Separate the Wheat from the Chaff: Taiwan's Challenges and Mitigation Strategies Against Disinformation

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Abstract

Disinformation is an age-old issue that is facilitated by digital technology. While advances in technology such as the Internet already poses challenges for governance, disinformation has evolved rapidly from discourse in domestic politics to international security. Taiwan has developed its own strategies for countering disinformation and has achieved a certain level of success, but challenges remain from the overall information environment and new technologies such as deepfakes. Despite all these challenges in countering disinformation, there are opportunities for Taiwan. The key is viewing disinformation from a new perspective. Although disinformation related to politics usually receives most of the attention, it should be noted that disinformation also threatens human security. The harm caused by disinformation, such as that seen during the COVID-19 pandemic, illustrates how it can threaten people's survival, livelihood, and dignity by exacerbating the effects of a traditional health emergency. Besides a transparent, multi-stakeholder approach that enhances engagement from government, fact-checking organizations and social media platforms will continue to be essential for sustaining success. And a human-centered approach is a necessary next step. Building a platform for further collaboration and promoting a healthy information environment, Taiwan can better share its experiences with disinformation to international community.

Keywords: Disinformation, Information Environment, Digital Media, Human Security, Internet Governance

I. Introduction

In the digital age, governments and private organizations are increasingly dependent on the Internet and social media for disseminating information to the public. Disinformation, which is usually defined as "verifiably false or misleading information created, presented and disseminated for economic gain or intentionally deceived by the public,"[1] is an old phenomenon facilitated by the expansion and infiltration of the Internet into our societies. It has become the center of discussion in recent years. Internationally, the world first learned of Russian attempts to manipulate the information environment in 2013. Staff hired by the Internet Research Agency (IRA) posing as Americans online posted divisive comments on social media. Such activities continued during the 2016 U.S. presidential election. Another example familiar to people in Taiwan is usually referred to as the "Kansai Airport Incident." Su Chii-cherng, a Taiwanese diplomat stationed in Osaka, Japan, committed suicide after being accused of leaving hundreds of Taiwanese tourists stranded when Typhoon Jebi struck Kansai airport in Osaka. Those accusations were based on reports on social media that later proved to have been fabricated and then amplified by politicians and online influencers.[2]

It is obvious that spreading disinformation can have a wide range of consequences, from threatening democratic processes such as elections to polarizing debate that destabilizes society. The mitigation of disinformation also involves a broad range of strategies. Most researchers agree that disinformation is part of "information disorder," and therefore such complexity requires an integrated approach.[3] In the short term, fact-checking provided by independent organization focuses on "separating the wheat from the chaff." Just like the "chaff" used in radar countermeasures, disinformation

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1. European Commission, "Tackling online disinformation," November 26, 2021, accessed, *European Commission*, <https://digital-strategy.ec.europa.eu/en/policies/online-disinformation>.

2. Oiwen Lam, "Amidst Typhoon Rescue Efforts in Japan, a Taiwanese Diplomat Dies. Did Misinformation Play a Role?" *Global Voices*, September 22, 2018, <https://globalvoices.org/2018/09/22/amidst-typhoon-rescue-efforts-in-japan-a-taiwanesediplomat-dies-did-misinformation-play-a-rol>; Taiwan FactCheck Center,〈【錯誤】媒體報導：日本關西機場因燕子颱風重創而關閉後，中國優先派巴士前往關西機場營救受困之中國旅客？〉, September 15, 2018, *Taiwan FactCheck Center*, <https://tfc-taiwan.org.tw/articles/150>.

3. Council of Europe, "Information Disorder," November 26, 2021, accessed, *Council of Europe*, <https://www.coe.int/en/web/freedom-expression/information-disorder>.

can create such distractions to mask a targeted attack or shape discussions to a desirable state. Fact checking, which verifies stories or provides clarification, is one of the principal measures for mitigating disinformation. However, the fact-checking capacity of any given organization has its limits. Media literacy focuses on both empowerment and protection that allow people to access, critically evaluate, and create or manipulate media. Just like everything related to education, promoting media literacy cannot have immediate results, so it is usually referred to as the long-term cure for "information disorder."

Taiwan has been learning from its experiences and has established a model for countering disinformation. But challenges remain. Although most of the attention on disinformation and its impact has focused on the highly contested political arena or under the traditional notion of national security, new, emerging threats such as the COVID-19 pandemic have a far-reaching impact on human security. As demonstrated during COVID-19, disinformation about vaccination or related information can put people's health and security at risk. Therefore, disinformation has the potential to threaten the survival, livelihood, and dignity of the people. From a human security perspective, the influence of disinformation transcends nation borders and requires a coordinated, collaborative effort. This also challenges the existing framework for countering disinformation. To mitigate effectively, it is necessary to look at the very basics — that is, how the entire information environment and circle of trust are established. With such a comprehensive perspective, Taiwan's experience in countering disinformation will be even more valuable in a regional context. Because every nation has its own unique information environment and circle of trust among people, providing baseline information will make Taiwan's experience more valuable to other countries.

This article first describes Taiwan's information environment and examines the theory of regulation. Next, it briefly introduces Taiwan's strategies for countering disinformation and its challenges. It concludes with a look at the new opportunities that may emerge for Taiwan in the context of human security.

II. Taiwan's Information Environment and Theory of Regulation

The creative use of information in all forms of conflict is an ancient reality. To understand how disinformation acts in Taiwan, it is necessary to examine the information environment where disinformation operates. By the definition of the U.S. Department

of Defense, the information environment is "the aggregate of individuals, organizations, and systems that collect, process, disseminate, or act on information." It is a heterogeneous global environment where human and automated systems observe, orient, decide and act on data, information, and knowledge.[4]

Based on this definition, Taiwan has a complex information environment (see Figure 1). As seen from the diagram, various platforms/services are co-existing with overlapping message lifespans. This implies that single messages may be transmitted via multiple channels. Also, each platform/services will reflect the regulatory consensus of where a company is from. While Facebook and YouTube are based in the U.S., LINE is located in Japan and WeChat in China. In other countries around the region, the equivalent online services usually involve one or two countries of origin. For many of these countries, that means one foreign (e.g. Google or Facebook) and one domestic (e.g. LINE). Taiwan's unique information environment creates alternative information flows, which enables disinformation from multiple sources to achieve maximum effect on the information environment.

Moreover, traditional media such as TV news, newspapers and magazines still play a critical role in disinformation that should not be ignored. Cross-platform posting from social media to traditional media, which involves reproduction of disinformation, is often the critical point for expanding the influence to a larger audience. The Kansai Airport incident provides an illustrative example. It is worth noting how the chain of events began with an article published by a Chinese state-funded online media outlet, shared by Taiwan's most popular Bulletin Board System (BBS), PTT, later picked up by all the major traditional media outlets, and then the TV news cycle via cable news.[5]

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4. U.S. Department of Defense, "Department of Defense Strategy for Operations in The Information Environment," June 2016, *U.S. Department of Defense*, <https://dod.defense.gov/Portals/1/Documents/pubs/DoD-Strategy-for-Operations-in-the-IE-Signed-20160613.pdf>.
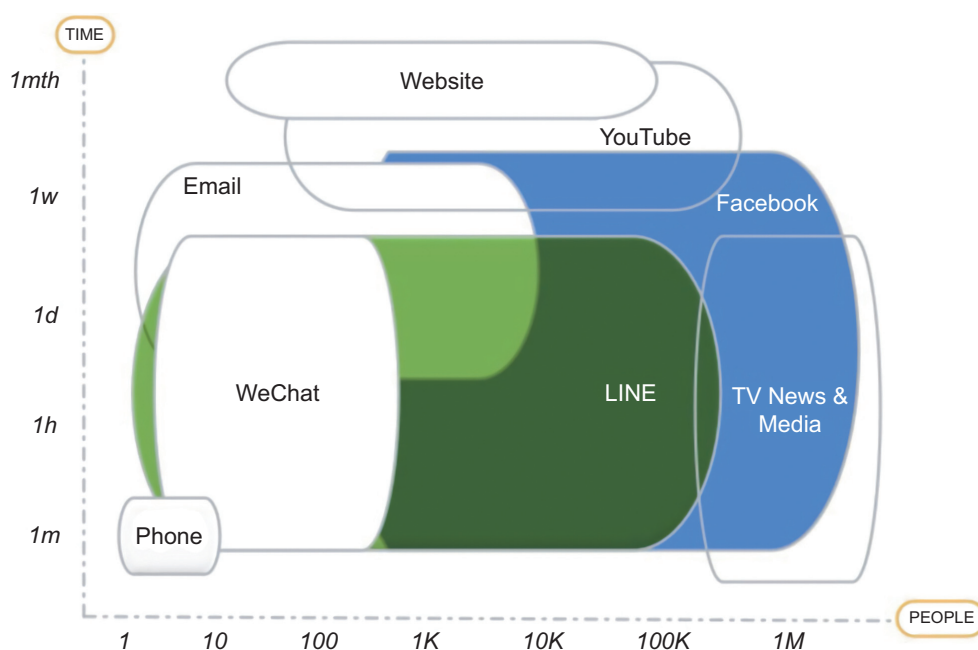5. DDD.doctor,〈推敲影響台灣網路輿論主要的電子訊息傳播管道、單則電子訊息影響人數和訊息的生命週期〉, June 6, 2019, *Telegram*, <https://t.me/s/ddddoctor/53>.

Figure 1. The Information Landscape with Estimation of Time and Reach (Life Span) of a Single Message

Source: DDD.doctor,〈推敲影響台灣網路輿論主要的電子訊息傳播管道、單則電子訊息影響人數和訊息的生命週期〉.

Utilizing the environment and spreading information involves a series of behavioral changes. Therefore, examining how people's actions are constrained by external forces can provide insights into a possible framework for better understanding the problem. One of the useful approaches is the "pathetic dot theory" proposed by Lawrence Lessig. Under "pathetic dot theory," four forces constrain our actions: the law, social norms, the market and the architecture. This can also be seen as a socioeconomic theory of regulation.
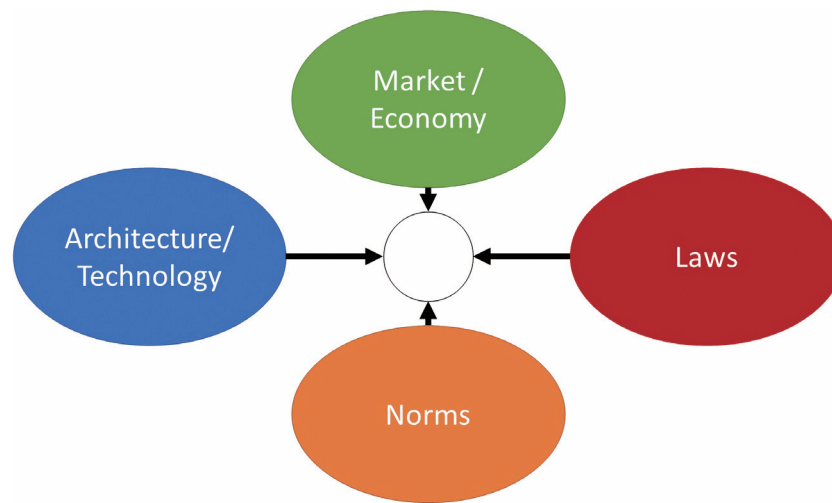
Figure 2. Diagram of Lessig's "Pathetic Dot Theory"

Source: Compiled by the author.

The key difference between regulation of the Internet and real world is that the architecture of the Internet — the code that underlies all software — is created by humans. In the real world, most of the architecture is beyond human control — no matter whether it is based on the laws of physics, biology, major social or cultural forces. This technology-mediated architecture, which is the coded software, may affect and regulate human behavior. As explained by Lessig in his work *Code is Law / Code 2.0*:

> *[The code] will present the greatest threat to both liberal and libertarian ideals, as well as their greatest promise. We can build, or architect, or code cyberspace to protect values that we believe are fundamental. Or we can build, or architect, or code cyberspace to allow those values to disappear. There is no middle ground. There is no choice that does not include some kind of building. Code is never found; it is only ever made, and only ever made by us.*[6]

At its early stage in the 1990s, the Internet was envisioned as an "utopia" that would promise a paradise for accessing information and civil discourse. Also, the free flow of information on the Internet would eventually promote mutual understanding

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6. Lawrence Lessig, "Code Is Law / Code 2.0," December 11, 2006, *Wikimedia Commons*, <https://commons.wikimedia.org/wiki/File:Code_v2.pdf>.

of people from different cultural backgrounds and make the world a better place. However, Lessig clearly warned that the "invisible hand" of the government and commerce could build a completely opposite architecture. That is, constructing an architecture which would perfect control and make highly efficient regulation possible. Under the concept of "the medium is the message"[7] — the Internet is not only media itself in spreading disinformation, but also the infrastructure that media relies upon. This is widely considered as one of the essential challenges in Internet governance.

III. Taiwan Government's Strategy and Challenges

The Taiwanese government's strategy on disinformation emphasizes the importance of inter-ministerial collaboration, rather than assigning the mission to a specific agency. The Countering Disinformation Team is a taskforce within the Executive Yuan convened by two ministers without portfolio. Lo Ping-cheng is responsible for coordinating legal affairs, with Audrey Tang in charge of digital affairs and the spokesperson's office. To fulfill the team's mission of drafting policies, interacting with major platforms, and leading interagency discussion, the team comprises members from important agencies such as the Ministry of Justice, the Ministry of Education, and the National Communication Commission.

Reaching consensus on the definition of disinformation is the first task of the team. After a series of interagency discussions, the team has defined disinformation as information that satisfies three criteria (see Figure 3):

1. Malice: In a subjective view, the disseminator of the information has malicious intent that is driven by political or economic motives.
2. Falsehood: In an objective view, the content is demonstrably false.
3. Harm: The information leads to harmful consequences for personal, societal, or national interests.

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7. Marshall McLuhan, *Understanding Media: The Extensions of Man* (Cambridge: MIT Press, 1994), p. 7.
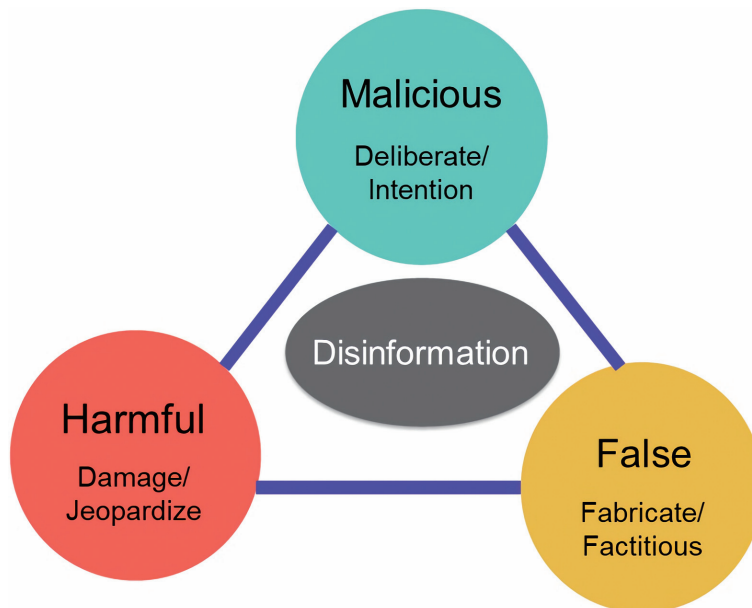
Figure 3 Three Criteria for Disinformation

Source: Compiled by the author; Executive Yuan, "Anti-Disinformation Policy Overview," December
20, 2019, p. 3, *Executive Yuan*, <https://www.ey.gov.tw/Page/5B2FC62D288F4DB7/58fc25c7-
125f-4631-8314-73b82c8c62b7>.

Based on these three criteria, the team proposed the following framework to
develop policy countermeasures to tackle disinformation:

1. Identification. Citizens must be empowered to identify disinformation and make
   independent judgments.
2. Debunking. Misleading content must be debunked with timeliness, accuracy and clarity.
3. Combat. Disinformation must be combated to contain the spread of harm across
   multiple platforms.
4. Punishment. Malicious disseminators must be investigated so as to hold them
   liable, under the review of the judicial branch.[8]

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8. Executive Yuan, "Anti-Disinformation Policy Overview," p. 3; For a comprehensive assessment
   of the Taiwan model in English, see Shih-shiuan Kao, "Taiwan's Response to Disinformation:
   A Model for Coordination to Counter a Complicated Threat," September 2021, *The National
   Bureau of Asia Research*, <https://www.nbr.org/wp-content/uploads/pdfs/publications/sr93_
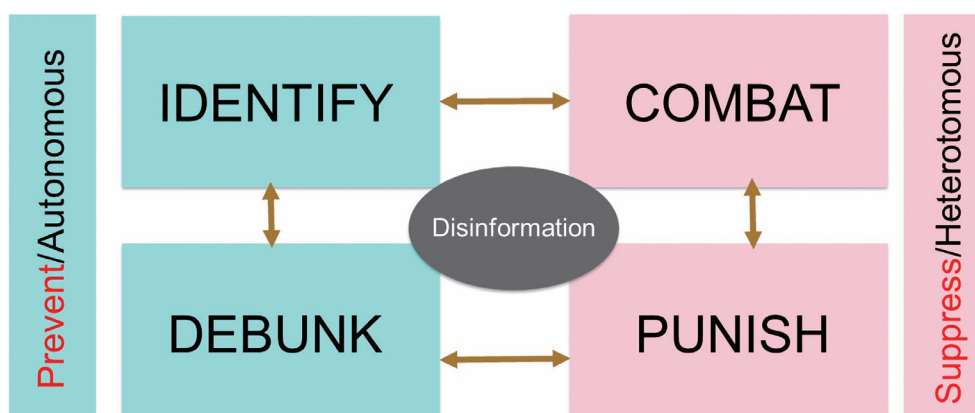   taiwan_sep2021.pdf>.

Figure 4. Framework for Countering Disinformation

Source: Compiled by the author; Executive Yuan, "Anti-Disinformation Policy Overview," p. 3.

Although an interagency coordination mechanism is in place, whether such a loosely structured taskforce is sufficient for countering disinformation is still in question. Other options, such as assigning the mission to a single agency and establishing a special law for disinformation, have been discussed since the team was established. Minister Lo once stated in an interview that countering disinformation with such regulatory measures could easily be interpreted as restricting freedom of expression.[9] Therefore, the taskforce is expected to remain in place until the establishment of a Ministry for Digital Development as part of the reorganization of the Executive Yuan. The timeline for other policies, such as the drafting of a special "Digital Communication Bill" that relates to governance issues, will have to be adjusted to reflect the reorganization schedule.

Even with such uncertainty for the near future, comparing the framework to Lessig's theory (see Figure 1) can shine some light on the challenges of the Taiwan model. First, Taiwan's model put a strong emphasis on the legal aspects. Although Minister Lo emphasizes coordination among government agencies, the entire framework is implicitly constructed with law enforcement and judicial involvement involved in the process. It is understandable that holding the malicious disseminator liable would be the top of priority from government perspective, but the lack of capacity of the relevant agencies can seriously undermine its efficiency.

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9. "Countering Disinformation, Lo: Need to Strengthen Inter-Ministerial Coordination," *Central News Agency*, May 6, 2021, <https://www.cna.com.tw/news/aipl/202105060302.aspx>.

Second, the existing framework can result in the lack participation of some crucial stakeholders. For example, the market/economy has no representation within the framework. As illustrated in Lessig's *Code is Law*, social media platforms owned by private companies are not only the law and infrastructure themselves but are also under the influence of the market/economy. Such social media platforms often state that they are "free to use and open to all," and consequently the only source of revenue to ensure their operations is advertisement. Thus, the users become "products" of social media that can be influenced by the market/economy.

Finally, any attempt at regulation and transparency of social media platforms will face strong resistance from those with enormous economic incentives. The best example is the series of investigative journalism by the *Wall Street Journal* on Facebook. "The Facebook Files" provides evidence that Facebook knows its platforms has detrimental effects, but still it chooses to ignore rather than fix the problems.[10]

Figure 5. President Tsai Ing-wen Interviewed by CNN

Source: Office of the President, Taiwan (ROC),〈總統接受「美國有線電視新聞網」(CNN)專訪〉, October 28, 2021, *Office of the President, Taiwan (ROC)*, <https://www.president.gov.tw/News/26294>.

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10. "The facebook files," November 26, 2021, accessed, *Wall Street Journal*, <https://www.wsj.com/articles/the-facebook-files-11631713039>.

President Tsai Ing-wen revealed her thoughts on Taiwan's challenges in countering disinformation in a recent interview with *CNN*. Regarding the threats posed by disinformation, infiltration, and other tactics deployed by external forces, Tsai noted that the polarization of Taiwanese society was of particular concern. Tsai further explained that external forces exploit Taiwan's democratic system to "disrupt Taiwan's democratic way of life." The key, Tsai concluded, is for the Taiwanese to develop sufficient awareness and the capacity to respond to such corrosive behavior. This is also the experience that Taiwan would like to share with other countries that face similar challenges. Tsai summarized Taiwan's experience and lessons learned from COVID-19 during the interview:

Q: You have one of the most free and open internet systems in the whole world. Does that make you more vulnerable to the source of these attacks?

A: To a certain extent, that is right. There is so much information flowing around on the Internet, and people are so used to going on the Internet to receive information to read news. Sometimes some information is not checked or confirmed by people with authority or credible people. If you are not fast enough to make clarifications or correct whatever mistake, you are concerned that people may be misled.

Q: Your government's response to disinformation has not been to censor it or to shut down, but actually to become more transparent.

A: Yes, and this is what we have learned from the COVID-19 exercise. We set up a command center which gives a news brief every day. They have sat down and answered all of the questions from the press or the general public. They want to clarify everything that needs to be clarified so that people will not be misled.[11]

As seen from the transcript, transparency and debunking are the two major tools employed by the Taiwanese government to counter disinformation. Furthermore, based

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11. Office of the President, Taiwan (ROC),〈總統接受「美國有線電視新聞網」(CNN)專訪〉.

upon Taiwan's experiences from the COVID-19 pandemic, such an approach seems to be acceptable. A transparent, multi-stakeholder approach that enhances engagement from government, fact-checking organizations and social media platforms will continue to be the key for sustaining success. However, disinformation is rapidly evolving. New technological applications such as deepfake pornography, which superimposes the stock media faces of famous people onto existing pornographic videos using deep learning technology, is exploiting people without their consent.[12] Although legal revisions are once again being discussed, the threat posed by new technologies highlights the importance of the human factor in disinformation. From the deepfake pornography case, there obviously is a demand and supply relationship at play that is deeply rooted in voyeurism. In other words, the strategies for countering disinformation may need a new human-centered perspective.

Figure 6. Deepfake Example: "Face-swapping" onto Original Work of Art Using Neural Net

Source: Stephen Wolfram, "A Few Thoughts about Deep Fakes," June 12, 2019, *Stephen Wolfram Writing*, <https://writings.stephenwolfram.com/2019/06/a-few-thoughts-about-deep-fakes/>.

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12. "Politicians condemn deepfake pornography, urge legal revisions," *FocusTaiwan*, October 25, 2021, <https://focustaiwan.tw/society/202110250017>.

IV. Opportunities for Taiwan: Disinformation as a Matter of Human Security

Due to the challenges from new technology, it may be useful to regard disinformation from a new perspective, such as that of human security. Several aspects need to be addressed in this new perspective. Usually defined as "identifying and addressing widespread and cross-cutting challenges to the survival, livelihood and dignity of their people,"[13] human security focuses on individuals, and its end goal is the protection of people from traditional (i.e., military) and nontraditional threats such as poverty and disease. There is an obvious advantage to moving the agenda beyond politics and state security: disinformation with a perspective on human security allows Taiwan to contribute more to the international community. However, focusing on human security does not mean replacing the traditional security; rather, human security involves complementing and building on it. This is not a mutually exclusive relationship, as succinctly explained in *Britannica* — "Central to this approach is the understanding that human security deprivations can undermine peace and stability within and between states, whereas an overemphasis on state security can be detrimental to human welfare. Although the state remains a central provider of security, but state security is not a sufficient condition for human welfare."[14] A human security approach to disinformation has the potential to build a more inclusive and collaborative platform, one in which Taiwan can help the international community with its own experience.

Secondly, identifying the circles of trust will be crucial for such a human-centered approach to disinformation and sharing each other's experiences. Understanding the baseline is essential for optimizing the adoption of best practices. When a digital service enters a new area/market, a common User Experience (UX) approach that applies psychology theory to real world is mapping the "circles of trust" of the given area through extensive investigation. With knowledge of how trust-building works, it will be much easier to build a relationship between customer and the service — or, in this case, understanding the information flow within the society. The core of building trust is finding "a path of least resistance." The path will reinforce again and again through time. The best example is illustrated by how LINE exceeds other social media

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13. United Nation, "United National General Assembly resolution 66/290," October 25, 2012, *United Nations*, <https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/66/290>.

14. Catia Gregoratti, "Human Security," November 26, 2021, accessed, *Britannica*, <https://www.britannica.com/topic/human-security>.

in terms of commerce conversion in Thailand. This is because LINE is perceived as the most secure among messaging applications.[15] Once the trust can be established, influencing — such as turning someone into a customer, believing certain narratives or spreading the message — becomes much easier.

Finally, disinformation is only the symptom of institutional trust collapsing, not the disorder itself. The concept of "truth" has been under attack in various circumstances around the world. Emerging technologies, such as deepfakes, are forcing a constant review of the regulatory framework's *status quo*. Some major trends and challenges affecting the information environments identified by *Internews* are:

1. Rise of disinformation, misinformation and mal-information
2. Media market collapse
3. Exponential connectivity and information inequality
4. Censorship and threats to journalists' security
5. Geopolitical influences and the spread of authoritarianism

Therefore, building a healthy information environment with good information, safe access, critical assessment, strong business models, and accountable institutions is the final goal for a human-centered approach to disinformation (see Figure 7). As described by *Internews*: "When people no longer have information sources they trust, they seek authenticity elsewhere. This erosion of trust, no matter its cause, presents fundamental challenges to democracy, the media, and the very concept."[16] Research suggests that human psychology creates preferences for information that reinforce existing views and biases, plays to emotions, or demonizes "out-groups," such as minorities, over more fact-based, balanced information.[17]

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15. Nate Norasit, " Circle of Trust: why commerce conversion on LINE is better in Thailand," February 21, 2020, *LINE AdBiz*, <https://medium.com/lineadbiz/circle-of-trust-why-commerce-conversion-on-line-is-better-in-thailand-5b4a74fc358d>.

16. "Our Strategic Framework: Internews 2025," March 2021, *Internews*, <https://internews.org/wp-content/uploads/2021/03/Internews2025_StrategicFramework.pdf>.

17. Arie W. Kruglanski & Donna M. Webster, "Motivated closing of the mind: 'seizing' and 'freezing'," *Psychological Review*, Vol. 103, No. 2, April 1996, pp. 263-283; Robert Sapolsky, "This is Your B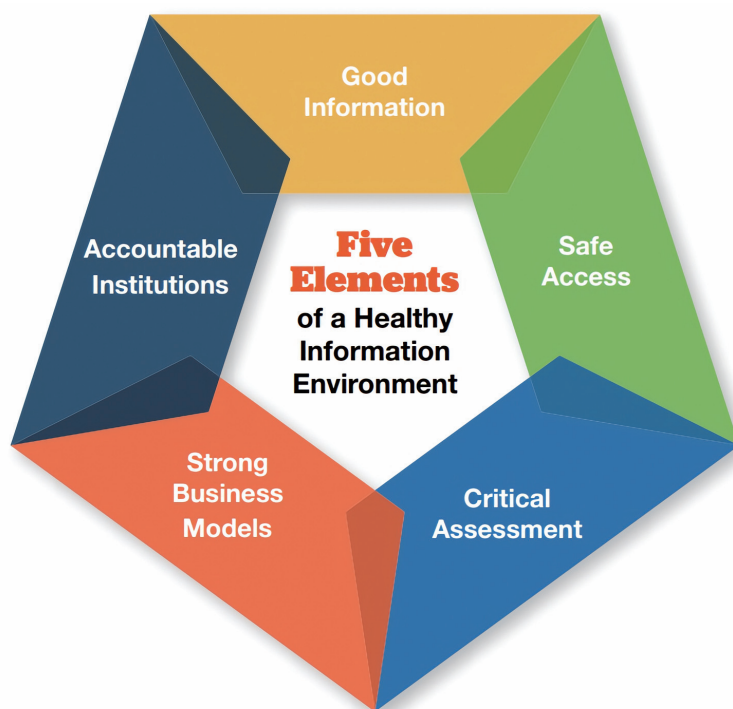rain on Nationalism," *Foreign Affairs*, March/April 2019, <https://www.foreignaffairs.com/articles/2019-02-12/your-brain-nationalism>.

Figure 7. Elements of a Healthy Information Environment

Source:"Our Strategic Framework: Internews 2025," p. 12.

V. Conclusion

The nature of the Internet and any new technology always represents a challenge to governance. For Internet and disinformation, this is especially true — the Internet is not only media itself in spreading disinformation, but also the infrastructure that media relies upon. Taiwan's complex information environment, what with its multiple digital services and high penetration of traditional media, creates alternative information flows which enable disinformation from multiple sources to achieve maximum use of the information environment. Learning from its experiences, the Taiwanese government's strategy on disinformation emphasizes the importance of inter-ministerial collaboration. This strategy has a clear definition of disinformation (malicious, harmful, false) and a four-pronged framework (identification, debunking, combat, punishment) for developing policy countermeasures on disinformation. Fact-checking, which "separates the wheat from the chaff," is one of the two common tools the Taiwanese government has employed to counter disinformation, along with enhancing the

transparency of government policy to the general public. But in reality, the efficiency of this type of response may be limited by a lack of capacity and participation from some stakeholders. Also, new technologies such as deepfakes highlight the importance of different approaches for countering disinformation.

While Taiwan's experience in countering disinformation is often lauded as a successful case, challenges remain from the overall information environment in the country. A transparent, multi-stakeholder approach that enhances engagement from government, fact-checking organizations and social media platforms will be the key for sustaining success. To overcome the challenges in the existing framework and those that will inevitably arise from new technologies, a human-centered approach that focuses on the individual will provide alternative perspectives to overcome the challenges. The assessment of the information environment, with a focus on identifying the circle of trust from the individual's perspective, will provide more insights into how information flows within society. Moreover, human security, with the end goal of protecting people from traditional and nontraditional threats, provides a more inclusive and collaborative perspective for countering disinformation. Building such a platform and promoting a healthy information environment will create new opportunities for Taiwan to assist the international community.