

ADMM Cybersecurity and
Information Centre of Excellence

UPDATE ON

THE INFORMATION DOMAIN

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The Cognitive Bases Underpinning Dis- and Misinformation

INTRODUCTION

1. In recent years, there has been growing concerns over the spread of dis- and misinformation by malicious actors and undiscerning recipients who “share” such content within their social circles. Observers have highlighted how disinformation can be disseminated via social media platforms such as Facebook, Twitter and TikTok, as well as closed messaging groups such as Telegram and WhatsApp. Given the unprecedented scale and pace at which disinformation and misinformation is disseminated online¹, there has been a growing body of research on the cognitive bases behind why people fall for disinformation.

2. Cognitive bias refers to the subconscious error in thinking that leads one to misinterpret information. For instance, when presented with new information or facts, these individuals tend to reject evidence that are incompatible with their personal beliefs. Hence, many researchers believe that cognitive biases are reasons why people adopt “false beliefs”. According to *The Conversation*, cognitive psychology and neuroscience studies have found that people often form opinions based on certain emotions such as fear, contempt, and anger, or personal beliefs, rather than relying on facts. One of the reasons is due to the different experiences and exposure faced by individuals which inform how they view and understand the world.

¹ For example, according to *Politifact*, a four-month-old TikTok video claiming to show former US President Barack Obama verbalising his support for the intentional spread of disinformation surfaced again on Twitter in Aug 2022. One such Tweet sharing the video garnered more than 13,000 likes, and was retweeted more than 9,000 times within a few days

Drivers of False Beliefs

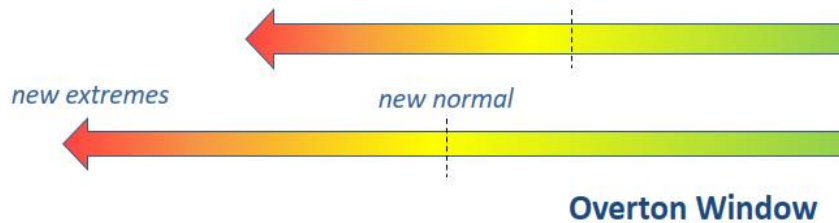
3. Confirmation bias is a type of cognitive bias that affects individuals' cognitive vulnerability to dis- and misinformation. Confirmation bias refers to how one seeks out or interprets information that support his/her beliefs. For instance, before the COVID-19 pandemic, certain segments of society opposed the idea of vaccination as they viewed it as a tool administered by the government to control the population. The same group of individuals then affirmed their anti-vax beliefs by spreading false information on COVID-19 vaccines. As a result, many in the anti-vax communities refused to get COVID-19 vaccinations despite numerous scientific evidence that refuted their beliefs.

4. Recency bias – also referred as availability bias – is another type of cognitive bias in which individuals tend to remember or favour information, ideas or arguments that are more recent than those further in the past. According to *the Knowledge*, individuals' judgement are affected as they tend to put too much emphasis on recent evidence, causing them to forget or underestimate previous incidents. When individuals are constantly exposed to or bombarded with similar narratives within a short period of time, it may then influence one's decision-making process.

5. While cognitive biases occur naturally and subconsciously, individuals' cognition could also be manipulated deliberately. One such example is the Overton Window, a model used to understand how ideas in society change over time and influence policies. It is seen as the range of political possibilities that the public is willing to consider and accept as well as ideas that politicians can support without risking their electoral support. According to *Michael Bunker*², organisations or agencies may try to produce or push certain kinds of ideas to the public through the massive reach of social media, a variety of memes or paid influencers, and thus, make it 'acceptable' for the policies to be included in the Overton Window. The implication is that repeated exposure to extreme discourse over time can shift our Overton window of what is the 'moderate' position towards a new extreme (see [Figure 1](#)). This can be dangerous as malicious actors may utilise such tactics and manipulate the public – through disinformation campaigns into being more receptive to radical policies.

² *Michael Bunker* is an author who writes on a variety of genres and topics.

Figure 1: Shift of Overton Window



ASSESSMENT

6. According to *Non-Profit Quarterly*, while disinformation is not a new problem, its scale has grown with the rapid advent of digital communications technologies over the past three decades. As such, it is important to provide the right education and training to hedge against individuals' inherent cognitive biases by prompting individuals to always question and cross-examine information from different sources.

7. Much information shared online – be it through chat groups or social media posts – are typically shared on impulse and personal beliefs, which may be inaccurate. Hence, experts have advised individuals to pause and think before sharing any information online. However, this process requires the government to educate the public on how they could verify information or facts through multiple sources or channels that are assessed to be credible and trustworthy.

8. However, according to *Modern Diplomacy*, many may still be reluctant to accept alternative truths. Besides enhancing citizens' cognitive reasoning, governments around the world could debunk false information campaigns, either directly or with fact-checking organisations. For instance, the Indonesian government has been actively debunking false claims regarding COVID-19 disinformation on its Hoax Buster channel. In another instance, as *VOA* reported, a fact-checking organisation in Spain, Maldita, was one of the first to alert the International Fact-Checking Network (IFCN) about the spreading disinformation in Europe about the Russia-Ukraine war.

9. In essence, it is important for individuals to recognise the many cognitive bases underpinning our vulnerability to dis- and misinformation to discern between facts and false information. It is also important for researchers to continue studying strategies that attempt to prey upon our cognition. Such research allows policymakers or governments to identify some of the root causes involved and be better equipped to address and limit the spread of dis- and misinformation campaigns.

CONTACT DETAILS

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