

# Propaganda: Indexing and Framing and the Tools of Disinformation

## *Quick Look*

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# IJO Quick Look Series

## Scope and Intent

The SMA IJO effort assesses the ways in which the Air Force (and by extension the Joint Force) can most effectively consider and integrate information into its activities to influence attitudes and behaviors across the competition-conflict continuum. Whether intentional or unintentional, every action or inaction, communicates a message (i.e., we cannot *not* communicate). Therefore, it is important to include communication as a first-order concern in planning and operations rather than an afterthought. As the Joint Concept for Operating in the Information Environment (JCOIE) recognizes, “The future Joint Force will need to transition to a model that helps it visualize how audiences interpret information to facilitate effective and meaningful communication” (JCOIE, 2018).

The challenge of effectively using and communicating information is one that faces all individuals, groups and organizations. There is a broad body of research across multiple disciplines that addresses the issues faced by the Air Force and Joint Force. This Quick Look series mines that literature and identifies the theories, findings and applications that can provide a foundation for Joint Force efforts to effectively integrate information and influence into its activities across the competition-conflict continuum.

## Series Structure

This series of Quick Looks builds out from a central hub; a model that lays out the elements and interactions that comprise an effective transactional communication process, and describes how internal and external influences can distort that process, causing miscommunication and misperception. Building from this, we have identified specific topics that bear most directly on the challenge facing the Joint Forces, and provided a deeper dive into these in a dedicated Quick Look. Figure A provides a visual of that coverage, and also illustrates how, through their connection to the central hub, each, while a stand-alone piece, both informs and is informed by the others

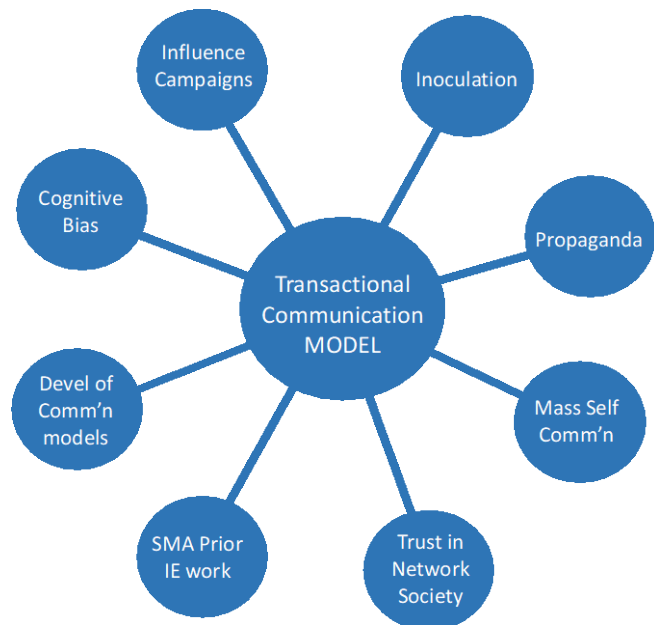


Figure A: Structure of IJO Quick Look Series

# Propaganda: Indexing and Framing and the Tools of Disinformation

## Introduction

Propaganda has evolved significantly alongside the economic and technologically-driven forces of globalization. What was once the domain of pamphlets, posters, radio, and television has adapted within an ever-expanding virtual landscape of information, as societies are increasingly linked across social and digital networks. This change has brought new challenges to countering propaganda's effect, as the expansion of media platforms has made determining what propaganda *is* increasingly challenging. Depending on one's definition, propaganda can include everything from a Chinese anime biography of Karl Marx to digital armies of coordinated social media accounts converging on targets. Given the rapidly evolving manifestations of propaganda, and the threats posed, it is important to understand the fundamental operations of how propaganda works, how it functions in societies, and how it can be countered (Nemr & Gangware, 2019).

In social networks, every citizen is a targetable node and potential weapon to help direct the flow of disinformation. This Quick Look argues that the effectiveness of propaganda on social networks relates to techniques of indexing and framing being accentuated by the selective targeting of audiences. Combating propaganda on social media relies on the powers of network exclusion and programming (or counter-framing), as well as long-term media literacy training.

Ultimately, the purpose of this piece is to provide an updated conceptual framework from which to understand how modern propagandists have harnessed the accessibility of social media networks to unleash information warfare across virtual public spaces—corrupting the stories being told about societies from within. Toward that end, this Quick Look applies the Network Society theory expounded by Manuel Castells's *Communication Power* (2009) to digital propaganda. The report also reviews recent scholarship on the topics of disinformation and propaganda and provides an appendix discussing the three main types of disinformation, offering possible solutions (See Appendix A).

## Networks and Propaganda

Networked societies rely on communication as a source of power. *Trust* is the foundation upon which that power is derived (Castells, 2009). Propaganda is defined as communicative methods used to promote or publicize a particular political cause, ideological perspective, or agenda. It relies on a deliberate, systematic emphasis of information, often biased or misleading, to further the desired intent of the sender (Țuțui, 2017). Propaganda is thus intentionally deployed to manipulate targets toward certain views of the world (Ellul & Kellen, 1973). That propaganda is communicative in function makes it particularly useful in social and digital networks, as it can function to inoculate targets against counter messages from

adversaries by presenting them as untrustworthy. Propaganda can also undercut trust in institutions, and networks themselves, by overwhelming targets with disinformation, thereby nullifying network advantages of connectivity. The primary advantages of propaganda functionality in networks are the multi-domain-nodal accessibility of targets (viz., targets can encounter propaganda from multiple access points within their network) and the speed of message dissemination. Understanding the basics of communication networks and how communicative-based power is wielded within networks is necessary for insight on how modern propaganda functions in networked societies.

The highest forms of communicative-based power in networked societies are the abilities to set the parameters for and guide the directional flow of discussions taking place within the network. These abilities come from two important mechanisms that relate directly to how networks function—namely, *programming the network* and *excluding actors from networks*. A network “program” is simply the goals, criteria for success, and rules of conduct that are set within a network. Thus, programming mechanisms establish the kinds of information and behaviors that are normative to networks; tolerance for variance and potentially divisive information has direct implications for the susceptibility of a networked society to propaganda. New network programming is usually installed by external forces (Castells, 2009). Excluding actors from networks is as simple as it sounds; it is control over who is able to engage in discussions within a network. Exclusion effectively establishes control over

what is said within a given network by removing undesirable nodes and their associated content.

Authoritarian states and leaders often use these two mechanisms to ensure that domestic media networks are sufficiently insular and propagandistic. For instance, Turkey since the 2000s has censored its press by arresting critical journalists and shutting down independent outlets (i.e., excluding these actors from networks) (Yesil, 2014). Turkey has also worked to establish new rules of conduct. Outlets that are too critical will be silenced; a result of this censorship is the reprogramming of the media network so that non-critical coverage is a rule of engagement.

In Western contexts, social media platforms such as Twitter and Facebook have developed elaborate policies and philosophies of enforcement evaluating the context of information sent, intended targets, past behavior, and the severity of norm violation in order to exclude (either permanently or temporarily) users and content.<sup>1</sup> Both Twitter and Facebook banned Holocaust denial on their platforms in an attempt to stop misinformation spread (Shead, 2019). DARPA’s recently announced Influence Campaign Awareness & Sensemaking (INCAS) effort is intended to develop tools capable of identifying malign persuasive influence and initiating information/user exclusion protocols across interconnected social media platforms.<sup>2</sup>

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<sup>1</sup> See for example: <https://help.twitter.com/en/rules-and-policies/enforcement-philosophy>

<sup>2</sup> See: <https://www.darpa.mil/news-events/influence-campaign-awareness-and-sensemaking>

## Misinformation versus Disinformation

To lay audiences, the distinction between misinformation and disinformation may seem insignificant. However, the difference between the two is important to grasp in order to correctly identify propaganda. The critical element in distinguishing the two rests in the intention of the individual sender. *Misinformation* is a broad category of incorrectly-construed information and can be as innocuous as an historical inaccuracy. Misinformation is false information that is spread without the intention to mislead; the sender is unaware of the falsehood. *Disinformation* is “a particularly problematic form of misinformation because it is no accident that people are misled” (Fallis, 2015; p. 402). In other words, disinformation is an intentional spreading of misinformation in pursuit of a purpose-driven outcome. Disinformation has become a common propaganda tactic as global societies have increasingly become interconnected across technological platforms (Metaxas, 2020). The use of disinformation has become a favorite technique of Russian propagandists in recent years, to the extent that it prompted the European Union to set up a special unit in 2015, the East StratCom Task Force, in an attempt to counter it (Giorio, 2018).

Though the broad conceptual distinction between the two is important, in a practical sense, the line between disinformation and misinformation cannot be objectively drawn, as determining intention from context for each node transmitting information is rife with difficulty (Søe, 2018). That is to say, while we are aware that disinformation is present within networked information spaces and that it is having consequential malign influence, distinguishing disinformation clearly from

otherwise unintentional misinformation is one of the major challenges of the current information environment. As such, much of the highest quality research uses the term “misinformation” to capture the broader category of incorrect information, ignoring intention. Therefore, the discussion here will draw from misinformation studies as well as disinformation studies. This is not unusual, as many academic studies and reports examine both misinformation and disinformation in order to draw relevant conclusions (Woolley & Joseff, 2020; Mayo, 2019; Nisbet & Kamenchuk, 2019; Nemr & Gangware, 2019).

Rival forces may use disinformation campaigns for multiple purposes. These campaigns sow distrust of institutions and people, can cause a loss in morale, and can confuse and overwhelm large groups of people (Nisbet & Kamenchuk, 2019). Furthermore, the opportunities for adversaries to disseminate disinformation have significantly increased with the advent of new media. For example, social media represents a new and extremely fast way to overwhelm networks with disinformation.

## Hard versus Soft Propaganda

Propaganda has a number of different associated categorizations beyond contemporary uses of disinformation, though such categorization is not mutually exclusive or necessarily exhaustive. A more classical differentiation of propaganda is offered here in order to situate the concept of disinformation within such categorizations.

As one might surmise from reading historical propaganda posters, not all propaganda has to be subtle or as covertly deployed as disinformation tends to be. So-called *hard propaganda*, for example, is defined as “*crude and heavy-handed*” and includes blatant appeals to nationalism and

patriotism, utilizing emotively-charged pro-government slogans that rely on biased pro-institutional media outlets. Hard propaganda is unwavering in its support for the state, irrespective of the incident, bolstering the state in all aspects of power. It can be effective as a short-term tactic to suppress dissent, as it signals the power of a regime and reduces the willingness of people to protest (Huang, 2018). However, when overutilized, hard propaganda can actually delegitimize the state, particularly when power and control capacities do not match propaganda. Over time, the preposterousness of hard propaganda messages heightens people's awareness of the regime's absurdity and/or the political plight of the country, eventually failing to resonate with audiences and alienating them (Huang, 2018). While hard propaganda can undermine public opinion in the long-term, it serves the purpose of temporarily quelling rebellion and public expressions of dissatisfaction, as well as momentarily activating constituent support.

Conversely, *soft propaganda* portrays its messages as originating from neutral or otherwise credible sources and is intended to guide exposed individuals into specific patterns of thought and associations. The term "soft" is used because soft propaganda plays on the particular soft spots of intended targets— infiltrating conversations within group messaging, encircling targets, and trapping them into an echo-chamber of storylines.

What we deem "disinformation" typically falls under the umbrella of "soft propaganda."

## Propaganda and Programming Control: Indexing and Framing

How propaganda functions in networked societies requires an understanding of

programming control in media; specifically, it requires examining the topics of indexing and framing. Here programming control relates to the decisions and activities within media systems (programs) that allow particular content (codes) to transmit across networks.

*Indexing* is how much importance is attached to an event or a particular news story relative to other news items (Castells, 2009). A successful rocket launch in a country is certainly an interesting event, but whether that story receives hundreds of articles praising the accomplishment or just a handful is the event's index. Propagandists manipulate indexing by promoting coverage of events that would otherwise receive less attention and minimizing the effects of negative coverage by overwhelming the network with, or steering it towards, favorable coverage.

For example, a recent study by Jamieson demonstrates how Russian interference in the index coverage of FBI director James Comey's announcement of a reopened investigation into Hillary Clinton's private email server ultimately resulted in Clinton's loss of the presidency to Donald Trump (Jamieson, 2020).

*Framing* relates to the various aspects of a news story or event that are highlighted in media coverage, as well as what interpretation or evaluation is promoted as an end result of that coverage (Goffman, 1974; Castells, 2009). News media frames operate much the same as taking a photograph of an event. Rather than a complete contextual history and three-dimensional panoramic view of an event, a photograph only captures an event at a specific static angle, which can be manipulated to give prominence to certain features over others.

For example, here are two sentences describing the same hypothetical event:

*China placed 2000 soldiers in a base near the Indian border as part of a scheduled training exercise.*

*China signaled its aggression by building up its troop presence less than 100 miles away from the Indian border after a recent dispute between the two nations.*

The first sentence “frames” the action within the context of routine scheduling and avoids emotionally charged characterizations. The second sentence “frames” the action as the result of a dispute and assigns a negative motivation for Chinese action. The latter sentence thus turns a neutral characterization of China’s action into a negative one by altering the context. In this way, framing can both limit and bias the possible interpretations of an event.

Repeated news frames are very effective at limiting considerations of alternate explanations of events. This is because the human brain relies on *schemas*, defined as “*cognitive structure[s] that represent knowledge about a concept or type of stimulus,*” to process and sequence the environment (Shen, 2004; p. 402). Schemas are unconscious emotional associations that form our most basic responses and understandings of the world. They are the building blocks of beliefs and opinions. News media frames provide emotional and cognitive cues that are interpreted by the brain through its set of schemas. As such, news media frames are able to infiltrate our *cognitive frames*, which are the mental constructs reflecting our beliefs and prejudices, through schemas. Because the cognitive frame sequencing of schemas forms the underlying narratives outlining who we are and how we should act in a given circumstance, media have a fundamental ability to manipulate our expectations for action.

Furthermore, individuals are more likely to process and respond to information that aligns with pre-existing cognitive frames and schemas; conversely, they are likely to avoid information that violates those frames and schemas (Entman, 2004). The reluctance of the human mind to process new, conflicting information is explained by *motivated reasoning*—which argues that individuals rely on pre-set emotive-based reasoning, rather than logical induction, as a default. The brain fights against the logical processing of information that appears to challenge existing beliefs (Taber & Lodge, 2006), as it is far easier for thoughts to travel down pre-established neural networks than to create wholly new ones (Castells, 2009). In other words, it is more efficient for the brain to continue thinking about something in the way to which it is accustomed rather than devote resources required for change.

Media frames are therefore powerful programming tools for propagandists, particularly when the public lacks counter-frames and/or the propagandized information avoids conflicting with pre-existing frames and schemas (Castells, 2009). Propaganda, through media framing, becomes part of an individual’s cognitive framework. When networks lack viable societal recognition and counter-framing efforts, propagandized cognitive frames can spread very quickly, passing from node to node. Once established, these frames become dominant and thus require a great deal of effort to be effectively challenged.

Through the mechanisms described here, mass media gives propagandists broad programming latitude over indexing and framing, relative to the control that originates from mechanisms of network exclusion.



## Network Exclusion and the Flows of Mass Media

Traditionally, media elites have had the most ability to guide frames and indexes in the mass media, thus carrying a large responsibility for the functional allowance of propaganda and disinformation flowing down through the mass media to the population. The limited number of traditional mass media outlets heavily favored the state with respect to exclusion of oppositional voices and/or counter-frames. Recalling that media frames and indexes, once constructed, have lasting impacts on audiences, it can be professionally dangerous for lesser media elites to offer counters (Castells, 2009). This is why traditional mass media can sometimes seem like a united force, as the varying outlets all use the same pre-established frames.

However, the rise of social media platforms and global internet connectivity has meant the exclusion mechanism of information control is no longer solely, or even primarily, in the hands of traditional mass media. The social media equivalents of media elites on social media websites are known as *opinion leaders*. Opinion leaders are historically acknowledged in research as leaders of trends and ideas among a population (Lazarsfeld, Berelson & Gaudet, 1944). More recent scholarship has noted the more visible and digitized role of opinion leaders on social media platforms (Hilbert et al., 2017). Modern opinion leaders usually have high numbers of followers, and their communication is the most influential and accessible on social media websites (Bergstrom & Belfrage, 2018). In networks, opinion leaders become targets of propaganda and disinformation because of their ability to expansively assist in framing and indexing objectives while bypassing exclusion mechanisms (Huang, Wang & Shao, 2018).

The rise of social media has challenged the traditional gatekeeping exclusion mechanism of the mass media, effectively opening the door for propagandists' framing and indexing efforts across interconnected media-based networks.

## Social Media and the Rise of Disinformation Campaigns

Social media presents numerous challenges related to propaganda, such as anonymous access and corporate finances guiding development and programming. However, the primary challenge is that it obliterates network exclusion functions traditionally held by mass media. This allows for vast offerings of framing and indexing efforts from individual, corporate, political, foreign, and domestic voices across networked societies. Initially, the challenge posed by social media was thought to be more problematic for authoritarian-leaning regimes than for Western democracies, given the ability of citizens to network, organize, and voice counter-frames on social media. However, it is now realized that authoritarian-leaning states with deeply-rooted powers of indexing and framing may be well positioned to use disinformation as a weapon on social media.

A comprehensive study of true and false news stories on Twitter found that truthful information takes six times as long as false information to reach audiences (Vosoughi et al., 2018). This is largely due to the novelty and customization of disinformation, as it does not have to conform to reality. Disinformation can be as outrageous, emotively charged, and/or targeted as necessary to reach intended opinion leaders and lay audiences. The ability to constantly modify disinformation in an attempt to amplify its reach places a burden of media literacy on citizens while simultaneously undercutting confidence in



a country's structures and exacerbating divisions between groups of people (Nisbet & Kamenchuk, 2019).

Disinformation campaigns, like those conducted by Russia against the US on social media, are not a new practice. For example, in an incident mockingly termed Operation INFEKTION, the Soviet Union attempted to spread the idea that the US government created AIDS as a part of biological weapons development (Bates, 2010). However, what is new about disinformation campaigns in the era of social media is the extent of and speed with which framing and indexing are used to spread messages to targeted nodes in order to flood a network (Park Advisors, 2019).

As such, any anti-propaganda efforts on social media must have significant reach, as people do not tend to believe in frames to which they do not have access (Castells, 2009).

## General Tips for Countering Propaganda and Disinformation

Countering propaganda has long been an aim of governments around the globe, but recently the landscape has shifted quite dramatically. Previously, US anti-propaganda efforts were aimed at overpowering propaganda with counter-frames and just-the-facts journalism. However, the rise of disinformation as a political tactic has caused a re-evaluation in how propaganda ought to be fought. In the US, entire outlets have come into existence that focus nearly exclusively on fact-checking and pushing back against misinformation and disinformation (e.g., Snopes, PolitiFact, and FactCheck.org).

Research has shown that those who write so-called “debunkings” of false information should be very careful with how much detail is used in describing the disinformation. If too much time is spent on debunking, people actually become more sympathetic and accepting of the disinformation (Chan et. al, 2017). Simply labeling disinformation as such is not convincing to people, either. Instead, debunking should “*report about an incident of misinformation (e.g., a retraction report) in ways that reduce detailed thoughts in support of the misinformation*” and never just label misinformation as false without explanation (Chan et. al, 2017). The most important consideration in “debunking” is that repeating false information further embeds that information into the audience’s cognitive frames, thereby reinforcing the delineated parameters of the issue or event around the disinformation.<sup>3</sup> The activation of the cognitive frame is ultimately more consequential than the conclusion of truth or falsehood surrounding the information itself. Therefore, well-designed, truth-based counter-frames are more efficient than debunking; however, they must be intelligently deployed within networks. Truthful frames that are able to reach audiences and establish factual cognitive frames on the issue/event provide resilience to propaganda. Admittedly, no proven, systematic approaches to debunking, counter-framing, or assessing intention toward network exclusion readily exist, though research efforts are ongoing.

Another recommendation for combating disinformation is that institutions and educational initiatives encourage and instill

<sup>3</sup> For a brief explanation of the illusory truth effect and combating fake news see: <https://www.vox.com/science-and->

[health/2017/10/5/16410912/illusory-truth-fake-news-las-vegas-google-facebook](https://www.vox.com/science-and-health/2017/10/5/16410912/illusory-truth-fake-news-las-vegas-google-facebook)

critical thinking and media literacy, particularly when it comes to discerning whether information is from an unreliable source. While such a solution must be implemented over the longer-term, such efforts could have a large eventual impact on limiting the spread of disinformation (Chan et. al, 2017). Other studies also support these conclusions. For example, if a “distrust mindset” is activated when audiences are exposed to a seemingly suspicious news report, those individuals will be far less susceptible to the psychological biases that cause belief in disinformation (Mayo, 2019). Additionally, in a national study of young people, those who had the most media literacy training were found to be the best at spotting misinformation (Kahne & Bowyer, 2017).

A more detailed list of techniques to countering specific disinformation can be found in Appendix A.

## Conclusion

Propaganda and disinformation can have significantly damaging influences within network societies, but the impact can be reduced with knowledge of the underlying psychological efficiencies enabling them and with use of viable counter-measures. By abusing people’s tendency to use mental shortcuts, propaganda can implant false beliefs and begin to infiltrate networks,

moving from person to person with alarming speed. Frames and schemas aid the spread of propaganda because people more readily accept information that conforms to their beliefs and mental models.

There are two main ways to counter propaganda once it is identified, though significant challenges remain in fully developing these measures. The first is to utilize educational programs that train institutions and people to be more critical of the information consumed, teaching how to distinguish between reliable and unreliable sources. The second is to intelligently deploy truthful counter-frames to the public via messaging, public research, and media. Truthful frames make people much more resilient to propaganda efforts.

Once the propaganda has begun to spread, there are many ways to push back against it, and research has provided a few key insights for doing so. Debunkings should not reinforce the message of the propaganda or disinformation by restating it, as that can strengthen people’s belief in the disinformation. Also, simply marking disinformation as false with no follow-up is not effective at changing minds.

# Appendix A

## Three Basic Types of Disinformation: The Problems and Possible Solutions

This section explores the psychological biases that disinformation abuses to spread and cause instability in network societies (based on Nisbet & Kamenchuk, 2019).

### Identity Grievance Disinformation Campaigns

What it is? Exploits real or perceived wrongs, or low institutional trust, to push a false narrative. Because the disinformation conforms to readers' mental models, beliefs, and identity, it spreads quickly.

#### Possible counters:

- *Identity-affirmation*: Affirms the importance and value of the identity or beliefs while presenting the truth.
- *Shared identities/values*: Similar to identity-affirmation, but it points out the commonalities between two groups of people and expresses admiration for those characteristics. For example, if a piece of disinformation was designed to make baseball fans angry at basketball fans, this would seek to point out that they both love the competition and pushing the limits of athleticism, then present the truth.

### Information Gaslighting

What it is? Seeks to overwhelm people with a flood of disinformation to cause uncertainty and distraction. Creates the illusion that a great deal of people support the disinformation and can cause exhaustion and a sense of hopelessness. Campaigns with the Chinese government's "50 cent army" of paid social media posters closely follow this model.

#### Possible counters:

- *Self-affirmation*: Instills confidence in its audience that they can tell disinformation from the truth and points out signs to look for when unsure if something is disinformation or not. This approach aims to counter the emotional damages that information gaslighting tries to cause.

- *Information-discernment education*: Teaching media literacy and critical thinking through education and educational programs. As fact-checkers and media often cannot keep up with the flood of disinformation, having a careful and critical audience makes dealing with the amount of disinformation much easier.

## Incidental Exposure to Disinformation

What it is? Relies on preconceived frames, repetition, and imperfect memory to push disinformation.

Possible counters:

- *Repeated exposure*: This one is pretty simple. It repeats the truth while making sure to not repeat the arguments of the disinformation, as that compromises the effectiveness at dispatching disinformation.
- *Compelling formats*: Infographics and visuals that can easily be shared and carry authoritative data and information. These are far easier to read and digest than articles, especially on fast-paced social media.
- *Alternative narratives*: Rather than directly countering the disinformation, this counter seeks to make its audiences view events and ideas through another narrative without reinforcing the original disinformation.
- *Deliberation*: Promote deliberation and a more careful choice of information sources, thus limiting the spread of disinformation from low-credibility sources.

# Appendix B

## Propaganda Key Terms and Points

### Key Terms

- *Cognitive frames*: mental constructs reliant on schema reflecting individual beliefs and prejudices.
- *Disinformation*: an intentional form of misinformation designed to mislead.
- *Framing*: highlighted aspects, evaluations, and/or interpretations of a news story or event promoted in media coverage.
- *Indexing*: the amount of prominence given to an event or a particular news story relative to other news items in a media system.
- *Misinformation*: a broad category of incorrectly-construed information.
- *Motivated reasoning*: the use of emotionally-biased reasoning to produce justifications or make decisions rather than those accurately reflective of the available evidence.
- *Network exclusion*: control over what actors are able to engage in discussions within a network.
- *Network program*: the goals, criteria for success, and rules of conduct that are set within a network.
- *Opinion leaders*: individuals or organizations recognized as experts or as having views that are both widely known and trusted.
- *Propaganda*: communicative methods used to promote or publicize a particular political cause, ideological perspective, or agenda.
- *Schemas*: cognitive structures that represent knowledge about a concept or type of stimulus; used to process and sequence the environment.

### Key Points

- *Network Targeting and Dissemination Accelerants*: Networks obliterate traditional media gatekeeping, enhancing the targeting capacities of propagandists and accelerating the speed with which propaganda can be spread. By targeting opinion leaders and other key nodes within networks, propagandist can flood information spaces with malign content.
- *Disinformation Advantages*: Disinformation is difficult to identify in networks because one must discern the intention of the sender, giving programming advantages of indexing and framing to propagandists that allow disinformation to infiltrate the cognitive frameworks of targets.
- *Difficult to Combat*: Once disinformation infiltrates the cognitive frameworks of targets, it is difficult to alter belief in the false content. The human brain has efficiency biases that propagandists prey upon. While media literacy is a long-term solution, short-term stop-gap measures of debunking and counter-framing require further research; though some workable solutions exist.
- *The Challenge for Democracies in the Information Era*: While authoritarian states have long established control over information spaces, Western democracies are particularly susceptible to disinformation due to the value of individual voices in society. Combating disinformation within networks is one of the greatest challenges of the current information environment.

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