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Authors: James Pamment, Anneli Kimber Lindwall

Additional Research: Leon Klingborg

Project Lead: Ben Heap

Project Assistant: Quentin Wight

Design: Kārlis Ulmanis

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NATO STRATCOM COE

11b Kalnciema Iela

Riga LV1048, Latvia

www.stratcomcoe.org

Facebook/stratcomcoe

Twitter: @stratcomcoe



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Contents

| | |
|--|-----------|
| EXECUTIVE SUMMARY | 5 |
| INTRODUCTION | 12 |
| 1. Is it possible to evaluate debunking efforts? | 13 |
| 2. Who is doing what? A guide to best practice..... | 21 |
| 3. Recommendations and future prospects | 40 |
| ANNEX: List of resources | 45 |
| Handbooks | 45 |
| OSINT resources | 47 |
| Image and video search | 47 |
| Social media monitoring | 48 |
| Network analysis | 49 |

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” Today’s information environment is increasingly characterised by the spread of misinformation and disinformation.

EXECUTIVE SUMMARY

Misinformation and **disinformation** disseminated online are a relatively recent phenomena, as are initiatives developed to limit the effect of such content. Questions remain over the effectiveness of two key counter-measures, **fact-checking** and **debunking**. This report makes a start in examining best practice: what it is, who does it and how it might be evaluated.

WHAT ARE DISINFORMATION AND MISINFORMATION?

Today’s information environment is increasingly characterised by the spread of misinformation and disinformation. **Misinformation** refers to verifiably false information that is spread *without* any intent to mislead. **Disinformation** refers to the creation, presentation and dissemination of verifiably false information for economic gain or to *intentionally* deceive the public.

Whether it be published in a news article or an online blog, broadcast from a newsroom or government press conference, misleading

and false information is frequently produced and reproduced, both intentionally and unintentionally.¹

IS IT POSSIBLE TO EVALUATE DEBUNKING EFFORTS?

Fact-checking is the long-standing process of checking that all facts in a piece of writing, news article, speech, etc. are correct. It derives from a need to hold those in power to account for their claims, and is traditionally conducted by journalists, newsrooms and political analysts.



Debunking refers to the process of exposing falseness or showing that something is less important, less good or less true than it has been made to appear. The overall objective is to *minimise the impact of potentially harmful mis- and disinformation*. The main goals of organisations that debunk include: to *assert the truth*, to *catalogue* evidence of false information, to *expose* false information and conspiracies, to *attribute* the sources of disinformation, to *build capacity* and to *educate*.

Although there is overlap between debunking and traditional fact-checking, there are several differences to note:

- Debunking is often **not non-partisan**. It can be done by governments to expose a 'hostile' actor, and sometimes takes

the form of a 'campaign' or 'initiative'. In contrast, fact-checking is conducted in the spirit of impartiality.

- Debunking is **targeted** on a specific actor or topic. While fact-checking is broad in scope, debunking often begins with a decision about *whose* information should be corrected, based on an overall assessment of their *intent* and *behaviour*.²
- Debunking is **strategic**. Unlike with fact-checking, not all falsehoods should be focused on equally. Debunking is focused on solving a strategic problem to reduce harm, and initiatives often ignore mis- and disinformation that is unlikely to have a high impact on their priority issues.

HOW DO WE KNOW IF DEBUNKING DISINFORMATION WORKS?

To evaluate debunking, it is necessary to determine how the goals of debunking can be developed into indicators of success. These indicators are suggestive of the types of questions that could support evaluation.



Debunking goals and indicators of success

| Goal | Definition | Example Indicators |
|------------------|---|--|
| Assert the truth | Use established facts as a means of counteracting the negative impact of mis- and disinformation. | <ul style="list-style-type: none"> Do the activities push back on negative messages and narratives? Does correction lead to a measurable change in attitudes and beliefs? |
| Catalogue | Develop a public record of falsehoods that are being spread by an actor in order to raise awareness of their behaviour and provide evidence of their actions. | <ul style="list-style-type: none"> Is the information used to support detailed analyses and to inform public debate? Are other organisations making use of similar approaches and methods? |
| Expose | Use identified mis- and disinformation as a starting point to expose the actors and networks behind the spread of false information. | <ul style="list-style-type: none"> What aspects of the mis- and disinformation issue are exposed? (e.g., narratives, techniques, actors) Is there evidence to support the de-platforming of fake accounts, bots, etc? |
| Attribute | Collect evidence of an actor's behaviour in order to publicly shame them and support the imposition of costs to their actions. | <ul style="list-style-type: none"> Are the attributions considered credible within the community, and are they confirmed by allies? Is there evidence of a deterrence effect on the attributed actor? |
| Build capacity | Develop the skills and procedures to protect vulnerable institutions. | <ul style="list-style-type: none"> Have vulnerabilities been identified in a risk assessment and are processes in place to improve the ability to protect those vulnerabilities? Is there a measurable increase in awareness and skills related to countering mis- and disinformation? |
| Educate | Build societal resilience by educating the public about the tactics, techniques and procedures of disinformation. | <ul style="list-style-type: none"> Is it possible to derive teaching or discussion materials from examples of your work? Which audiences does your debunking and/or education materials reach? |



WHO IS DOING WHAT? A GUIDE TO BEST PRACTICE

The table below provides an overview of the categories of actors that use fact-checking and debunking to counter mis- and disinformation, the factors that are likely to contribute to their success and prominent examples of current initiatives.

| Organisation | Likely to be successful when | Prominent examples | |
|---------------------------------|---|--|---|
| Governments | <ul style="list-style-type: none"> ■ Cross-party political support. ■ Topics limited to areas where government is credible (e.g., public health). ■ Effective coordination between intelligence, security policy and communications. | <ul style="list-style-type: none"> ■ NetzDG 🇩🇪 Germany ■ Debunk.eu 🇱🇹 Lithuania ■ MSB Handbook for Communicators 🇸🇪 Sweden | <ul style="list-style-type: none"> ■ RESIST Counter-Disinformation Toolkit 🇬🇧 UK |
| Intergovernmental organisations | <ul style="list-style-type: none"> ■ Clear mandate from member states. ■ Member states with strong counter-disinformation capabilities provide resources and direction. ■ Activities are focused and limited. | <ul style="list-style-type: none"> ■ East Stratcom Task Force's 'EUvsDisinfo' 🇪🇺 EU ■ The NATO Strategic Communications Centre of Excellence ■ The UN's 'Verified' campaign | |
| News media | <ul style="list-style-type: none"> ■ High credibility and a reputation for impartiality. ■ Source being fact-checked is transparent and only content is disputed. ■ Effectively shares results to target audiences. | <ul style="list-style-type: none"> ■ Channel 4 News Fact Check 🇬🇧 UK ■ DELFI Melo Detektorius 🇱🇹 Lithuania ■ dpa Faktencheck 🇩🇪 Germany ■ Faktisk.no 🇳🇴 Norway | <ul style="list-style-type: none"> ■ France 25 – Les Observateurs ■ Reuters ■ The Trusted News Initiative (TNI) ■ Washington Post Fact Checker (U.S.) |



| Organisation | Likely to be successful when | Prominent examples | |
|----------------------------|--|---|---|
| Non-profits | <ul style="list-style-type: none"> ■ Non-profit has a long-term partnership with a donor. ■ Is part of an international fact-checking network. ■ Develops brand so to become a recognised and credible actor. | <ul style="list-style-type: none"> ■ Africa Check  South Africa ■ Chequeado  Argentina ■ CORRECTIV  Germany ■ EU Disinfo Lab  EU) ■ FaktaBaari  Finland) ■ First Check  India ■ First Draft ■ Full Fact  UK ■ Källkritikbyrån  Sweden | <ul style="list-style-type: none"> ■ Mythdetector  Georgia ■ Pagella Politca  Italy ■ PolitiFact  U.S. ■ Propastop  Estonia ■ Re:Baltica  Latvia ■ Salud con lupa  Peru ■ Snopes  U.S. ■ Stop Fals  Moldova ■ Stope Fake  Ukraine |
| Universities & think tanks | <ul style="list-style-type: none"> ■ A research programme has long-term funding and full independence from funding institutions. ■ Transparent methodologies and academic rigour are applied. ■ Researchers can build trust with government and industry in order to secure access to relevant information. | <ul style="list-style-type: none"> ■ Factcheck.org (Annenberg Public Policy Center of the University of Pennsylvania) ■ Carnegie Endowment for International Peace ■ EUfactcheck.eu | <ul style="list-style-type: none"> ■ German Marshall Fund's (GMFs) Digital Innovation and Democracy Initiative ■ Pew Research Center ■ Stanford Internet Observatory (Stanford University) ■ University of Washington Center for an Informed Public |
| Digital investigators | <ul style="list-style-type: none"> ■ Investigators have earned the trust and support of a large and diverse network of potential contributors. ■ Investigations follow an established methodology supported by quality-assurance processes. ■ Investigators are able to shape media coverage with their findings. | <ul style="list-style-type: none"> ■ Bellingcat | <ul style="list-style-type: none"> ■ Atlantic Council's Digital Forensic Research Lab |



| Organisation | Likely to be successful when | Prominent examples | |
|-----------------------|---|--|--|
| Philanthropists | <ul style="list-style-type: none"> Philanthropist provides funding without overly directing the mandate of research. Philanthropist has developed the expertise to identify strong candidates for funding. | <ul style="list-style-type: none"> Craig Newmark Philanthropies William + Flora Hewlett Foundation | <ul style="list-style-type: none"> Knight Foundation |
| Temporary initiatives | <ul style="list-style-type: none"> Ramp up an <i>existing</i> capability. Capability continues to exist after the event. Folded into another institution after temporary initiative ceases to exist. | <ul style="list-style-type: none"> CrossCheck  France Fact-checking projects for U.S. elections | <ul style="list-style-type: none"> Faktiskt.se  Sweden Falsch Project  Germany |

RECOMMENDATIONS

Improving practice

- Understand the information environment.** Assess *existing initiatives* you can learn from/collaborate with, and your *target audience* (to determine the actors, messages and channels they deem credible).
- What are you trying to protect?** By clarifying purpose (e.g., safeguarding an election vs building wider media literacy) you can determine how you will work and who you will work with.
- Different tactics and tailored messaging for different audiences.** Framing should vary depending on the topic and audience. Target audiences may have different
- Audience engagement strategy.** Audiences most vulnerable to mis- and disinformation are unlikely to engage with long or overwhelming articles. Look to innovative formats, such as gamification.
- Assess your own vulnerabilities.** Once you have identified a credible voice to do the debunking, what are the risks or vulnerabilities your organisation could face?
- Pick your battles.** Resource and time limitations mean you must be selective in the issues and actors you choose to engage.
- Responses should balance between countering messages, countering narratives and countering brands.**



Consider all levels – message (the simple claim), narrative (the larger story) and brand (the identity or intent behind message or narrative) – as interconnected. Pay attention to the *alignment* between levels of response.

Assessing impact

- **Measurement and evaluation (M&E) of mis- and disinformation countermeasures is still in its very earliest stages.** Some of this research tests the wording of corrections, to provide empirical evidence of counter-messages that are likely to stick. Other research tests recall of facts after exposure to corrective information.
- **Experiments can help to explain the human psyche and hone messaging aimed at specific behaviour change.** This can be reflected in the indicators where appropriate. Many other objectives are political in nature, as they seek to signal intent, impose costs and disrupt adversary capabilities, support ally capabilities, reduce societal vulnerabilities and reassure the public.
- **These indicators should be reflected in any assessment of what impact an initiative might have.** But each of these indicators can look very different depending on the country, issues and adversaries in question.

Developing policy solutions

- **Debunking is not a standalone solution.** Debunking should be positioned alongside coherent legislation, deterrence and resilience-building measures.
- **Networks and alliances provide important direction, protection and support.** Coordination with the likes of governments, intergovernmental organisations and philanthropists is important for coherence in the field. This pertains to clarifying mandates, objectives, subject-matter and geographical markets.
- **There are opportunities to use funding to drive shared standards.** More can be done to establish shared standards, norms and practices in order to create a more consistent and aligned product across organisations.
- **There are significant problems accessing data from closed groups, chatrooms and messaging services.** Digital platforms have the opportunity to counter mis- and disinformation through labelling, promoting and demoting content. Governments can support this through either collaboration or regulation of digital platforms.
- **Granting organisations the mandate to achieve a specific goal is a crucial step.** Providing a mandate that is specific enough to drive debunking activity but flexible enough to meet future challenges is an important capability to be resolved by policymakers.



” In an era characterised by the spread of ‘fake news’, fact-checking and debunking are often perceived as a necessary, if imperfect, solution.

INTRODUCTION

According to the Cambridge Dictionary,³ ‘fact-checking’ is the process of checking that all the facts in a piece of writing, a news article, a speech, etc. are correct. To ‘debunk’ is to expose falseness or show that something is less important, less good, or less true than it has been made to appear. In an era characterised by the spread of ‘fake news’,⁴ fact-checking and debunking are often perceived as a necessary, if imperfect, solution.

For the purpose of this report, we do not use the term ‘fake news’. Instead, we differentiate between the terms ‘misinformation’ and ‘disinformation’. ‘Misinformation’ refers to untrue information that individuals spread without any intent to mislead. ‘Disinformation’ is defined as the creation, presentation, and dissemination of ‘verifiably false content’ for ‘economic gain or to intentionally deceive the public and may cause public harm’.⁵ Both can be harmful to society.

Despite the establishment of many major initiatives, there has been debate about whether fact-checking and debunking actually help to counteract the effects of mis- and disinformation. This report aims to give some practical answers to some important questions. What works and what doesn’t, according to the science? Who is doing what? What forms of best practice are out there? What resources are available to fact-checkers and debunkers? Taking these questions together, this report will help guide the reader through the best existing practice and assist with developing impactful responses to mis- and disinformation.

The first part of the report looks at whether it is possible to evaluate the impact of debunking by discussing the major differences between fact-checking efforts, the objectives behind countering mis- and disinformation and the risks of a “backfire effect”. The second section is a guide to best practice and compares different types of fact-



checking and debunking initiatives. The third part gives recommendations and describes future prospects for improving practice, assessing impact and developing policy solutions.

The annex of the report gives a comprehensive overview of available resources on the topic, including handbooks, OSINT, video and image search as well as social media monitoring and network analysis tools.

The report combines academic debates on the topic with real life practice drawn from the authors' own experience, interviews with several expert organisations in the field such as the Atlantic Council, the National Democratic Institute, the EU's East Stratcom Task Force and discussion with relevant officials from different EU and NATO countries. More than 200 fact-checking and debunking initiatives from across the globe were researched and assessed.

1. Is it possible to evaluate debunking efforts?

This section asks whether it is possible to measure the impact of efforts to fact-check and debunk mis- and disinformation. It discusses:

- The growth of fact-checking organisations and the major differences between traditional fact-checking and efforts to debunk mis- and disinformation.
- A typology of the objectives behind countering mis- and disinformation.
- The risks of a “backfire effect” and their relevance to evaluations of counter mis- and disinformation efforts.
- The kinds of indicators that could be used to assess the impact of counter mis- and disinformation efforts.

1.1 The rise of fact-checking organisations

Fact-checking is usually considered to be the work done by journalists and political analysts to hold politicians to account for their sometimes-misleading claims. With the rise in attention that mis- and disinformation have claimed, fact-checking activities have broadened and become a more widespread practice conducted by a more diverse set of actors. According to a database of fact-

checking organisations called the Reporter's Lab,⁶ there are currently over 300 fact-checkers around the world. That is a steady increase from 44 in 2014, and around 200 in 2019. The list includes news agencies, universities, independent non-profits, regional initiatives and projects with a local focus.⁷

Some of these organisations are governed by shared standards that reflect the more traditional values of fact-checkers.



The International Fact-Checking Network (IFCN) based in the U.S. currently has 83⁸ signatories that have committed to the IFCN code of principles.⁹ The code was developed for organisations that regularly publish nonpartisan reports on the accuracy of statements by public figures, major institutions and other widely circulated claims of interest to society. Social media company Facebook partners with independent third-party fact-checkers globally who are certified through IFCN.¹⁰

Currently, there are in excess of 110 initiatives around the world conducting fact-checking, debunking or content verification specifically aimed at countering mis- and disinformation.¹¹ However, it should be noted that many of the organisations involved in countering mis- and disinformation are not fact-checkers in the strict meaning of the term. Exposing falsehoods is a major aspect of debunking mis- and disinformation, but this is often at a more general level than a traditional fact-checker would do. Furthermore, debunking mis- and disinformation is often not non-partisan (i.e., the organisations exist to expose a 'hostile' actor on behalf of a 'friendly' actor), can be done by governments, and sometimes takes the form of a 'campaign' or 'initiative'.¹² For this reason, we prefer to speak of countering and debunking mis- and disinformation, and use fact-checking to cover a more precise subset of activities.

1.2 Why debunk mis- and disinformation?

As mentioned above, fact-checking derives from a need to hold those in power to account for their claims, and it is conducted primarily by newsrooms (and their affiliates) and non-profits. Motivations for using fact-checking in the context of mis- and disinformation differ in significant ways. What, then, are the main purposes and goals of organisations that debunk mis- and disinformation?

Assert the truth

Traditionally, fact-checkers affiliated to big media outlets ensured that the factual items in a text were correct: the key dates, spelling of names, footnotes, etc. It should go without saying that any respectable media outlet would engage in fact-checking as part of their routine work, but because of the multitude of topics and amount of work, it has become increasingly difficult for journalists to be able to check everything themselves. Therefore, media outlets have established units that engage specifically in fact-checking that assist journalists as well as engage in wider projects of fact-checking linked with events or news that deserve more attention. The objective of their work is to focus on making sure all facts are correct. However, in the case of mis- and disinformation, the focus is often on correcting claims made by actors with a track record of foreign interference, endangering public health or other problematic behaviour, which differentiates the work of these organisations from traditional fact-checkers.



Catalogue evidence of false information

Some debunking organisations focus on specific topics, such as falsehoods related to national security, and catalogue the results of their debunking in order to demonstrate the systematic behaviour of an adversary. This helps people, especially media and researchers, to find solid and credible evidence of how specific organisations routinely spread false information, or whether certain topics face a disinformation challenge. For example, the East Stratcom Task Force was created in 2015 within the EU institutions to publicly expose and collect evidence of disinformation that can be linked to pro-Kremlin and Russian state media; it now hosts a database with over 10,000 entries. Initiatives such as Africa Check that help sort fact from fiction in African countries, or Ellinika Hoaxes are good examples in this regard. Other examples are designed to test novel technological solutions to identifying, cataloguing and representing complex data on patterns of mis- and disinformation.¹³

Expose false information and conspiracies

This approach aims to expose outlets that spread conspiracy theories or public health information that is scientifically unfounded. Dozens of new debunking initiatives of this kind have emerged after the start of the COVID-19 pandemic, with the common objective of helping people navigate through the plethora of mis- and disinformation, conspiracies and myths that have surrounded the coronavirus and its possible cures. Their

purpose is to spot, debunk and expose the lies around the virus no matter who is behind spreading it. In Asia, for example, doctors from nine countries use a messaging app to advise analysts at Health Analytics Asia's First Check, a unique collaborative fact-checking initiative based in New Delhi, India. In Sweden, non-profit organisation Vetenskap och Folkbildning focuses on exposing false ideas about matters that can be resolved scientifically. There are also several initiatives that tackle myths around vaccines.

Attribute the sources of disinformation

This approach aims to raise awareness of the disinformation activities of a particular actor. Rather than fact-checking all information, it focuses on a specific actor in order to link that actor to a pattern of behaviour. One example is the renowned StopFake initiative in Ukraine, which has developed into a leading group of experts on pro-Kremlin disinformation in Ukraine. According to the University of Gothenburg V-Dem annual democracy report from 2019,¹⁴ China is also actively spreading false and misleading information abroad, with Taiwan as one of its main targets. There are several debunking initiatives active in Taiwan, including the Taiwan FactCheck Center¹⁵ that was jointly founded by Taiwan Media Watch and the Association for Quality Journalism.

Build capacity

Sometimes the aim of debunking disinformation is simply to further professionalise and systematise the ability to respond to threats.



” Debunking mis- and disinformation often begins with a decision about whose information should be corrected, based on an overall assessment of their intent and behaviour.

Often referred to as capacity-building or resilience, this kind of work counters disinformation as a matter of routine because it is desirable to maintain skills and procedures in case of larger threats, or to protect institutions vulnerable to mis- and disinformation such as during elections.

Educate

This type of initiative focuses on developing media literacy and building resilience in people so that they are less affected by mis- and disinformation. For example, the News Integrity Initiative¹⁶ at the Newmark J-School was launched in 2017 to advance media literacy and increase trust in journalism. The News Literacy Project¹⁷ is a national education non-profit from the U.S that provides programmes and resources for educators and the public to teach, learn and share the abilities needed to be smart, active consumers of news and information.

These six overlapping aims help to unpack how and why countering mis- and disinformation is a process distinct to

traditional fact-checking. Debunking mis- and disinformation often begins with a decision about **whose** information should be corrected, based on an overall assessment of their **intent** and **behaviour**. For example, EUvsDisinfo was created to raise awareness of the disinformation spread by pro-Kremlin media following the illegal annexation of Crimea. Debunking mis- and disinformation is also **strategic**, in the sense that not all falsehoods should be focused on equally. Indeed, the RESIST Counter-Disinformation Toolkit advises government departments to ignore disinformation that is unlikely to have a high impact on their priority issues. The objective is rather to **minimise the impact of potentially harmful mis- and disinformation** by prioritising specific narratives or campaigns for debunking. In sum, efforts to debunk are:

- **Targeted** on a specific actor and/or topic.
- **Focused** on solving a strategic problem in order to reduce harm.
- **Debate-shaping** by correcting manipulation of public debate.



- **Transparent** about the actions, goals and funding of the debunker.
- **Awareness-raising**, including by educating about and exposing manipulative techniques.

1.3 Can fact-checking and debunking backfire?

In 2010, an experimental study found that, in certain circumstances, trying to correct mistaken beliefs made some people believe them even more strongly.¹⁸ The researchers called this the 'backfire effect', and thereby coined a term that has captivated academics, researchers and policy makers since. In the study, the academics ran four experiments. In two of them, they found a backfire effect; in two, they did not – instead, debunking worked. In all cases, the 'backfire effect' only occurred among people who were already committed to a mistaken belief – nothing was going to change their minds.

Attempts to reproduce those results have suggested that any backfire effect is probably less significant than the original study suggested. For example, a series of experiments testing 52 contentious beliefs among 10,000 people during the 2016 U.S. election was unequivocal: those who saw factual corrections were substantially more likely to express factually accurate beliefs than those who did not see corrections.¹⁹ The authors concluded that by and large, the average person responded to the corrections by bringing their views closer in line with the facts and this was true across ideologies

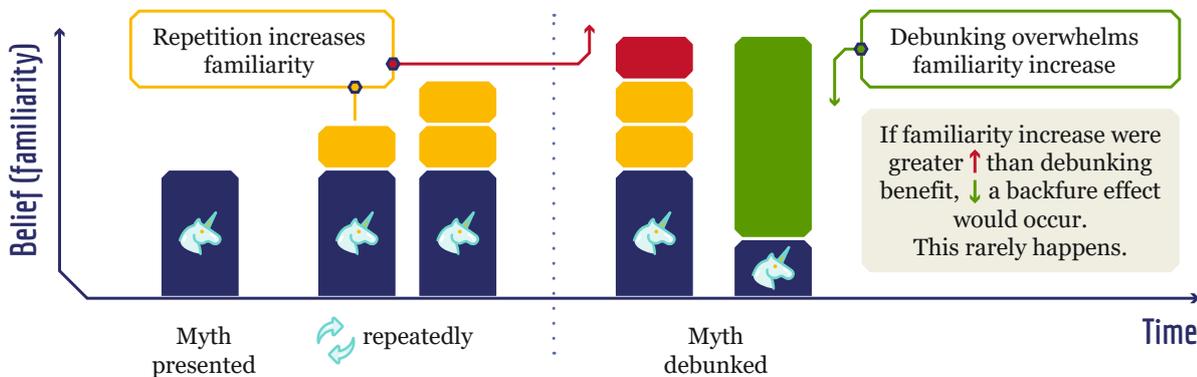
and across parties. Other studies have found similar results.²⁰

Summarising more than a decade of research into the backfire effect, the recently updated *Debunking Handbook*²¹ represents the perspectives of 22 prominent scholars of misinformation and its debunking. This work takes its point of departure in evidence that familiar information is generally perceived to be more truthful than new information. Because a myth is necessarily repeated when it is debunked, the risk arises that debunking may backfire by making a myth more familiar. However, they find that, while repeating misinformation generally increases familiarity and truth ratings, repeating a myth while refuting it has been found to be safe in many circumstances, and can even make the correction more salient and effective, as illustrated in the graph below.

It is worth restating at this point how different countering mis- and disinformation is from traditional fact-checking. Much of the research into fact-checking and debunking is focused upon analysing the effectiveness of corrective messaging in areas such as health communication and climate change. While the findings are illustrative of broad trends and principles, there is no single piece of 'proof' that can apply across the range of goals (listed above) that counter-disinformation activities involve. For example, the prevalence of a backfire effect would not necessarily be relevant for a debunking activity that primarily seeks to attribute a hostile actor, or



” Debunking a myth makes it more familiar but the ‘debunking’ usually overpowers the increase in familiarity.



that seeks to expose how disinformation is distributed through social media networks. How, then, can we know if debunking mis- and disinformation works? In order to better understand how and when debunking of disinformation can be effective, additional indicators are required.

1.4 How do we know if debunking disinformation works?

To begin a debate on evaluation of countermeasures, it is necessary to consider the objectives of different initiatives, and to determine how each objective can be broken down into indicators of success. These indicators are suggestive of the types of questions that could support measurement and evaluation activities. The intention here is to begin unpacking what some of these indicators might look like. Many debunking

organisations have more than one goal, which means that the indicators used to measure their impact could be derived from multiple objectives. With more development, such methods could be used for example to assess the impact of a programme of activities that involves the sponsoring of multiple debunking organisations.

Examples of useful indicators include:

Correct. Use established facts as a means of counteracting the negative impact of mis- and disinformation.

- Do the activities successfully push back on negative messages and narratives?
- Do corrections lead to a measurable change in attitudes and beliefs?



- Which means of presenting corrective information, including factors such as messenger, rhetorical use of words and images, timing etc are most effective in changing attitudes and beliefs?
- Are journalists reporting corrected information?
- Are the networks spreading mis- and disinformation increasingly marginalised from mainstream debate?

Catalogue. Develop a public record of falsehoods that are being spread by an actor in order to raise awareness of their behaviour and provide evidence of their actions.

- Is the information used to support detailed analyses (e.g., by students, researchers and journalists) and to inform public debate?
- Is your research and data collection methodology transparent and rigorous? Is it written down, systematic and replicable?
- Are other organisations making use of similar approaches and methods so that information can be collated and shared?

Expose. Use identified mis- and disinformation as a starting point to expose the actors and networks behind the spread of the false information.

- In what ways and to what extent does debunking raise awareness of the mis- or disinformation problem?
- What aspects of the mis- or disinformation issue are exposed? (e.g., narratives, techniques, platforms, actors).
- Which audiences does the debunking reach?
- Is there evidence to support the de-platforming of fake accounts, bots, and other inauthentic activities?
- Is there evidence of increased costs or reduced capabilities among actors spreading mis- and disinformation?

Attribute. Collect evidence of an actor's behaviour in order to publicly shame them and support the imposition of costs to their actions.

- Is the data capable of supporting reliable and nuanced (in terms of probability) attributions?
- Are the attributions considered credible within the community, and are they shared/confirmed by allies?
- Is there evidence of a deterrence effect on the attributed actor?
- Is there evidence of increased costs or reduced capabilities among actors spreading mis- and disinformation?



Build capacity. Develop the skills and procedures to protect vulnerable institutions.

- Have vulnerabilities been identified in a risk assessment and are processes in place to improve the ability to protect those vulnerabilities?
- Are desired target groups engaging with the training materials in their work?
- Is there a measurable increase in awareness and skills related to countering mis- and disinformation?
- Are there examples of cases where the activities successfully push back on messages and narratives?

Educate. Build societal resilience by educating the public about the tactics, techniques and procedures of disinformation.

- Do you participate in public education opportunities?
- Is it possible to derive teaching or discussion materials from examples of your work?
- Which audiences does your debunking and/or education materials reach?



2. Who is doing what? A guide to best practice

This section provides an overview of prominent efforts to counter mis- and disinformation using fact-checking and debunking. The initiatives are divided according to the type of actor conducting the work. Each section includes a discussion of:

- The type of actor and some of their characteristics and motivations.
- Factors that contribute to a successful initiative within this category.
- Examples of key indicators that could be used to evaluate the impact of their activities.
- Examples of prominent initiatives and their best practice.

2.1 Governments

Countering disinformation by strengthening institutions and developing regulations

Governments are among the leading funders of counter-disinformation efforts by many of the groups listed below. In addition, they conduct their own efforts to debunk. This is particularly important in issues that may have an impact on national security, public health, infrastructure such as elections, or during crises such as coronavirus. Governments also possess the opportunity to establish laws and regulations to govern mis- and disinformation.



Most likely to be successful when:

- There is non-partisan political support for counter-disinformation initiatives.
- Debunking efforts by governments are limited to sensitive areas where governments are credible, such as national security and public health; any debunking that can be considered politically sensitive should be outsourced to an independent non-profit.
- Governments have effective coordination methods between intelligence, security policy and communications.



Key indicators of impact include:

- i. A comprehensive approach, whereby risk and vulnerabilities assessment leads to monitoring and analysis, and this in turn leads to a response.
- ii. There is a measurable increase in awareness and skills related to countering mis- and disinformation in that specific country.
- iii. Strategic communication activities measurably push back on messages and narratives within society.
- iv. When successful in attributing, there is evidence of a deterrence effect on the attributed actor.



- v. There is more societal resilience built by educating the public about the tactics, techniques and procedures of disinformation.



Prominent examples include:

[Debunk.eu](#) is an independent analytical centre and an NGO in **Lithuania**, whose main task is to research disinformation in the public space and execute educational media literacy campaigns. The system that the centre runs is designed to debunk pro-Kremlin disinformation in real-time. Their approach is built on two notions: first, that technology companies may be able to create automated tools for spotting disinformation but responding to it is not part of their mission. Second, fact-checkers can create good content, but generally have low reach among those affected by disinformation. Therefore, the Lithuanian government has built alliances that go across public, private and civil society to reach vulnerable audiences. The power of their response comes from uniting leading media sources in Lithuania that together reach 90% of the Lithuanian population, as well as 'elves'²² and the representatives of the state, who work on the platform together fighting against disinformation in real time. The centre uses machine learning to process tens of thousands of articles every day looking for keywords and disinformation narratives. Today, there are thousands of elves working in Lithuania. They research false stories in areas they know well, and they categorise the stories as 'neutral', 'true' or 'false', while providing supporting evidence with sources. They score

each story's potential to harm, which helps the journalists decide which stories to focus on. With that, Lithuania's counter-disinformation activists have created a totally integrated system. According to the centre, Debunk.eu's algorithms spot disinformation stories within two minutes, isolating the ones with the greatest potential to spread fake news. The elves do the bulk of the time-consuming research to debunk false claims. Professional journalists create finished stories in partnering media organisations, which in turn reach thousands of members of the public who could otherwise have become the victims of the pro-Kremlin disinformation campaigns.

[The MSB Handbook for Communicators](#) in **Sweden** is an example of efforts to build the capabilities of communication professionals in the public sector so that they can minimise the impact of mis- and disinformation on their audiences. The handbook provides official guidance on how communicators should recognise, identify and counter information influence activities that they encounter in their everyday work. In terms of debunking, it outlines a four-step approach involving Assess (understand the situation) and Inform (provide neutral information and facts); and in more serious cases, Advocate (argue your case) or Defend (block or expose malign actors). Written by researchers at Lund University to support preparations for the 2018 general election, a training programme was also rolled out across government agencies and local government that will continue to the 2022 election and beyond.



” Debunk.eu’s algorithms spot disinformation stories within two minutes, isolating the ones with the greatest potential to spread fake news.

The **RESIST Counter-Disinformation Toolkit** in the **United Kingdom** was prepared in the aftermath of the Salisbury poisoning to help develop routines and processes to support cross-government collaboration on countering disinformation. Focusing heavily on monitoring and analysis capabilities, RESIST provides a step-by-step guide to setting up a counter-disinformation unit within a government department’s communication team. The toolkit was prepared by researchers from Lund University and has become part of the standard training of public sector communication professionals in the UK civil service. Besides supporting UK institutions, it has been offered as a training package to dozens of countries to support their debunking and strategic communication capabilities, particularly prior to elections.

NetzDG in **Germany** is an example of how regulatory steps can challenge digital media companies to take responsibility for the content shared on their platforms.

In 2017, the German Bundestag officially passed the Network Enforcement Act (NetzDG law). Under this law, commercial social networks are obliged to establish a transparent procedure for dealing with complaints about illegal content and are subject to a reporting and documentation obligation. Social media platforms should check complaints immediately, delete ‘obviously illegal’ content within 24 hours, delete any illegal content within 7 days after checking, and block access to it. The law has been met with criticism from various experts, journalists, social networks, the UN and the EU. However, according to the joint report made in the end of 2018 by the Counter Extremism Project and the Centre for European Policy Studies,²³ Germany’s NetzDG law has been applied in a reasonable way. Some have called the law the most ambitious of its kind, observing that it has become a touchstone for Western democracies struggling to deal with hate speech on the internet.²⁴



2.2 Intergovernmental organisations

Awareness raising campaigns to push back against adversaries

Intergovernmental organisations (IGOs) play an important role in raising awareness of disinformation and in correcting false information. The motivations and mandates can differ quite widely; for example, NATO faces a great deal of disinformation about its purpose and seeks to correct those statements, whereas the EU's East Stratcom Task Force only exposes disinformation spread by pro-Kremlin media. Others, like the United Nations, UNESCO and World Health Organisation, have concentrated on maintaining a legitimate and credible voice in debates about Coronavirus. In sum, there isn't a single model of IGO debunking, but rather a range of approaches linked to raising awareness of a specific disinformation problem.



Most likely to be successful when:

- The IGO has a clear mandate and support from key member states.
- Member states with strong capabilities in countering disinformation provide resources and direction.
- The activities are focused and limited, for example as an awareness-raising campaign or in strengthening the capabilities of specific groups such as journalists or the young.



Key indicators of impact include:

- i. There is sufficient support and funding to activities taken on by institutions themselves, the member states or key cooperation partners to tackle mis- and disinformation.
- ii. There is a measurable increase in awareness and skills related to countering mis- and disinformation among the institutions and their member states.
- iii. The activities successfully push back on messages and key narratives.
- iv. There is a considerable increase of awareness of hostile actors or about the spread of disinformation on certain topics like COVID-19.
- v. The attributions are considered credible within the community, and they are shared by allies.
- vi. There is more resilience built by educating the public about the tactics, techniques and procedures of disinformation.



Prominent examples include:

The European Union has the [East Stratcom Task Force 'EUvsDisinfo'](#). In March 2015, a unanimous decision from the highest level of decision making in the European Union – 28 heads of state and government – called



out Russia as a source of disinformation. Subsequently, the East Stratcom Task Force was given a unique and strong mandate. A team of experts, who mainly had their background in communications, journalism and Russian studies, was formed in the EEAS – the EU's diplomatic service.²⁵

When it came to putting their expertise and skills into practice, the team came up with the central idea to raise awareness of the disinformation problem by running an advocacy campaign that collects examples of disinformation and exhibits them in a framing that does not reinforce, but instead challenges the disinformation. By collecting examples of pro-Kremlin disinformation on a regular basis over the course of five years, the campaign has not only been able to debunk a vast amount of disinformation, but perhaps more importantly catalogue the ways in which certain narratives resurface in different settings and languages. This can and does serve as an early warning mechanism for disinformation campaigns for the EU centrally and for the member states.

The EUvsDisinfo database includes 'disproofs', which explain the components that make a certain claim disinformation. The disinformation examples are put in context through a weekly newsletter, the Disinformation Review, through feature articles and in an online campaign. As already mentioned above, it is important to focus on the context in order to make a distinction between misinformation versus disinformation, i.e., the difference between

an incorrect claim seen in isolation, and the way such a claim can be used intentionally, systematically and manipulatively to pursue political goals. Searching through the database, the reader sees a timeline of how a certain disinformation message pops up the first time, and how it changes and develops. These findings give hints to researchers, journalists or other users regarding where to look for more.

The European Commission funds another fact-checking initiative, the [European Digital Media Observatory \(EDMO\)](#), that brings together fact-checkers, media literacy experts and academic researchers across the EU to understand and analyse disinformation, in collaboration with media organisations, online platforms and media literacy practitioners. EDMO has plans to deploy a platform to support the work of a multidisciplinary community with expertise in the field of online disinformation.

The European Parliament has been investing more resources into tackling the problem of 'fake news' since the May 2019 European elections when their work on this became prominent. The Parliament mostly ensures that people are able to access reliable information and explains the different threats that the spread of disinformation poses.²⁶ However, in addition to their own activities, the Parliament has been a strong supporter of the East Stratcom Task Force and its fact-checking operation since the very beginning. In fact, in its 23 November 2016 resolution on EU strategic communication to



” Intergovernmental organisations (IGOs) play an important role in raising awareness of disinformation and in correcting false information.

counteract propaganda, the EP called for the East Stratcom Task Force to be reinforced. In January 2018, the task force received its first budget of €1.1 million, initiated by the Parliament. This funding enabled ESTF to professionalise and spread out its monitoring and debunking activities, which in turn enabled much more awareness raising on pro-Kremlin disinformation. The European Parliamentary Research Service (EPRS),²⁷ has produced a number of useful briefings and reports on the topic of disinformation and how to counter it on the EU level. The briefings highlight among other things that the EU institutions should promote media literacy as well as support national teams of independent fact-checkers and researchers to detect and expose disinformation on social networks. In addition, the Parliament has a long-standing effort to debunk euomyths, which has for example focused on mis- and disinformation around Brexit.²⁸

NATO's approach to countering disinformation is focused on fact-based, credible public communications.²⁹ NATO publicly refutes false claims, debunks the main disinformation narratives aimed at the alliance and

coordinates to share information, insight and best practice. They continue to expose disinformation through a wide range of media engagements including statements, rebuttals, corrections and briefings to inform a wide variety of audiences about disinformation and propaganda. NATO supports the work of independent NGOs, think tanks, academics, fact-checking organisations and other civil society initiatives to promote debate and to build resilience.

[The NATO Strategic Communications Centre of Excellence](#) (NATO StratCom COE) has since 2014 focused on analytical and research work in order to contribute to improved strategic communications capabilities within the Alliance and its Allied nations. The heart of the NATO StratCom COE is a diverse group of international experts with military, government and academic backgrounds - trainers, educators, analysts and researchers. This paper is another example of NATO StratCom work that helps look into the phenomenon of fact-checking and helps Allies apply and use best practices in this field.



The United Nations Secretary-General launched the overall United Nations Communications Response initiative to combat the spread of mis- and disinformation around COVID-19 in April 2020.³⁰ [The United Nations' 'Verified' campaign](#) provides content that cuts through the misinformation around COVID-19 to deliver potentially life-saving information, fact-based advice and stories. Verified's team of communicators, creatives and researchers produce content based on the latest information and guidance from the United Nations, the World Health Organisation and other UN agencies. They work directly with leading experts on misinformation and fact-checkers at First Draft. The initiative also calls on people around the world to become 'information volunteers' and share UN-verified, science-based content to keep their families and communities safe from harmful disinformation.

The World Health Organization (WHO), which is at the forefront of the battle against the pandemic, is primarily transmitting authoritative information based on science³¹ while also seeking to counter myths.³² At the World Health Assembly in May 2020, WHO member states passed Resolution WHA73.1 on the COVID-19 response.³³ The resolution recognises that managing the 'infodemic' is a critical part of controlling the COVID-19 pandemic: it calls on member states to provide reliable COVID-19 content, take measures to counter mis- and disinformation and leverage digital technologies across the response. The resolution also calls on international organisations to address mis-

and disinformation in the digital sphere, work to prevent harmful cyber activities undermining the health response and support the provision of science-based data to the public.

Due to the high demand for timely and trustworthy information about COVID-19, WHO has also established the [Information Network for Epidemics](#) (EPI-WIN)³⁴ that unites technical and social media teams working closely to track and respond to misinformation, myths and rumours and provide tailored information and evidence for action.

Additionally, WHO works with the UK to tackle misinformation in the context of the strategic partnership with the Government of the United Kingdom and its communications teams to raise awareness of misinformation around COVID-19 and encourage individuals to report false or misleading content online. This cooperation started with the joint '[Stop the Spread](#)' campaign in May-June 2020, which encouraged the use of trusted sources such as WHO and national health authorities for accurate COVID-19 information.

UNESCO has been one of the most active UN specialised agencies that have made efforts to counter the spread of disinformation around COVID-19. During the 75th session of UN General Assembly, UNESCO, together with WHO and other UN agencies and partners, called on countries to develop and implement action plans to promote the timely dissemination of science-based information



and prevent the spread of false information while respecting freedom of expression.³⁵ In the joint statement signed by WHO, UN, UNICEF, UNDP, UNESCO, UNAIDS, ITU, UN Global Pulse and IFRC, the signatories call on member states to develop and implement action plans to manage the infodemic by promoting the timely dissemination of accurate information that is based on science and evidence.

Furthermore, UNESCO has published two policy briefs³⁶ offering critical insights into the fast-growing COVID-19-related disinformation that is impeding access to trustworthy sources and reliable information. The briefs coin the term of 'disinfodemic' to describe the magnitude of the problem and present a typology of responses for dealing with it. In these documents UNESCO considers monitoring and fact-checking aimed at identifying, debunking and exposing COVID-19 disinformation as one of the key responses to the disinfodemic. UNESCO calls on internet companies and the media sector to provide more financial support to fact-checking networks and independent journalism (especially those focused on investigations targeting disinformation content and networks, and local news organisations which are particularly vulnerable in the crisis), and Media and Information Literacy campaigns and education.³⁷

As another practical example, the Bureau of UNESCO's International Programme for the Development of Communication has

approved several initiatives in Africa, India and the Caribbean. One of those initiatives seeks to empower 50 media professionals in nine Eastern Caribbean countries to conduct effective fact-checking and counter disinformation and sensationalism on coronavirus.³⁸

2.3 News media

The preferred approach of leading media outlets and agencies

This category includes fact-checking initiatives, units or collaborations within or between major media outlets to assist journalists with checking facts for everyday stories or to investigate larger disinformation claims. Fact-checking teams attached to media companies have access to some of the largest audiences through their print, digital, television and radio channels. Building on the credibility of these outlets as authoritative news sources, they are well-placed to confirm the veracity of disputed or manipulated information sources as well as provide educational resources to journalists and the general public.



Most likely to be successful when:

- The media house has high credibility and a reputation for non-partisan fact-checking, i.e. the outlet treats all parties equally when it comes to identifying mis- and disinformation.



- The source being checked is transparent, and only the content is disputed, i.e. only checking the veracity of statements made by a politician or public figure, rather than trying to attribute a foreign state actor.
- The initiative has devised a means of sharing the results of fact-checking to audiences, including those most vulnerable to mis- and disinformation.



Key indicators of impact include:

- i. Established facts are used as a means of counteracting the negative impact of mis- and disinformation.
- ii. The activities of media outlets and news agencies are credible and successfully dispute or ignore disinformation messages and narratives.
- iii. The corrections, thanks to substantial media outreach and diversity of channels, lead to a measurable change in attitudes and beliefs.
- iv. Resilience is built by educating the public about the tactics, techniques and procedures of disinformation.



Some of the prominent examples include (in alphabetical order):

[Channel 4 News Fact Check](#), UK Channel 4 News revived its FactCheck as a permanent feature in 2010. On their Twitter wall they say they focus on testing the claims of people in power.

[DELFI Melo Detektorius](#) is a fact-checking project of the largest Lithuania media outlet 'DELFI Lietuva'. They focus on checking claims made by Lithuanian political figures, online users of social networks and information found in other media.

[dpa Faktencheck](#), the German Press Agency is one of the globally leading independent news agencies that are currently one of the signatories of the IFCN. Fact-checking is the main part of their daily work.

[Faktisk.no](#) is an example of a collaboration between news organisations in Norway, including Dagbladet, VG, TV2 and the country's public broadcaster NRK to focus on fact-checking.

[France 24 - Les Observateurs](#) is a fact-checking section of the French media outlet France 24. It was set up in 2006 and works as a user generated content and image verification unit for videos from all over the world.



Le Monde's Les Décodeurs, France overall offers a striking illustration of widespread fact-checking by legacy news outlets. Le Monde was one of the first ones setting the service up in 2009.

Reuters, Reuters News has created a fact-checking unit within its editorial department. The principal aim of this unit is to fact check visual material and claims posted on social media. The fact-checking producers in this unit report their findings on a specially created blog.

The Trusted News Initiative (TNI) was set up in 2019 to protect audiences and users from disinformation, particularly around elections. The partners currently within the TNI are AP, AFP; BBC, CBC/Radio-Canada, European Broadcasting Union (EBU), Facebook, Financial Times, First Draft, Google/YouTube, The Hindu, Microsoft, Reuters, Reuters Institute for the Study of Journalism, Twitter, The Washington Post. In December 2020, the BBC World Service Group announced that they will fund new research, led by the Reuters Institute for the Study of Journalism working with First Draft. It will examine the effectiveness of different interventions which seek to educate audiences and prevent the spread of health disinformation. TNI will focus on combatting the spread of harmful vaccine disinformation.

Washington Post Fact Checker is an independent arm of the Washington Post newspaper and produces high-quality fact checks on those in power in the U.S, such as

the president and the party that controls the House and the Senate. The Fact Checker was started in September 2007 to provide fact checks during the 2008 presidential election.

2.4 Non-profits

Fact-checking is a particular focus of the work of NGOs, charities, activists, researchers and other non-media aligned organisations

Non-profits is by far the largest category, with hundreds of initiatives over the last few decades. These initiatives are characterised by the diversity of their approaches to fact-checking, their scope and capacity to distribute their findings. It is common to use volunteers, citizen journalists, activists and academic researchers in their work. These organisations often rely on grants, donations, crowd-funding and advertising revenue streams to be able to maintain a viable operation.



Most likely to be successful when:

- The non-profit has stable funding from a reliable source and is able to train and retain professional staff, i.e. long-term partnership with a donor.
- The non-profit is able to pool its analysis with a larger network of likeminded organisations, to produce a more accurate image of overall trends, i.e. membership of an international fact-checking network.



- The non-profit develops its brand so as to become a recognised and credible actor with established methods, an audience and a track record of results.



Key indicators of impact include:

- The development of a public record of falsehoods that are being spread by an actor in order to raise awareness of their behaviour and provide evidence of their actions.
- The research and data collection methodology is transparent, systematic and replicable.
- The data is capable of supporting reliable and nuanced attributions.
- The debunking raises awareness of the mis- or disinformation problem, of a specific actor or a concrete topic.
- It is possible to derive teaching or discussion materials from examples of their work.
- Debunking and/or education materials reach the right audiences that have been chosen as the target groups.



Some prominent examples from across the globe include (in alphabetical order):

Africa Check (South Africa), devised by the non-profit media development arm of the international news agency AFP, Africa Check is an independent organisation with offices in Johannesburg, Nairobi, Lagos, and Dakar. They produce reports in English and French, testing claims made by public figures, institutions and the media against the best available evidence.

Chequeado (Argentina) is a small team of journalists making up the Argentinian non-profit fact-checking organisation that has according to some media sources become a global leader in the fight against misinformation. Their mission is to improve the quality of public debate by providing open data and evidence to better inform citizens.

CORRECTIV (Germany) is the first non-profit newsroom in the German-speaking region. They investigate injustice and abuses of power. They also promote media literacy and implement educational programmes.

EU Disinfo Lab (EU) is an independent NGO focused on researching and tackling sophisticated disinformation campaigns targeting the EU, its member states, core institutions and core values. They monitor disinformation activities across all social platforms to identify trends and threats. In addition to this, they use open-source intelligence techniques to uncover disinformation networks, strategies, as well as inauthentic behaviour.



” These initiatives are characterised by the diversity of their approaches to fact-checking, their scope and capacity to distribute their findings.

FaktaBaari (Finland) is an award-winning fact-checking service bringing accuracy to the public election debates since 2014. It is a non-partisan journalistic service using social media for collecting and distributing factual information. Faktabaari’s international branch FactBar is active in the European cooperation connecting fact-checking and media literacy stakeholders.

First Check (India) is a collaborative pan-Asia project in terms of its format and approach. This initiative brings journalists, doctors and technologists together to identify and combat medical misinformation, rumours and unscientific claims. This includes vaccines and infectious viruses to cancer drugs and lifestyle diseases.

First Draft is a collaboration with a mission to bring together a global network of journalists to investigate and verify emerging stories. They work with their partners to conduct innovative research projects and develop

pioneering training programmes. First Draft’s London, New York and Sydney offices share cutting-edge digital tools to help both content creators and the public make better-informed judgments about the information they encounter online. The First Draft Partner Network includes some of the largest news organisations and prominent people working in this space. The network is designed to scale training and establish industry standards on social monitoring, verification and responsible reporting on disinformation.

Full Fact (UK) is the UK’s largest independent fact-checking charity that has pioneered automated fact-checking. Their objectives are to inform audiences and maintain scrutiny of people in power; corrections and interventions, to stop the spread of specific unsubstantiated claims; systems change, to help make bad information rarer and advocating high standards, to help maintain high expectations of and from those in public life.



[Källkritikbyrån \(Sweden\)](#) is a new Swedish fact-checking initiative. It originates from Viralgranskaren, a well-known initiative that was the first fact-checking organisation to be compliant by the IFCN in the Nordics. Källkritikbyrån is an independent company that focusses on fact-checking on social media, takes part in topical discussions and publishes explainers.

[Mythdetector \(Georgia\)](#) is a fact-checking portal of the Media Development Foundation in Georgia that contributes to the identification of fake news and communication of reliable information by means of fact-checking and raising the level of media literacy. Their area of focus is mostly pro-Kremlin media and narratives.

[Pagella Politica \(Italy\)](#) is a prime example of political fact-checking in Italy. They monitor the statements of the main politicians in order to evaluate their claims through numbers and facts. They have built strong partnerships with national media outlets such as TV RAI2 and newswire agency AGI.

[PolitiFact \(U.S.\)](#) the Pulitzer Prize-winning website first created to cover the 2008 presidential election by the then St. Petersburg Times, became a division of Poynter in 2018. It is the largest full-time fact-checking website in the U.S, has partnerships with newsrooms in a dozen states and has published more than 16,000 fact-checks on its Truth-O-Meter.

[Propastop \(Estonia\)](#) is a blog run by volunteers aimed at contributing to Estonia's information space security. They are committed to detecting lies, biased- or disinformation in the media pedalled mostly by pro-Kremlin outlets.

[Re:Baltica \(Latvia\)](#), the Baltic Center for Investigative Journalism is a non-profit investigative journalism center based in Latvia, but working across all three Baltic states. Re:Check is their new initiative launched exclusively for fact-checking and social media research, currently available in Latvian only.

[Salud con lupa \(Peru\)](#) is a collaborative journalism platform in Latin America focusing on public health. It started as a Facebook group that has now grown into a digital platform that has alliances with journalists, media organisations and professionals across Latin America. They are soon launching the Lupa Colectiva, Latin America's first public health fact-checking project for Spanish speakers.

[Snopes \(U.S.\)](#) is the oldest and largest fact-checking site online, widely regarded by journalists and readers as an invaluable research companion. Since 1994, it has investigated urban legends, hoaxes and folklore. Unlike many other sites in the online fact-checking world, they do not exclusively focus on politics.

[Stop Fals \(Moldova\)](#) is the fact-checking portal of the Association of Independent Press in the Republic of Moldova.



The team of the project involves experienced Moldovan journalists who fact-check and debunk false and biased information that appears in the media and in social networks.

Stop Fake (Ukraine) is the flagship project of the Ukrainian NGO Media Reforms Center that is in turn founded by Mohyla School of Journalism at the National University. Initially the goal of the project was to verify and refute pro-Kremlin disinformation about events in Ukraine, but thanks to its trailblazing work in the field, it helped initiate an international discussion on how to resist disinformation.

2.5 Universities & think tanks

Applied and foundational research support

This is a category that is defined by a more scientific approach to the work on fact-checking. The initiatives can range from small start-up type activities within student groups to large debunking operations affiliated to top international universities or large-scale commercial projects carried out by global think tanks that involve the industries. The initiatives vary in scope, funding and reach, thus making them very different in terms of impact.



Most likely to be successful when:

- The research programme has long-term funding and full independence from the funding institutions.
- Transparent methodologies and academic rigour are applied to all research outputs.

- Researchers are able to build trust with stakeholders from government and industry in order to secure access to data and other relevant information.



Key indicators of impact include:

- i. There is a considerable increase of awareness of a hostile actor or about the spread of disinformation on relevant topics like COVID-19.
- ii. Several aspects of the mis- or disinformation issue are exposed through their work (e.g., narratives, techniques, platforms, actors).
- iii. The information is used to support detailed analyses (e.g., by students, researchers and journalists) and public debate.
- iv. There is evidence to support the de-platforming of fake accounts, bots and other inauthentic activities.
- v. It is possible to derive teaching or discussion materials from examples of their work.



Some of the prominent examples across the globe include (in alphabetical order):

Annenberg Public Policy Center of the University of Pennsylvania monitors the factual accuracy of what is said by U.S. political players, including politicians, TV ads, debates, interviews and news releases. **Factcheck.org** operates as their main online



platform and has become a well-trusted source of fact-checking of political claims, particularly at the national level.

[Carnegie Endowment for International Peace](#) is actively generating ideas and responses to the spread of disinformation, especially its technology and international affairs programme that develops strategies to maximise the positive potential of emerging technologies while reducing risk of large-scale misuse or harm. The programme collaborates with technologists, corporate leaders, government officials and scholars globally to among other issues research disinformation in the digital age.

[EUfactcheck.eu](#) is a pan-European level fact-checking project run by the European Journalism Training Association that aims to build a sustainable curriculum unit on fact-checking within a European network of Journalism schools. Through fact-checking European political claims and trying to tackle misinformation, they want students and the public to grow a deeper insight and interest in democratic processes, both on national and European level. The initiative includes schools from ten countries, including Artesis Plantijn University, Artevelde University College, Thomas More, Haaga-Helia, IPJ Paris, Caucasus School of Journalism and Media, Aristotle University, Dublin Institute of Technology, Catholic University of Milan, Mondragon University, Linnaeus University, Utrecht Applied Sciences University, Windesheim University of Applied Sciences and Fontys University College.

[German Marshall Fund's \(GMFs\) Digital Innovation and Democracy Initiative](#) identifies new approaches that are designed to meet the challenges posed by today's technological advances. For example, recently GMF worked with MediaCloud to examine misinformation and disinformation related to the climate change activist Greta Thunberg. They focused on a key period analysing how narratives spread and how platform practices might address the promotion of conspiracy theories. The [Alliance for Securing Democracy](#) programme has also developed significant tools and policy work in this area.

[Pew Research Center](#) is a nonpartisan 'fact tank' in the U.S. that informs the public about the issues, attitudes and trends shaping the world. Among other activities, they collect and publish reports and data on the public's experiences with, and views of, misinformation.

[Stanford Internet Observatory](#) at the Stanford University is a cross-disciplinary programme of research, teaching and policy engagement for the study of abuse in current information technologies, with a focus on social media. For example, for the recent U.S. elections, a partnership was created between Stanford Internet Observatory, the Program on Democracy and the Internet, DFRLab, Graphika and the University of Washington's Center for an Informed Public to tackle electoral disinformation in real time.



” These techniques have been used effectively in situations in which disinformation clouds the public knowledge of events; such as with MH17, the Salisbury poisoning and countless war crimes in Syria and Ukraine.

(for Digital Investigators)

University of Washington Center for an Informed Public brings together world-class researchers, labs, thought leaders and practitioners to translate research about misinformation and disinformation into policy, technology design, curriculum development and public engagement.

2.6 Digital investigators

Fact-checking as the basis for digital forensic investigations on global conflicts and events

There are other initiatives based in non-profits and think tanks that use advanced investigative journalism techniques to establish the facts behind important international events. Expert teams conduct investigations using open-source intelligence techniques, crowd sourced information, citizen journalism, covert sources and digital forensics. These techniques have been used to uncover war crimes, identify perpetrators and reveal official lies, and have been used effectively in situations in which disinformation clouds the public knowledge of events; such as with MH17, the Salisbury poisoning and countless war crimes in Syria and Ukraine.



Most likely to be successful when:

- The investigators are credible and have earned the trust and support of a large and diverse network of potential contributors.
- Investigations follow an established methodology supported by quality-assurance processes.
- Investigators are able to shape media coverage with their findings.



Key indicators of impact include:

- i. The debunking raises awareness of the mis- or disinformation problem, of a specific actor or a concrete topic.
- ii. There is a considerable increase of awareness of a hostile actor or about the spread of disinformation on certain issues.
- iii. The attributions are considered credible within the community, and they are confirmed by allies.



- iv. Several aspects of the mis- or disinformation issue are exposed through their work (e.g., narratives, techniques, platforms, actors).
- v. The information is used to support detailed analyses (e.g., by students, researchers and journalists) and public debate.
- vi. There is evidence to support the de-platforming of fake accounts, bots and other inauthentic activities.
- vii. It is possible to derive teaching or discussion materials from examples of their work.

 **Prominent examples include (in alphabetical order):**

Bellingcat is an independent international collective of researchers, investigators and citizen journalists using open source and social media investigation to probe a variety of subjects – from drug lords and crimes against humanity, to tracking the use of chemical weapons and conflicts worldwide. With staff and contributors in more than 20 countries around the world, they operate in a unique field where advanced technology, forensic research, journalism, investigations, transparency and accountability come together. Bellingcat’s innovative approaches to using publicly available data and citizen journalist analysis have been particularly significant for exposing MH-17, war crimes in Syria

and the Salisbury poisonings among others. They have produced investigations on these issues in coordination with partners and allies.

Digital Forensic Research Lab, the Atlantic Council’s Digital Forensic Research Lab is building the world’s leading hub of digital forensic analysts tracking events in governance, technology and security, and where each intersect as they occur. They expose falsehoods and fake news, document human rights abuses and build digital resilience worldwide. Using open source, social media and digital forensic research **DFRLab’s Digital Sherlocks** have conducted ground-breaking investigations into war crimes committed during the siege of Aleppo and ceasefire violations in Ukraine.

2.7 Philanthropists

Independent donors who fund major programmes particularly for non-profits, universities and think tanks

There are a small number of highly influential philanthropic donors who support debunking mis- and disinformation. Although there are major international donors such as the Open Society Foundation, this kind of philanthropy is particularly prevalent in the U.S., where private donors assume much of the funding burden that governments and IGOs assume in Europe.





Most likely to be successful when:

- The philanthropist has a programme dedicated to these issues and has developed the expertise to identify strong candidates for funding.
- The philanthropist is able to donate funding without overly directing the mandate of research, for long periods that support stability.



Key indicators of impact include:

- Funding is directed to initiatives that can be evaluated on their own terms.
- The donor's overall portfolio in this area can be evaluated as a whole.



Some of the prominent examples across the globe include (in alphabetical order):

[Craig Newmark Philanthropies](#) has committed millions of dollars to initiatives that support journalism, voter protection and counter influence operations.

[William + Flora Hewlett Foundation](#) offers grants to support combatting disinformation through its U.S. Democracy Program.

[The Knight Foundation](#) has committed tens of millions of dollars on defending democracy against disinformation.

2.8 Temporary initiatives

Initiatives to counter disinformation during political events and emergencies

This category includes fact-checking operations that are set up for high-profile political events that are vulnerable to mis- and disinformation, such as elections or issues such as the Covid-19 pandemic. As the events come and go, the initiatives are temporary, which in turn means that they have to be affiliated or partner up with some media outlets to achieve outreach within a limited time.



Most likely to be successful when:

- They temporarily ramp up an existing capability rather than starting from scratch, and the capability continues to exist after the event, i.e. it is a focused effort to strengthen an existing approach.
- Assets and learning are folded into another institution after the temporary agent ceases to exist.



Key indicators of impact include:

- The activities successfully push back on messages and top narratives.
- There is a considerable increase of awareness of disinformation on certain topics like elections or COVID-19.



- iii. There is more resilience built by educating the public about the tactics, techniques and procedures of disinformation.



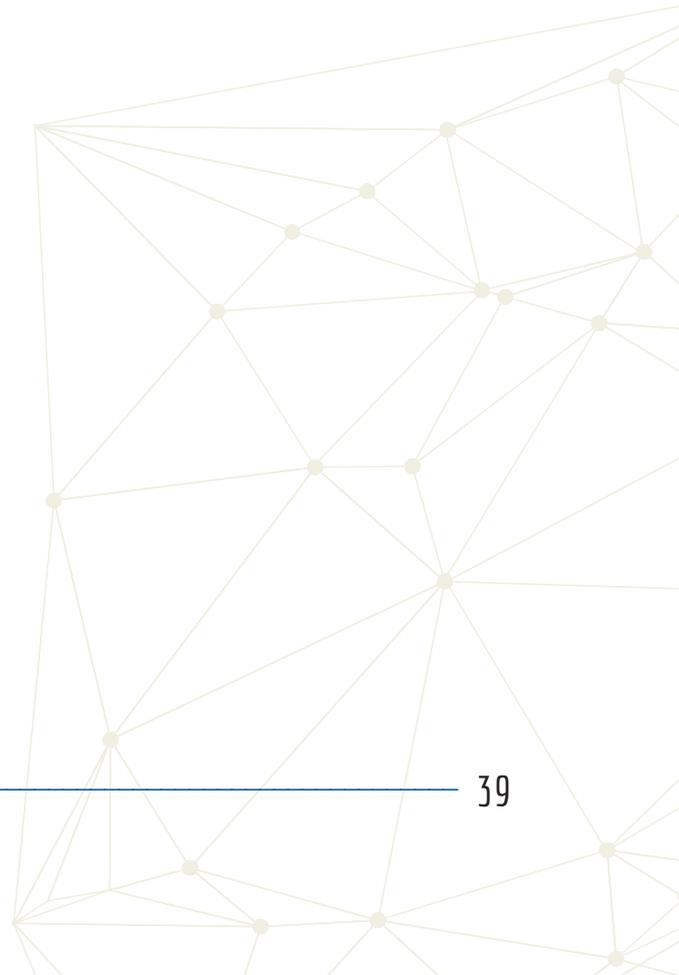
Prominent examples include (in alphabetical order):

[CrossCheck \(France\)](#) was a collaborative journalism project to fight misinformation online. The project's focus was the previous French presidential election, combining the efforts of more than 34 newsroom partners as well as journalism students across France and beyond to debunk rumours and false claims.

[Fact-checking projects for U.S. elections](#) it is too early to assess, which of them are temporary and which will last longer, but the latest U.S elections have definitely seen a boom of fact-checkers who all are dedicated to monitoring the statements of those involved in the elections. According to the Duke Lab's global database and map, there are currently 58 fact-checking projects live in the U.S.

[Faktiskt.se \(Sweden\)](#) was a collaboration of Swedish top media to counteract misinformation and raise awareness of source criticism during the 2018 election campaign. At the turn of the year 2018-2019, they closed the site as planned.

[Falsch Project](#), German daily Süddeutsche Zeitung has debunked the biggest lies about COVID-19 in its new digital project "Falsch" (i.e. Wrong) that was a one-off initiative.



3. Recommendations and future prospects

Mis- and dis-information are complex problems that can be tackled in a variety of ways. This report focuses on debunking, and in particular opens the debate about how debunking mis- and disinformation can be evaluated. We began by emphasising the differences between fact-checking and debunking, in order to explore the unique motivations behind countering mis- and disinformation. We then proposed that efforts to measure impact should be derived from these objectives. In the second chapter, we outlined dozens of debunking initiatives and their unique contributions. We made some general statements of best practice and suggested some principles for evaluating the impact of different types of initiative. In this third chapter, we collect together these insights together with the results from interviews with debunking experts in order to discuss how to improve the practice, how to improve evaluation of impact and how to improve policy.

3.1 Improving practice

- It is essential to **understand the information environment in which you work**. Countries differ greatly - in some the trust in government, civil society and/or media outlets is very high, in others it is low. As the report shows, there is already an abundance of initiatives out there focusing on fact-checking and debunking. Therefore, it makes sense to consider **what is credible in relation to the target audiences** you wish to debunk mis- and disinformation on behalf of. This can help to determine whether existing resources and initiatives within a specific type outlined in Chapter 2 are most appropriate, and whether there is a need to create something new.
- **What are you trying to protect?** Is it about safeguarding a special event such as an election or about protecting the public trust in institutions, is it about

protecting a minority group in society or about building media literacy among the population, or is it about protecting the population against a health threat? In any of these cases, there are pre-existing templates to build upon. Clarifying the purpose is, however, crucial. It determines how you will work and who you will work with.

- **You need different tactics and segmented messaging to fight disinformation, because your audiences are different.** Debunking is one part of a solution; another crucial component of any response is framing. EUvsDisinfo has successfully employed humour to show the absurdity of some pro-Kremlin disinformation narratives. This resonates well for that case, but issues such as health-related mis- and disinformation would require completely different framing, for example as official advice from a doctor or an accredited medical association. Couple this with



the fact that target audiences may have different expectations (e.g., they may not appreciate the joke, or have corruption concerns in their local healthcare systems), and the need to carefully tailor a communication strategy to the context becomes vital.

- Debunkers need to find **new formats for people who are bored with reading long articles** stuffed with hyperlinks and corrections. The audiences most vulnerable to mis- and disinformation are unlikely to engage. Fact-checking is often limited in its outreach, especially when independent fact-checkers are not affiliated to larger media outlets, and that makes the impact of their good work very limited. Initiatives such as gamification show the potential for innovation in this space. An **audience engagement strategy** is essential.
- Debunkers should do an **assessment of what their vulnerabilities are and how those can be tackled**. What kind of mis- and disinformation are you battling with and what is it you need to safeguard? Some issues are more likely to provoke a response from an adversary than others. Once you have identified a credible voice to do the debunking, **what are the threats, risks and vulnerabilities that the organisation can face?**
- Everyone has limited time and resources, so you need to **pick your battles**. If a myth is not spreading widely or does not

have the potential to cause harm now or in the future, there may be no point in debunking it. Your efforts may be better invested elsewhere, and the less said about an unknown myth the better.

- Consider a response to a disinformation challenge as a **balance between countering messages, countering narratives and countering brands**. Countering a message refers to a simple rebuttal, correction, or truth claim. It is a straightforward, isolated act. However, in more complex cases where the message forms part of a larger story or narrative (for example in historical revisionism, conspiracy theories, and information influence operations), it can be important to also acknowledge that relationship, and to correct the narrative rather than the message per se. Also, some best practice suggests that countering the *intent* behind a message or narrative is the most effective approach. This means trying to undermine the brand or identity of those pursuing an agenda in order to discredit them and their goals. It is worth considering all three levels as interconnected. Even if you emphasise one type of response in your work, **it can be valuable to pay attention to the alignment between levels of response**.



” Debunking disinformation is not a standalone solution to the challenge of countering disinformation, but it can and will help the population to make informed decisions.

3.2 Assessing impact

- This report does not conduct measurement and evaluation (M&E). It is essentially the introductory chapter to a comprehensive impact assessment of a range of counter mis- and disinformation initiatives. It outlines the major problems, principles and approaches that could support a comprehensive study but does not conduct the study itself. Such an initiative would require a concerted effort from multiple stakeholders in the field, and a significant investment in time and energy. Such a study would need to use consistent methods, while appreciating the sensitivities and differences in objectives in different initiatives. In short, it is a herculean task.
- Measurement and evaluation of mis- and disinformation countermeasures is still in its very earliest stages.

As Chapter 1 of this report briefly observes, researchers have conducted sophisticated experimental research on fact-checking and debunking, mostly in relation to health misinformation and climate change. Some of this research tests the wording of corrections, to provide empirical evidence of counter-messages that are likely to stick. Other research tests recall of facts after exposure to corrective information. This is valuable, advanced and credible foundational research that is perfectly summarised by leading scholars in the field in, for example, the Debunking Handbook. We have little to add to that part of the debate.

- It is important to be clear that only parts of this general approach can be applied to countering mis- and disinformation. This is why we propose to break down the issue into six main objectives, each of which



can be assessed through a variety of indicators. These indicators can help to identify types and can be adapted to suit individual initiatives. In short, such an approach offers both a structure and flexibility. This is needed. Experiments can help to explain the human psyche and hone messaging aimed at very specific behaviour change, and this can be reflected in the indicators where appropriate. However, many other objectives are political in nature, as they seek to signal intent, impose costs and disrupt adversary capabilities, support ally capabilities, reduce societal vulnerabilities and reassure the public. It is important that these indicators are also reflected in any assessment of what impact an initiative might have, and also to reflect that each of these can look very different depending on the country, issues and adversaries in question.

3.3 Developing policy solutions

- Debunking disinformation is **not a standalone solution** to the challenge of countering disinformation, but it can and will help the population to make informed decisions. It should be positioned within a coherent set of policies to tackle disinformation that include legislation, deterrence and resilience-building measures among others.
- **Networks and alliances can provide important direction, protection, and support for organisations working in this field.** Governments, IGOs and philanthropists have the opportunity to fund programmes that shape these networks, essentially setting the conditions under which multiple organisations conduct their work. This includes clarifying mandates, objectives, subject-matter and geographical markets, among other things. While IFCN and EDMO, alongside semi-regular intergovernmental coordination meetings, provide examples of a networked approach, more can be done to bring coherence to the field, for example to avoid duplication of effort, to ensure shared learning and better clarify distinctions.
- Similarly, there remain considerable opportunities to use funding to **drive shared standards.** Organisations such as First Draft and UK Government Communication Service International have done much to train and build capabilities for media organisations and governments respectively. This report also takes some small steps toward improving the understanding of debunking and delineating its constituent parts. More can be done to establish shared standards, norms and practices in order to create a more consistent and aligned product across organisations, where it is useful to do so.



■ **Access to information** is not a problem when debunking state media and other open sources, but there are significant problems dealing with data from closed groups, chatrooms and messaging services. Digital platforms have the opportunity to improve links between mis- and disinformation and correct information, through for example labelling, promoting and demoting content.³⁹ Governments have the opportunity to either collaborate with or regulate digital platforms to do this.

■ At the policy level, **granting an organisation the mandate** to achieve

a specific goal is a crucial step. For example, the EUvsDisinfo has long had a mandate to expose pro-Kremlin disinformation, but the escalation of disinformation originating in China during the first Coronavirus wave presented challenges in how that platform could be used.⁴⁰

Providing a clear mandate that is specific enough to drive activity but flexible enough to meet future challenges is an important capability to be resolved by policymakers. The December 2020 European Democracy Action Plan appears to meet these requirements.⁴¹



ANNEX:

List of resources

Handbooks

There is a multitude of handbooks and guides available on the topic of fact-checking and debunking that help set the practice into the wider context of addressing disinformation as well as provide very practical recommendations and checklists. Below is a selection of handbooks that have been developed on the request of different governments or provide a good basis for getting practical advice when looking at fact-checking as part of a country's response to disinformation.



The Swedish Civil Contingencies Agency report and handbook

Research study 'Countering Information Influence Activities'

Handbook for communicators

The Swedish Civil Contingencies Agency (MSB) is responsible for helping the society prepare for major accidents, crises and the consequences of war. As part of their mandate, MSB are also contributing to countering information influence operations in Sweden. According to MSB's regulatory letter, the authority should have a good ability to identify and meet the information influence operations and other dissemination of misleading information directed at Sweden.

MSB focuses its work primarily on information influence and influence campaigns from foreign powers and from Islamist extremists. A basic principle in the work of countering the information influence is about safeguarding the free debate, the principles of freedom of expression and the democratic conversation.

MSB together with the Lund University

state in their jointly produced research report that for any kind of organisation, it is clearly a priority to quickly and accurately correct any misconceptions that circulate; something that has always been part of the everyday work of communicators. The report posits that debunking is a counter influence technique that can vary greatly in its forms and objectives, despite sharing a common concern with responding to lies with accurate information. They recommend that as a starting point for organisations seeking to counter disinformation communicators make independent checks of facts and sources as a matter of routine. However, they say that in some cases, particularly if looking for broader patterns of behaviour or narratives, it may be useful to use repositories of fact-checking information. See the handbook for more practical advice.





RESIST Counter Disinformation Toolkit of the UK Government

*Information and guidance
RESIST Toolkit*

The UK government uses the RESIST (Recognise disinformation, Early warning, Situational Insight, Impact analysis, Strategic communication, Track outcomes) toolkit that helps support the dissemination of reliable and truthful information. The toolkit has been developed for public sector communications professionals, as well as policy officers, senior managers and special advisers across the British government. Its underlying assumption is that communications departments play a central role in recognising and responding to disinformation as they are often the first to see it.

The toolkit helps them develop routines to make informed assessments of risk and to share their insights with other parts of the organisation. Ideally it should help them formulate recommendations and responses, and to evaluate their actions. The overall approach is contributing to a robust early warning system for recognising and responding to threats and emerging trends in the information environment. As the toolkit is designed for practitioners who should be using this as part of their everyday work and often on top of other responsibilities, it includes a lot of practical advice. It has multiple checklists for developing your own monitoring and response system as well as concrete tools for putting it into action.



The Debunking Handbook

*Information about the book and the process
Handbook*

The Debunking Handbook 2020 summarises the current state of the science of misinformation and its debunking. It was written by a team of 22 prominent scholars of misinformation and its debunking, and it represents the current consensus on the science of debunking for engaged citizens, policymakers, journalists and other practitioners. The authors were invited based on their scientific status in the field and they all agreed on all points made in the handbook.



The Verification Handbook

*Information about the book
Handbook*

This book synthesizes the best advice and experience by drawing upon the expertise of leading practitioners from some of the world's top news organisations, NGOs, volunteer and technical communities, and even the United Nations. It offers essential guidance, tools and processes to help organisations and professionals serve the public with reliable, timely information when it matters most. The book is edited by Craig Silverman who was the founder and editor of Regret the Error, a Poynter Institute blog about media errors, accuracy and verification. It is also available in several other languages in addition to English.





Journalism, fake news & disinformation: UNESCO handbook for journalism education and training

Handbook

UNESCO has published a handbook for journalism education and training that has been developed as a useful resource for all those who practice or teach journalism in this digital age. Written by experts in the fight against disinformation, the handbook explores the very nature of journalism with modules on why trust matters; thinking critically about how digital technology and social platforms are conduits of the information disorder; fighting back against disinformation and misinformation through media and information literacy; fact-checking 101; social media verification and combatting online abuse.

OSINT resources

Inteltechniques (www.inteltechniques.com): locates personal info about any target using different search tools and automated analysis.

Metacrawler (www.metacrawler.com): metasearch engine which accepts a single search request from the user – extends the search coverage of the topic and allows more information to be found by sending multiple queries to several other search engines.

OSoMe tools (<https://osome.iuni.iu.edu/tools/>): tools developed by Indiana University that let you analyse trends, maps and networks.

SimilarWeb (www.similarweb.com): a competitive intelligence tool that collects data from various sources and categorises events, keywords etc.; generates and exports graphs, tables and other visuals based on collected data.

The Search Engine List (www.thesearchenginelist.com): provides search engines in different categories, such as all-purpose search engines, blogs, meta search, multimedia, news, open source and visual search engines.

Toddington (www.toddington.com/resources): provides search tools and resources within different categories, such as news and journalism, username search, webpage analysis and social media.

Image and video search

Amnesty International's Youtube DataViewer (<https://citizenevidence.amnestyusa.org/>): identifies where an image or video appears online.

Berify (www.berify.com): upload an image or video and find out if the image or video is distributed at other websites – notifies you when someone uses your images.

Google Image (www.images.google.com): find similar images, webpages where an image has been published.

Jeffrey's Image Metadata Viewer (<http://exif.regex.info/exif.cgi>): gives you image data,



such as when and where a picture was taken (also called Exif reader).

Labnol Reverse Image Search (www.labnol.org): upload an image and search on Google to verify the source.

TinEye (<https://tineye.com/>): find out where an image appears online; discovers modified or edited versions of an image.

Social media monitoring

Agora Pulse (www.agorapulse.com): synchronises your social media accounts around the clock, offers unlimited reports and graphics of performance analytics, retains all your account data and compares your page with others on key metrics.

Botometer (<https://botometer.iuni.iu.edu/#/>): decides whether the account is a bot by analysing its tweets, its followers and when and where tweets are published.

Facebook for developers (<https://developers.facebook.com/docs/graph-api/>): use the graph API which is the primary way to get data into and out of the Facebook platform.

Foller.me (<https://foller.me/>): gathers information about a specific Twitter user; conducts automatized analyses based on tweet's contents on topics, hashtags, mentions, attitudes and activity time.

Followerwonk (<https://followerwonk.com/>): helps you explore your social graph – find

out who is following you, their location and when they tweet; connect with influencers; compare your graph with others.

Hootsuite (<https://hootsuite.com/>): social media listening tool with specific search terms in realtime – this can be useful for tracking mentions of your brand, products, or relevant keywords you are interested in.

Iconosquare (<https://pro.iconosquare.com/>): effectively manage conversations and your social media accounts; make communication plans.

Jollor (www.jollor.com): monitors and analyses social media data – identifies key influencers and offers unlimited reports and downloadable charts for measuring performance (integrates with Instagram and YouTube).

Social Searcher (<https://www.social-searcher.com/>): monitors public social mentions on social networks and web – quickly find what people are saying about an issue.

Sprout Social (www.sproutsocial.com): a popular and user-friendly social media management software – contains tools such as social performance reporting, advanced social analytics, social monitoring and listening tools, and advanced social listening (does not currently include visual networks such as YouTube).

Twitterfall (<https://twitterfall.com/>): collects tweets based on real-time tweet searches.



Twitter for developers (<https://developer.twitter.com>): stream Twitter data to enable analysis in real-time or back in time; use different API filters to find out more about key topics, breaking news etc.

Network analysis

Alexa Internet (<https://www.alexa.com/>): provides various tools based on commercial web traffic data, such as keyword research tools, competitive analysis tools, audience analysis tools and much more.

Crimson Hexagon (<https://www.crimsonhexagon.com/>): social media monitoring and analysis platform that gives you access to over one trillion consumer conversations from social media – also provides many other tools such as advanced image analytics.

Hoaxy (<https://hoaxy.iuni.iu.edu/>): visualizes the spread of articles online (Twitter is currently the only social network tracked by Hoaxy, and only publicly posted tweets appear in the visualizations).

Maltego (<https://www.paterva.com/web7/index.php>): focuses on providing a library of transforms for discovery of data from open sources – this information is then displayed on a node-based graph suited for performing link analysis.

Mediacloud (<https://mediacloud.org/>): open source platform for studying media ecosystems – it chooses a set of media

sources and uncovers the feeds; each feed is trawled to determine if any stories have been added; all content is then extracted of each relevant story.

Other Automating OSINT (<https://register.automatingosint.com/>): open source intelligence training course – learn how to code and automatically extract and analyse data from webpages and social media.

PropOrNot (<http://www.propornot.com/p/the-list.html>): gathers and exposes Russian efforts to influence US opinion using propaganda.

Quetext (<https://www.quetext.com/>): plagiarism checker tool that looks for duplicate content online.

Junk News Aggregator (<https://newsagggregator.oii.ox.ac.uk/about.php>): evaluates the spread of junk news on Facebook to identify junk news sources that publish misleading, deceptive or incorrect information purporting to be real news – the aggregator shows junk posts along with how many reactions they received.



Endnotes

- 1 For example, the European Commission's 2018 Eurobarometer survey (conducted in all EU states) found that 85% of respondents perceive 'fake news' and online disinformation as a problem in their country, and 37% reported to come across it every day or almost every day (['Final results of the Eurobarometer on fake news and online disinformation'](#), European Commission).
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