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# Information and Disinformation, Their Boundaries and Interfaces

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# Abstract

This paper presents highlights from the workshop Boundaries of Disinformation held on Chalmers University of Technology in December 2020, organized by RISE, Research Institutes of Sweden. It addressed the phenomenon of disinformation, its historical and current forms. The discussion at the workshop was between the following researchers:

- AI: **Max Tegmark** (MIT)
- Democracy: **Daniel Lindvall** (Independent Researcher, Sociology, Uppsala University)
- Epistemology: **Åsa Wikforss** (Stockholm University. Book: Alternative facts)
- Ethics: **Gordana Dodig-Crnkovic** (Chalmers University of Technology)
- Human Computer Interaction: **Wolfgang Hofkirchner** (Vienna University of Technology)
- Law: **Chris Marsden** (University of Sussex) and **Susanne Stenberg** (RISE)
- Philosophy: **Joshua Bronson** (RISE)

# Disinformation under Digitalization and Hyperconnectivity

Digitalization ...makes content creation and dissemination easy avoiding the traditional gatekeeping mechanisms of publishers, (predefined) media, (existing) institutions, universities and governments.

(Joshua Bronson and Susanne Stenberg, RISE)

THE QUESTION IS: CAN WE ESTABLISH **NEW GATEKEEPERS** WHO WOULD

- tell the difference between *managing disinformation and censoring*
- establish relationship between *facts and disinformation?*
- find out *if and when information can be traced*
- establish the *possibilities and limits of AI solutions* to disinformation
- increase *media literacy* in our radically changing digital landscape
- help framing *laws to protect freedom of expression while guarding against disinformation*

# Phenomenon of Disinformation is Old and Omnipresent

Historical examples of disinformation are many:

<https://blogs.scientificamerican.com/anthropology-in-practice/three-historical-examples-of-fake-news/> Three Historical Examples of "Fake News"

War- and political propaganda and counterpropaganda.

We meet information and disinformation on a daily basis on both micro- meso- and macro- (global) scales.

## What is new?

Information/Content production is out of control

Information/ Content producers cluster around shared interests and support all sorts of ideas



Figure 3: 7 Categories of Information Disorder (Credit: Claire Wardle, First Draft)

# TYPES OF INFORMATION DISORDER

FALSENESS

INTENT TO HARM

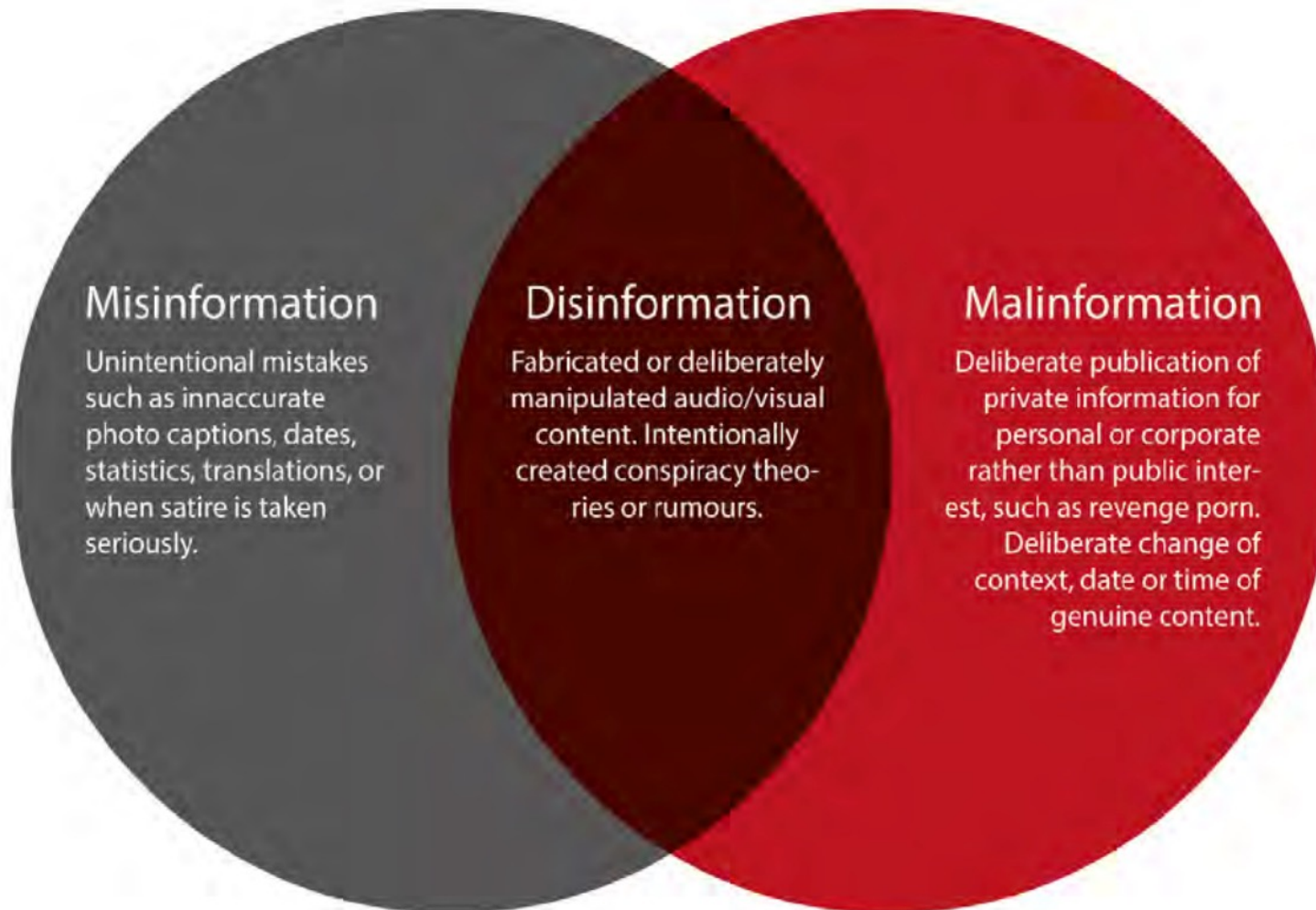
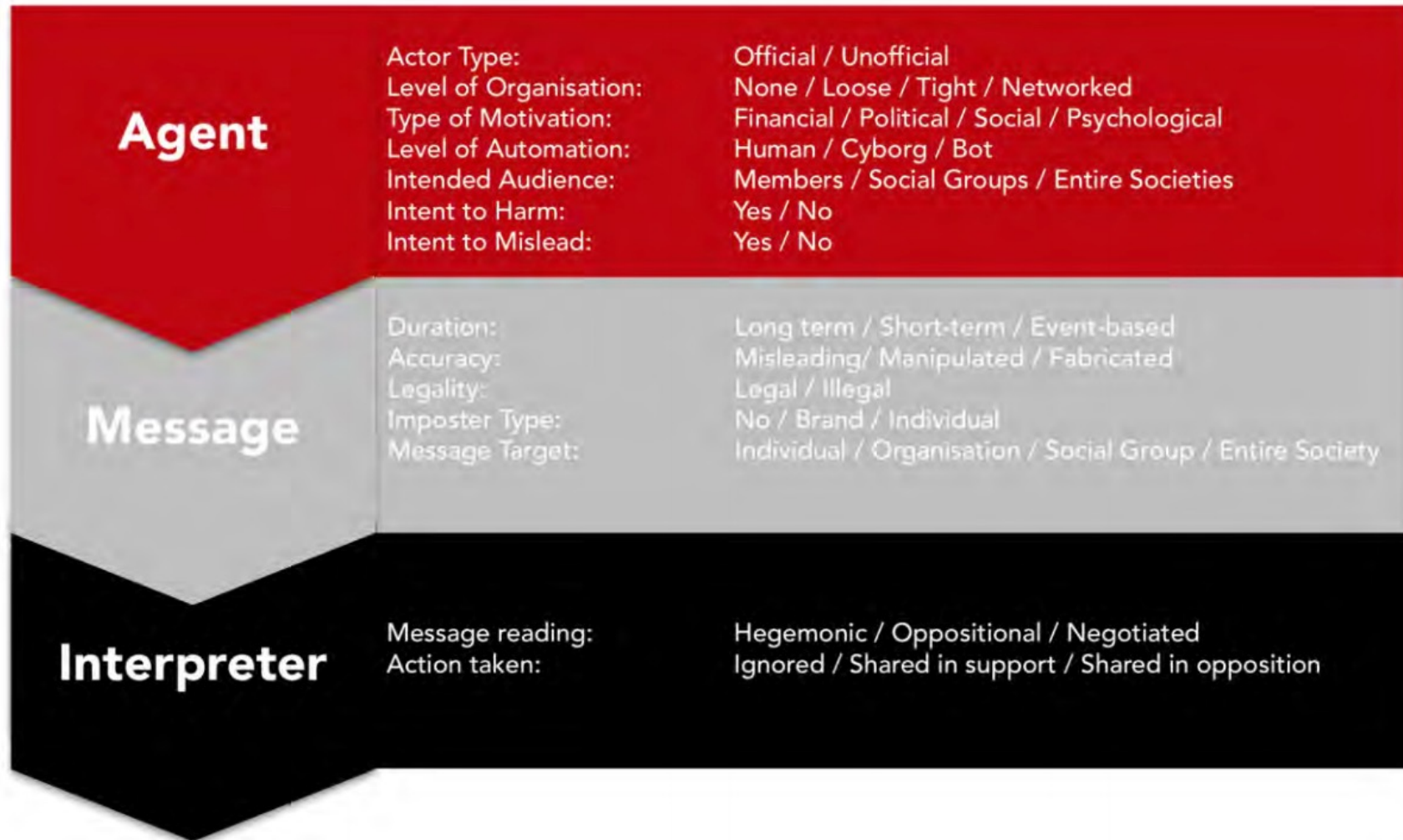




Figure 5: The Three Elements of Information Disorder



<https://firstdraftnews.org/wp-content/uploads/2018/03/The-Disinformation-Ecosystem-20180207-v2.pdf>  
Understanding and Addressing the Disinformation Ecosystem

## U n m e d i a t e d   c o m m u n i c a t i o n

Not only general public /“ordinary people” have got voice that can reach around the globe, but also [politicians can directly tweet to their followers circumventing democratic gatekeepers.](#)

Phenomenon of “informational bubbles”

Social networks, electronic web-based media, digital platforms, web bots – provide dangerous ways for disinformation to uncontrollably develop.



Automated means and AI for fighting disinformation  
bring their own challenges

[https://www.europarl.europa.eu/RegData/etudes/STUD/2019/624278/EPRS\\_STU\(2019\)624278\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2019/624278/EPRS_STU(2019)624278_EN.pdf) Automated tackling of disinformation

The question: **Who watches the watchers?**

(Quis custodiet ipsos custodes? - Roman poet Juvenal from his Satires (Satire VI, lines 347–348)).

- an issue discussed already by Plato in the Republic.

# Ethical Aspects of Disinformation

We can think in terms of classical ethical theories

## Utilitarianism

Disinformation as way of communication is detrimental for society at large, gains only those who control it.

## Kantian ethics (deontology)

Disinformation goes against Categorical Imperative: Act according to the maxim that you would wish all other people to follow, as if it were a universal law.

## Virtue ethics

Falsehood and intent to harm are vices.

## Value-based human-centric ethics

Disinformation shows lack of: respect for human dignity and human rights, freedom, democracy, equality and the rule of law, transparency, fairness,, etc.

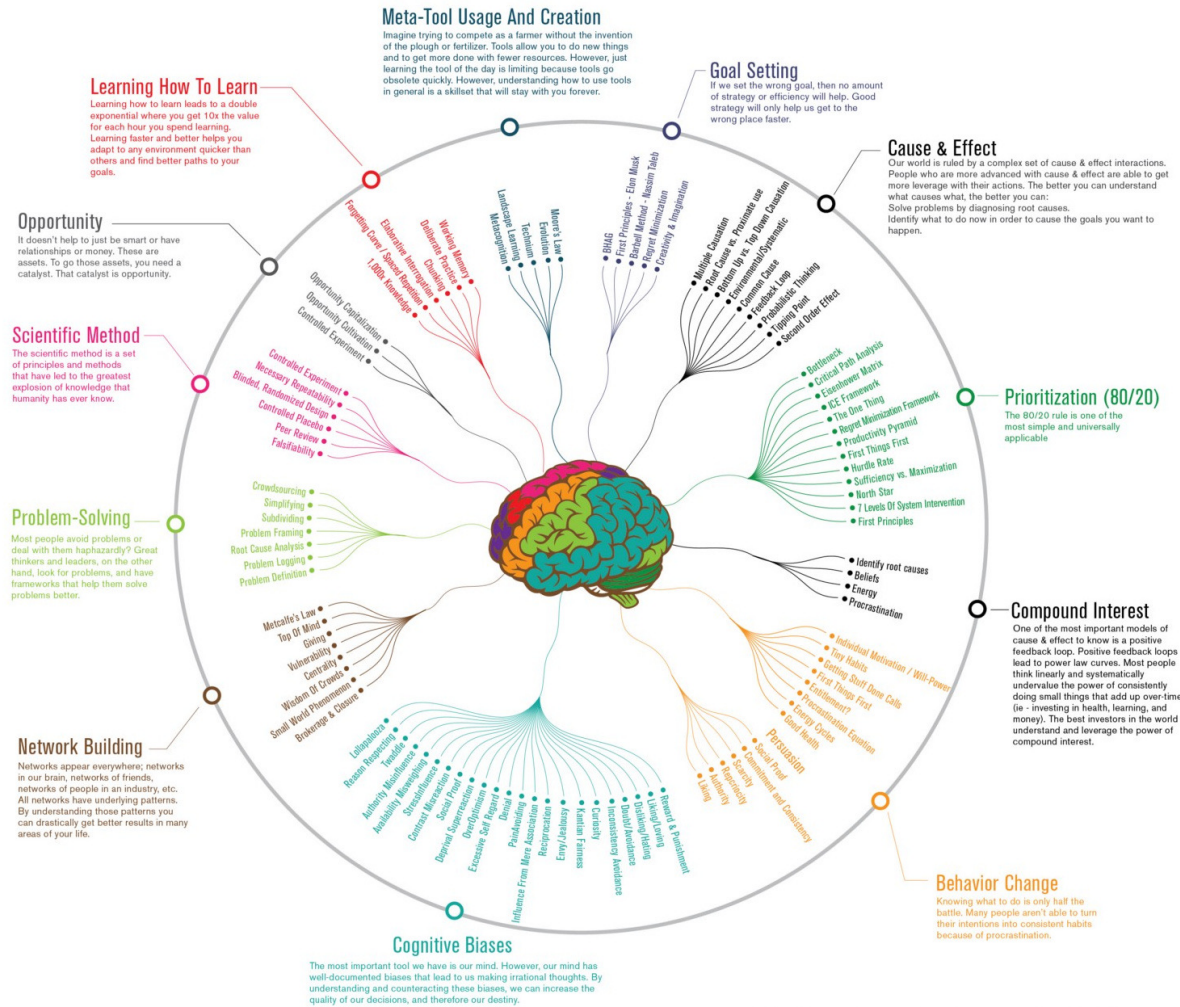
# ETHICS AS NETWORK OF INFORMATION PROCESSES

Unlike majority of classical ethical theories which are typically micro-ethics, Information Ethics is macro-ethics. Instead of being exclusively interested in individual subjects, it is rather focused on the level of social systems and their interplay with lower organizational levels.

Moral judgments vitally depend on the information about what is the case and what is understood as the desirable state of affairs. Moral responsibility increases for an agent who gets progressively more informed. Information streams in the Infosphere can both enrich and pollute the informational environment.

As a macroethics, IE can help us see general patterns and processes and understand their workings. That understanding of mechanisms will hopefully improve our skills in understanding the dangers and the benefits of ICT-enhanced societies.

# COGNITIVELY, WE ALL HAVE BIASES IN SEARCH FOR INTERSUBJECTIVE



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# Conclusion: Open Questions

- **WHO DECIDES** WHAT IS "THE CASE"? ("THE FACT"/"THE TRUTH")
- WHAT IS "**AUTORITATIVE/ TRUSTWORTHY** INFORMATION"?
- **WHO ARE AUTHORITIES AND FOR WHAT?**
- BALANCE BETWEEN INDIVIDUAL FREEDOM AND SOCIETAL INSTITUTIONALIZED THINKING (AUTHORITY VS. FREEDOM)
- MOVING TOWARDS MORE TRUTH-BASED SOCIETY IS ABOUT
- NOT ONLY **HOW** (AI, MEDIA LITERACY, ETC)
- BUT ALSO **WHY** (PHILOSOPHY, ETHICS, LAW, CRITICAL THINKING, ETC) WHICH IS A QUESTION FOR DEMOCRACIES TO DECIDE\*.
- THERE IS HUGE WORK IN FRONT OF US ON **ADDRESSING** THOSE "POLICY VACUUMS" (James Moor) WHERE VARIETY OF STAKEHOLDERS MUST COLLABORATE.

\*In sciences we have a related question of SCIENCE vs. PSEUDOSCIENCE

## References

<http://www.gordana.se/work/PRESENTATIONS-files/20201202-ETHICS-of-DISINFORMATION.pdf>

<https://blogs.scientificamerican.com/anthropology-in-practice/three-historical-examples-of-fake-news> Three Historical Examples of "Fake News"

[https://www.europarl.europa.eu/RegData/etudes/STUD/2019/624278/EPRS\\_STU\(2019\)624278\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2019/624278/EPRS_STU(2019)624278_EN.pdf) Automated tackling of disinformation

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Popper, K. *The Logic of Scientific Discovery* (2nd ed.). London: Routledge. 2005

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<https://web.cs.ucdavis.edu/~rogaway/classes/188/spring06/papers/moor.html>



# EXTRA MATERIALS

People have already addressed this question



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LET'S  
**EXPOSE**  
THE **TRUTH**



<https://cyber.harvard.edu/publications>

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## Publications

### **Polarization and the Pandemic: American Political Discourse**

Tracking political discourse in the U.S. for March, April, and May of 2020

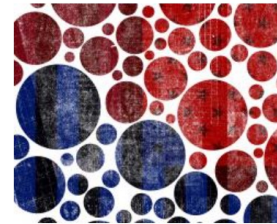
OCT 29, 2020



### **Partisanship, Impeachment, and the Democratic Primaries: American Political Discourse**

Tracking political discourse in the U.S. for January and February of 2020

OCT 22, 2020



### **US Elections Disinformation Tabletop Exercise Package**

Publication provides the intelligence community, social media companies, state election officials, and news media a resource to plan for the election.

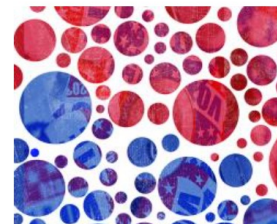
OCT 6, 2020



### **Mail-In Voter Fraud: Anatomy of a Disinformation Campaign**

Working paper explores disinformation campaign about mail-in voter fraud

OCT 1, 2020





# DISINFORMATION-CONCEPT MAP



*Dr. David Chr. Jaklin*

[https://miro.medium.com/max/1400/1\\*SOHWncs\\_nBZN0Ui1qdm3uA.jpeg](https://miro.medium.com/max/1400/1*SOHWncs_nBZN0Ui1qdm3uA.jpeg)

<https://medium.com/@david.jaklin/disinformation-and-covid-19-the-case-of-austria-5440094a789c>

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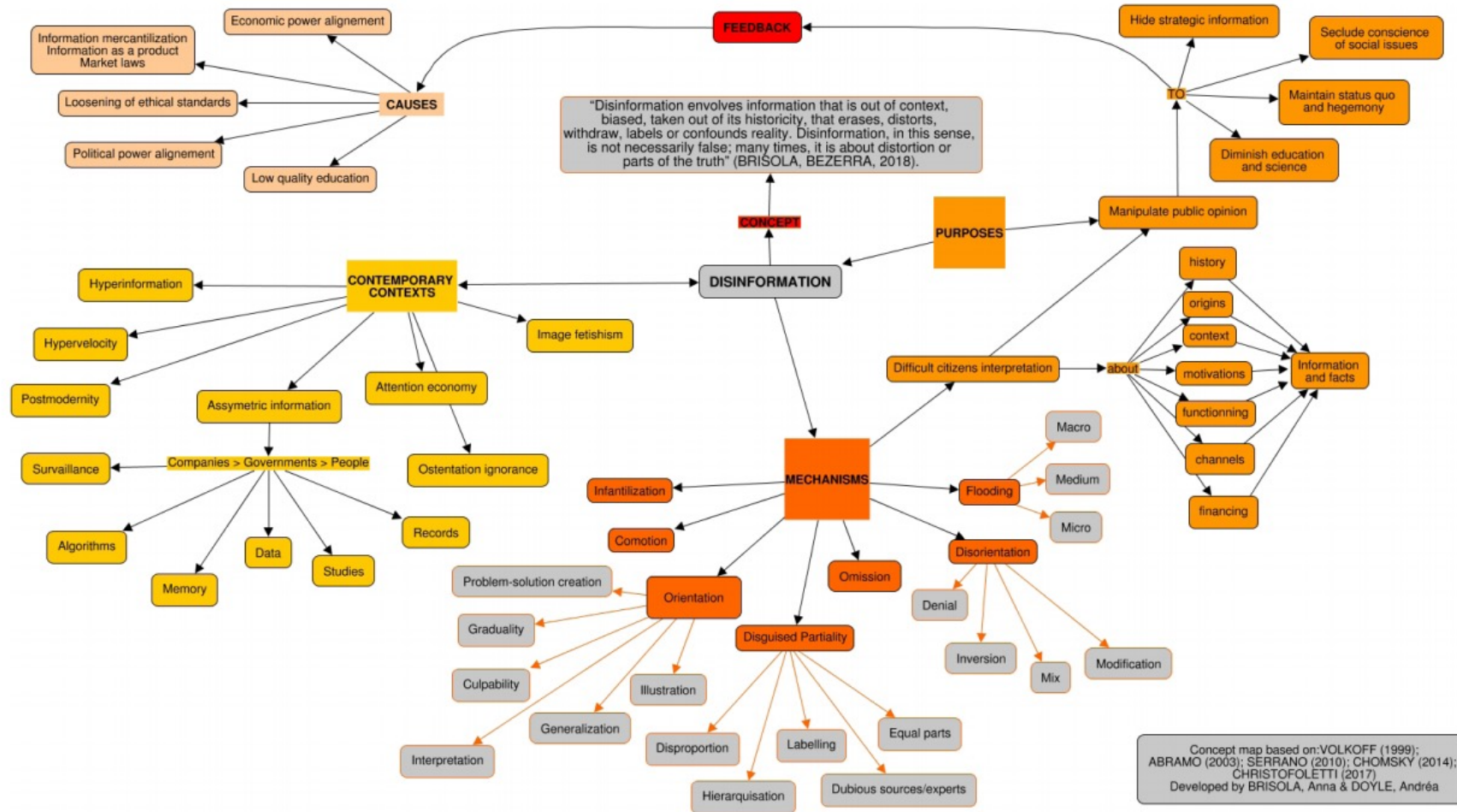


Figure 1. Disinformation concept map