimate news website or blog without the usual journalistic credentials and guidelines.

Players first post a tweet about something that frustrates them, which can be anything from a failing government to the Flat Earth Society. This gets them their first followers, and the game explains how the follower counter and credibility meter function. Players then impersonate the official account of either Donald Trump (who declares war on North Korea), the US Geological Survey Earthquake Alerts (which warns of a magnitude 9.3 earthquake near London, United Kingdom), or Nickelodeon (which announces the impending cancellation of SpongeBob SquarePants). Players are then shown two reaction tweets by Twitter users who fell for the impersonation hoax. The game then prompts them to go professional and start their own news site. They pick a website name, title and slogan.

Supplementary reading:
More information on online impersonation can be found here, here and here.
Emotional content is content that is not necessarily ‘fake’ or ‘real’ but deliberately plays into people’s basic emotions such as fear, anger or empathy. The aim of this badge is to show how players can make use of these emotions in their content.

This is the first badge where players produce content for their news site. They are prompted to browse news headlines for a topic that they can publish about on their site. They can choose between climate change or genetically modified organisms (GMOs). Players are then asked for their opinion on their topic of choice. The game prompts them to say that their topic will either bring about the apocalypse (in the case of GMOs) or is a complete hoax (in the case of climate change), as this is the easiest way to gain followers. The game asks them to choose an approach to the topic at hand: attack the scientists behind it, post an emotional story, or talk about the science. The latter option returns a negative response, as players are encouraged to use reactionary content to rile up their followers. They can then either make a meme (a humorous piece of media, usually an image or GIF, that spreads from person to person on the internet) or write an article that reflects their choice. Each has numerous options, of which one is always bad (because it’s boring or misses the point). Some of their followers react to their post on Twitter in an emotional, angry way. The player has then accomplished his or her goal.

Supplementary reading:
More information on climate change and climate scepticism can be found on Skeptical Science, a blog about climate change denial and its tenets.
The various theories surrounding genetically modified organisms have been detailed by Mark Lynas.
More information on the general use of emotional content in media can be found here, here and here.
Polarization, in our definition, involves deliberate attempts to expand the gap between the political left and the political right. In order to gain followers, young news websites often use polarization as a way to stake out a niche in the media landscape. This badge also covers the concept of ‘false amplification’, the idea that you don’t have to tell a completely fake story in order to get a point across. Instead, you can also amplify existing grievances and make them look more important or popular than they really are.

At the start of this badge, players are asked if they want to publish something fake or something real. Choosing ‘fake’ tells them that they don’t always have to fake the news in order to make headlines, but that they can also find a real story and blow it up. They can then drive left and right further apart by choosing between three local news stories as reported by random citizens on Twitter: a chemical spill, a small town bribery scandal, and the heavy-handed arrest of a criminal. Players first pick a target: in two cases they can attack either big corporations or the government, and in one case either the police or violent criminals. They try to give voice to the story by talking about it on their news site’s Twitter account from their chosen perspective, but this fails. They are asked to make the story look bigger than it is by writing an article about it or by posting a meme. This gets them more followers, as people are beginning to pick up on the story. Next, the game asks players if they want to purchase Twitter bots that can amplify the story for them. If they repeatedly refuse, the game ends, but if they accept they gain 4000 robot followers. They are shown examples of bots amplifying their chosen story. Their target determines if they are polarizing their chosen topic towards the left (by focusing on big corporations or police brutality) or the right (by focusing on the government or crime-related issues).

Supplementary reading:
For extra reference: this article by Pew Research Center looks at political polarization and media habits.

This paper looks at the effects of polarization on people’s ability and willingness to recognize ‘fake news’.

And this piece investigates the consequences of increased polarization.

Finally, more information on the use of Twitter bots and ‘computational propaganda’, including real-life examples, can be found here, here and here.
Conspiracy theories are part and parcel of fringe online news sites. Conspiracies can be defined as the belief that unexplained events are orchestrated by a covert group or organization.

In this badge, players are first encouraged to come up with an interesting new theory and post it on their news site. However, since all options are overtly ridiculous (e.g. public schools no longer teach cursive writing so that people stop reading the Communist Manifesto), their theory is seen to be too far removed from reality to be believable to their followers. Some followers call the player out for their strange theory. To save their credibility, players then look for a more believable conspiracy to sell to their followers. They can either choose between Agenda 21, a non-binding United Nations treaty on sustainable development, or the so-called ‘vaccine conspiracy’, or the idea that the World Health Organization (WHO) uses vaccinations to indoctrinate people. Players score points if they cast doubt on the official narrative and ask questions that point people in the direction of conspiratorial thinking, and lose points for going off the rails. Followers react more positively this time, and the player is encouraged to write a serious news article about their topic of choice. If they do well, they gain a cult following, with people trusting their news site more and more and becoming more sceptical of the so-called ‘mainstream media’.

Supplementary reading:
More information on the effects of conspiratorial thinking on the motivated rejection of scientific findings can be found here.
Snopes keeps track of conspiracy theories. Many interesting real-life examples can be found there.
This Guardian article gives an overview of the Agenda 21-conspiracy, and this article goes into the WHO vaccination program conspiracy.
Discrediting your opponents is an important part of disinformation. When disinformative news sites are accused of bad journalism, they tend to deflect attention away from the accusation by attacking the source of the criticism or denying that the problem exists.

In this badge, players are confronted with a fact-checker who debunks the conspiracy theory from the previous badge. They are given three options: either apologize, do nothing, or take revenge. The first option costs them points, and it is explained that apologizing is never a good idea. ‘Do nothing’ prompts a response from one of their news site’s followers asking why they are not responding to the fact-check. Eventually, all three choices lead to the same point where players have to choose between either denying the allegations or attacking the fact-checker. Both options are equally valid and lead to a set of good or bad responses to choose from. Their vehement denial or ruthless ad hominem attack on the fact-checker triggers a supportive response in the player’s followers, and their reputation remains intact.

Supplementary reading:

More information on attacks against fact-checkers can be found in [this Forbes article](#). [This article](#) provides more information about how to discredit opponents during political debates.
Trolling is a term that originally means ‘slowly dragging a lure or baited hook from the back of a fishing boat’. In the field of disinformation, it means deliberately evoking an emotional response by using bait.

In this badge, players put together the techniques they learned in the other 5 badges. This time, they can only choose one topic. At the beginning of the badge, they are asked to talk about one of three topics (the 25 most romantic cities in Europe; a passenger plane crash; and a newly discovered species of starfish), of which only the second one leads to a full-fledged scenario. Choosing one of the other two prompts a scolding from the game’s moderator. After this, players are given two options: either pay respects to the victims of the plane crash or start sowing doubt about its cause. The first option prompts a response from their followers asking why they aren’t investigating the story in more detail. Both options lead to the player eventually asking whether the crash was a cover-up. Due to their higher credibility and number of followers, their post attracts the attention of other news sites as well, and the story begins to escalate. Players can then throw fuel onto the fire by either impersonating a crash victim’s family member or photoshopping evidence of a cover-up. Both choices then lead to even more emotional responses, and now the mainstream media is also beginning to weigh in on the story. Players are instructed to keep increasing the pressure, either by discrediting the investigation further or by using another army of Twitter bots to spread the hashtag #InvestigateNow. Depending on their initial choice between impersonating a victim’s family member or photoshopping evidence, they can then deliver the final blow by either fabricating another news article about the crash or by choosing the option that they didn’t go with earlier on. The Aviation Disaster Committee, the (fictional) agency responsible for the investigation, then responds to the manufactured controversy on Twitter. Players then attack this response either by calling for the resignation of the chairman of the Committee or by using the Twitter bot army again. The game ends with the Committee chairman resigning over the handling of the investigation.

Supplementary reading:
This article provides more detailed insight into trolling and its tenets.

One scenario in this badge is artificially making a Twitter hashtag go viral. This Politico article gives a recent real-life example of this happening and explains how.
USE IN CLASS OR GROUP

The game takes approximately 20 minutes to complete. It is suitable for use in class, for example during media literacy training. In our workshops we play the game first and then discuss the techniques that the students have acquired. We recommend dividing students up in pairs and having them play the game together while actively thinking about what they’re doing. In our experience, the game gives players decent (albeit somewhat limited) insight into the various tenets of disinformation and makes clear how easy it is to manipulate information.

AGE RESTRICTIONS AND SENSITIVITY WARNING

The game was written to be suitable for people age 14 and up. It contains some potentially emotionally charged content, such as information on a fictional plane crash, as well as existing conspiracy theories that might be considered jarring. The game does not employ violent imagery, swear words or other offensive language. However, since players are prompted to take on the role of the ‘villain’, they might experience some mild psychological discomfort about the decisions that the game pressures them into making. However, since the game takes place entirely in a virtual environment that does not affect the real online landscape, such discomfort should hopefully remain limited.

This game was developed by researchers at Cambridge University and DROG, a Netherlands-based platform against disinformation. For more information about the game and its development, or if you have ideas or feedback, we’re very happy to hear from you. Ruurd Oosterwoud, founder of DROG, can be reached at ruurd@wijzjndrog.nl. Or visit DROG’s website at www.aboutbadnews.com