Training of Trainers Program to Address Disinformation and Promote Media Literacy

TOOLKIT FOR EDUCATORS

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Toolkit for Educators

The ASEAN Secretariat

Jakarta

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ASEAN: A Community of Opportunities for All

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ABBREVIATIONS

ASEAN	Association of Southeast Asian Nations
AMS	ASEAN Member States
MIL	media and information literacy
SOM-ED	(ASEAN) Senior Officials Meeting on Education
TEI	teacher education institution
ToT	training of trainers
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

PART ONE: GETTING STARTED

Introduction and Background

Disinformation—false or inaccurate information that is designed to cause harm—is wreaking havoc throughout the world: creating division, spreading hate, and generating confusion. It is having a real-world impact and threatens a key goal of the Association of Southeast Asian Nations (ASEAN) to promote a peaceful, inclusive, resilient, healthy, and harmonious society.[1] Anyone can produce and share disinformation, and there will always be malicious individuals and groups motivated by agendas of power and control who create and distribute information to sow confusion, manipulate opinions, and generate harm. Today, social media platforms allow disinformation to be spread at alarming levels and unprecedented speed, accelerating the disinformation originators' goal of manipulating public behaviour, promoting violent extremism agendas, and/or threatening the safety and stability of our communities.

The companies that own and operate social media platforms are acutely aware of the consequences of disinformation. Some of them are making a pro-active effort to minimise disinformation. For example, Twitter has a set of rules and policies that label or remove a piece of content if it breaches the rules, while simultaneously attempting to protect freedom of speech principles.[2] Ongoing research and the development of artificial intelligence strategies and algorithms aim to detect disinformation but while there have been some successes, there is a long way to go before social media platforms can automate disinformation detection.[3] While laws and other legal mechanisms are evolving to discourage the spread of disinformation while upholding freedom of expression, the mechanisms for creating and spreading harmful information are evolving faster. Therein lies the core challenge and rationale for bolstering social media resilience, particularly among the youth who typically dominate these platforms.

Addressing Disinformation through Education

Globally, efforts are underway to educate and empower citizens to improve their digital literacy and ability to assess and identify inaccurate and misleading information.

ASEAN leadership has also recognised the need for the region to respond to the disinformation crisis at a citizen level, and has adopted a number of declarations, frameworks, and workplans, including:

- Article 23 of the ASEAN Human Rights Declaration[4] (November 2012), which stipulates that every person "has the right to freedom of opinion and expression, including freedom to hold opinions without interference and to seek, receive and impart information, whether orally, in writing or through any other medium of that person's choice" and "the importance of addressing mis-information, dis-information and mal-information from human rights perspective."

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[1] ASEAN 2017, *ASEAN Declaration on Culture of Prevention*, ASEAN, accessed 17 June 2021, https://asean.org/wp-content/uploads/2017/11/9.-ADOPTION_12-NOV-ASCC-Endorsed-Culture-of-Prevention-Declaration_CLEAN.pdf.

[2] Twitter, *Our range of enforcement options*, accessed 17 June 2021, https://help.twitter.com/en/rules-and-policies/enforcement-options.

[3] Hanu, L., Thewlis, J., Haco, S. 2021, *How AI Is Learning to Identify Toxic Online Content*, Scientific American, accessed 03 August 2021, https://www.scientificamerican.com/article/can-ai-identify-toxic-online-content/.

[4] ASEAN 2013, *Human Rights Declaration*, ASEAN, accessed 1 August 2021, https://asean.org/wp-content/uploads/2021/01/6_AHRD_Booklet.pdf.

- The ASEAN Declaration on Culture of Prevention for a Peaceful, Inclusive, Resilient, Healthy and Harmonious Society (November 2017), which focuses on "understanding the root causes and consequences of violent extremism and other forms of violence" and "adopting a mindset change from a reactive to a preventive approach."
- The 14th Conference of the ASEAN Ministers Responsible for Information, held in May 2018, in which members adopted the Framework and Joint Declaration to Minimise the Harmful Effects of Fake News[5]. The Framework recognised and prioritised an education and awareness strategy, stressing that creating "a discerning and well-informed public that is able to detect fake news when it is presented to them" would serve as an essential "first line of defense."
- The Senior Officials Meeting on Education's ASEAN Work Plan on Education 2021–2025.
- The Bali Work Plan or the ASEAN Prevention and Countering the Rise of Radicalism and Violent Extremism Work Plan 2021–2025[6] includes a focus area on "build[ing] social media resilience amongst vulnerable groups, particularly the youth and women, on preventing the misuse of social media for violent extremism" and proposes activities which "develop training plans on strengthening social media resilience to high school and university students."

Other related key documents worth noting include the following:
- Core Values on Digital Literacy for ASEAN

- Joint Statement to Minimise the Negative Effects of COVID-19

- ASEAN Strategic Plan for Information and Media 2016–2025

- ASEAN Communication Master Plan 2018–2025

About the Training of Trainers Program

This Training of Trainers (ToT) Program is a direct response to these declarations, frameworks, and workplans, and is being developed under an activity concept note endorsed by the ASEAN Senior Officials Meeting on Education (SOM-ED) in 2020. The concept note proposes an education initiative, in the form of a ToT Program, that aims to build the capacity of secondary school teachers, university tutors, and lecturers to empower their students to detect disinformation and resist its influence—and, in the process, increase students' level of critical thinking and information literacy.

While citizens of all ages are susceptible to disinformation and education strategies targeting different age groups are necessary, it is important to focus on young people because they dominate the use of the digital platforms through which false and inaccurate information flows. Disinformation producers—from violent extremists to COVID-19 conspiracy theorists—are intentionally targeting young people by using language and designs that attract their attention and tempt them to share it within their networks. Strengthening the disinformation education

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[5] ASEAN 2018, *Framework and Joint Declaration to Minimise the Harmful Effects Of Fake News,* ASEAN, accessed 1 June 2021, https://www.mci.gov.sg/-/media/MciCorp/Doc/AMRI/Annex-5---Framework-And-Joint-Declaration-To-Minimise-The-Harmful-Effects-Of-Fake-News.ashx.

[6] ASEAN 2019, *Work Plan of the ASEAN Plan Of Action to Prevent and Counter the Rise of Radicalisation and Violent Extremism,* ASEAN, accessed 1 June 2021, https://asean.org/wp-content/uploads/2021/01/Bali-Work-Plan-Narrative-and-Matrix-adopted-27November2019-1.pdf.

and information literacy of young people will make them influential in their own demographic as well as in broader communities, helping others spot and respond to false information.

Young people make up the majority of the population in the ASEAN.[7] ASEAN youth, most of whom are digital natives, having grown up with access to the Internet, may be ready to take on the challenges posed by disinformation with a report describing them as having a "healthy dose of intellectual curiosity, scepticism and cultural hyperawareness."[8]

Engaging young people—specifically secondary school students and university-level students—about disinformation and its dangers requires an approach that gains their trust and buy-in. A top-down approach will not work—and any efforts that attempt to restrict or block their ability to communicate with their friends and networks are unlikely to be effective and will be countered by ingenious workarounds.

Ultimately, the power will be in the hands of young people as to how they detect and respond to the disinformation they encounter. Digital information literacy is a first line of defence, but young people will also need to accept the role and assume responsibility as the frontline defenders in the battle against disinformation.

Educators will have to play a critical role in engaging and empowering young people with the know-how to navigate the information and disinformation landscapes of the 21st century. While there are some educators who have a strong understanding of information literacy and disinformation education, there are many who would benefit from further support to enhance their capacity and knowledge.

Goal of the ToT Program

The goal of the TOT Program is to equip educators with the resources and tools they need to empower young people in ASEAN to minimise the influence and spread of disinformation.

Key Objectives

The TOT Program's key objectives are to:
- Expand educators' awareness and knowledge of key concepts and subject-matter information related to disinformation and information literacy.

- Strengthen educator's teaching capacity by providing them with a set of curriculum modules they can adapt and use for their local context.

The goal and key objectives align with the concept note that was endorsed by SOM-ED in 2020 laying the foundation for this ToT Program.

Scope

What does this ToT Program **do**?
- It contains subject-matter information and resources that expands educators' awareness and knowledge about disinformation, its harmful impacts, and strategies to counter it.
- It offers educators a set of curriculum modules that can be customised and used to empower students on how to address disinformation.

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[7]   ASEAN 2020, *COVID-19 – The True Test of ASEAN Youth's Resilience and Adaptability*, WEF, accessed 04 June 2021, http://www3.weforum.org/docs/WEF_ASEAN_Youth_Survey_2020_Report.pdf.

[8]   'Southeast Asia's youth are waking up and actively reshaping culture', *WARC*, 01 October 2020, accessed 04 June 2021, https://www.warc.com/newsandopinion/news/southeast-asias-youth-are-waking-up-and-actively-reshaping-culture/44171.

- It provides educators with resources they can use for their professional development about disinformation issues and to share with their students.

What doesn't this ToT Program **do**?
- It does not offer educators a top-down curriculum that can be deployed "out of the box" across the ASEAN Member States (AMS); contextual tailoring and translation are needed.
- It is not an alternative to a comprehensive media and information literacy (MIL) education program.
- It does not solve the problem of disinformation in the region.

Target Audience

The primary audience of this ToT Program is educators for secondary schools and tertiary-level institutions in the AMS.

The secondary audience is ASEAN students in secondary/high school and tertiary institutions. Specific lessons, activities, and assessment tasks should be modified to cater to specific age groups and aptitude levels.

The ToT Program is an Open Education Resource and can be accessed online and repurposed by not only educators, but also by parents, community groups, or young people who may wish to learn on their own to teach their peers about disinformation and information literacy.

PART TWO: GUIDELINES FOR EDUCATORS

How to Use This Resource

This ToT Program equips educators with the resources to teach their students about disinformation through a set of inter-related modules that have intended learning outcomes.

Disinformation education, like MIL, should be customised for local contexts to be effective. Therefore, this ToT Program needs to be adapted and localised for each AMS and for the age group of the students targeted.

The ToT Program can be deployed and used in three ways: to conduct ToT workshops; as an educator's handbook or resource on disinformation education; and to adapt as an educational guide for students, much like a textbook. These three ways are described in more detail below.

ToT Workshop

The material in this ToT Program can be used to conduct a ToT workshop for participants. For example, the participants could include representatives from key teacher education institutions (TEI) in the AMS, and they could produce the following outputs during or after attending the ToT workshop:

- During the workshop, participants produce a customised curriculum that is localised in context and language for students in their country.

- After the workshop, participants return to work with their teacher education colleagues in their home countries to produce curricula aimed at students. There may be a need for multiple versions appropriate to targeting urban versus rural students and secondary school versus tertiary-level students.

It is envisaged that the ToT Workshop can be conducted over a three- to five-day period. This period can be spread over a longer timeframe—for example, six to 10 half-day sessions if required. To enable a high level of engagement and interaction between participants and the facilitator, it is recommended that the workshop include approximately 15 participants. The scheduling and delivery of the workshop can be discussed with stakeholders and customised to their needs and the contextual requirements of a given AMS.

Handbook or Toolkit for Educators

The ToT Program can be used by educators as a guide to assist them to create their own lesson plans or curricula for their students. Ideally, all of the lessons would be delivered as a structured course, however educators can also deliver select modules that are relevant to their students or incorporate individual lessons and activities into existing programs. For example, a university course on public health could discuss disinformation during public health crises (such as the COVID-19 pandemic) and educators can use the ToT Program to create a short lesson on tactics disinformation producers may use to generate vaccination hesitancy, de-legitimise authorities, and otherwise stymie cooperation with public health measures.

Guide for Students

The ToT Program can be modified and presented as a guidebook or textbook for students about disinformation and information literacy. Each module can be localised and the Background Notes can be contextualised to the local experiences of students and presented as handouts or smaller booklets, each reflecting a module or a topic. The material can also be repurposed into a series of webinars that can be watched by students as part of a self-learning experience.

Educators are encouraged to explore other ways to make use of the material contained in this Program. TEIs, educators, and key stakeholders should consider creative ways of adapting and customising the ToT Program to maximise the learning impact of students.

Online Delivery

While the Lessons and Activities contained in the ToT Program have been designed for a face-to-face classroom context, they can be adapted to online delivery. For example, each AMS can produce local-language video or webinar style presentations based on the module lessons that can be used by local educators to play back to students. The local educators can explain and elaborate further using an interactive platform such as Zoom or Google Meet. The assessment tasks may need to be modified to enable students to conduct them individually and submit them electronically for evaluation. It is also possible to create massive open online courses using the material provided in the ToT Program. However, in order to have maximum impact, it is recommended that the curriculum be localised, which could limit the scalability of delivering a massive open online course.

About the Model Curriculum Modules

Six modules can be found in Part 3 of this document, which forms the core of the ToT Program. When presented sequentially, the modules aim to:
- Increase knowledge about how disinformation is created and why it spreads.
- Increase understanding of recent and emerging trends in disinformation.
- Increase capacity to detect disinformation and stop its spread.

Each module is defined by intended student Learning Outcomes and contains Background Notes that serve to provide knowledge and resources to educators; a set of Topics, suggested Lessons, and Activities to provide a learning experience for students; and an Assessment Activity to evaluate their learning.

The following table outlines the intended student learning outcomes associated with each topic and module.

Learning Outcomes by Module and Topic

Module 1: The Power of Information	
Topic 1.1: The Role and Impact of Information	
Learning Outcomes	• Students can describe the role information plays in our lives
Topic 1.2: Becoming Information Literate	
Learning Outcomes	• Students can evaluate the quality of information sources for decision-making • Students can explain the importance of information literacy
Module 2: The Age of Disinformation	
Topic 2.1: Understanding the Information Disorder	
Learning Outcomes	• Students can describe harmful information using more precise terms and categories • Students can find examples of disinformation, misinformation, and dangerous speech
Topic 2.2: Examples and Impacts of Disinformation	
Learning Outcomes	• Students can explain how disinformation can impact politics and governance • Students can explain how disinformation is used by violent extremists/terrorists • Students can explain the impacts of disinformation during a public health emergency • Students can explain how they can limit the spread of disinformation
Module 3: How Disinformation Spreads	
Topic 3.1: Tactics of Disinformation Producers	
Learning Outcomes	• Students can recognise disinformation
Topic 3.2: The Demand for Disinformation	
Learning Outcomes	• Students can recognise their own psychological biases • Students can explain how bias can be used by disinformation producers
Topic 3.3: Algorithms, Filter Bubbles, and Advertising	
Learning Outcomes	• Students can explain what a filter bubble is and how to get out of it • Students can describe the way advertising can be used to target disinformation
Module 4: Recent Trends in Disinformation	
Topic 4.1: Coded Messaging and Co-Option of Internet Aesthetics	
Learning Outcomes	• Students can describe examples of coded messages • Students can find examples of disinformation that has co-opted the aesthetics familiar to target audiences
Topic 4.2: Deepfakes and Fabricated Media	
Learning Outcomes	• Students can describe the impacts of deepfakes—especially on women • Students can explain how to prevent the impact of deepfakes
Module 5: Journalists, News Media, and Disinformation	
Topic 5.1: Trust and News Media	
Learning Outcomes	• Students can describe factors that contribute to the prevalence of disinformation in journalists and the news media
Topic 5.2: Rebuilding Trust in Journalism	
Learning Outcomes	• Students can identify trustworthy news media platforms and journalists
Module 6: Becoming a Disinformation Detective	
Topic 6.1: Lateral Reading	
Learning Outcomes	• Students can perform lateral reading to fact-check information
Topic 6.2: Online Tools to Assist Fact-Checking	
Learning Outcomes	• Students can demonstrate their use of online fact-checking tools

Module Structure

The structure of each module is described below.

Module Structure

Module Description	A high-level description that outlines the purpose of Module.
Module Learning Outcomes	Each Module has a set of Learning Outcomes.
Topic	Each Module is broken into one or more Topics.
Topic Learning Outcomes	Learning Outcomes associated with the Topic.
Background Notes for Educators	Detailed information and external reading references that relate to the Topic's subject matter. Educators can use this information to customise Lessons and discuss the issues related to the topic with their students.
Lesson: Presentation and Discussion Activities	Suggested lessons and activities aligned to the Learning Outcomes that will help students understand and engage with the Topic's subject matter.
	It is recommended that the lesson is delivered using a presentation and discussion format, as opposed to a formal lecture and talk. The Activities are designed to further build understanding and knowledge about the Topic.
	Educators are expected to adjust, modify, customise, and/or create new lesson plans to meet the local requirements of their students.
Assessment Task	Evaluation suggestions to determine if the intended learning outcomes were achieved.

Teaching Approach

Educators often know how best to engage their students and ensure the effective transfer of knowledge and skills. Therefore, the information provided in this section should be balanced with existing educational approaches and requirements that are being used successfully to engage young people in ASEAN Member States.

We recommend that educators consider the E5 model[9] when designing the teaching approach. For example, the Lesson and Activities should Engage, Explore, Explain, and Elaborate, and the Assessment Task can Evaluate the student's learning. The E5 model is just one of many models that can be used to deliver lessons and there is not a requirement to adhere to it. There may be other teaching approaches with which educators in AMS are already familiar and can be used to deliver the lessons related to this Program.

We also recommend that an experiential learning approach is adopted. In many cases, students will have experiences of being exposed to false, harmful, and manipulated information. They may have come across social media posts that attempted to sway their behaviour. Encouraging students to share these experiences can help them and their peers to become more engaged, become more curious about the lessons, and want to address the challenges posed by disinformation.

For students to grasp the challenges faced by disinformation and how to counter will require critical thinking skills. Research has found that a pedagogy that uses dialogue or learning through discussions combined with authentic examples such as real instances of disinformation

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[9] Lesley University, *Empowering Students: The 5E Model Explained*, accessed 25 June 2021, https://lesley.edu/article/empowering-students-the-5e-model-explained.

and mentoring students with feedback and guidance to be most effective.[10] Therefore, the lessons in the Model Curriculum Modules have been described as "presentations and discussion" and not lectures—providing an opportunity to the educator use dialogue and interactive discussions, incorporating the students' own experiences, to draw in students and have them increase their disinformation literacy.

Teaching a Topic

The following process can be used by educators to teach students a topic within the module:

- **Step 1**: Review the intended student Learning Outcomes and modify as required to meet the local requirements.
- **Step 2**: Read over the Background Notes and read or watch the Additional Resources provided for a given Topic.
    - o Modify or incorporate examples that are relevant to the local context and/or will better engage with students.
- **Step 3**: Review the Lesson and modify the Presentation and Discussion (if deemed necessary), and the Activities to check and align with the Learning Outcomes.
    - o Ensure age-appropriateness and relevance to local context.
    - o Check that lessons and activities match the capacity and capabilities of students.
    - o Note that not all students may have access to technologies or the Internet. Modify the Lesson design to take this into account.
- **Step 4**: Review the Assessment Task and modify it to ensure it is able to evaluate the students based on the intended Learning Outcomes.

Note that timeframes for the delivery of Lessons are intentionally not specified so that educators can be flexible in making modifications according to local requirements and time available to deliver the topics.

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[10]   Junior, R. B. 2020, *The Fake News Detective*, Georgia Tech Library, accessed 15 July 2021, https://smartech.gatech.edu/handle/1853/63023.

PART THREE: MODEL CURRICULUM MODULES

Module 1: The Power of Information

This module provides students with a definition of information so they can understand its power and role in their lives and their community. Students will understand the importance of being information literate to enable them to evaluate the quality of information they use for making small and big decisions.

Topic 1.1: The Role and Impact of Information	
Learning Outcomes	• Students can describe the role information plays in our lives
Topic 1.2: Becoming Information Literate	
Learning Outcomes	• Students can evaluate the quality of information sources for decision-making
	• Students can explain the importance of information literacy

Topic 1.1: The Role and Impact of Information

Learning Outcomes	• Students can describe the role information plays in our lives

Background Notes for Educators

The word "information" is not easy to define. One way to think about information is that it provides descriptions or answers to uncertainties. Information helps us make decisions to questions we have about ourselves and the world around us.

Information can provide us with knowledge. For example, the information found in a science textbook can provide us with knowledge about climate change. Information can also be data—such as the temperature outside or the number of people driving on a particular road—if it helps us decide what to wear or which roads to avoid. Information can also give us perspectives and insights into local and global challenges and can help us better understand the world around us.

Before the Internet, our sources of information included, for example, libraries, newspapers, television, community leaders, parents, friends, and word of mouth. However, our access to these mediums—either as consumers or producers—was limited by various factors such as geographic location, literacy levels, and cost. Regulation of the media by government authorities also determined how media companies operated and the types of information we could and could not access. And the limited number of channels and newspapers made it easier to monitor and enforce the regulations.

When the Internet was launched, it was promoted as a medium that would liberate information creation, distribution, and access. The Internet was seen by many as a technology that championed freedom of speech and was capable of bypassing the laws that regulated newspapers, radio, and television stations.

Since the early 2000s, the production and sharing of information have accelerated because of the explosive growth of social media and instant messaging platforms such as Facebook,

YouTube, and WhatsApp, as shown by the following graph, which, for instance, shows that almost 3 billion people or 40 percent of the world's population is on Facebook.[11]
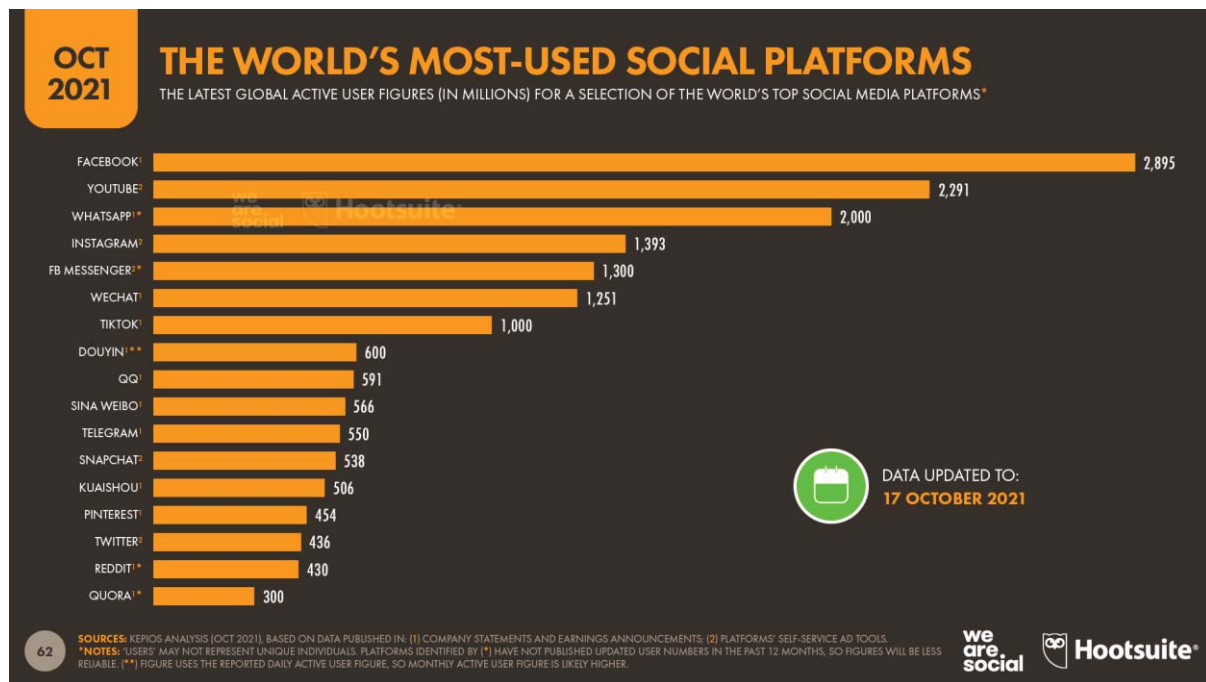
Source: A Decade in Digital

Social media platforms enable us to publish anything and what we produce can be accessed by millions of people within a matter of seconds. Accessing social media is easy—the information is pushed to users and appears on computers or mobile devices. Anyone can become a publisher. The following statistics indicate the power of social media platforms:

- YouTube has more than 2 billion users who watch more than 1 billion hours of content every day[12]. Reports indicate that YouTube users upload more than 500 hours of video every minute[13].
- By late 2020, WhatsApp was delivering approximately 100 billion messages a day[14]. That's more than 1 million messages per second. WhatsApp users are also making more than 15 billion minutes of voice and video calls every day[15].

Social Media and Southeast Asia

Social media adoption in Southeast Asia has been explosive over the last few years. Blossoming mobile network operations combined with low-cost smartphones and access plans

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[11] Kemp, S. 2021, *A Decade in Digital*, Data Reportal, 29 November, accessed 20 December 2021, https://datareportal.com/reports/a-decade-in-digital.

[12] YouTube, *Ever wonder how YouTube works?*, accessed 3 August 2021, https://www.youtube.com/intl/en-GB/about/press/.

[13] Mohsin, M. 2021, *10 YouTube Statistics Every Marketer Should Know in 2021*, Oberlo, accessed 02 July 2021, https://au.oberlo.com/blog/youtube-statistics.

[14] Singh, M. 2020, *WhatsApp is now delivering roughly 100 billion messages a day*, Tech Crunch, accessed 25 July 2021, https://techcrunch.com/2020/10/29/whatsapp-is-now-delivering-roughly-100-billion-messages-a-day/.

[15] Lin, Y. 2021, *10 WhatsApp Statistics Every Marketer Should Know in 2021*, Oberlo, accessed 26 July 2021, https://au.oberlo.com/blog/whatsapp-statistics.

have resulted in the ASEAN region being recognised as having the highest Internet mobile use in the world.[16]

Simon Kemp's "Digital Youth in Southeast Asia" presentation includes some important statistics that indicate the importance of social media for young people in the 16- to 24-year old age bracket.[17]

- They spend an average of 10 hours per day using Internet-connected devices, with an estimated 4 hours per day on average—or a quarter of their waking life spent on social media activities.
- The average number of social media platforms they use is 7.4, with Facebook, Instagram, WhatsApp, TikTok, Twitter, and Facebook Messenger being their favourites.
- YouTube attracts the largest online audience, with 9 in 10 Internet users saying they watch at least one video on YouTube each month.

There is no doubt that students in secondary school and university now receive vast amounts of their information through social media, which has the power to influence them, yet there are pockets of young people who do not access the Internet or social media due to various factors such as income level. Educators should keep this in mind when delivering this topic's lesson.

The Positive and Negative Sides of Social Media

Social media and digital platforms have provided us with enormous benefits. We have vast amounts of information at our fingertips. Our ability to access learning resources, communicate and share our experiences with friends and families, and become informed about what is happening in the world around has never been easier. However, not everything we find on the Internet and through our social media channels is accurate or can be trusted.

As social media has increased in popularity, we have become more reliant on digital platforms to access information that helps us make small and big decisions. Social media can influence us on what clothes to buy, what groups to join, and who to vote for. Some of the information on our social feeds comes from trusted sources like our friends but other information (shared with us accidentally or deliberately) can be false or inaccurate.

Recently, governments around the world have begun to enact laws to regulate the Internet and social media. Governments indicate that these cyber laws are designed to protect people (including children) from harmful information and to counter the use of the Internet and social media by violent extremists though many of these cyber laws also curb freedom of speech and are used to target journalists and government critics.

Information has the power to influence us in positive or negative ways. It has the power to provide us with vast amounts of knowledge, and it has the power to confuse and overwhelm us, causing us to question our own values, belief systems, and authorities. It has the power to manipulate our behaviour and sway our decision-making.

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[16]   Nguyen, H. 2019, 'Google Reports Highest Mobile Internet Use is in ASEAN Region', *VOA News*, 9 October 2019, accessed 26 July 2021, https://www.voanews.com/silicon-valley-technology/google-reports-highest-mobile-internet-use-asean-region.

[17]   Kemp, S. 2021, The Social Media Habits of Young People in South-East Asia, Data Report, accessed 30 July 2021, https://www.slideshare.net/kepios/digital-youth-in-southeast-asia.

Lesson 1.1: The Power of Information

Learning Outcomes	• Students can describe the role information plays in our lives

Class Presentation and Discussion

Engage the students by asking them to define information. After a discussion, present a definition of information and facilitate a discussion about the amount and type of information students access through different types of mediums and sources. These can include television, radio, newspapers, community leaders, family members, online sites, social media, and instant messaging, and more. Lead a discussion of the impact of social media and the power of information to influence and manipulate us and the benefits and challenges posed by regulating the Internet and social media. Question students about how the way they receive information influences them.

Activity 1.1a: Information Sources

Assign students to work in small groups to discuss the different types and sources of information they access to inform the decisions they make. They can be guided to explore information they receive through the mediums and sources discussed in the Class Presentation. Students can also add to this list. For each medium or source, students should indicate if it is low, medium, or high source of information. After completing the activity, bring the students back together to discuss their findings and develop an understanding of where their information comes from.

Activity 1.1b: My World of Social Media

Assign students to track and document the number of messages that appear on their social media feeds, the number of direct messages, and the number of times they shared, liked, commented on, or replied to posts. Students should track messages across all their social feeds, including instant messaging apps. They can use a table like the one below to document their findings or something similar in Excel or Google Sheets[18]. Set an 8-hour period for tracking messages—this can be changed to suit the situation of the students.

Sample Social Media Tracking Table

8-Hour Period (e.g., from 12pm to 8pm on 22 July 2021)			
	Source 1	Source 2	Source 3
Number of messages on social media feed			
Personalised / Direct messages			
Number of messages I shared			
Number of messages I liked			
Number of messages I commented on / replied to			

After completing the activity, students should return to the class and discuss their findings. Question students about the role the messages they documented play in their lives and discuss issues such as relevance, importance, and accuracy.

Note: This activity assumes that students are social media users.

Assessment Task 1.1

Instruct students to use the results of Activity 1.1a to produce a presentation (using PowerPoint or Google Slides) that analyses their social media feeds, indicating the role, if any, that the

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18   Google Sheets is available free and can be accessed here: https://www.google.com.au/sheets/about/.

messages and information had on their lives. For example, some messages may have provided them with opportunities to attend events, provided insights into what their friends were doing, inspired them to learn more about a particular cause, helped them make important decisions, or helped validate feelings about their identity or struggles. The presentation slides should be as specific as possible, but they should not breach the privacy of the individuals who shared messages with the students.

Topic 1.2: Becoming Information Literate

Learning Outcomes	• Students can evaluate the quality of information sources for decision-making
	• Students can explain the importance of information literacy

Background Notes for Educators

In the pre-Internet days, an editor would ensure the quality of information that is published in a newspaper—but in today's digital world, it is extremely different to edit or moderate the massive amounts of information that is being accessed online, including through social media. Terms like "fake news" and "disinformation" have entered our vocabulary to describe information that is false and can manipulate and influence our behaviour negatively. There is a growing global concern about the harm this false information is causing at an individual and society level.

The information that we are exposed to through social media and other digital platforms is often unfiltered, unverified for its accuracy before it gets published and disseminated. Nevertheless, we are becoming increasingly dependent on this unfiltered information to make important decisions that will affect our lives and our communities. And we may be unwittingly influenced by agendas with which we do not agree.

Media and information literacy (MIL) helps people think more critically about the information they come across. MIL education programs can be broad. For example, the United Nations Educational, Scientific and Cultural Organization (UNESCO) MIL framework includes human rights literacy, news literacy, advertising literacy, intercultural literacy, and other inter-related literacies, and is described as "an essential life skill – needed to know what is co-shaping one's identity and how one can navigate information fog and avoid concealed mines within the mist. MIL informs our consumption, production, discovery, evaluation and sharing of information, and our understanding of ourselves and others in the information society". [19]

While MIL aims to address a range of information challenges, it is urgent that we grasp the basics of information literacy to help students distinguish between what is accurate and what is false and harmful online.

The first step is to become aware of how and how much false information is being shared through digital platforms, and what harm this false or negative information can cause. At the same time, it is important to recognise that digital platforms can also be a force of good—information that is useful and beneficial can be created quickly and shared. The double-edged nature of social media can be seen in the following two examples. During the 2014 Kashmir floods, social media was used to find missing people, share details of affected areas so rescue

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[19] UNESCO, *Journalism, 'Fake News' and Disinformation: A Handbook for Journalism Education and Training*, accessed 5 June 2021, https://en.unesco.org/fightfakenews.

efforts could be coordinated, and organise volunteers and relief for the flood victims.[20] In 2017, during Hurricane Irma in the United States, a number of false stories were shared on social media[21], including stories about Miami airport and downtown Miami being flooded.

The motivations for creating false information can vary. The intent can be to prank, to generate followers and likes, to find recruits for a movement, to manipulate and increase power, or to achieve financial benefit.[22]

Information literacy can help us to discern accurate versus manipulative information. It is about being digitally savvy, aware that we should not always believe what we see on our social media feeds, and able to pause and think carefully before we share a message to broader audiences. How do we tell if the information we are using to make important decisions is accurate? Asking the following questions can be a quick way to determine how trustworthy and reliable the information is:

- Look at the source of information: What is the history and reputation of the source?
- Validate or verify the information: Are there other sources that are communicating the same information?

The United Nations campaign #PledgetoPause aims to minimise the sharing of inaccurate or harmful information through social media.[23] The campaign asks users to think about the following points before sharing information: WHO made it? WHAT is the source? WHERE did it come from? WHY are you sharing this? WHEN was it published?
The Modules that follow will go into more detail on better understanding the negative side of social media and how to minimise the negative power of information.

Reading Materials

UNESCO, *Journalism, 'Fake News' and Disinformation: A Handbook for Journalism Education and Training*, accessed 3 August 2021, <https://en.unesco.org/fightfakenews>.

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[20] 'Kashmir floods: Cries for help go out on social media', *Rediff*, 08 September 2014, accessed 2 July 2021, https://www.rediff.com/news/report/kashmir-floods-cries-for-help-go-out-on-social-media/20140908.htm.

[21] Lytvyenko, J., Lewis, C., Smidt, R. 2017, 'Here's A Running List Of Misinformation About Hurricane Irma', *BuzzFeed News*, 13 September, accessed 2 July 2021, https://www.buzzfeednews.com/article/janelytvynenko/irma-misinfo.

[22] Stearns, J. 2016, 'Why do people share rumours and misinformation in breaking news?', *First Draft News*, 30 September, accessed 3 July 2021, https://firstdraftnews.org/articles/people-share-misinformation-rumors-online-breaking-news-events/.

[23] Verified, *Pause*, accessed 30 July 2021, https://shareverified.com/pledge-to-pause/.

Lesson 1.2: Becoming Information Literate

Learning Outcomes	• Students can evaluate the quality of information sources for decision-making • Students understand the importance of information literacy

Class Presentation and Discussion

Engage the students by asking them what was the most important decision they made during the week and what information helped them make that decision. Facilitate a discussion on the accuracy and trust quality of information and decision making, and prompt students to explain how they determine information quality. Educators should introduce the MIL concept and information literacy as a skill students need to navigate the vast amount of information they encounter every day.

Activity 1.2a: Information and Decisions

Have students work in pairs or small groups to map the sources of information that are used to help answer small and big questions, and then rate whether the accuracy or trustworthiness of that source is low, medium, or high.

- **Task 1.** Students should conduct interviews with family and community members to gather a list of questions or decisions they need to make and the sources of information they use to answer the questions or make the decisions. Each group should identify at least 10 questions/decisions and corresponding information sources (there can be more than one source per question). They should document their findings using a table. For example:

Questions	Information Source/s
Should I carry an umbrella today?	Accuweather App
	What my friends say on social media
Which candidate should I vote for?	Speeches by the candidates
	What the *XX* news channel says about the candidates
	My parents' views

- **Task 2.** Students should discuss the findings, and then rate the trust quality of each of the information sources as low, medium, or high. Note that the rating is done by the students, not the interview subject.

Questions	Information Source/s	Rating
Should I carry an umbrella today?	Accuweather App	High
	What my friends say on social media	Medium
Which candidate should I vote for?	Speeches by the candidates	Low
	What the *XX* news channel says about the candidates	…
	My parents' views about the candidates	…

After completing the tasks, the students return for a discussion about their findings. Prompt a discussion by asking students to explain the rationale behind their quality ratings. Personal information sources, such as parents, are hard to rate. In the above example, parents may be either highly informed and able to share accurate information or uninformed and share misinformation.

Assessment Task 1.2

Assign students to produce a poster or a leaflet (or other creative communications product) aimed at a target audience (such as their peers, family members, etc.) that promotes the importance of being information literate in the age of social media. What is produced should clearly outline the problems and the solutions in a way that convinces the target audience to take an interest and want to learn about information literacy.

Module 2: The Age of Disinformation

This module introduces students to "information disorder" and provides them with precise definitions and frameworks to better understand and describe false, harmful, and dangerous information that make up information disorder. Students will learn how to categorise harmful and dangerous information to consider how it can be used to undermine democratic principles, create social divisions, and drive violent extremism.

This module contains two topics.

Topic 2.1: Understanding Information Disorder	
Learning Outcomes	• Students can describe harmful information using more precise terms and categories • Students can find examples of disinformation, misinformation, and dangerous speech.
Topic 2.2: Examples and Impacts of Disinformation	
Learning Outcomes	• Students can explain how disinformation can impact politics and governance • Students can explain how disinformation is used by violent extremists/terrorists • Students can explain the impacts of disinformation during a public health emergency • Students can explain how they can limit the spread of disinformation

Topic 2.1: Understanding Information Disorder

Learning Outcomes	• Students can describe harmful information using more precise terms and categories • Students can find examples of disinformation, misinformation, and dangerous speech

Background Notes for Educators

Terminology and frameworks are required to describe, understand, and respond to complex environments, including our information and media environments that have become polluted with false and harmful information.

The term "fake news" is commonly used to describe false or inaccurate news but the term is not adequate to describe a phenomenon that affects the entire information ecosystem.[24] In many countries, the term has also been used by politicians and others to dismiss accurate but inconvenient news, discredit news media outlets, or silence critics and is generally considered by media specialists to be broad and meaningless. Also, in many countries, "fake news" has been used to justify censorship laws and restrict the voices of government critics. [25]

Dr Claire Wardle, founder of First Draft News—an organisation that works to protect communities across the world from harmful information—recognised the inadequacy of the term "fake news" and, in 2017, coined the term "information disorder" to explain the scale of information pollution happening around us. With Dr Hossein Derekhshan, she proposed a

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[24] Wardle, C. 2017, *Fake news. It's complicated.*, First Draft Footnotes, accessed 11 August 2021, https://medium.com/1st-draft/fake-news-its-complicated-d0f773766c79.

[25] Habgood-Coote, J. 2018, *The term 'fake news' is doing great harm*, The Conversation, accessed 11 July 2021, https://theconversation.com/the-term-fake-news-is-doing-great-harm-100406.

framework to improve the way we discuss information disorder.[26] They identified three main types of information disorder: misinformation, disinformation, and malinformation.

- **Misinformation:** False information that is shared by a person who does not intend to cause harm. For example, one could post misinformation in a social media group that promotes a cure for the coronavirus disease without realising it was promoting an untested medicine that might have dangerous side effects.[27]
- **Disinformation:** False information that is deliberately created and published to cause harm or create profit. The video *Plandemic* is a good example of disinformation.[28] It describes "an unsubstantiated secret plot by global elites… to use the coronavirus pandemic to profit and grab political power."
- **Malinformation:** Accurate information such as private details of a person's address that is shared to cause harm. Posting intimate images of an individual with the intent to embarrass or shame them, or publicly revealing an individual's personal details such as home address or workplace without their consent, which is also known as "doxxing," are examples of malinformation.

Types of Information Disorder

FALSENESS   INTENT TO HARM

Misinformation
Unintentional mistakes such as innaccurate photo captions, dates, statistics, translations, or when satire is taken seriously.

Disinformation
Fabricated or deliberately manipulated audio/visual content. Intentionally created conspiracy theories or rumours.

Malinformation
Deliberate publication of private information for personal or corporate rather than public interest, such as revenge porn. Deliberate change of context, date or time of genuine content.

Source: Understanding Information disorder by Clare Wardle

What is important to note with this framework is the difference between false information and the intent to create harm. Educators should ensure that students clearly understand that their actions of sharing false information (misinformation) unintentionally can be what the producer of disinformation seeks, and they have a responsibility to ensure that their posts or messages contain accurate information.

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[26]   Wardle, C., Derekshan, H. 2017, *Information Disorder, Council of Europe*, accessed 11 August 2021, https://rm.coe.int/information-disorder-toward-an-interdisciplinary-framework-for-researc/168076277c.

[27]   Alba, D. 2020, 'Virus Conspiracists Elevate a New Champion', *The New York Times*, accessed 15 August 2021, https://www.nytimes.com/2020/05/09/technology/plandemic-judy-mikovitz-coronavirus-disinformation.html.

[28]   Nazar, S., Pieters, T. 2021, 'Plandemic Revisited: A Product of Planned Disinformation Amplifying the COVID-19 "infodemic"', *Frontiers*, accessed 15 August 2021, https://www.frontiersin.org/articles/10.3389/fpubh.2021.649930/full.

Disinformation and misinformation can be broken down further into the seven types. The notes and examples below are reproduced from First Draft[29], a resource educators are encouraged to examine.

- **Satire or parody:** While sometimes satire and parody are intelligent art forms, in the hands of disinformation producers, satire and parody is hateful, polarising, and divisive. This form can also be used to bypass fact-checkers to share rumours and conspiracies. Any criticism or pushback can be easily dismissed by stating that it was never meant to be taken seriously. For example, *Le Gorafi*[30], a satirical site, ''reported'' that French presidential candidate Emmanuel Macron feels dirty after touching poor people's hands. This worked as an attack on Macron as he is regularly characterized as being out of touch and elitist. Later, when he visited a factory, a worker challenged Macron to shake his ''dirty, working-class hands.''

- **False connection:** This refers to the use of "clickbait" content, when news outlets or people post articles and stories using sensational language to drive clicks and traffic to their sites, or increase engagement on social media posts. Often polarizing and emotive language is used, tapping into people's biases and negative perception of facts and situations.

- **Misleading content**: This is hard to define precisely. It refers to content that uses fragments of quotes or presents slightly modified statistics, to alter the meaning of the message and to mislead the reader. Cropping photos so the full picture is not shown can also lead to misleading content. For example, such content could be a stylized photo of a celebrity or global leader with text in quotation marks, but the "quote" is not attributable to the pictured individual.

- **False content:** This type of content is genuine but has been reframed or provided out of context to manipulate the reader. One example that was circulated widely shows a photograph of a woman walking past a victim of a terror attack in London in 2017. The photograph was tweeted by an account associated with a Russian disinformation campaign with text suggesting that the Muslim woman was indifferent to the victim of the attack. The woman, interviewed afterwards[31], said that she was traumatised and not looking at the victim out of respect.

- **Imposter content:** Our brains are always looking for shortcuts to help us determine if information is accurate. A logo of a reputable organisation or a trusted, well-known person can be convincing. This type of content associates disinformation with logos or personalities of trusted entities to increase credibility.

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29   Wardle, C. 2020, 'Understanding Information disorder', *First Draft News*, 22 September, accessed 18 July 2021, https://firstdraftnews.org/long-form-article/understanding-information-disorder/.

30   Gorafi News Network, accessed 2 August 2021, https://www.legorafi.fr.

31   Dixon, H. 2017, 'Russian bot behind false claim Muslim woman ignored victims of Westminster terror attack', *The Telegraph,* 13 November 2017, accessed 18 July 2021, https://www.telegraph.co.uk/news/2017/11/13/russian-bot-behind-false-claim-muslim-woman-ignored-victims/.

- **Manipulated content:** This is genuine content that has been altered and relates most often to photos and videos. For example, this Twitter post claims that immigration police are arresting people at voting booths. However, the image of the immigration police making an arrest has been superimposed on top of people waiting to vote.

- **Fabricated content:** This type of content is 100 per cent false. For example, a false claim that Pope Francis endorsed Donald Trump circulated ahead of the 2016 US Presidential election, receiving a great deal of attention. Low-cost photo and video editing software can help disinformation producers create fabricated content. The future and the next wave of fabricated content will be powered by artificial intelligence, otherwise known as "deepfakes." More details about that are in Module 4.

The above examples have been intentionally selected from outside of the ASEAN region. During the localisation process of the ToT Program, it is recommended that examples that are relative to AMS be considered.

Other Categories of Information Disorder

Another category of the information disorder is dangerous speech. While it is not included in Wardle and Derekhshan's framework, the concept of dangerous speech is important to understand especially within contexts where violence is fuelled by information.

Dangerous speech is any form of expression (e.g., speech, text, or images) that can increase the risk that its audience will condone or participate in violence against members of another group.[32] For example, dangerous speech is influential when individuals such as political or religious leaders speak negatively about a specific group of people with the intent of having their followers carry out attacks. Dangerous speech can include disinformation because often it contains false and harmful information. And like disinformation, dangerous speech can be shared without the intent to create harm. It is important we are vigilant about this category of information on our social media feeds.

Hate speech, on the other hand, is a broader term, with different interpretations that do not reach the "incitement" threshold of dangerous speech. The term hate speech is also used widely, especially where specific communities are attacked using information in order to generate intolerance and hatred. The United Nations defines hate speech as "any kind of communication in speech, writing or behaviour, that attacks or uses pejorative or discriminatory language with reference to a person or a group on the basis of who they are, in other words, based on their religion, ethnicity, nationality, race, colour, descent, gender or other identity factor".[33] Hate speech can also be considered a type of malinformation—where true information is used in a way that creates harm. For example, personal information—such as an individual's health condition—is made public to undermine them or attack their reputation.

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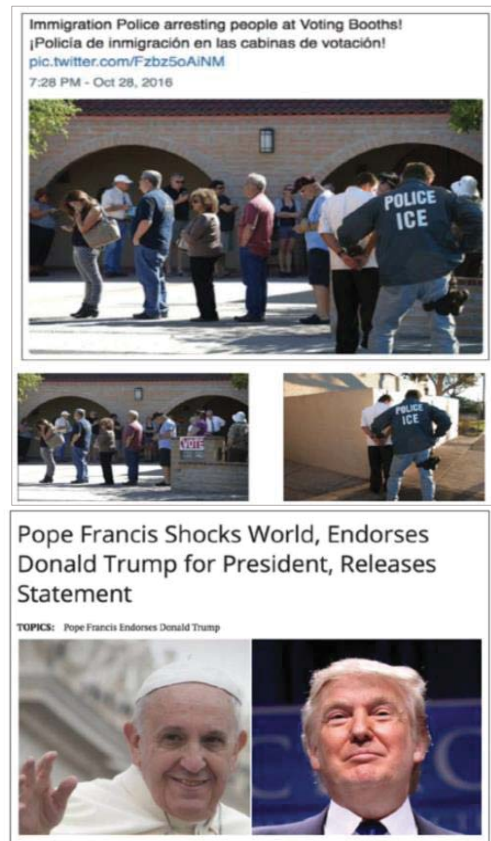
[32] Dangerous Speech Project, *FAQ*, accessed 12 August 2021, https://dangerousspeech.org/faq/.

[33] United Nations 2020, *United Nations Strategy and Plan of Action on Hate Speech*, accessed 12 June 2021, https://www.un.org/en/genocideprevention/hate-speech-strategy.shtml.

Why Disinformation is Polluting the Information Landscape

The producers of false and harmful information have always tried to compete with accurate and truthful information for our attention. Before the Internet, journalists played a key role in fact-checking and weeding out disinformation. Now, new technologies and social media provide the tools and channels to deploy sophisticated disinformation campaigns that combine fact with fiction, making it increasingly difficult to detect and counter. Disinformation is becoming more influential in our feeds because:

- Social media and instant messaging platforms enable anyone to publish anything online and have it shared by thousands of people within a few seconds.
- Weakened journalism and news media organisations create a void that is filled by disinformation.
- Audiences cannot or are unwilling to identify false and harmful information and continue to spread it to others.

Reading Material

Habgood-Coote, J. 2018, *The term 'fake news' is doing great harm*, The Conversation, accessed 3 August 2021, <https://theconversation.com/the-term-fake-news-is-doing-great-harm-100406>.

Starbird, K. 2020, *Disinformation campaigns are murky blends of truth, lies and sincere beliefs – lessons from the pandemic*, The Conversation, accessed 4 August 2021, <https://theconversation.com/disinformation-campaigns-are-murky-blends-of-truth-lies-and-sincere-beliefs-lessons-from-the-pandemic-140677>.

Lesson 2.1: Understanding Information Disorder

Class Presentation and Discussion

Engage the students by asking them what they think about the term "fake news" and guide the discussion so that students come to their own conclusions as to why the term is problematic. Present terms and categories that students can use to describe information disorder. Discuss the terms and ask students to make suggestions of examples of each of the types and categories, focusing primarily on students being able to differentiate between disinformation and misinformation. Educators can construct or provide hypothetical examples to ensure students grasp the meaning of the terms and categories and understand the terms' limits and connotations.

Activity 2.1a: Analysing Online Sites and Social Media Posts

Pair off students to find at least 10 examples of the types and categories of false information on online sites and on their social media feeds and messaging platforms. Students should screen grab the messages and create a presentation of their findings, including how many Likes, Shares/Retweets, Views, and Comments each post has had. They should also label the posts using the types and categories described in the Class Presentation. After completing the activity, students should return to the class and discuss their findings, explaining the rationale behind the labels and critically assessing users' engagement on this type of content.

Assessment Task 2.1

Students must produce an educational poster or infographic about information disorder. They should include social media content relevant to them and their community. Students should demonstrate an understanding of the different types of disinformation and be able to explain which types and categories are potentially harmful and dangerous to their community.

Topic 2.2: Examples and Impacts of Disinformation

Learning Outcomes	• Students can explain how disinformation can impact politics and governance
	• Students can explain how disinformation is used by violent extremists/terrorists
	• Students can explain the impacts of disinformation in a public health emergency
	• Students can explain how they can limit the spread of disinformation

Background Notes for Educators

The barriers to creating and spreading disinformation through social media are very low. Anyone with a social media account can do it, and the impact that is caused can be very high. Disinformation is wreaking havoc across society and impacting our lives in ways that were unimaginable before. During the lesson, educators should discuss the variety of impacts with their students.

Disinformation and Political Activity, Particularly Elections-Related

Disinformation has been used in democratic and authoritarian countries in attempts to confuse voters and influence election outcomes. A research study found that undecided voters in the 2016 United States presidential election were more likely to vote for Donald Trump if they believed the disinformation they saw on social media about the other candidate, Hillary Clinton.[34] Although there is no definitive evidence suggesting Donald Trump's unexpected victory in 2016 was due to fake news on social media, with the increasing volume of disinformation in media, would-be voters must be ever-vigilant in their efforts to untangle the truth from lies.

Prior to the 2018 presidential elections in Brazil, the 120 million WhatsApp users in the country were flooded with political messages. The country has an electronic voting system where citizens punch in an identity number of their preferred candidate. A widespread WhatsApp message displayed the name of a presidential candidate next to the number 17. However, the number 17 belonged to a different candidate, the far-right candidate Jair Bolsonaro. A study of 100,000 WhatsApp messages in Brazil during this time found that over half contained false or misleading information related to the election.[35]

In India, between 2017 and 2018, rumours of child kidnapping spread through WhatsApp, incited violence against certain population segments and resulted in at least 33 murders and more than 99 attacks. Prior to 2017, before WhatsApp's popularity, there was only one such incident.[36]

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[34] Lee, J. M. 2020, 'How Fake News Affects U.S. Elections', UFC Today, 26 October, accessed 12 July 2021, https://www.ucf.edu/news/how-fake-news-affects-u-s-elections/.

[35] The New York Times, *Disinformation Spreads on WhatsApp Ahead of Brazilian Election*, accessed 12 July 2021, https://www.nytimes.com/2018/10/19/technology/whatsapp-brazil-presidential-election.html.

[36] Lahariya, K. 2019, '"They pluck out hearts of children"—how fake news is crippling Indian villages with anxiety', Quartz India, 17 September, accessed 12 July 2021, https://qz.com/india/1710209/rural-india-in-turmoil-over-whatsapp-kidnapping-fake-news/.

Social Media and Violent Extremism

Social media platforms are being used to promote the agendas of violent extremists and terrorist groups such as Islamic State of Iraq and Syria (ISIS). These groups have become experts in creating disinformation and using imagery and videos to engage with audiences and recruit followers. For example, the image on the right is fabricated to show an ISIS supporter with a weapon in Denver in the United States.[37] Followers of violent extremists also

Screenshot depicting Denver from ISIS-Somalia video, December 2017

generate social media messages that reinforce or sympathise with the agenda of terrorist groups, which can get liked and retweeted by others.

Public Health Crises and COVID-19

The global COVID-19 pandemic has resulted in an "infodemic" about the virus, creating "a situation in which a lot of false information is being spread in a way that is harmful."[38] This false and often harmful and dangerous information is spreading through social media at alarming rates.

The World Health Organisation (WHO) has recognised that the infodemic can "can lead to confusion and ultimately mistrust in governments and public health response" and is actively producing factual information and corrections on its website in response to the disinformation and myths that are spreading throughout the world. Examples from the WHO mythbusters website[39] include:
- Correcting myths that 5G mobile networks are the real cause of the pandemic.
- Confirming that COVID-19 cannot be spread through mosquito bites.
- Asserting that vitamin and mineral supplements cannot cure COVID-19.
- Confirming that alcohol-based sanitizers can be used in religions where alcohol is prohibited.

COVID-19 has also been used as hook to produce disinformation that generates outrage and has the potential to incite violence. For example:
- A post suggested that non-white patients infected with the coronavirus in a town in England were left to die.[40]
- In India, where there are tensions between the Muslim and Hindu communities, stories circulated claiming that Muslim men were spreading the virus and that healthy Muslims were being taken away and injected with the virus.[41]

There is also clear evidence that foreign anti-vaccination conspiracies are now spreading in West Africa, stoking vaccine hesitancy among populations already suspicious of Western

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[37] NCTC, DHS, FBI 2018, *First Responder's ToolBox*, accessed 13 July 2021, https://www.dni.gov/files/NCTC/documents/jcat/firstresponderstoolbox/NCTC_DHS_FBI_First_Responders_Toolbox_-_Terrorist_Disinformation.pdf.

[38] Cambridge Dictionary, *Infodemic*, accessed 13 August 2021, https://dictionary.cambridge.org/dictionary/english/infodemic.

[39] WHO 2021, *Coronavirus disease (COVID-19) advice for the public: Mythbusters*, accessed 13 July 2021, https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters.

[40] Wright, J. 2020, 'Coronavirus doctor's diary: 'Fake news makes patients think we want them to die'', *BBC News*, 19 April, accessed 13 July 2021, https://www.bbc.com/news/health-52337951.

[41] Spring, M. 2020, 'Coronavirus: The human cost of virus misinformation', *BBC News*, 27 May, accessed 14 July 2021, https://www.bbc.com/news/stories-52731624.

medicine and making the health problem even worse. Research by First Draft indicates that disinformation networks in the US and Russia are pushing anti-vaccine content onto Facebook Pages and Groups in the African region, and that disinformation networks based in France are amplifying English-language articles by publishing translated versions that can be consumed by French-speaking Africans.[42]

The impact of COVID-19 disinformation is also rampant in Southeast Asia, which is hampering containment efforts and vaccination drives. As we have seen in the earlier examples, the disinformation producers use targeted approaches to spread their manipulative messages. For example, in the majority Catholic Philippines, people are vulnerable to false information spread by US evangelical Christian groups. One video claimed that the vaccine shots would leave a "mark of the beast," which alludes to the antichrist or the devil.[43] This sort of disinformation can live multiple lives—it may be debunked in one community or country only to take on a new life in another, particularly where there are low levels of information literacy alongside high levels of dependency on social media and instant messaging groups for information.

Reducing Disinformation While Protecting Freedom of Speech

Governments throughout the world have recognised the seriousness of the impacts caused by disinformation and many have enacted special laws to address the problem. Many of these "fake news" laws have been enacted in response to COVID-19 disinformation. There is concern that some of these laws may impact privacy and freedom of expression. First Draft reports:

> *"The surfeit of misinformation online during the pandemic has prompted some governments to implement extraordinary measures in an attempt to establish control amid the chaos. Criminalizing the dissemination of false news, expanding existing penalties for spreading misinformation, and increasing surveillance are among the actions some authorities have taken. Human rights and media observers warn that such remedies are worse than the problem they seek to alleviate, and that freedom of expression, privacy and the right to protest are disintegrating under the pretext of safeguarding public health".* [44]

The United Nations has also expressed concern about the potential overreach of security measures by countries in their response to the COVID-19 outbreak, reminding countries that "any emergency responses to the coronavirus must be proportionate, necessary, and non-discriminatory."[45]

Social media companies, which have been severely criticised for not moderating harmful content on their platforms, are now undertaking various initiatives to block disinformation from users' feeds. Digital platforms including Facebook, YouTube, and Twitter are actively blocking content that breaks their community policies related to harmful content. They use

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[42]   Dotto, C., Cubbon, S. 2021, 'Disinformation exports: How foreign anti-vaccine narratives reached West African communities online', *First Draft News*, 23 June, accessed 14 July 2021, https://firstdraftnews.org/long-form-article/foreign-anti-vaccine-disinformation-reaches-west-africa/.

[43]   Calonzo, A., Tan, K. W. K. 2021, 'Anti-Vaxxer Propaganda Spreads in Asia, Endangering Millions', Bloomberg, 30 June, accessed 14 July 2021, https://www.bloomberg.com/news/articles/2021-06-30/anti-vaxxer-disinformation-spreads-in-asia-endangering-millions.

[44]   Hand, J. 2020, ''Fake news' laws, privacy & free speech on trial: Government overreach in the infodemic?', *First Draft News*, 12 August, accessed 14 July 2021, https://firstdraftnews.org/articles/fake-news-laws-privacy-free-speech-on-trial-government-overreach-in-the-infodemic/.

[45]   'COVID-19: States should not abuse emergency measures to suppress human rights – UN experts', *UNHR*, 16 March 2020, accessed 14 July 2021, https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=25722.

human moderators and algorithms to detect disinformation. Twitter also has a policy of labelling content to warn users about the potential a post might have to mislead them.[46] There is also a trend by social media companies to "deplatform" or delete the accounts of users who are deemed to be producing disinformation and breaking the social media companies Terms of Use policies. There is an ongoing debate about the merits of deplatforming[47] and other strategies that are needed to minimise the impact of harmful information created and shared on social media.

There will be opportunities to teach students strategies to detect and reduce the impact of disinformation in other modules of this ToT Program. Throughout the course, it is important to remind students to be careful not to spread disinformation and to encourage them to think critically about the information they come across before they share it with others. The following image from the WHO[48] can be used to demonstrate how misinformation can continue to spread, unless people are vigilant.

Minimising the Spread of Misinformation
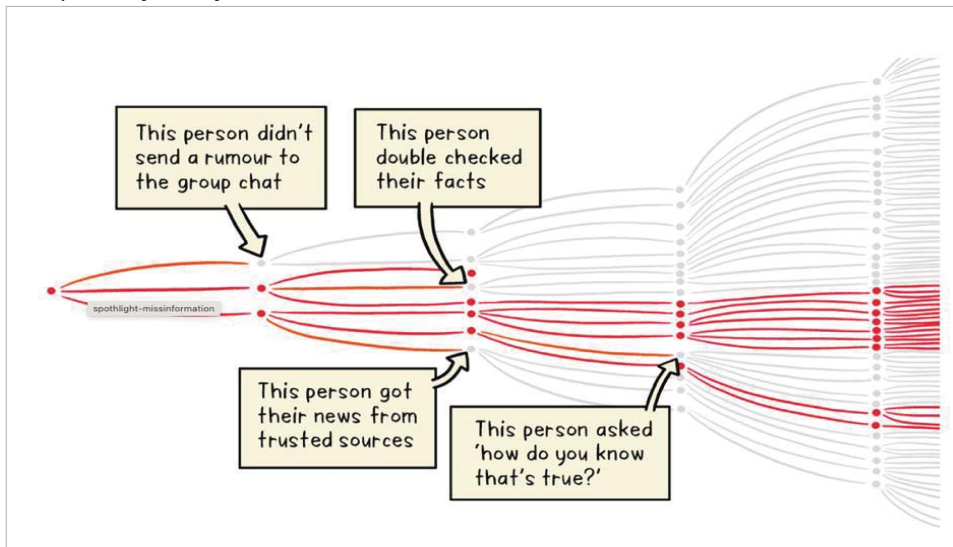
Source: World Health Organisation

Reading Material

'Anti-vaxxer disinformation in Asia endangers millions, jeopardising fight against Covid-19', *The Straits Times*, 1 July 2021, accessed 12 July 2021, <https://www.straitstimes.com/asia/se-asia/anti-vaxxer-disinformation-in-asia-endangers-millions-jeopardising-fight-against-covid>.
Carman, A. 2015, *Filtered extremism: how ISIS supporters use Instagram*, The Verge, accessed 6 August 2021, <https://www.theverge.com/2015/12/9/9879308/isis-instagram-islamic-state-social-media>.
Ahmed, W. 2020, *Four experts investigate how the 5G coronavirus conspiracy theory began*, The Conversation, accessed 6 August 2021, <https://theconversation.com/four-experts-investigate-how-the-5g-coronavirus-conspiracy-theory-began-139137>.

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[46] Bond, S. 2020, Twitter Expands Warning Labels To Slow Spread of Election Misinformation, accessed 14 July 2021, https://www.npr.org/2020/10/09/922028482/twitter-expands-warning-labels-to-slow-spread-of-election-misinformation?t=1637232650220.

[47] Blackburn, J. Gehl, R. W., Etudo, U., 2021, Does 'deplatforming' work to curb hate speech and calls for violence? 3 experts in online communications weigh in, accessed 16 July 2021, https://theconversation.com/does-deplatforming-work-to-curb-hate-speech-and-calls-for-violence-3-experts-in-online-communications-weigh-in-153177.

[48] WHO, *Let's flatten the infodemic curve*, accessed 16 July 2021, https://www.who.int/news-room/spotlight/let-s-flatten-the-infodemic-curve.

Lesson 2.2: Impacts of Disinformation

Class Presentation and Discussion

Engage the students by presenting approximately 10 examples of both true information and disinformation[49], prompting students to guess which is which and share their thinking behind whether to share them or otherwise act upon them. The examples presented could relate to local politics, extremist groups, the coronavirus pandemic, or other topics as deemed appropriate. Memes, pictures, and videos should also be included as examples. Students should be asked to describe the agendas and impacts of the false and harmful messages and discuss how they can stop or limit the spread of disinformation.

Activity 2.2a: Analysing the Motivations and Impacts of Disinformation

Pair off students to find examples of disinformation that relate to the areas of the political landscape, violent and extremist groups, and the coronavirus pandemic. Students can analyse all of their social media platforms or limit their work to a specific platform. For each area, they should screen grab examples of the messages and describe the motivations of those who produced the disinformation and the impacts they have or can cause. When student groups return to the class, facilitate a discussion about their findings and prompt them to explain how they could reduce the level of impact.

Activity 2.2b: Community Research into Disinformation Impacts

Pair off students or form small groups to conduct research on the impacts of disinformation by interviewing family and community members about the political landscape, violent and extremist groups, and the coronavirus pandemic and seeking responses that relate to the impact of disinformation and how to address the problem. You may need to provide students with guideline questions or an example of survey that can be used to conduct the research. When students return to the class, facilitate a discussion of the findings.

Activity 2.2c: Disinformation Targeting Women and Youth

Have students form small gender-diverse groups to better understand and find out the impact of disinformation on women and youth by sharing experiences and perspectives with each other. Depending on the local context, you may suggest specific discussion subjects, such as disinformation that creates curiosity about illicit drugs among youth, the use of disinformation to recruit women and girls to extremist groups, and the use of disinformation to humiliate youth and degrade women. When students return to class, facilitate a discussion about their findings and ask them how they could reduce the level of negative impact of such disinformation.

Assessment Activity 2.2

Have students produce an audio script (3 to 5 minutes) for a story that describes motivations and impacts related to a social media post that contains disinformation. The script can start with a question that might interest the listener. For example, the question could ask the listener to consider the impact of a piece of disinformation or reasons why a certain group has been generating particular disinformation. Students can be creative. For example, the story could be in the form of a news report, an explainer piece, or a fiction piece, where a citizen journalist quizzes a disinformation producer about their motivations for creating false information. The script should conclude by providing tips on limiting or stopping the impact of the

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[49] Fact-checking websites such as https://factcheck.afp.com can provide regional examples of false or misleading news.

disinformation. Guide students on story structure; there are many resources available online, including *Understanding story structure in 4 drawings*, a training resource from National Public Radio.[50]

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[50] Smith, R. 2016, *Understanding story structure in 4 drawings*, National Public Radio, accessed 20 July 2021, https://training.npr.org/2016/03/02/understanding-story-structure-in-4-drawings/.

Module 3: How Disinformation Spreads

This module explains the tactics used by disinformation producers to amplify the impact of their messages. Students will also understand how their own psychological biases can contribute to spreading disinformation and its harmful effects, and the role algorithms, filter bubbles, and advertising have in amplifying disinformation to specific audiences.

Topic 3.1: Tactics of Disinformation Producers	
Learning Outcomes	• Students can recognise disinformation
Topic 3.2: The Demand for Disinformation	
Learning Outcomes	• Students can recognise their own psychological biases • Students can explain how bias can be used by disinformation producers
Topic 3.3: Algorithms, Filter Bubbles, and Advertising	
Learning Outcomes	• Students can explain what a filter bubble is and how to get out of it • Students can describe the way advertising can be used to target disinformation

Topic 3.1: Tactics of Disinformation Producers

Learning Outcomes	• Students can recognise disinformation

Background Notes for Educators

Disinformation producers such as conspiracy theorists, state-sponsored influencers, and extremist groups—depending on their motives—use different tactics to strengthen their credibility, increase their followers, and make their content more easily believable and shareable by audiences. This enables them to further their agenda and influence behaviour. If students become familiar with these tactics, then they may be able to "inoculate" themselves and create resistance to disinformation and online false information. While using information to manipulate people is not a recent phenomenon, social media has allowed disinformation producers to leverage its features to reach more people faster than ever.

Below, we look at six key tactics that help disinformation producers increase their credibility, followers, and, ultimately, reach their goal in manipulating audiences.[51]

- **Impersonation:** The disinformation appears to be produced by public figures such as politicians, figures of authority, or established agencies and organisations to increase its credibility and the likelihood for it to be shared.

- **Emotion and fear-mongering:** Disinformation producers understand that fear-mongering helps draw attention to information, and can generate an emotional response that makes us share a post or discuss it with others, even if we don't necessarily agree with it. Information that generates fear is often sensational and other more credible news media may end up sharing it in order to attract audience interest.

- **Polarisation:** Often our communities are already polarised on a number of issues. Disinformation producers know that if they can tap into our polarised mindsets or affirm our existing attitudes, then we might be more willing to believe and share things they say about other issues.

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[51] Roozenbeek, J., van der Linden, S. 2021, 'Don't just Debunk, Prebunk: Inoculate Yourself Against Digital Misinformation', *Society for Personality and Social Psychology*, 10 February, accessed 16 July 2021, https://www.spsp.org/news-center/blog/roozenbeek-van-der-linden-resisting-digital-misinformation.

- **Conspiracy theories:** Disinformation producers are able to gain credibility by asking audiences to believe a false explanation or theory as to why an event or activity is happening. Many conspiracy theories blame covert groups or groups of powerful elites as the instigator of the event. Disinformation producers gain credibility among audiences by creating, adapting, or promoting existing conspiracies.

- **Discrediting:** When a disinformation producer is confronted with accurate news and information, they go on the offensive by discrediting the credible source. The process of discrediting can include false information and the attacks can get personal. Often others will start sharing these posts, helping to increase the credibility and influence of the disinformation producer, while silencing those who challenged inaccuracy with accurate information.

- **Trolling:** Disinformation producers know that if the person they are targeting is provoked to respond emotionally, then it will help draw attention and increase their credibility and followers. By using the other five tactics, disinformation producers bait their targets for this emotional response.

The work of influencing audiences through disinformation is increasing in sophistication, and the above tactics can be combined in different ways to maximise the impact of disinformation, including packaging it within factual content. Disinformation producers also use special software that performs repetitive tasks—also known as *bots*—to auto-generate and share disinformation at a scale that makes it difficult to detect and address false and harmful information.

Lesson 3.1: Tactics of Disinformation Producers

Class Presentation and Discussion

Engage the students by asking them how they would go about creating a disinformation campaign. Have students generate ideas and drive the discussion to incorporate the disinformation tactics described in the Background Notes. You may also present each of the disinformation tactics and request students to provide a response to them. You may use the Bad News game[52] to engage students and generate a discussion. Indicate to students that by learning about the tactics of disinformation producers, they build up resistance and are able to "inoculate" themselves against disinformation.

Activity 3.1a: Recognising Disinformation Tactics

Have students form small groups and search websites, social media platforms, and instant message groups for examples of different disinformation tactics. Instruct students to screen grab each example and label it with one or more of the tactics that have been used. It is expected that each group will identify at least six examples of disinformation. Once students return to the class, facilitate a discussion of the findings.

Assessment Task 3.1

Instruct students to produce real hypothetical messages and strategies that are linked to the disinformation tactics described above. While the message may be hypothetical, the subjects or names used can be real—so that it is possible to clearly demonstrate how the tactics are being used. Students may produce one or more messages, and each message can be linked to one or more tactics. For example, an image that shows a photo of a COVID-19 vaccine with

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[52] Details about the game and how to use it in an educational setting can be found at http://getbadnews.com

an arrow pointing toward a coffin can be linked to emotion and fear mongering, polarisation, and conspiracy theory.

Topic 3.2: The Demand for Disinformation

Learning Outcomes	• Students can recognise their own psychological biases
	• Students can explain how bias can be used by disinformation producers

Background Notes for Educators

The strategies used to address disinformation often focus on countering the *supply* of disinformation. This includes being able to verify, fact-check, and limit the spread of false and harmful information, which we will cover in Module 6. However, it is important to consider the demand side of disinformation and better understand how the "emotion" tactic (covered in Topic 3.1) is used to attract or pull us toward disinformation.

Our brains struggle to process the vast amounts of information to which we are exposed. Instead of fully processing the information, our brains use shortcuts by relying on our psychological biases to rapidly evaluate and act on the information we get through our social media channels.[53]

A recent report produced by the National Endowment for Democracy[54] highlights the importance of understanding our demand for disinformation by understanding psychological biases that can influence the information we consume, believe, and share. For example, the virality of a social media post is related to its emotional impact. This means that messages that generate strong emotions will be shared more frequently and spread more quickly. Our ability to detect and evaluate disinformation can also be influenced by pre-existing biases, such as racial prejudice. The acceptance of disinformation as truth can be linked to deep-seated beliefs that are difficult to dislodge even if there is strong evidence to the contrary. Importantly, providing more evidence that counters the belief can often backfire and result in a stronger belief in the disinformation.

Below is a list of selected key psychological biases or cognitive drivers that influence how we respond to disinformation. Most of them have been taken from the above-mentioned report and those that are from other sources have additional source references.

- **Implicit bias:** Implicit bias includes a person's attitudes and beliefs (positive or negative) about other people, ideas, issues, or institutions that occur unconsciously and without control, which affect their opinions and behaviour.[55] That is they may act positively or negatively toward something without intending to do so. For example, someone might have an implicit bias or an automatic preference for their own ethnic or religious group over someone else's.

- **Confirmation bias:** People need to confirm or validate their own biases or pre-existing beliefs, such as disliking a particular ethnicity or being opposed to religious belief. For example, Person A might disapprove of Religion B, and will seek out and share any

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[53] Miller, K. 2020, *How Our Ancient Brains Are Coping in the Age of Digital Distraction*, Discover, accessed 16 July 2021, https://www.discovermagazine.com/mind/how-our-ancient-brains-are-coping-in-the-age-of-digital-distraction.

[54] Wooley, S., Joseff, K. 2020, *Demand for Deceit - How the Way We Think Drives Disinformation*, National Endowment for Democracy, accessed 16 July 2021, https://www.ned.org/wp-content/uploads/2020/01/Demand-for-Deceit.pdf.

[55] Facing History and Ourselves, *Confirmation and Other Biases*, accessed 17 July 2021, https://www.facinghistory.org/resource-library/facing-ferguson-news-literacy-digital-age/confirmation-and-other-biases.

information that paints Religion B in a negative light. There are many other cases where confirmation bias works to give credibility to false and harmful information. During elections, people seek out or gravitate toward positive information concerning their preferred candidate, while simultaneously sharing information that paints the other candidates in a negative light.

- **Bandwagon effect:** People are more likely to accept information as being accurate if they believe that others have also accepted it as true.

- **In-group favouritism and out-group discrimination:** People tend to favour their "in-group" based on criteria such as race, gender, sexual orientation, religion, political affiliation, and other factors, over their "out-group." This driver, also known as motivated reasoning, can be better understood by considering sports games or elections. In a game of football, fans tend to believe the referee's decision that favours their side even if it was wrong. In an election, those who supported the losing candidate will believe there was fraud or were inaccuracies involved in the vote count, even if there is clear evidence that the outcome was based on a free and fair election.

- **Negative bias:** Our brains prioritise information about our enemies over other less threatening information. This might cause us to place more emphasis on false information about an "out group" and share that with others.

- **Heightened emotion:** Disinformation can be designed to appeal to our emotions, and those of us who have heightened emotions or are more likely to believe false information, respond to it, and share it with others. Titles and images of disinformation posts are often provocative and aim to tap into our emotions—for example, to create outrage or disgust, or extreme sadness and vulnerability.

Disinformation producers are skilled at exploiting our human nature, our biases, in order to increase the impact their messages can have on us. Titles (*clickbait*), images and videos, and message text are carefully crafted to connect with our biases and emotions. Once a message aligns with one of our biases or provokes an emotional response, the brain tends to take a shortcut and accept the message as accurate, and we end up sharing it with others, spreading misinformation, and potentially causing harm or violence among people and across communities.

Overcoming our Biases

There are many ways to overcome the demand for disinformation and our own susceptibility to it. The following points can help reduce the impact of disinformation that is designed to tap into our biases.[56]

- **Reflect on past decisions.** You may have shared disinformation in the past. Reflecting on what made you do that will increase your awareness about your psychological biases and introduce flexibility and openness to your bias structures.

- **Include external viewpoints.** Force yourself to consider viewpoints from others, especially from people who may challenge your own beliefs. This helps open your mind and break down your biases.

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[56] Nortje, A. 2021, Cognitive Biases Defined: 7 Examples and Resources, Positive Psychology, accessed 17 July 2021, https://positivepsychology.com/cognitive-biases/.

- **Challenge your viewpoint.** Ask yourself why you may be accepting a certain message or planning to click on or share a link. While it can be hard to do, by being self-critical, you can become aware of the manipulative power of disinformation.

- **Don't make decisions under pressure.** Avoid making decisions under time pressure. This will stop you from relying on your cognitive biases and give you time to consider the information more carefully before you act on it.

Reading Materials

Miller, K. 2020, *How Our Ancient Brains Are Coping in the Age of Digital Distraction*, Discover, 20 April, accessed 12 August 2021, <https://www.discovermagazine.com/mind/how-our-ancient-brains-are-coping-in-the-age-of-digital-distraction >.

Ciampaglia, G.L. 2018, *Misinformation and biases infect social media, both intentionally and accidentally*, The Conversation, 20 June, accessed 12 August 2021, <https://theconversation.com/misinformation-and-biases-infect-social-media-both-intentionally-and-accidentally-97148>.

Lesson 3.2: The Demand for Disinformation

Class Presentation and Discussion

Engage the students by asking them to reveal some of their biases. If the response rate is low, describe some of your own biases to provoke their input. Present the psychological biases and provide examples. Where possible, also ask students to contribute and provide examples. Ask students how to reduce the impact of the demand for disinformation. Depending on the answers, share the four points in the Background Notes and ask students to discuss their views and add any additional strategies on reducing the disinformation demand.

Activity 3.2a: Documenting Psychological Biases

Pair off students to discuss and document each other's psychological biases by going through the list of drivers that were presented during the lesson. For example, students may indicate that they are more likely to like or share messages that relate to their own cultural background even if the message is derogatory or negative toward other cultures. You may need to reveal your own biases to inspire students to do the same. Note that the biases can relate to light-hearted subjects like food. Once students return to the class, facilitate a discussion of the findings.

Activity 3.2b: Psychological Biases and Disinformation

Have students form groups to discuss what effect a person's psychological biases will have on their tendency to believe the disinformation messages from Activity 3.1a. For example, if one of the disinformation messages said, "eating durians in the afternoon can make you sick," then a person who does not like the smell of durians may be more likely to share message because of their negative bias toward the fruit. After the activity when students return to the class, facilitate a discussion of the findings.

Assessment Activity 3.2: Assessing Personal Biases

Assign students to write a personal essay describing their own vulnerabilities to disinformation because of their own biases. Their essay should provide examples of biases and real or examples of disinformation that link to those biases. It should also explain how they plan to overcome their biases.

Topic 3.3: Algorithms, Filter Bubbles, and Advertising

Learning Outcomes	• Students can explain what a filter bubble is and how to get out of it
	• Students can describe the way advertising can be used to target disinformation

Background Notes for Educators

Algorithms on digital platforms and social media advertising can influence the type of information or disinformation we are exposed to. Unlike old media such as newspapers and television, where an editor or producer determined the order of the stories and which depended on us "pulling" or selecting the information we want to read or watch, digital platforms are designed to push information at users, and at times hide information from users.

Algorithms and Filter Bubbles

An algorithm is "a set of mathematical instructions or rules that, especially if given to a computer, will help to calculate an answer to a problem".[57] For example, an algorithm takes in data and generates a certain outcome based on the instructions inside the algorithm.

Digital platforms are constantly tracking and updating our data profiles. Computers programmed to perform algorithms are fed this data, which includes the type of posts we click on; videos we watch; posts we made, clicked, or commented on; friends; and ads we have clicked on as well as our status, all the chats we've had, our country, and more. The platforms also have our personal data—such as our name, date of birth, our status, and our contact details. Using this vast array of data, the algorithms are instructed to determine what to show us on our social media feeds and who to suggest as potential friends.

For example, if our social media activity suggests that we are interested in fast cars, then most likely, the algorithm result will display in our feed posts related to fast cars. If our profile suggests we tend to be opposed to vaccination, then we might see messages from members of the anti-vaccination community reinforcing our stance against vaccinations. When this happens, we are experiencing the echo chamber effect where we hear "echoes" of what we are thinking and saying because we have been placed into a "filter bubble" by the algorithm.[58] This means that we are more likely to encounter information or opinions that reflect and reinforce our own. It is a result of confirmation bias, where the algorithm assumes that we will prefer to see information that matches the biases shown on our profile and social media.

Filter bubbles are problematic because they can cause us to only experience one type of information, or one side of a story. Disinformation producers understand how to place messages into our bubble.

Echo chambers and filter bubbles can be avoided by seeking out diverse sources or visiting diverse groups on social media, and interacting with people with different perspectives. For example, if you are a supporter of one political ideology, take a look at another ideology. Or if you belong to one religion, consider what people from another religion have to say about a particular issue. Basically, if the algorithm cannot recognise a pattern in our behaviour, or our behaviour is not predictable, then it becomes harder to place us in a filter bubble.

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[57] Cambridge Dictionary, *Algorithm*, accessed 6 August 2021, https://dictionary.cambridge.org/dictionary/english/algorithm.

[58] GCF Global, *What is an echo chamber?*, accessed 7 July 2021, https://edu.gcfglobal.org/en/digital-media-literacy/what-is-an-echo-chamber/1/.

Advertising

Advertising on digital platforms is always targeted using data collected about us. This is known as microtargeting. For example, if we are interested in fast cars, we may see advertisements for car polish or sunglasses that make us look great when we drive our cars. Sometimes being exposed to such advertisements can be useful and convenient. However, disinformation producers also make use of digital advertising to target or microtarget us with false, misleading, and harmful information. For example, those who wish to discredit electric cars might target false messages that negatively portray electric cars.[59]

Microtargeting has been used in elections to motivate and manipulate us to vote for one candidate over another. Political strategists can focus in on specific profiles and expose them to messages that influences their behaviour or creates doubt in other candidates. Microtargeting can also help boost followers to a particular social media account, giving that account more prominence in other digital platforms.

Disinformation producers can use various tactics, combined with microtargeting to achieve their means. For example, if they want to cause disunity between religions, they could create memes that efficiently tap into our confirmation biases by paying social media platforms to promote their messages to target users who belong to a specific religion. This is almost a guarantee that a harmful message about a certain religion will appear on the social media feed of those who have indicated in their profiles that they belong to that religion.

To minimise the impact of microtargeted messages, users will need to hone their information literacy and be able to analyse the reason why a particular promotional message is appearing on their timelines. Also, we can minimise the effect of microtargeted advertising by ensuring we do not fall into a filter bubble or recognizing when we are in one.

Reading Material

Priebe, M. 2019, *The Social Media Sorting Hat: How Algorithms Drive Your Exposure to News and Politics*, MSU College of Communication Arts and Sciences, accessed 8 August 2021, <https://comartsci.msu.edu/about/newsroom/news/social-media-sorting-hat-how-algorithms-drive-your-exposure-news-and-politics>.
Johnson, G. M. 2020, *Algorithmic bias: on the implicit biases of social technology*, Springer Link, accessed 9 August 2021, <https://link.springer.com/article/10.1007/s11229-020-02696-y>.
BBC Trending 2017, *How can you burst your filter bubble?*, BBC, accessed 8 August 2021, <https://www.youtube.com/watch?v=mh1dLvGe06Y>.

Lesson 3.3: Algorithms, Filter Bubbles, and Advertising

Class Presentation and Discussion

Engage students by asking them what it means to "live in a bubble." After hearing some feedback, describe the term[60] and ask students what it means to live in a "filter bubble" on social media. Educators can respond by discussing or showing the video on filter bubbles (https://www.youtube.com/watch?v=mh1dLvGe06Y). Next, ask students if they have noticed advertisements or promotions on their timelines and provoke the students by asking if there is anything wrong about hearing about products or services that we are more likely to be

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[59] Baudoin-Laarman, L. 2021, *Electric cars in France were not discarded due to faulty technology*, AFP Fact Check, accessed 1 July 2021, https://factcheck.afp.com/electric-cars-france-were-not-discarded-due-faulty-technology.

[60] Educators can provide a formal meaning of the phrase or suggest that it means living within a closed environment where they are not exposed to external ideas or perspectives that are different to their own.

interested in. Generate a discussion around the ethics of microtargeting and have students respond to when microtargeting can be useful and when it can be damaging.

Activity 3.3a: Analysing Timeline Patterns

Have students consider what appears on their social media feeds to evaluate whether they are living in a filter bubble. They should use broad categories to organise the type of messages (videos, text, images) they have received over the past 24 (or 48 hours) and see if they notice a pattern. They should also look at advertisements or promotions and friend suggestions to see if they notice a pattern and map who may be profiting or otherwise benefiting from their data. When students return to the class, facilitate a discussion of the findings.

Assessment Task 3.3

Assign students to develop a disinformation campaign that promotes an untested herbal cure for COVID-19. They must define the profile characteristics and behaviour patterns of social media users they wish to microtarget. (For example, if they were to promote messages about an unproven health food, they may select characteristics that included users who had previously clicked on posts related to losing weight and dieting and are young single women.) Students should aim to describe the target profiles in as much detail as possible to demonstrate their understanding of how filter bubbles and microtargeting works.

Module 4 –Recent Trends in Disinformation

This module increases students' awareness about recent trends related to the creation and sharing of disinformation by looking at how disinformation producers are co-opting the aesthetics of target communities and using coded messages to engage with existing supporters and bypass automated filters. Students will also understand the challenges posed by deepfakes and fabricated media and how to prevent their impact.

Topic 4.1: Coded Messaging and Co-Option of Internet Aesthetics	
Learning Outcomes	• Students can describe examples of coded messages • Students can find examples of disinformation that has co-opted the aesthetics familiar to target audiences
Topic 4.2: Deepfakes and Fabricated Media	
Learning Outcomes	• Students can describe the impacts of deepfakes—especially on women • Students can explain how to prevent the impact of deepfakes

Topic 4.1: Coded Messaging and Co-Option of Internet Aesthetics

Learning Outcomes	• Students can describe examples of coded messages • Students can find examples of disinformation that has co-opted the aesthetics familiar to target audiences

Background Notes for Educators

The face of disinformation is constantly changing. While students may find it easy to recognise and disregard obviously doctored images and videos and posts that contain inflammatory language, disinformation producers are continually arming themselves with new technologies and strategies to appear legitimate and influence vulnerable audiences.

Coded Messaging and In-Group Communications

People who aim to spread controversial or harmful political agendas can use ordinary symbols, images, words, or phrases to secretly express an agenda. The aim of this is to spread an idea or message in plain sight of people who share the same ideology without those people cluing into what is being communicated.

Far right and neo-Nazi organisations have a long history of communicating using coded symbols, images, words, or phrases. This technique has since been adopted by the alt-right and other extreme political groups. With the advent of digital platforms, memes now incorporate coded messages to promote violence or support within their groups or channels. These messages are often perceived as humour or dismissed by those who are not familiar with the codes being used.[61] Sometimes coded messaging like this is referred to as "dog whistling." This is an analogy to ultrasonic dog whistles which can only be heard by dogs due to their ultra-high frequencies outside the range of human ears.

The Anti-Defamation League has an extensive database of hate symbols that can be found here: https://www.adl.org/hate-symbols. Examples of coded messaging include:

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[61] Crawford, B., Keen, F., de-Tangil, G. S. 2020, *EMemetic Irony and the Promotion of Violence within Chan Cultures*, CREST, accessed 20 July 2021, https://icsr.info/wp-content/uploads/2021/01/Memetic-Irony-And-The-Promotion-Of-Violence-Within-Chan-Cultures.pdf.

- **Numeric symbols.** "14" or "14 words". Code for the white supremacist slogan: "We must secure the existence of our people and a future for white children."

- **Images or symbols.** Pepe the Frog. Pepe the frog is a cartoon character co-opted by the far right and reproduced in racist memes.

- **Phrases.** "It's okay to be white." This is a phrase coined by the alt-right with the aim to "troll" liberals. The phrase implies that anti-racists believe that it is not okay to be white. "

- **Gestures.** The okay sign. The okay symbol has been co-opted by the far right.

- **Hijacking legitimate causes.** #SaveTheChildren. #SaveTheChildren was hijacked by QAnon followers. Using hashtags or phrases like this that are associated with genuine charities or causes can make disinformation appear legitimate.

Co-Opting Aesthetics

Extremist organisations also use aesthetics to disguise their agendas and reach new audiences. Different social media groups are associated with different audiences and disinformation producers are taking advantage of aesthetics—design elements such as colours, styles, and words—that resonate with the audience to get attract their attention, with the goal of influencing them over time. Often, the disinformation is created by other supporters or those aligned with the aspects of the disinformation producer's goals. For example, wellness and yoga influencers who have a long history of challenging established forms of medicine are being co-opted by conspiracy theorists connected with the anti-vaccination movement, and more extremist ideas.[62] Canadian research Marc-André Argentino coined the term "Pastel QAnon" to describe the way QAnon—the far-right conspiracy movement adapted to circumventing Facebook blocks by "using warm and colourful images to spread QAnon theories through health and wellness communities and by infiltrating legitimate charitable campaigns against child trafficking."[63] The image below shows how by using pastel colours and feminine aesthetics, QAnon's ideology can gain traction among new audiences.[64]

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[62] Bogle, A. 2020, 'How Instagram wellness became a gateway drug for conspiracy theories', *ABC News*, 15 June, accessed 25 July 2021, https://www.abc.net.au/news/science/2020-06-16/wellness-instagram-influencers-veer-into-conspiracy-theories/12348776.

[63] Argentino, M. [@_MAAArgentino] 2020 '1/ Tonight I want to share some of the research …' *Twitter*, 2 September 2020, accessed 25 July 2021, https://twitter.com/_MAArgentino/status/1300974361491406849.

[64] Gillespie, E. 2020, ''Pastel Qanon: The Female Lifestyle Bloggers And Influencers Spreading Conspiracy Theories Through Instagram', *The Feed*, 30 September 2020, accessed 20 July 2021, https://www.sbs.com.au/news/the-feed/pastel-qanon-the-female-lifestyle-bloggers-and-influencers-spreading-conspiracy-theories-through-instagram.

Source: Screen grab from the Twitter account of Marc-André Argentino

It is instructive to consider how conspiracy theories have been produced and shared prior to adapting designs to suit target audiences.

Source: Forwarded to author via Telegram

This image on the left and variations of it have been shared through social media. It features an image of someone famous to attract our attention. The aesthetics of this image are quite different from the pastel style presented above. Presenting these examples to students can help them better understand the use of visual design to attract and engage audiences.

The way that QAnon is shifting the appearance of its messages to suit its audience suggests that disinformation producers are becoming more sophisticated and have a good understanding of how to engage different audiences on different social media platforms. This recent trend is no doubt going to spread globally, as conspiracy movements like Qanon seek global impact.[65]

We, the public, have to remain one step ahead, and be even more vigilant and skilled at spotting messages that are false, manipulative and ultimately harmful and dangerous.

Reading Materials

Tiffany, K. 2020, *The Women Making Conspiracy Theories Beautiful*, The Atlantic, accessed 9 August 2021, <https://www.theatlantic.com/technology/archive/2020/08/how-instagram-aesthetics-repackage-qanon/615364/>.

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[65] Farivar, M. 2020, 'How the Qanon Conspiracy Theory Went Global', *VOA News*, 15 August, accessed 20 July 2021, https://www.voanews.com/a/usa_how-qanon-conspiracy-theory-went-global/6194444.html.

Lesson 4.1: Coded Messaging and Co-Option of Internet Aesthetics

Class Presentation and Discussion

Engage the students by showing the pastel QAnon image of the three balloons next to the image of Bill Gates and vaccines and ask them which image they are more likely to click on. Present other examples of disinformation styled to be more compatible with specific audiences. Introduce students to coded messaging and in-group communications. Incorporate other examples more relevant to the local context, if you wish. Ask students to share examples they may have spotted on their social media feeds and discuss why disinformation presented using different aesthetic styles and coded messages can be an effective and dangerous form of disinformation.

Activity 4.1a: Identifying Aesthetic Enticements

Ask students to form groups to explore their social media and conduct research to find examples of disinformation that has been aesthetically presented or branded to be more enticing to specific target audience groups. When students return to the class, prompt a discussion of their findings. Focus the discussion on how extremist movements are co-opting new audiences by co-opting styles familiar to them.

Assessment Task

Instruct students to write a blog post to their friends about the challenges posed by disinformation that has co-opted the aesthetic style and messaging familiar to their target audiences. The blog post should contain details on what their friends should consider in order to avoid sharing disinformation.

Topic 4.2: Deepfakes and Fabricated Media

Learning Outcomes	• Students can describe the impacts of deepfakes—especially on women
	• Students can explain how to prevent the impact of deepfakes

Background Notes

Artificial intelligence (AI) technologies are starting to be used to create disinformation. Many of us are used to seeing photoshopped or digitally manipulated images that have been edited to mislead audiences. However, this process is not perfect and can be time-consuming. This is where AI technologies come in: algorithms operating at incredibly high speeds can generate false images, videos, and audio that are so realistic that the falsehood can be difficult to spot. These are known as deepfakes—recognised as the new frontier in disinformation.[66]

Deepfakes can also help create new or anonymous identities. The following face images have been created by the website thispersondoesnotexist.com.[67]

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[66] Fortune 2019, *Deepfakes: A New Frontier in Disinformation Campaigns*, accessed 20 July 2021, https://fortune.com/videos/watch/Deepfakes-A-New-Frontier-in-Disinformation-Campaigns/240d5509-bd85-44ff-b1d6-35333b4f8a4d.

[67] This Person Does Not Exist, accessed 20 July 2021, https://thispersondoesnotexist.com.

These are AI generated faces. They do not exist.

These images can be used as profile photos as part of the process of creating fake social media accounts. One example is Maisy Kinsley, a fake identity that had a Twitter account, a LinkedIn account, and a website. The Twitter profile of Maisy Kinsley claimed she was senior journalist at Bloomberg. After some investigation, including a Google search for articles with her byline, it was determined the accounts were faked.[68]

There are a number of sophisticated online tools that help generate and manipulate faces. Not all fabricated images are generated to disinform. For example, faces for virtual models can be produced using the Generated Photos[69] platform. Of course, this same platform can also be used by disinformation producers to create images that aim to manipulate audiences.

Source: Screen grab from Twitter thread: https://twitter.com/sokane1/status/1111023838467362816?s=20

Deepfake Videos

Deepfake technologies can be used to create realistic fabricated videos and when they are included as part of a disinformation campaign, the power to trick and manipulate is high. There are plenty of examples of deepfakes of politicians and celebrities saying or doing something uncharacteristic. For example, the TikTok account "deeptomcruise"[70] was created to demonstrate the "technical possibilities" of deepfakes and the need to have "laws to help with the responsible use of AI and deepfakes."[71]

There are ways to detect deepfake videos. For instance, often the subject in the deepfakes does not blink.[72] However, as disinformation producers adopt this technology, their approach will become more

Source: Screen grab from TikTok "deeptomcruise" account

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[68]   GIJN 2019, *With the Proliferation of Fake Profiles, Old School Vetting Signals Don't Work*, accessed 20 July 2021, <https://gijn.org/2019/06/07/with-proliferation-of-fake-profiles-old-school-vetting-signals-dont-work/>.

[69]   Face Generator, accessed 20 July 2021, https://generated.photos/face-generator/new.

[70]   https://www.tiktok.com/@deeptomcruise/video/6957456115315657989

[71]   Alex, H. 2021, "I don't want to upset people': Tom Cruise deepfake creator speaks out', *The Guardian*, 5 March, accessed 21 August 2021, https://www.theguardian.com/technology/2021/mar/05/how-started-tom-cruise-deepfake-tiktok-videos.

[72]   Vincent, J. 2021, *Tom Cruise deepfake creator says public shouldn't be worried about 'one-click fakes'*, The Verge, accessed 21 August 2021, https://www.theverge.com/2021/3/5/22314980/tom-cruise-deepfake-tiktok-videos-ai-impersonator-chris-ume-miles-fisher.

sophisticated, and it will be increasingly challenging to spot the difference between reality and deepfakes.

Impact on Women

Much of the public concern around deepfake technologies to date has been focused around the use of politicians to generate disinformation. However, research into the state of deepfakes found "that the predominant use of deepfakes is to create sexual images videos of women without their consent."[73] Online gender-based violence is rising, and deepfakes are a relatively new way of exploiting, humiliating, and harassing women.

Some countries are enacting laws to address this problem, yet deepfake technologies and the impact they can have on a personal level are still not well known or understood. This issue requires more attention across all levels of society, so that new approaches and strategies to minimise the creation and sharing of abusive deepfakes can be developed.

How Do We Combat These Disinformation Techniques?

While those who aim to spread disinformation may use new techniques and technologies with the aim to mislead people, as media consumers we can still rely on basic techniques to filter out information. We must ask questions about all information we come across, not just information that is obviously problematic. We should also consider the strategies people use to make their messages sound credible and consider how those strategies could be used in misleading ways.

Reading Material

Fleishman, G. 2019, *How to spot the realistic fake people creeping into your timelines*, Fast Company, accessed 9 August 2021, <https://www.fastcompany.com/90332538/how-to-spot-the-creepy-fake-faces-who-may-be-lurking-in-your-timelines-deepfaces>.
Sample, I. 2020, 'What are deepfakes – and how can you spot them?', *The Guardian*, 13 January, accessed 10 August 2021, <https://www.theguardian.com/technology/2020/jan/13/what-are-deepfakes-and-how-can-you-spot-them>.

Lesson 4.2: Deepfakes and Fabricated Media

Class Presentation and Discussion

Engage students by showing an example of a humorous deepfake video such as the video depicting world leaders singing John Lennon's "Imagine." Prompt students to describe other deepfakes they have encountered and what the impact deepfakes will have on disinformation. Present different types of deepfakes and focus on the impact fabricated media have on women, asking students to respond to the manipulative potential of deepfakes and how to prevent their impact.

Activity 4.2a: Finding Deepfakes or Fabrications

Pair-off students to produce one or two examples of deepfakes or fabricated media. They can use a publicly available app Wombo[74] or Generated Photos[75], or another AI-driven app to create a fabricated image. Students return to the class and discuss the process of creating fabricated media and how they can be detected.

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[73] Dunn, S. 2021, *Women, Not Politicians, Are Targeted Most Often by Deepfake Videos*, CIGI, accessed 21 August 2021, https://www.cigionline.org/articles/women-not-politicians-are-targeted-most-often-deepfake-videos/.

[74] Wombo, accessed 14 July 2021, https://www.wombo.ai/.

[75] Face Generator, accessed 14 July 2021, https://generated.photos/face-generator/new.

Assessment Task 4.2

Ask students to produce a tip sheet or guide that highlights the challenges posed by deepfakes and fabricated media and ways of detecting and minimising their impact. They will need to conduct desk research, tapping into online articles and some of the links provided in the Reading Material section.

Module 5: Journalists, News Media, and Disinformation

This module will examine the role of journalism and why the trust that we once had in the news media has declined over the recent years, creating a vacuum that has been leveraged by disinformation producers. The module will also enable students to identify trustworthy news sources and help counter disinformation and rebuild trust in journalism.

Topic 5.1: Trust and News Media	
Learning Outcomes	• Students can describe factors that contribute to the prevalence of disinformation in journalists and the news media
Topic 5.2: Rebuilding Trust in Journalism	
Learning Outcomes	• Students can identify trustworthy news media platforms and journalists

Topic 5.1: Trust and News Media

Learning Outcomes	• Students can describe factors that contribute to the prevalence of disinformation in journalists and the news media

Background Notes for Educators

The news media (or the press) is often referred to as the fourth estate. While this term has slipped from popularity, it originates from Britain, and refers to the idea that there are three estates represented in the Parliament (the King, the Church, and the Commoners). The journalists who sat in the gallery came to be known as the "fourth estate," ensuring that those in power were accountable and fulfilling a "watchdog" role that is critical to democracy.[76]

The news media and journalists have a rich history of serving the public interest and filtering false and harmful information away from the public domain. However, trust in the news media has been steadily declining during recent decades. According to the Reuters Digital News Report 2021, globally, less than half of the 92,000 respondents (44 percent) indicated they trusted the news. The report also conducted some limited research to gauge trust levels in Southeast Asia. Malaysia, the Philippines, and Indonesia came in below the global average, with 41 percent, 32 percent, and 39 percent respectively. Singapore was just above the global average, with 45 percent of respondents saying they trust the news they receive.[77] While more in-depth research for Southeast Asia is required, the findings suggest than about half the population does not trust what they read, hear, or watch from news media outlets.

Explaining the Low Levels of Trust

Before the Internet's emergence as an information source, many television channels introduced 24-hour news services, which required large quantities of content. Quality controls were often sidelined as the channels attempted to fill every minute of the day with news content. Some news outlets also started to focus on appealing to specific niche audiences. Audience loyalty was maintained by continuously producing news that was framed in a way that reinforced those audiences' worldview without challenging or upsetting them with alternative views.

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[76] Gill, K. 2020, *What Is the Fourth Estate?*, Thought Co, accessed 14 July 2021, https://www.thoughtco.com/what-is-the-fourth-estate-3368058.

[77]' Digital News Report 2021', *Reuters Institute*, accessed 21 July 2021, https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2021.

Fox News is cited by commentators as a driver of this approach.[78] It is a cable channel founded by media mogul Rupert Murdoch in 1996 that is aimed at a politically conservative audience. Alongside breaking news, the channel features a plethora of opinion-based shows from conservative hosts, with an aim of pushing and strengthening a political agenda rather than presenting information to the public without fear or favour. Rupert Murdoch and Fox News became highly influential in political circles as they were seen to wield great power. In Southeast Asia, many owners of media outlets also became politically powerful and often sided with one political candidate over another during elections.

Close on the heels of the emergence of 24-hours news stations, the widespread availability and use of the Internet brought about a radical shift in marketing, communications, information spread, and the ability to have human-to-human conversations on a mass scale. Since the late 2000s, the advent of powerful low-cost smartphones, and the emergence of social media platforms have enabled anyone to publish and share information easily. More audiences shifted from traditional news media to the Internet and social media platforms. As this happened, advertising budgets also started to shift from traditional media to the digital platforms that were better at targeting promotions to potential customers. Digital platforms also offered advertisers the ability to microtarget audiences and communicate different messages to different demographics. Moreover, revenue from newspaper job classifieds dropped sharply as digital platforms like Indeed and eBay increased in popularity and effectiveness.

News media organisations, already in competition for audience ratings, tried to adapt to this digital paradigm shift. Many embraced social media to connect with audiences and amplify their stories. To achieve this, many adopted the use of sensationalised headlines (clickbait) and opinionated content to drive traffic to their websites. They started to use more sponsored content and tapped into stories created by freelancers, bloggers, and influencers, further blurring lines. Many more experienced professional journalists with skills in filtering and gathering accurate information and producing important factual stories lost their jobs as news organisations across the world cut costs and downsized their operations.

The new space for news created by Internet access was without limit and could be filled with disinformation and highly opinionated content that aimed to manipulate the public.

It should be noted that online and social media does provide an opportunity for democratising media production, distribution, and consumption. There is now space to bypass big media conglomerates and connect directly with audiences. Many bloggers and citizen journalists are committed to independent and accurate reporting, and many professional journalists are creating their own channels through online platforms. Topic 5.2 will provide more details about this.

Social Media as a News Source

Today, social media platforms such as Facebook, YouTube, and Twitter have become the dominant source for news for the public. These trends are also reflected in Southeast Asia where 70 percent of Malaysians, 68 percent of Filipinos, and 63 percent of Singaporeans indicate that they use social media as a source for their news. However, respondents in these countries also indicated low levels of trust in news that appeared on social media, with 25 percent trust in most news most of the time for Malaysians and 27 percent and 36 percent

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[78]   Illing, S. 2019, 'How Fox News evolved into a propaganda operation', *VOX*, accessed 25 July 2021,
        https://www.vox.com/2019/3/22/18275835/fox-news-trump-propaganda-tom-rosenstiel.

for the Philippines and Singapore respectively.[79] Despite this, the influence of social media over our decision-making is significant, as can be demonstrated by the following infographic.[80]
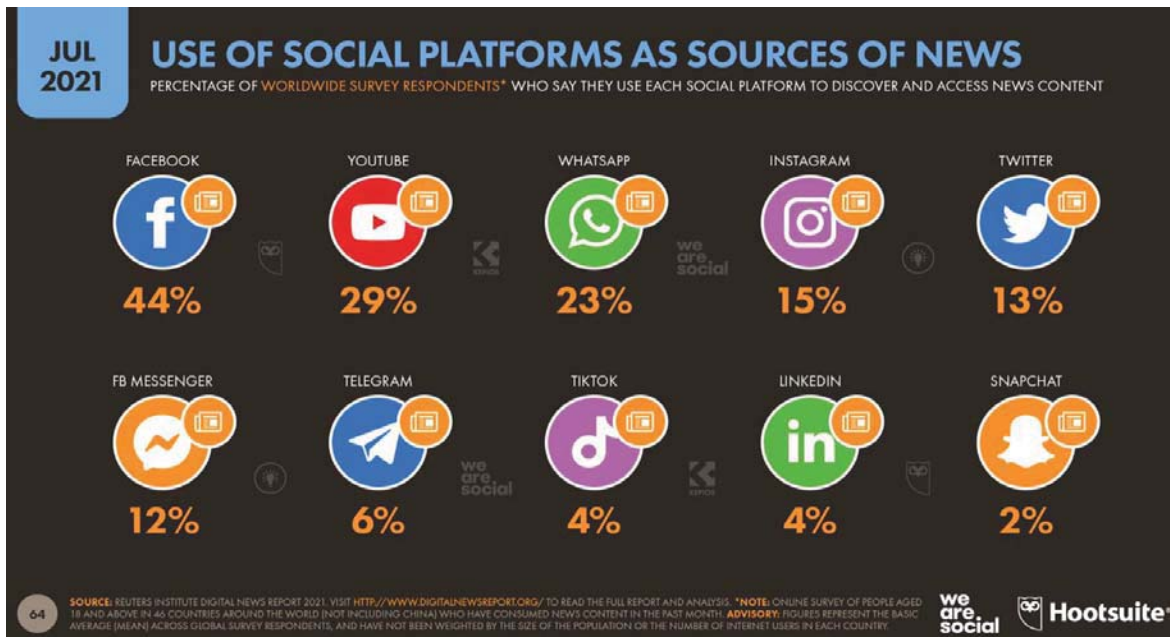
Source: Reuters Institute Digital News Report 2021, http://www.digitalnewsreport.org

Reading Materials

Kimmarita, L. 2021, 'UNESCO sounds alarm on collapse of independent media', *The Nation | Thailand*, 28 April, accessed 10 August 2021, <https://www.nationthailand.com/international/40000303>.

Lesson 5.1: Trust and News Media

Class Presentation and Discussion

Engage the students by asking them to list names of journalists they can think of and then names of influencers they can think of. Facilitate a discussion that compares the two lists and the implications. This could be followed up by a discussion with students regarding their trust levels of what is said in the news. Present the statistics related to news and trust and discuss the implications of trust levels, with the aim of having students explain why disinformation is filling the gaps and spreading through our social media channels. Provide students with an outline of the recent history of the news media industry, its shift to partisan reporting, and the impact that the Internet and social media have had on creating a news vacuum where disinformation can easily spread.

Activity 5.1a: Examining Trust with News Media

Pair-off students or form small groups to conduct a research survey among family and community members about their trust levels (low, medium, high) of traditional and online news media outlets and the reasons for the trust levels they have indicated. Students will need to develop a short survey questionnaire, and interview at least 10 participants. If needed, offer guidance on survey designs. A format like the sample survey below can be used. Students should select a number of news media outlets, including private sector, government-owned, and local or community-owned. The news media outlets can be purely online or accessible

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[79] Son, J., 'SOUTHEAST ASIA: News Interest High, Trust In Media Low', *Reporting ASEAN*, accessed 22 August 2021, https://www.reportingasean.net/southeast-asia-news-interest-high-trust-media-low/.

[80] Kemp, S. 2021, *TikTok Hits 1 Billion Users—Faster Than Facebook (And More New Stats)*, Hootsuite, accessed 22 August 2021, https://blog.hootsuite.com/simon-kemp-social-media/.

through traditional media such as radio, television, and newspaper, or a mixture of both online and traditional. When students return to the class, facilitate a discussion of the findings.

Sample Survey

Please indicate your trust level for each of the following news media outlets. Mark the appropriate column (low/medium/high), where 'low' is when there is little trust, and 'high' is when there is a lot of trust. If you are not sure, then you can select the "not sure / don't know" box.

News Media Outlet	Low Trust	Medium Trust	High Trust	Not Sure/Don't Know
Outlet Name 1				
Outlet Name 2				
Outlet Name 3 …				

Assessment Task 5.1

Assign students to produce a persuasive essay on why they think disinformation is or is not on the rise in their community, including information obtained during the Presentation and Discussion, and from independent research, including their survey conducted in Activity 3.1a. Their essay should highlight ways of countering the rise of disinformation.

Topic 5.2: Rebuilding Trust in Journalism

Learning Outcomes	• Students can identify trustworthy news media platforms and journalists

Background Notes for Educators

Traditional news media outlets will have to work hard to rebuild public trust. Research carried out in Australia provides some clues to how this can happen.[81] The key findings from the report are reproduced below:

> *The single most significant measure that would restore trust in news brands was journalists declaring any conflicts of interest or biases with regards to particular stories. These measures were supported most by both trusters and mistrusters of news. The negative impact of perceived bias and conflicts of interest appears consistently in studies about trust in news. News outlets need to take this seriously.*

We can use a Google search to easily identify the owners of a news media outlet, and find out more details about their background and motivations. This information will help give us an impression if the news and information that gets published is trustworthy or if the stories appear to be biased towards the agendas of the owners. We can do the same for journalists, looking into their past stories, finding out where they studied and if there are any controversies surrounding them. LinkedIn can often provide useful background information about journalists. Comments associated with their articles and Twitter followers can also be indicators about the journalist and their interests.

A more refined criteria for determining trust in news media outlets and journalists can be adapted from a research framework proposed by a group of academics who study news media trust.[82] Criteria in evaluating the trust of news media outlets and journalists is outlined below.

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[81] Fisher, C., Park, S., Flew, T. 2020, *How can we restore trust in media? Fewer biases and conflicts of interest, a new study shows*, The Conversation, accessed 22 August 2021, https://theconversation.com/how-can-we-restore-trust-in-media-fewer-biases-and-conflicts-of-interest-a-new-study-shows-135680.

[82] Strömbäck, J., Tsfati, Y., Boomgaarden, H., Damstra, A., Lindgren, E., Vliegenthart, R., Lindholm, T. 2020, *News media trust and its impact on media use: toward a framework for future research*, Taylor and Francis Online, accessed 22 August 2021, https://www.tandfonline.com/doi/full/10.1080/23808985.2020.1755338.

- [News Media Outlet x] is fair when covering the news

- [News Media Outlet x] is unbiased when covering the news

- [News Media Outlet x] tells the whole story when covering the news

- [News Media Outlet x] is accurate when covering the news

- [News Media Outlet x] separates facts from opinions when covering the news

- [Journalist x] is fair when covering the news

- [Journalist x] is unbiased when covering the news

- [Journalist x] tells the whole story when covering the news

- [Journalist x] is accurate when covering the news

- [Journalist x] separates facts from opinions when covering the news

Responses for each criteria above could, for example, be a score between 0 and 3, where 3 is when the criteria is absolutely false, and 0 is when the criteria is absolutely true.

The use of the above criteria may be more appropriate for advanced students or students at tertiary institutions. Educators can also simplify the above criteria and select two indicators, such as accuracy and bias.

The news media outlets will still have to compete with the torrents of information the public can access through social media. However, the good news for news media outlets is that the trust levels of social media are even lower than their own.

Changing Models to News Media

New business models must be considered. Southeast Asia has a young population, which suggests that the region will continue to consume vast quantities of information through social media and digital platforms. Organized news outlets will need to establish strong social brands and back them up with high quality and integrity, without biases or conflicts of interest, in order to keep consumers coming back.

Increasingly, news media is being generated by independent professional journalists who are setting up media channels on their own websites or by using platforms like Medium and SubStack to connect with audiences. Many of these channels are focused on niche topics and contribute to news diversity. They can be invaluable for minority and diverse communities, which are often side-lined in mainstream news media coverage.

Reading Materials

Glaser, M. 2020, *Journalists Getting Paid: How Online Platforms Are Boosting Income for Writers*, Knight Company, accessed 10 August 2021, <https://knightfoundation.org/articles/journalists-getting-paid-how-online-platforms-are-boosting-income-for-writers/>.

Matsa, K. E., Lu, K. 2016, *10 facts about the changing digital news landscape*, Pew Research Center, accessed 10 August 2021, <https://www.pewresearch.org/fact-tank/2016/09/14/facts-about-the-changing-digital-news-landscape/>.

Lesson 5.2: Rebuilding Trust in Journalism

Class Presentation and Discussion

Engage students by asking them to name a news media outlet they trust and the rationale behind their response. Present the criteria for evaluating trust and accuracy of news media outlets and journalists, and prompt a discussion to determine other factors that can influence news media and journalism trust.

Activity 5.2a: Evaluating Trust in News Articles

Provide students with three short news articles from three different news media outlets (or journalists). Ask them to pair off and use the criteria that was presented during the lesson to evaluate trust levels. When students return to the class, facilitate a discussion of the findings.

Assessment Task 5.2

Have students form groups and ask them to rank the news media outlets and journalists in their town, city, or country according to trust levels. As well as using the criteria that were presented during the lesson, students should try to use other indicators such as ownership history, and conflict of interest and bias disclosures to indicate trust.

Module 6: Becoming a Disinformation Detective

This module improves the capacity of students to determine information quality by learning the techniques used by professional fact-checkers and using online tools for verifying information.

Topic 6.1: Lateral Reading	
Learning Outcomes	Students can perform lateral reading to fact-check information
Topic 6.2: Online tools to assist fact-checking	
Learning Outcomes	Students can demonstrate their use of online fact-checking tools

Topic 6.1: Lateral Reading

Learning Outcomes	Students can perform lateral reading to fact-check information

Background Notes for Educators

Historically, news media organisations conducted in-house fact-checking to validate facts and figures in articles by journalists prior to publication. However, in our age of real-time news and social media influence, the public must hone their skills to use fact-checking and verification techniques to determine the accuracy of news on social media feeds or that is forwarded to them.

Research indicates that young people tend to base their levels of trust on information sources by reading the whole article to determine its accuracy. This can be a slow and time-consuming. On the other hand, professional fact-checkers practice "lateral reading"—viewing a number of websites with information on that subject and reading across, or laterally, to evaluate the accuracy of the original piece of information. [83]

What Is Lateral Reading?

Lateral reading can be performed by opening multiple browser tabs and conducting multiple searches to verify or find out more about certain information. Standard University researchers coined the term "civic online reasoning" and have worked with other scholars to produce a three-step process[84] that includes asking the following questions:
- Who's behind the information?
- What's the evidence?
- What do other sources say?

Educators can demonstrate lateral reading to students by presenting a message and asking who is behind the information. To investigate this, open a new browser tab and conduct a search on the source name and author name. Educators can pick messages and source names that relate to their local context. For the purposes of demonstrating lateral reading, we can use the following examples from the Civic Online Reasoning Curriculum and from Dr Joseph Mercola's Twitter post[85]:

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[83]   Wineburg, S., McGrew, S. 2017, *Lateral Reading: Reading Less and Learning More When Evaluating Digital Information*, SSRN, accessed 22 August 2021, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3048994.

[84]   Civic Online Reasoning, *Curriculum*, accessed 22 August 2021, https://cor.stanford.edu/curriculum/.

[85] Mercola J., 2021, *How much funding does Pfizer give the American Academy of Pediatrics?*, Tweet, 24 July, accessed 22 August 2021, https://twitter.com/mercola/status/1418611856697176065

By searching for both names and reading laterally, it should be possible to conclude that Lilly Ledbetter is an authority on topic of wage equity for women, while Dr Joseph Mercola has a business selling alternative medicines, and could be producing disinformation because he is biased against mainstream COVID-19 vaccines and has a business interest to sell his medicines.

Educators can show the YouTube video *What is lateral reading* using the following link: https://www.youtube.com/watch?v=SHNprb2hgzU. There are also a number of online tools and techniques that help with social media verification and determining if sources are trustworthy or not. These techniques can include reverse image searching, geo-location analysis, checking when an account was created, and checking the account's type of followers. Online tools will be covered in Topic 5.2.

Other Indicators That Can Suggest Disinformation

Other indicators may suggest a post or article needs to be fact-checked thoroughly. These are:
- Emotional or inflammatory language—the level of emotive and inflammatory language can be an indicator for disinformation that requires further investigation.
- Sensational imagery and video—images and videos that confirm claims that sound incredible are often recycled from a past event or are fabricated. Such content can suggest that the accompanying information is not necessarily accurate. The use of reverse image searches or using tools to uncover the geo-location and other metadata can help identify the authenticity of an image.

Sample demonstration: Educators can use Google search to verify if the story (shown on the next page) from BNL is accurate.
- A number of results will appear if you Google search for "shots fired in Cannes." You may notice that a story by Reuters refers to an incident in 2013.

- If you continue to search laterally, you will find more articles that suggest that the 2020 shooting claim was a rumour.

- If you search "BNL News," the website does not appear in the first or second pages of the search results.

- If you go to the @breakingNLive24 twitter profile page, you will notice that they only have less than 600 followers.

- You can conclude then that BNL News is not a credible source of news.

It is important to laterally read from a diverse range of sources, including known credible sources of information, such as the BBC or a newswire service[86] such as Reuters[87] or Agence France-Presse (AFP)[88].

Reading Materials

Stanford University Civic Online Reasoning, *Free lessons and assessments for today's educators*, accessed 22 August 2021, <https://cor.stanford.edu/curriculum/>
Facing History and Ourselves, *How to Read Like a Fact Checker*, accessed 15 December 2021, <https://www.facinghistory.org/educator-resources/current-events/how-read-news-fact-checker-media-literacy-strategy>

Lesson 6.1: Lateral Reading

Class Presentation and Discussion

Engage the students by sharing a link to an online article and asking them to fact-check it. After one minute, ask students to put up their hands if they are still reading the article to analyse its contents or if they are using Google to search other sites and references to validate the article's accuracy. Educators should find that while most students will be analysing the article, a few may have immediately started to search the name of the author or other claims made in the initial paragraph.

Introduce the concept of lateral reading by discussing the concept or by showing a video.[89] Demonstrate lateral reading using examples that are relatable to students or by using the examples in the Background Notes. Involve students in the process by asking prompting questions that trigger responses and discussion.

Activity 6.1a: Fact-Check Articles

Give students links to five articles and five social media posts to fact-check as quickly as they can. Instruct them to use lateral reading to indicate the credibility of the source and accuracy of the information, and to write a short note describing how they made the assessment. After 10 minutes, bring them back to the class and discuss their findings.

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[86] Many news outlets depend on stories from newswire services (also known as news agencies) that have journalists and offices in most countries around the world. They generally aim to be objective and impartial in order to appeal to as many newspapers as possible.

[87] Reuters, accessed 22 August 2021, https://www.reuters.com.

[88] AFP, accessed 23 August 2021, https://www.afp.com/en.

[89] Educators can consider showing one of the two YouTube links: https://www.youtube.com/watch?v=SHNprb2hgzU or https://www.youtube.com/watch?v=GZvsGKvqzDs

Assessment Task 6.1

Assign students to produce a Guide to Identifying Disinformation through Lateral Reading. The Guide should provide a newcomer an introduction of lateral reading, an explanation of what it is, justification on why it is important, and instructions on how to conduct it.

Topic 6.2: Online Tools to Assist Fact-Checking

Learning Outcomes	Students can demonstrate their use of online fact-checking tools

Background Notes for Educators

Images and videos are used by disinformation producers to manipulate audiences. Careful investigation of these images and videos can help verify their source. For example, if you are suspicious of an image, you can try to identify text or other features that could give you a sense of where it was taken.

A number of online tools can help analyse images. Some of these tools can be complicated to use—especially if students and educators have limited technology access. One of the more relevant tools helps to identify if an image or photograph has a history or has been used in other contexts. A reverse image search is one of the most important techniques to determine the origins of an image and will be the primarily focus on this topic.

For example, social media posts could be using an image from a past event to give credibility. Sometimes the post itself might not be harmful but be part of a common strategy of disinformation producers. They use images from the past to illustrate their messages with the aim of tapping into our psychological biases, generating outrage, and enticing us to share the post with our networks.

The post on the right is about the Easter 2019 attacks in Sri Lanka that killed more than 260 people. While there doesn't appear to be anything false or harmful in the post, the use of reverse image searching reveals that the photograph depicting a mass burial comes from another bomb blast in 2006.[90] Images of such burials can often generate outrage and fear, and even incite more radical elements in society to take revenge.

The reverse image searching tool that is the easiest to use is Google's Search by Image option.

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[90] Vidya 2019, 'Fact Check: Photos passed off as images of Sri Lanka Easter attack victims are actually 13 years old', *India Today*, accessed 23 August 2021, https://www.indiatoday.in/fact-check/story/fact-check-photos-passed-off-as-images-of-sri-lanka-easter-attack-victims-are-actually-13-years-old-1509573-2019-04-25.
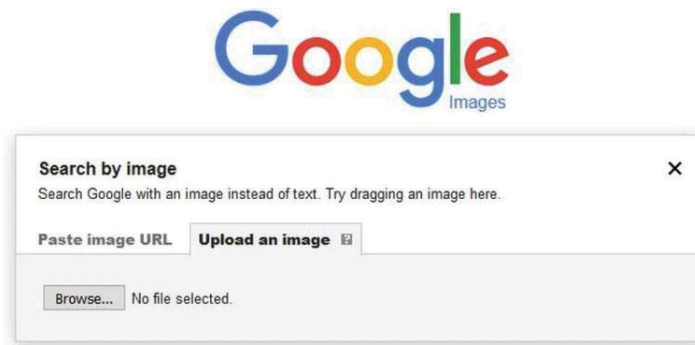
By pasting in a link to an image, or uploading an image, Google will show search results of where the exact or similar images have been used. By reviewing the search results, it is possible to identify the origins of the image and evaluate the credibility of the post or story that uses the image. Educators should demonstrate to students how to use reverse image search feature. The AFP Fact Check's Basic Verification Tools video[91] also provides a comprehensive description on fact-checking images and videos.

Other Online Tools and Strategies

Other online strategies, websites, and initiatives can help with the fact-checking and verification process:

- **Check names:** Use Wikipedia or profiles of users on Twitter, Facebook, or LinkedIn. For example, if a Twitter account has small number of followers, but is generating hundreds of tweets, you could assume the account is a bot or is being used for spamming messages.

- **Check the weather:** The date and time a photograph was taken can be verified to see if the actual weather on the day matches the weather depicted on the photograph.

- **Use MediaWise:** MediaWise is a teen fact-checking network that publishes daily fact-checks for teenagers, by teenagers. MediaWise runs a YouTube channel and publishes across social media platforms. For more: https://www.poynter.org/teen-fact-checking-network/.

- **Try AFP Fact Check:** The AFP Fact Check is a digital verification and fact-checking organisation that works with AFP bureaus worldwide to investigate and disprove false information, focusing on items which can be harmful, impactful, and manipulative. For the Asia-Pacific Region, see https://factcheck.afp.com/list/all/all/all/38561/22.

- **Check Snopes:** Snopes is a fact-checking resource that started in 1994 investigating urban legends and hoaxes. It is used by journalists and readers as a fact-checking resource. For more, see https://www.snopes.com.

The use of online tools is just one way of verifying information. They may not be useful and relevant in many cases and could deliver inaccurate results. Importantly, online tools consume bandwidth costs and many people may be reluctant to use them.

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[91]   AFP Fact Check 2021, *Basic verification tools*, accessed 23 August 2021, https://www.youtube.com/watch?v=A6qvqGi5CqQ.

Reading Materials

Qiu, L. 2017, *A Shark in the Street, and Other Hurricane Harvey Misinformation You Shouldn't Believe*, The New York Times, 28 August, accessed 11 August 2021, <https://www.nytimes.com/2017/08/28/us/politics/shark-hurricane-harvey-rumors.html>

Lesson 6.2: Online Tools to Assist in Fact-Checking

Class Presentation and Discussion

Engage the students by showing the post about a shark swimming on the freeway[92] in Houston, Texas in the United States after Hurricane Harvey in 2017. Ask the students to conduct a reverse image search on the image using Google's reverse image tool. For assistance, educators can refer to AfricaCheck, which conducted a fact-check on the image.[93]

Activity 6.2a

Pair off students to use reverse-image searches to identify at least five posts that have images that are being used out of context or are not related to the actual description in the post. When they return to the class, discuss the approach they used to identify them and the negative impacts of the use of false images.

Assessment Task 6.2

Assign students to produce a short video segment, similar to those found on the MediaWise fact-checking site[94], to demonstrate the use of online verification tools such as Google's reverse image search tool to fact-check or verify a social media post or online news article. The video is expected to be approximately 2 to 3 minutes long and can be produced using a free video tool available on Android or iPad platforms. If the production of a short video is too ambitious or technically challenging, ask students to produce a blog post instead.

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[92]   https://media.11alive.com/assets/WXIA/images/469105777/469105777_750x422.jpg

[93]   Africa Check 2020, *Shark swimming on flooded highway? No, image photoshopped*, accessed 13 July 2021, https://africacheck.org/fact-checks/fbchecks/shark-swimming-flooded-highway-no-image-photoshopped.

[94]   Poynter, *Teen Fact-Checking Network*, accessed 13 July 2021, https://www.poynter.org/teen-fact-checking-network/.

PART FOUR: RESOURCES AND SUPPORT

An increasing number of initiatives and resources aim to address disinformation, and some of these have been referenced in the Model Curriculum Modules. Below is a short list of useful resources for educators in the AMS. As a developing field, research on disinformation is new and much of what is available falls in the category of "grey literature." It is important for educators teaching information literacy and about disinformation to stay up to date on developments and periodically refresh their resources and teaching content.

Educational Resources

- **UNESCO's Handbook on Journalism, 'Fake News' and Disinformation:** This handbook was an original inspiration for the ToT Program, and helped informed the structure and material covered in the Model Modules.
  https://en.unesco.org/fightfakenews

- **ASEAN Online Safety Academy:** The ASEAN Foundation hosts a webinar series which promotes safe online experiences for you and the value of digital citizenship. One of the topics focuses on misinformation.
  https://eventsonair.withgoogle.com/events/asean-online-safety-academy

- **Civic Online Reasoning:** This curriculum is focused on evaluating online information using various strategies including lateral reading. It contains a series of videos, research documents and lesson plans for teachers.
  https://cor.stanford.edu

- **Verification Course (Google News Initiative):** This demonstrates the use of Google tools to help verify the authenticity and accuracy of images, videos, and reports online.
  https://newsinitiative.withgoogle.com/training/course/verification

- **What Does It Mean To Live With Social Media:** This teacher resource is designed to help students sharpen their media literacy skills as they begin to evaluate the impact of social media on their lives and question how we can manage social media's harmful effects.
  https://www.facinghistory.org/educator-resources/current-events/what-does-it-mean-live-social-media

- **Humane Tech Youth Toolkit**: This interactive toolkit helps young people navigate — and push to change — a broken social media environment.
  https://www.humanetech.com/youth

- **A New Type of Media Literacy**: An overview of some of the issues and challenges involved in helping students cultivate media literacy in a fast-moving information landscape.
  https://facingtoday.facinghistory.org/a-new-type-of-media-literacy

Guides and Reports

- **Information Disorder: Toward an interdisciplinary framework for research and policy making.** This a seminal report that put forward a framework and proposed types and categories of information disorder.
  https://www.coe.int/en/web/freedom-expression/information-disorder

- **Demand for Deceit: How the way we think drives disinformation.** This report argues the importance of addressing psychological drivers such as bias as part of the strategy to address disinformation.
  https://www.ned.org/wp-content/uploads/2020/01/Demand-for-Deceit.pdf

- **Mitigating Disinformation in Southeast Asian Election.** This report looks at election-related social media manipulation and interventions, focusing on lessons from Indonesia, the Philippines, and Thailand.
  https://www.stratcomcoe.org/mitigating-disinformation-southeast-asian-elections

- **Architects of Networked Disinformation: Behind the scenes of troll accounts and fake news production in the Philippines.** This report investigates the professionalisation of disinformation campaigns.
  http://newtontechfordev.com/wp-content/uploads/2018/02/Architects-of-Networked-Disinformation-Executive-Summary-Final.pdf

Organisations Working in the Disinformation Space

- **First Draft.** This organisation was founded by leading disinformation researcher Claire Wardle and contains research and articles related to disinformation. This site is constantly updated with news and research about the information disorder.
  https://firstdraftnews.org

- **Dangerous Speech Project.** This organisation studies speech of any form that inspires violence between groups of people, and ways to mitigate this while protecting freedom of expression.
  https://dangerousspeech.org

- **Meedan.** This organisation works for a more equitable Internet and has a focus on addressing the crisis of information trust and harmful content.
  https://meedan.com/blog

Fact-Checking Initiatives

A number of websites that provide fact-checking of news stories. Some of these include:

- **AFP Fact Check.** This site is maintained by the AFP newswire service and has a global footprint, including Asia-Pacific region.
  https://factcheck.afp.com

- **Rappler Fact Check.** Rappler is a Philippine online news website that has fact-checking services focused on the news and COVID-19.
  https://www.rappler.com/section/newsbreak/fact-check
  https://www.rappler.com/covid-19-fact-checks

- **Mafindo.** This Indonesian organisation is focused on fighting the dissemination of hoaxes and has provided fact-checking during elections.

- **Health Desk.** Health Desk provides detailed science and evidence-based responses to COVID-19-related messages circulating in social media.
  https://health-desk.org

- **MediaWise.** Team Fact-Checking Network publishes daily fact-checks for teenagers by teenagers.
  https://www.poynter.org/teen-fact-checking-network/

Ongoing Support

Digital literacy and digital citizenship are still evolving. As young people increasingly tap into their devices and social media channels for information and communications, it is vital that there is an increased emphasis placed on disinformation education and steps that can be taken to counter its harmful effects.

Staying Informed about Disinformation Issues

Educators can keep track of disinformation education approaches by regularly searching for news and reports online, and subscribing to email newsletters from organisations including:

- First Draft: https://firstdraftnews.org/subscribe/

- The Checklist – misinformation roundup: https://meedan.com/checklist

Establishing Disinformation Education Networks

There is an opportunity for educators in ASEAN to establish a community of practice focused on disinformation education. This can be organised at both a national level and a regional level using email discussion lists and email newsletters.

The ASEAN Foundation is already conducting work in this area, and many of the AMS have initiatives related to disinformation and information literacy, often as part of a broader digital citizenship programs. By creating peer relationships and networks, there is an opportunity for educators to learn from each other and improve the delivery and impact of disinformation education in their countries. For more information on ASEAN Foundation and its work in this area, please contact: secretariat@aseanfoundation.org.

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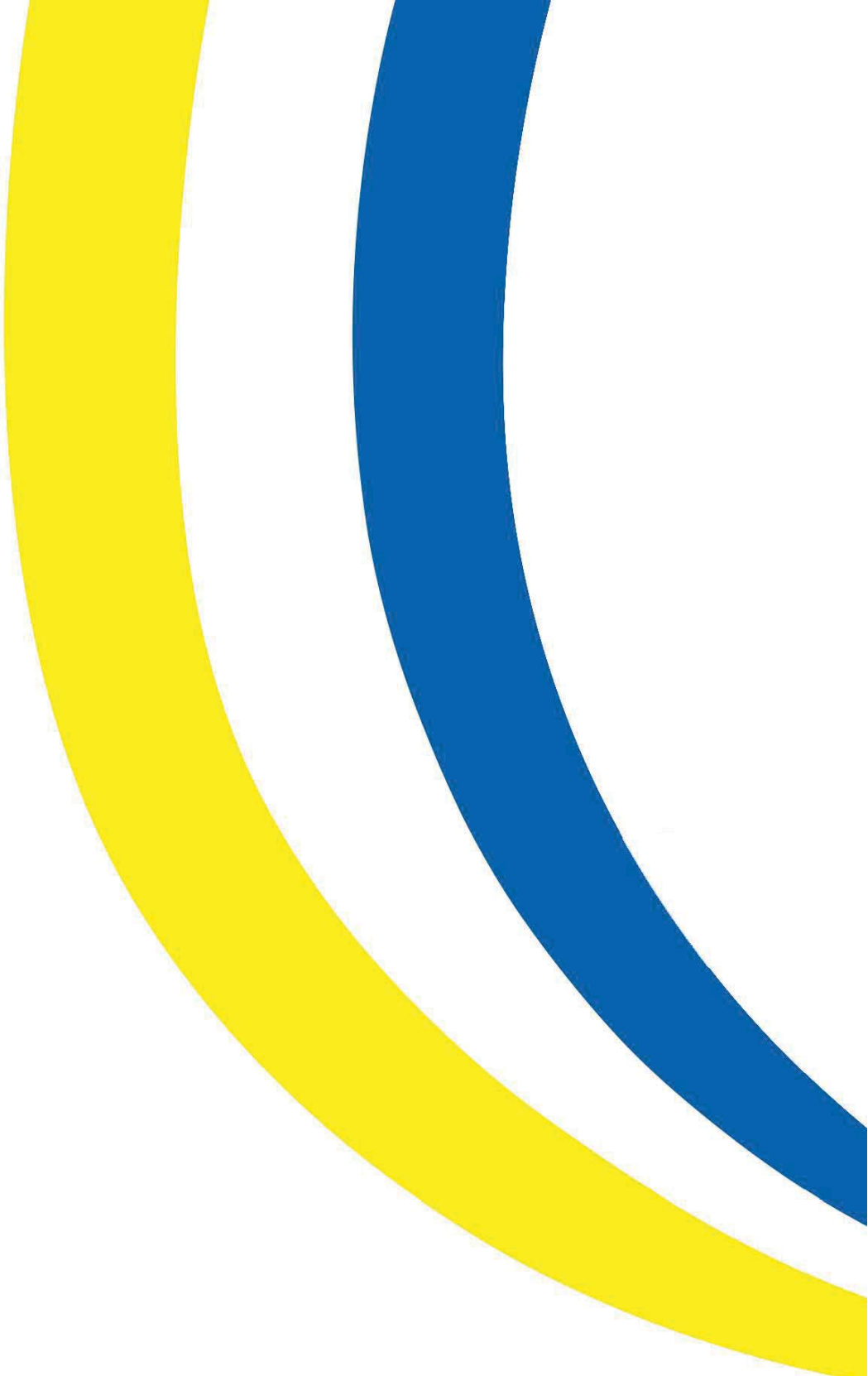
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