Development of an Ethical Framework for Infodemic Management

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Observers: Surangani Abeyesekera from UNICEF, Guilherme Canela De Souza Godoi from UNESCO, Timothy K Mackey from the University of California, San Diego, Lee Hibbard from the Council of Europe, and Betsy Mitchell from the US Centers for Disease Control and Prevention.

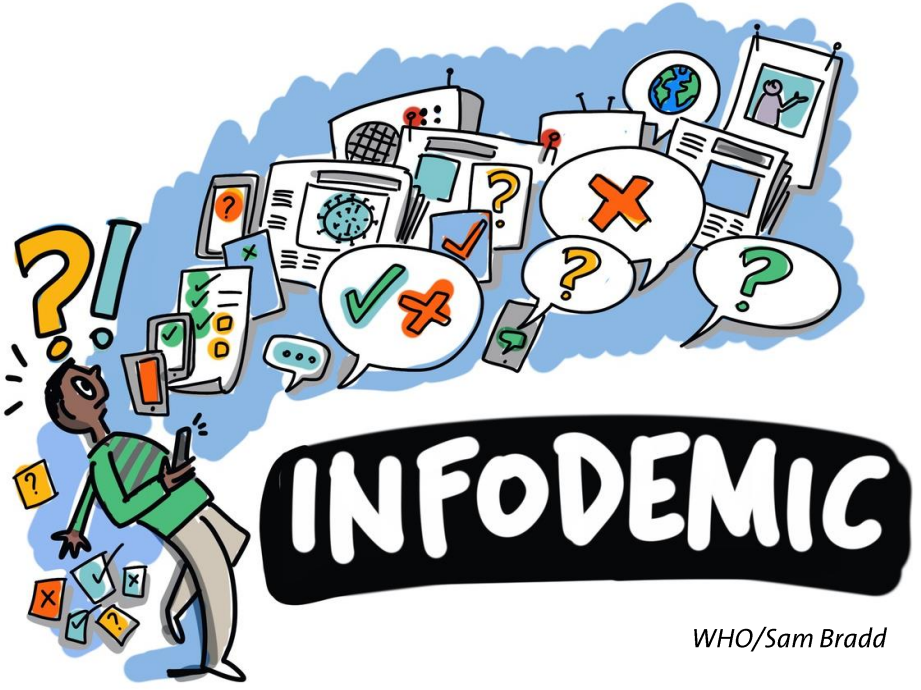
1. Defining the problem

2. The process

3. Gathering evidence

4. Architecture

1. Defining the problem



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Too much information, including false or misleading information, in digital and physical environments during a disease outbreak.

- causes confusion and risk-taking behaviours that can harm health;
- leads to mistrust in health authorities;
- undermines the public health response;
- can intensify or lengthen outbreaks.

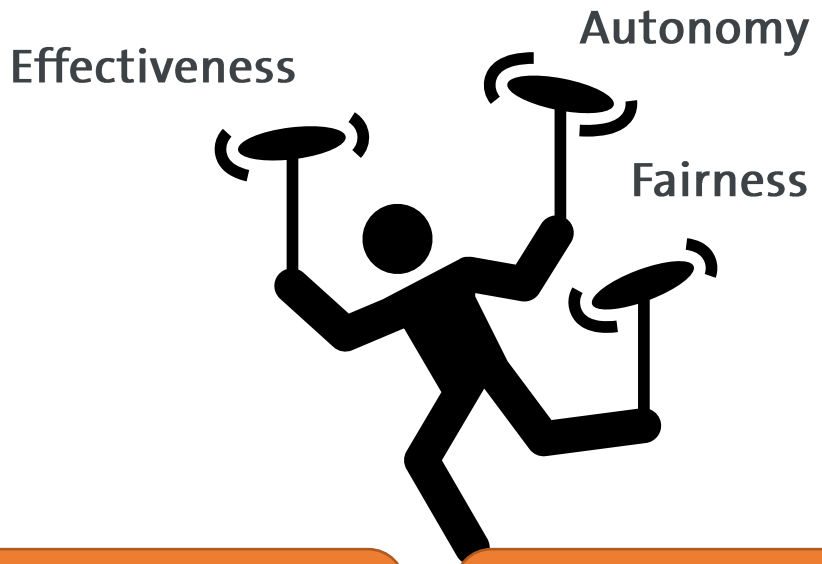
WHO/Sam Bradd

Infodemic management

the systematic use of risk- and evidence-based analysis and approaches to manage the infodemic and reduce its impact on health behaviours during health emergencies.

- Listening to community concerns and questions;
- Promoting understanding of risk and health expert advice;
- Building resilience to misinformation;
- Engaging and empowering communities to take positive action.

Defining the problem



- Effectiveness: ability to produce benefit in real life conditions
- Autonomy: the combination of intentionality, understanding and non-control
- Fairness: a comprehensive set of basic rights and liberties that can coexist with similar rights for all

Vulnerability of individuals and communities

Active and passive freedom of information

Trust

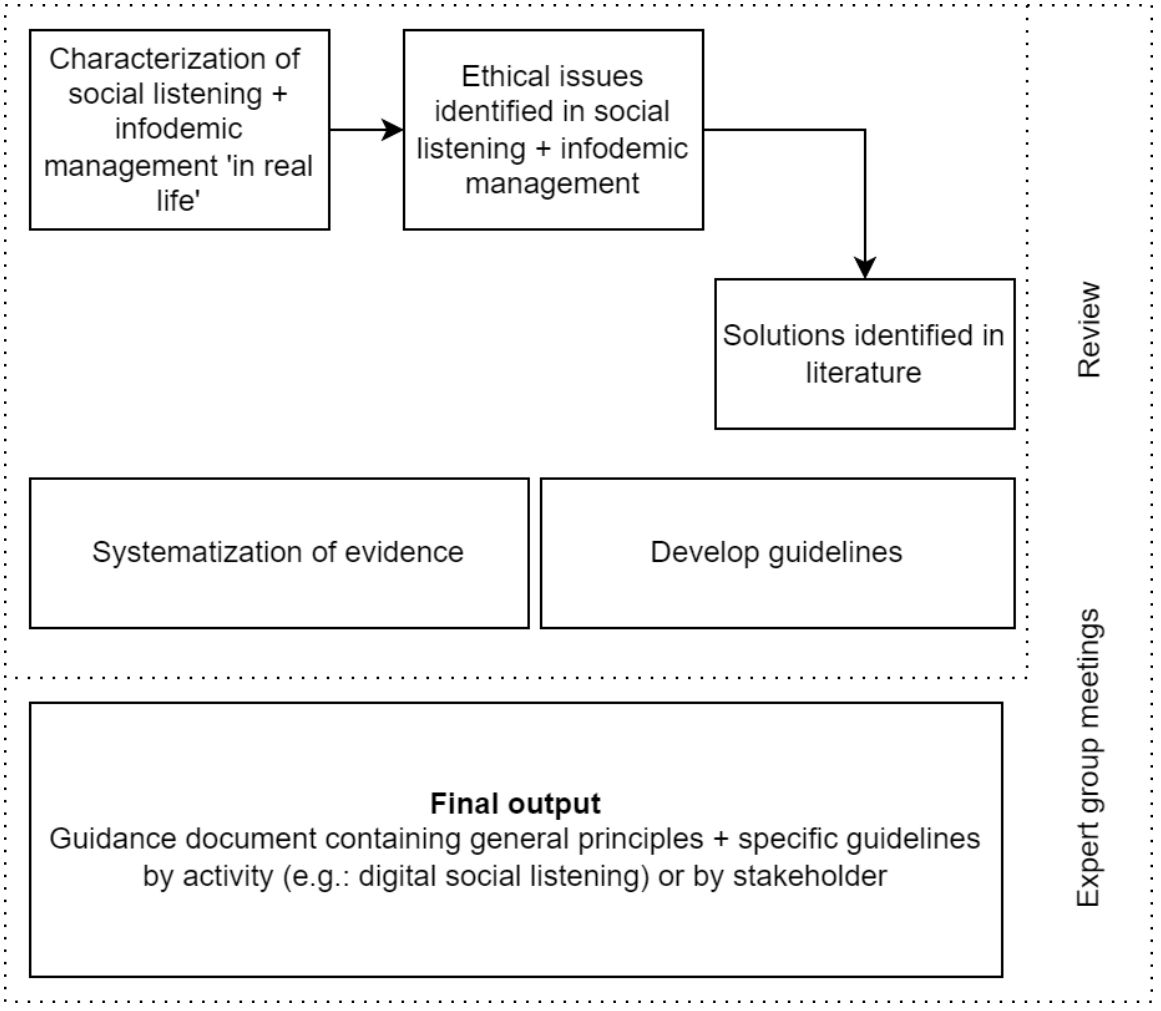
Transparency

Spitale G, Germani F, Biller-Andorno N. The PHERCC Matrix. https://doi.org/10.1080/15265161.2023.2201191

2. The process

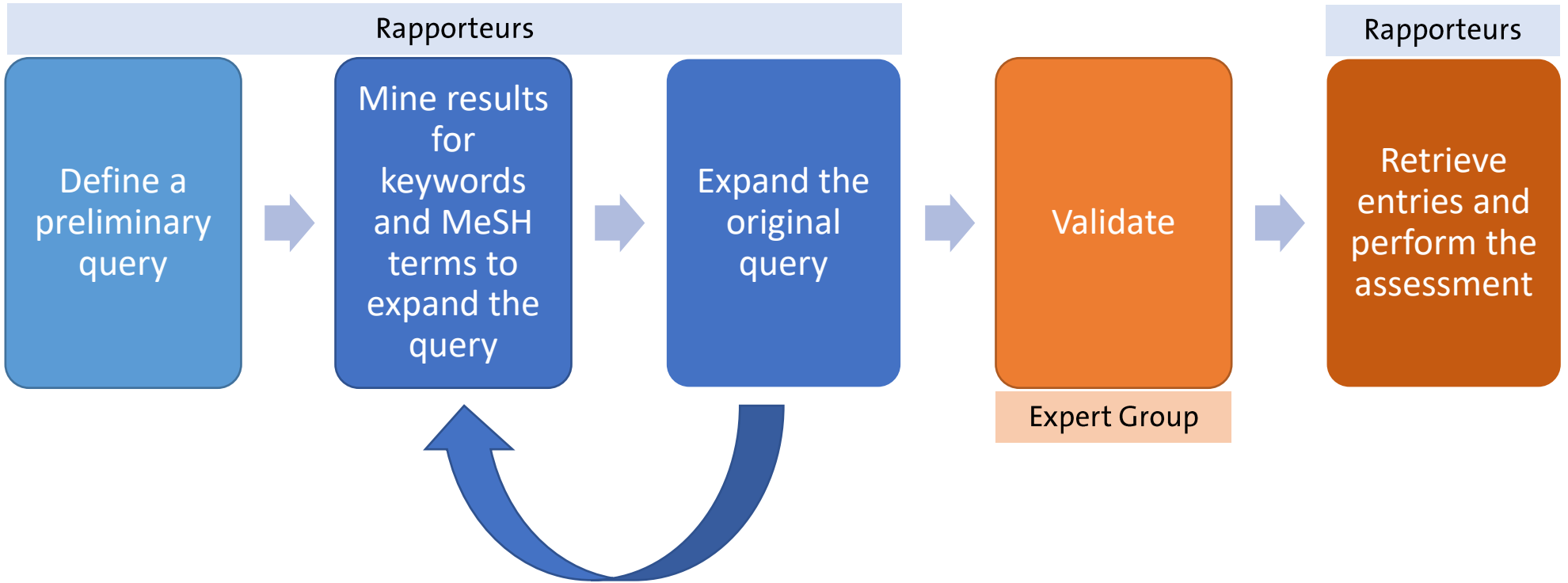
The process

Define the activities and the context
Identify risks and challenges
Define aims
Define guiding principles
Develop implementation guidance


Characterization of social listening + infodemic management 'in real life'
Ethical issues identified in social listening + infodemic management
Solutions identified in literature
Review
Systematization of evidence
Develop guidelines
Expert group meetings
Final output
Guidance document containing general principles + specific guidelines by activity (e.g.: digital social listening) or by stakeholder

3. Gathering evidence

Smart Iterative Search Strategies



Spitale G. Making sense in the flood. https://doi.org/10.1016/j.heliyon.2020.e04426
Spitale G, Biller-Andorno N. TopicTracker. https://doi.org/10.5281/zenodo.7023618

The query

Timeframe
2002 - 2022

AND

Infodemics (using specific descriptors)

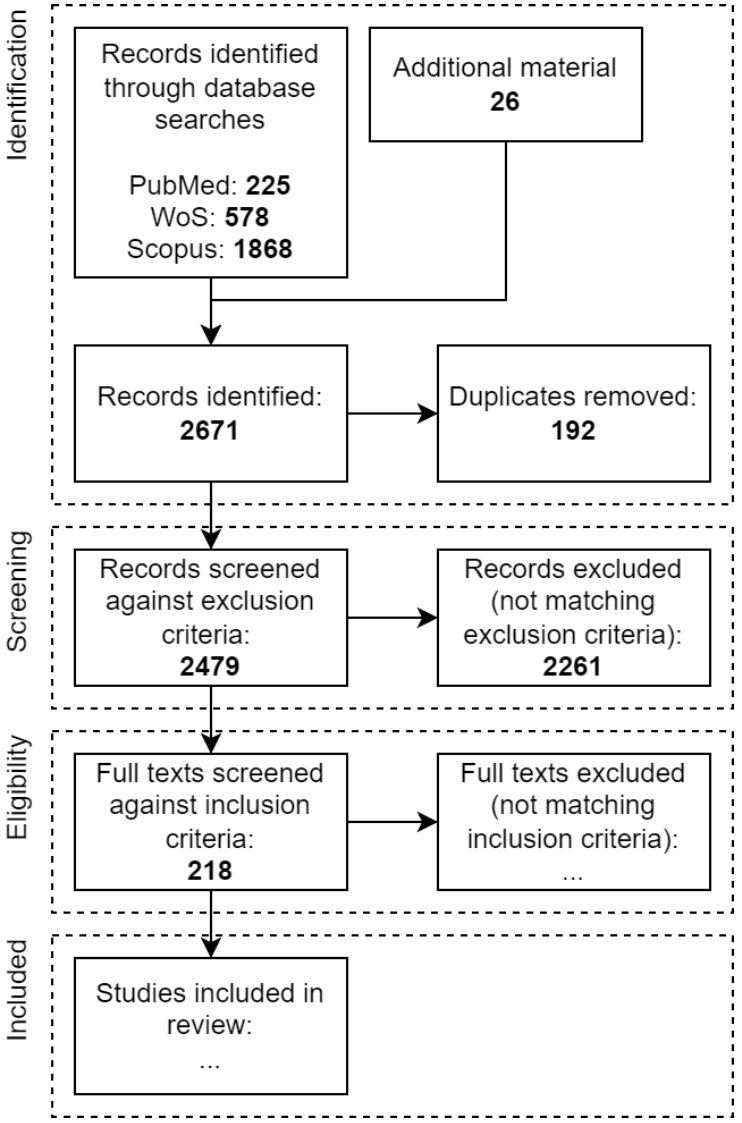
OR

Infodemics (expanded definition)
What happens (misinformation, disinformation, information overload/void, ...) + response or management actions + context (pandemic, epidemic, outbreak, ...)

AND

Ethics and ethically significant aspects

Spitale G, Germani F. Ethical considerations on social listening and infodemic management. https://doi.org/10.17605/OSF.IO/28D73

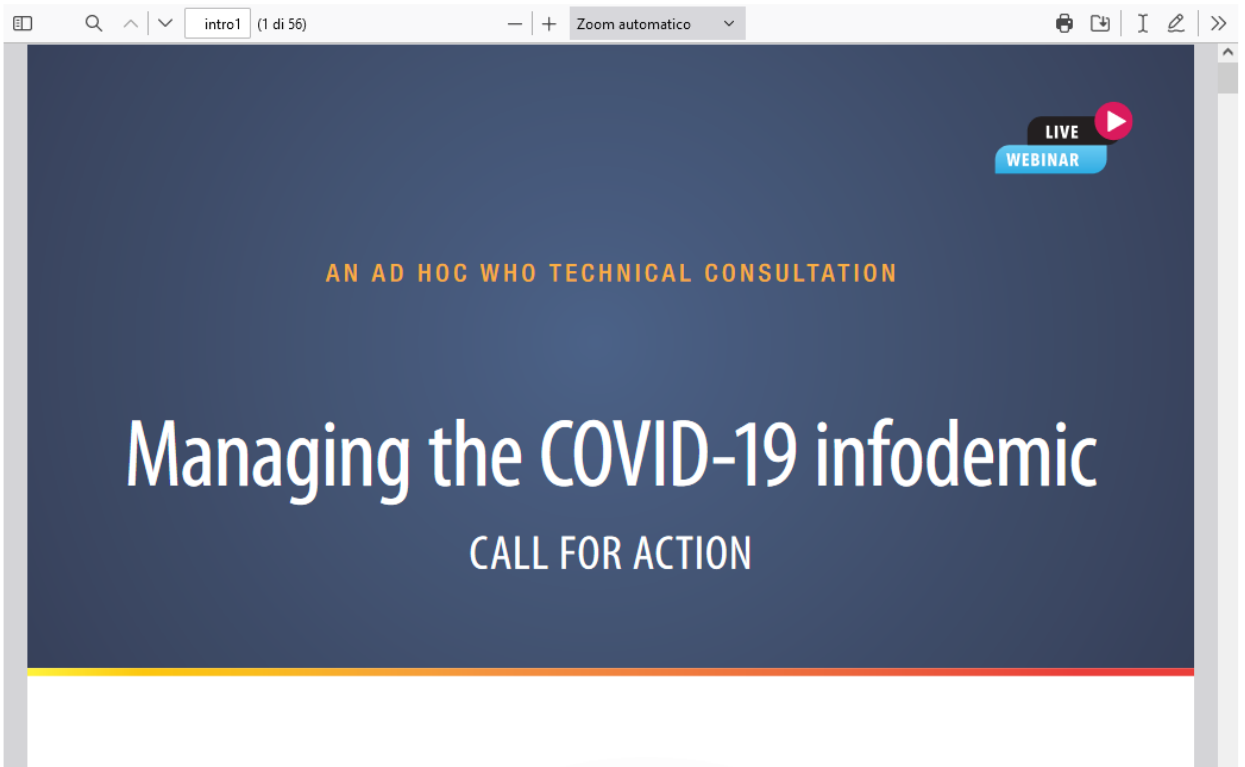


Spitale G, Germani F. Ethical considerations on social listening and infodemic management. https://doi.org/10.17605/OSF.IO/28D73

An ad hoc WHO technical consultation managing the COVID-19 infodemic: call for action

WHO, 2020

['WHO - An ad hoc WHO technical.pdf']



Assessment

Paper already assessed as: include

See inclusion criteria

Include?

Yes Maybe No

Country: Switzerland (CH)

Year: 2020

Health emergency/issue

COVID-19 infodemic

Study type

- Theoretical
- Empirical
- Literature review
- Viewpoint/commentary
- Other

Methodological notes

Spitale G. RevMaster. https://github.com/that-ugly-cat/revbaster_base (still in development)

Characterization of ‘infodemic’

#	Word	Count
1	information	39
2	infodemic	24
3	health	22
4	media	11
5	false	11
6	epidemic	10
7	digital	10
8	overabundance	9
9	misleading	9
10	social	8
11	public	8
12	physical	8
13	na	7
14	infodemics	7
15	inaccurate	7
16	burden	7
17	news	6
18	including	6
19	accurate	6
20	pandemic	5

Spitale G. RevMaster. https://github.com/that-ugly-cat/revbaster_base (still in development)

Aims of infodemic management

#	Word	Count
1	data	23
2	social	21
3	public	18
4	information	15
5	health	11
6	trust	10
7	privacy	10
8	media	8
9	methods	7
10	collection	7
11	vs	6
12	surveillance	6
13	need	6
14	na	6
15	listening	6
16	consent	6
17	analysis	6
18	informed	5
19	communication	5
20	use	4

Spitale G. RevMaster. https://github.com/that-ugly-cat/revbaster_base (still in development)

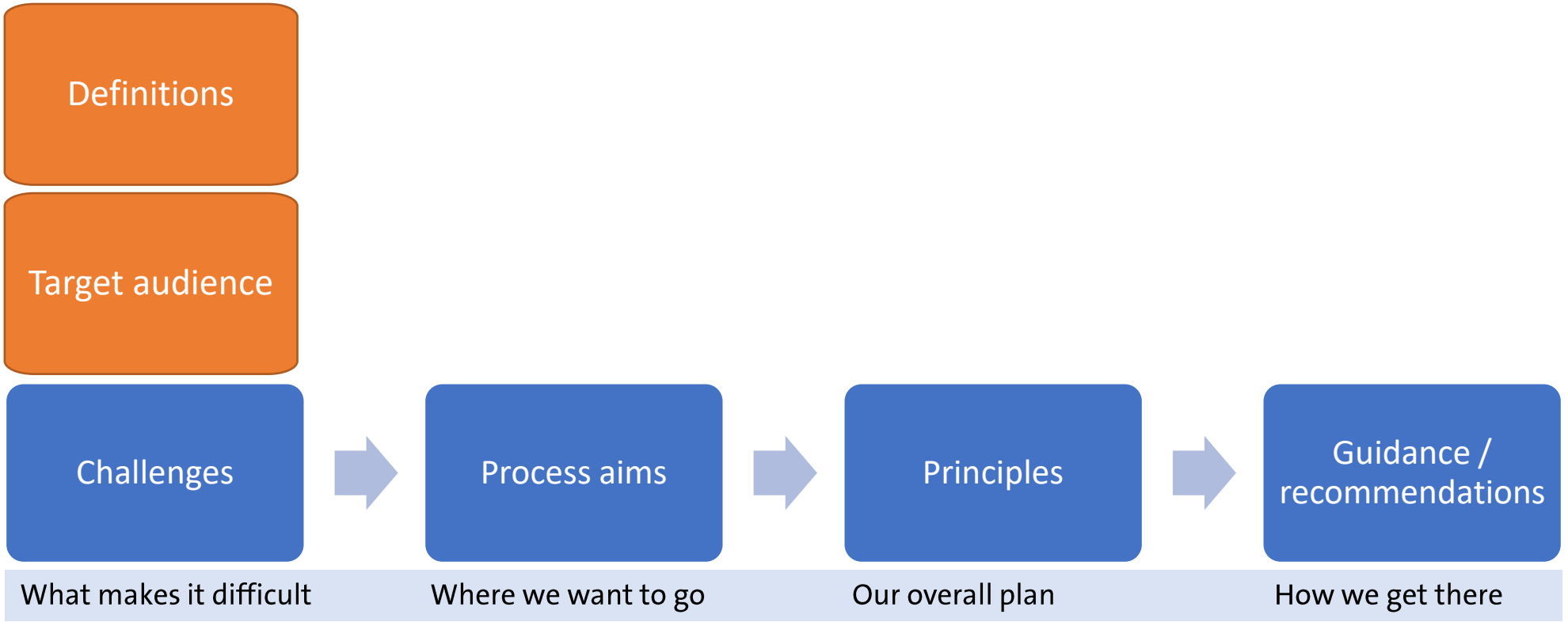
Ethical issues in infodemic management

#	Word	Count
1	information	28
2	health	20
3	communication	18
4	community	17
5	public	16
6	data	16
7	transparency	14
8	trust	13
9	misinformation	11
10	surveillance	10
11	social	10
12	engagement	10
13	content	9
14	na	7
15	listening	7
16	governance	7
17	good	7
18	ensure	7
19	media	6
20	effectiveness	6

Spitale G. RevMaster. https://github.com/that-ugly-cat/revbaster_base (still in development)

4. Architecture

Architecture of the framework



Challenges

Managing **power imbalance** and guaranteeing **good governance**

Working in conditions of **uncertainty** (epistemic underdetermination, truth, revisability, reliability, certitude)

Ensuring Infodemic management **effectiveness**

Process aims

Respect for human rights / human rights-based approach

Preserve and build trust, reciprocal trust, trustworthiness

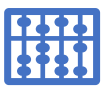
Apply fair, equitable and inclusive processes of decision making

Guarantee integrity of actors and actions

Value public engagement

Pursue understandability

Driven by beneficence



Balanced by necessity, utility, proportionality, and least intrusive approaches

Principles

Still work in progress!

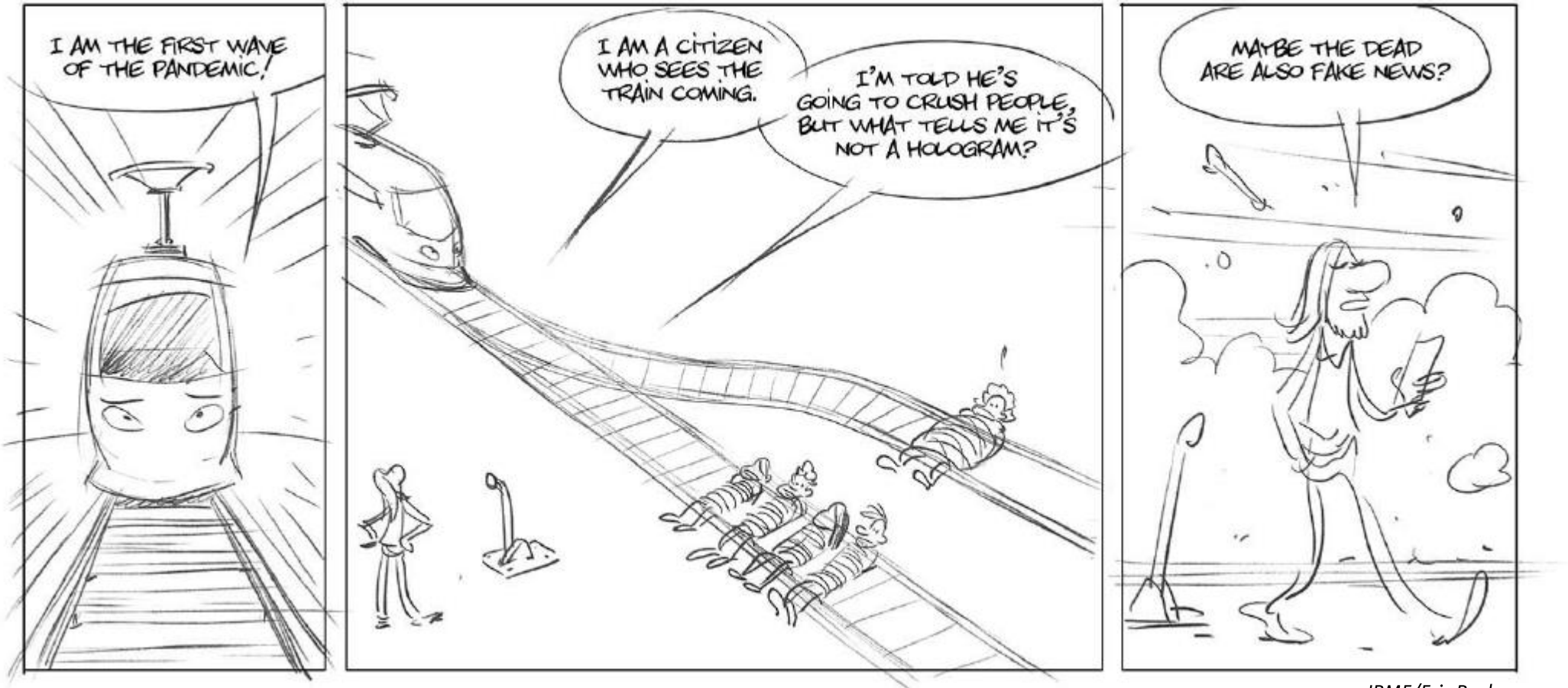
Principles help translating challenges and aims which exist in abstract (i.e.: what we want to avoid and where we want to go) into codified processes to be incorporated into the guidance.

Guidance/recommendations

Still work in progress!

Recommendations help shaping concrete actions according to ethical desirability.

Recommendations target specific stakeholders (e.g.: International health organizations; national governments; public health officials, ...) and specific infodemic management activities (e.g.: capacity building; planning infodemic response procedures; collecting infodemic insights; ...) with a pragmatic life cycle approach.



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SUMMARIZING:

- Infodemics and infodemic management pose significant **challenges**.
- An **ethical framework** is necessary for effective infodemic management.
- The development process is based on both **literature and experts' views.**
- The architecture includes **definitions, ethical challenges, process aims, principles, and stakeholder-specific guidance**

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