DISINFORMATION

and how to spot it

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Zine Version October 2024

WHAT IS 'DISINFORMATION'?

Disinformation is the deliberate placing of false information, or strategically edited information to influence public perception. It can also include the suppression of inconvenient information, for example, through selective reporting. Disinformation is different from misinformation, because misinformation can be an accidental occurrence. It is also distinct from 'bad data' (data that has been inappropriately collected (e.g. narrow sample, wrong geographical area etc), although 'bad data' and misinformation can be used as part of a disinformation campaign.

Data mistakes can occur through:

- human or machine error (transcription error, printing error)
- accidental or deliberate miscalculation and/or misrepresentation

Differences in data in results can also stem from:

- Different approaches to sampling or calculation
- Not having all factors available for calculation

With the rise of social media, many people have become concerned about the reach of disinformation. Many media and social media platforms are controlled by powerful billionaires with clear political agendas. At the same time, social media has been lauded for allowing users to spot and campaign against disinformation, especially because of its international reach. In the past, producers of disinformation had far greater control of media spaces and objectors had to come up with much more labour-intensive protests such as public talks and leaflet distribution. Regardless od whether of how information is being distributed, vigilance around disinformation emerges as an urgent concern.

Some audiences have become so hyper-vigilant in relation to disinformation that they maintain a very low trust in any media. In extreme cases, this hyper-vigilance can lead to reactions such as non-engagement with *any* media, nihilism or fear of global conspiracies. Disinformation is hugely destabilising and plays a strong role in the popularity of conspiracy theory movements such as QAnon. What this zine is trying to do is to give you tools to look at disinformation as a 'normal' (predictably human), if unsettling part of communication. As disinformation intensely tied up with geopolitical agendas and global money flows, you, as geographers, already have some useful tools to study this phenomenon.

Image taken from Detective Pikachu (2019)

HOW TO SPOT DISINFORMATION?

There are several ways of spotting and tracking disinformation. They can be performed at both low and high skill levels, meaning that some are accessible to anyone, whereas others may require advanced knowledge or information processing skills (e.g. graphic design knowledge, economic knowledge, access to specific data, other insider information). I will go into four strategies:

1) Text/data/image/video 'surface' analysis
2) Cross-referencing
3) Tracking agendas
4) Following the money

Towards the end, I will point to some apps and websites that can support you during each of the 'disinformation detective' stages. I mention these links throughout the text (watch out for the underlined formatting).

1 TEXT/DATA/IMAGE/VIDEO 'SURFACE' ANALYSIS

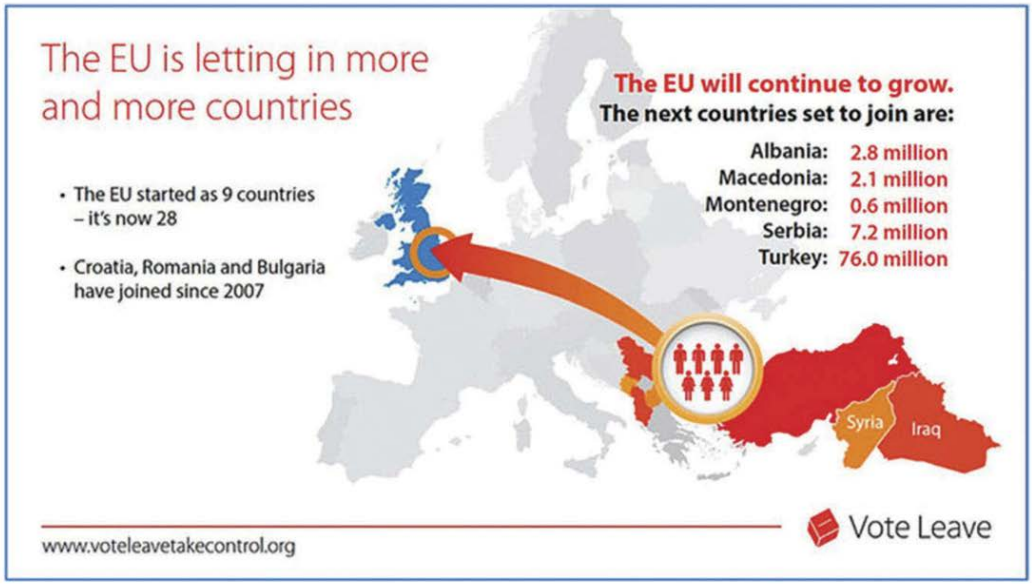

Figure 6. 'Brexit Map'.
Source: (Kent 2016)

Taken from: van Houtum, H., & Bueno Lacy, R. (2019). The migration map trap. On the invasion arrows in the cartography of migration. *Mobilities*, *15*(2), 196–219. https://doi.org/10.1080/17450101.2019.1676031
This article argues against the distortion in perception that occurs when news media use particular graphics to portray migration impact.

The 'first aid' of disinformation spotting is to study the immediate information you are presented with. Often, you can already determine bias or disinformation in the title. An obvious example is racism where authors try to find ways to subtly (or not so subtly) dehumanise people. Here are some 'red flags':

Text/Image/Video - environment

- How did you come across this item (e.g. suggestion by algorithm, sponsored content, news site, forwarded by friend?)
- On what publication or platform does the item appear? What values are associated with it?
- Are there obvious signs of trolling? (check handle or email, frequency of posting, grammar issues, font choice)
- Where is the item placed (e.g. cover, middle, back, themed section)?
- If any adverts appear in this publication: what are they for? Who advertises there?

Text

- What is the narrative arc and style – how is affect used? How does the headline or article make you feel? Does it make you want to perform a particular action?
- Active/passive voice: who is credited with action, and what kind of action? Who is portrayed as passive and why?
- Word choice: how are people, things or places being described?
- How is punctuation used, especially inverted commas or question marks? What is being discredited through their use?
- Are there words indicating speculation or potential rather than facts? E.g. 'may', 'could', 'seems' etc?
- What sources are being cited? Whose voice is being prioritised and at what point? What additional information is being hyperlinked?
- Who is named in the article and who isn't? What effect does this have?
- How are people's statements edited? How does the editing make them sound? Are statements edited to make people sound intelligent or stupid, native or foreign? Are people's statements taken out of context, misattributed of falsified?
- Does something feel off in terms of message or style?

Image/Video

- Why was this imagery selected? Whose perspective does it show, and what emotional effect does it have?
- How does this image or video sit alongside other images or videos in the article?
- Who is doing the action, if applicable?
- From whose point of view is this shot?
- Is the image referencing iconic images or themes? Is it referencing political/extremist symbols? If so, for what end?
- Is the image taken out of context?
- Is the image potentially fabricated?

Data

- Does the data match your expectations?
- Does the data look too perfect?
- Does the method give the results (e.g. did they sample at a convenient location, or is there any other obvious flaw or bias?)
- Can you spot a 'correlation is not causation' issue?

‘Data forensics’

Image: Analysis of IDF footage of Hamas tunnels by France 24 ‘Truth or Fake?’. One of many competing analyses.

While many things can be analysed without expert knowledge, determining the veracity of a well faked statement or image can be challenging. In many cases, however, there are characteristics that can be picked up even by an amateur or verified through simple means. Good examples are guidelines for AI ‘deepfakes’. DeepFakes are fake images, video or audio produced to a standard where they are difficult to recognise even by highly trained programmes. Researchers all over the world have been putting guidelines together to help people get better at spotting them.

DeepFakes are often used as part of election or war disinformation, and have also become notorious as part of misogynist acts such as fake pornographic imagery. The Massachusetts Institute of Technology (MIT), for example, has put together guidelines for spotting fake human images, videos or voice (link at the back of this zine):

1. Pay attention to the face. High-end DeepFake manipulations are almost always facial transformations.
2. Pay attention to the cheeks and forehead. Does the skin appear too smooth or too wrinkly? Is the agedness of the skin similar to the agedness of the hair and eyes? DeepFakes may be incongruent on some dimensions.
3. Pay attention to the eyes and eyebrows. Do shadows appear in places that you would expect? DeepFakes may fail to fully represent the natural physics of a scene.
4. Pay attention to the glasses. Is there any glare? Is there too much glare? Does the angle of the glare change when the person moves? Once again, DeepFakes may fail to fully represent the natural physics of lighting.
5. Pay attention to the facial hair or lack thereof. Does this facial hair look real? DeepFakes might add or remove a moustache, sideburns, or beard. But, DeepFakes may fail to make facial hair transformations fully natural.
6. Pay attention to facial moles. Does the mole look real?
7. Pay attention to blinking. Does the person blink enough or too much?
8. Pay attention to the lip movements. Some deepfakes are based on lip syncing. Do the lip movements look natural?

While deepfakes do not only involve people, but objects and environments as well, these guidelines can be easily applied for these other situations. Again, you will be looking for strange shadows, unusual textures, odd colouration, movement glitches, and whether the rest of the environment matches the location or issue (an example would be the use of footage from a different geographical area as 'evidence' for a local context). There are even websites and AIs (e.g. ChatGPT) that can train you or analyse DeepFakes for you. After all, the same processes that produce deepfakes can be used to deconstruct them. Initiatives such as C2PA may be flawed, but are an indication of efforts to provide public tools (the Coalition for Content Provenance and Authenticity involves actors such as Adobe, Arm, Intel, Microsoft and Truepic who are trying to put together guidelines for authenticity certification).

So what is the probability of an AI being able to help you with your (dis)information? That depends on the AI's sources/method of training. As an example, the University of Texas has been running a 'Global Disinformation Lab' that, amongst many other things, tested the ability of ChatGPT to determine information veracity. The results were surprisingly good: ChatGPT was able to spot disinformation in most cases (19 out of 25 examples).[1] The conclusion of this and many other studies is that you can use AIs as a first point of call, as an indication, and then do your own fact-checking on top.

Image taken from University of Texas website.

[1] https://gdil.org/can-we-use-chatgpt-to-detect-disinformation-sites/

2 CROSS-REFERENCING

When we use AI and other tools that draw on external information, we are in the realm of cross-referencing. Cross-referencing simply means comparing and tracing information in order to determine their veracity. You can do this by asking people, consulting the internet, your library, or even an archive, depending on what you are trying to find out. A first step is usually to locate the sources that the author(s) are claiming to have used. Is the source data correctly used? Is it a credible source?

A further step is to compare the original article, image, video or data with other authors or sources. Again, you have various tools at your disposal. These include image search engines such as TinEye that can trace the origin and subsequent uses of an image. You can do a simple internet search to check how else this issue has been reported on and with what kind of data. Search engines such as Google Scholar can also help you identify relevant academic commentary. In a lot of cases, other people will have picked up on the same issue and will have posted their analysis on social media. YouTube often features detailed dissections of viral images or videos, designed to showcase their author's skill (and channel). Sometimes this search may not be so simple if your country has data restrictions. Here, a good VPN or emailing someone with better access can help, though bear in mind the risk of using these methods.

3 Tracking agendas

Once you are done with cross-referencing, you can dig a little deeper by tracking agendas. There are a number of tools that can help you determine reasons for spreading disinformation. It is important to note that disinformation may not come from organisations directly, but from supporters, including unwanted ones (a reputable organisation would be uncomfortable with disinformation). Encyclopaedias, such as Wikipedia, have data on the political leanings of think tanks, elite clubs, learned societies, lobby groups and news media. There is also information on formal or informal networks that could be a source of disinformation. Some libraries and universities also maintain lists and archives.

In addition, you can also look at connections to lobby or activist groups. These are usually traceable through their own websites, as well as external commentaries on Wikipedia, in academic literature or investigative journalism. Organisation websites are good for sourcing reports and other published data, as well as sampling organisational rhetoric and visual presentation.

Image: Environmental activists have been tracking the influence of fossil fuel money (XR Brixton Twitter).

4 FOLLOW THE MONEY

A final check, and this may not always be possible without specialist knowledge, is the financial support for disinformation. In prominent cases, journalists and academics have investigated financial networks, especially from the far right or wealthy elites. Books have been written about free speech financial backing (e.g. Wilson & Kamola), 'dark money' (e.g. Jane Mayer, Anne Nelson), race science support (e.g. Angela Saini), Christian anti-LGBT+ law finance (e.g. Rahul Rao), or the arms industry (e.g. Jonathan A. Grant, Antony Loewenstein). You can also draw on investigative journalism in the form of articles and books.

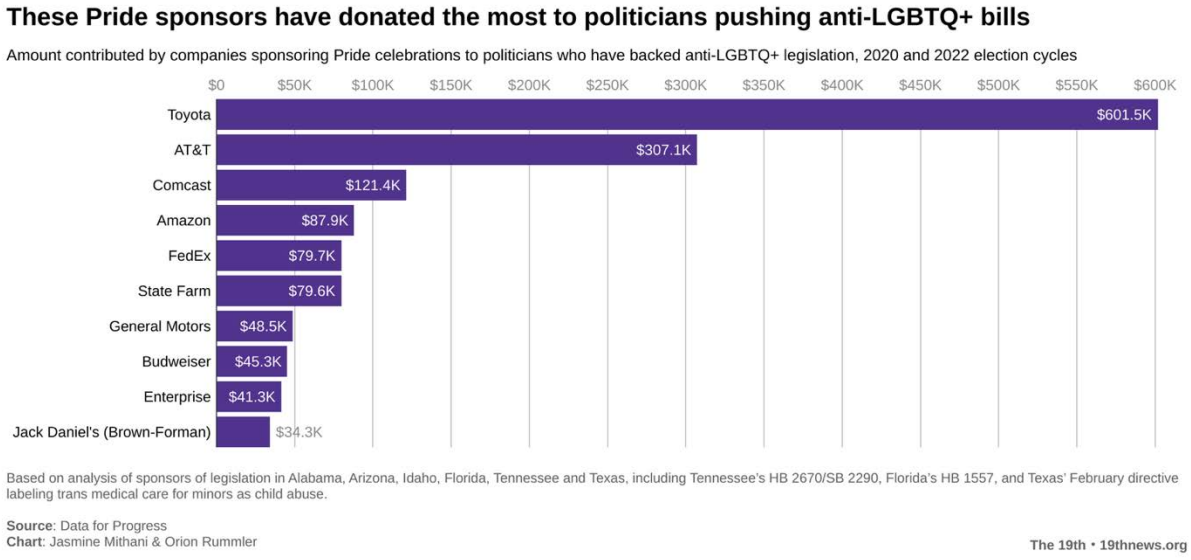

Image taken from *Data for Progress* website.

If you prefer the 'raw data', there are a number of public data bases that can help you. These vary from country to country, and issue to issue. Examples include:

- US: Money In Politics: https://www.opensecrets.org/
- Data For Progress: https://www.dataforprogress.org/
- Federal Election Commission: https://www.fec.gov/introduction-campaign-finance/how-to-research-public-records/individual-contributions/
- UK: Register of Members Financial Interests: https://www.parliament.uk/mps-lords-and-offices/standards-and-financial-interests/parliamentary-commissioner-for-standards/registers-of-interests/register-of-members-financial-interests/
- Consolidate: https://www.consolidate.org.uk/

You can also track humanitarian aid money through the United Nations Office for the Coordination of Humanitarian Affairs (OCHA). The money of religious organisations or industry is much harder to track, especially if it is supporting human rights abuses. Again, if you live in a place where you cannot trust, or trace the sources of, official data. In this case, you can try to access international academic or journalistic sources.

Be careful not to put yourself in danger.

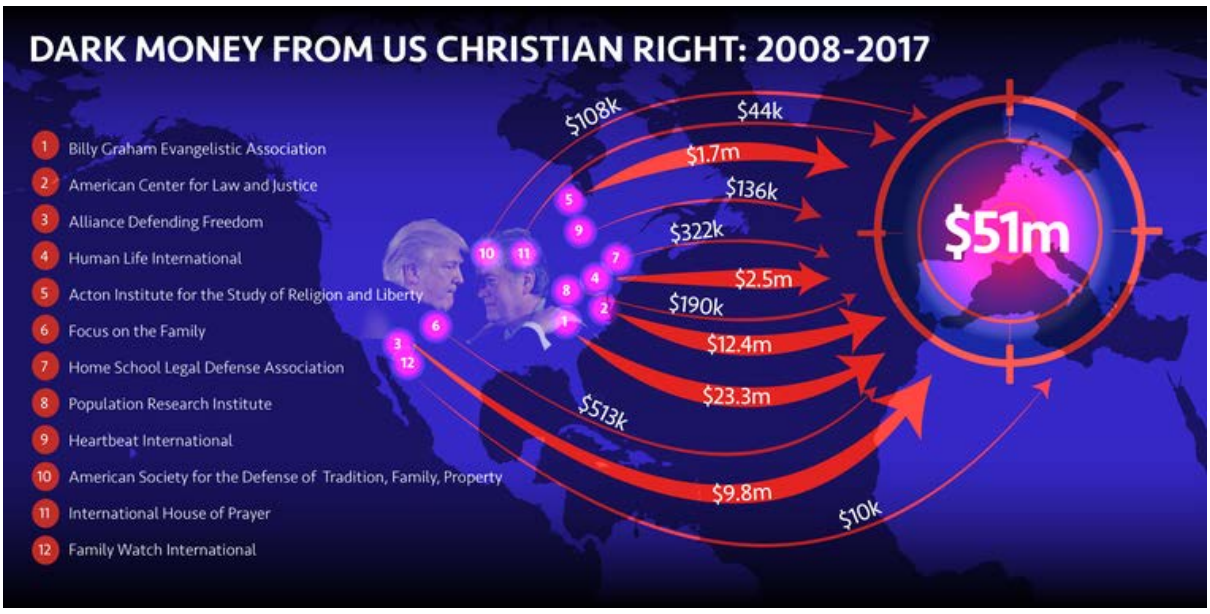

Image: Claire Provost and Adam Ramsay, 'Revealed: Trump-linked US Christian 'fundamentalists' pour millions of 'dark money' into Europe, boosting the far Right', *Open Democracy*, 27 March 2019.

USEFUL LINKS A-Z

ADL Hate Symbols Database: https://www.adl.org/resources/hate-symbols/search

British Library 'Fake News in the 18th century': https://www.youtube.com/watch?v=9dbV2YuAMpQ

Carnegie Endowment for International Peace report on disinformation: https://carnegieendowment.org/research/2024/01/countering-disinformation-effectively-an-evidence-based-policy-guide?lang=en

China Fact Check: https://chinafactcheck.com/

Dart Center for Journalism and Trauma: https://dartcenter.org/resources/handling-traumatic-imagery-developing-standard-operating-procedure

DW Fact Checker (YouTube): https://www.youtube.com/playlist?list=PLT6yxVwBEbi1mkjHIfrGBSWeKSlwMRwtW

EU Disinfo Lab: https://www.disinfo.eu/resources/initiatives-tacking-disinformation/

EU Disinformation Teaching Resources: https://www.coe.int/en/web/campaign-free-to-speak-safe-to-learn/dealing-with-propaganda-misinformation-and-fake-news

Fact Checker India: https://www.factchecker.in/

Fact check (US): https://www.factcheck.org/

Full Fact (UK): https://fullfact.org/

Google Scholar: https://scholar.google.com/

How AI fuels disinformation: https://media.ccc.de/v/hackerhotel-2024-146-osint-how-ai-fuels-disinformation

MIT Deepfake Training: https://www.media.mit.edu/projects/detect-fakes/overview/

PolitiFact (US): https://www.politifact.com/

Snopes: https://www.snopes.com/

The Invention of Fake News: https://www.opendemocracy.net/en/fake-news-invention-witch-hunt-history-for-tomorrow-book-roman-krznaric/

TinEye Image Tracing: https://tineye.com/

United Nations 'Countering Disinformation': https://www.un.org/en/countering-disinformation