

# Giovanni Spitale

UiO – CME visiting fellow 2025

Supported by UZH GRC



**University of  
Zurich** <sup>UZH</sup>

Institute of Biomedical Ethics  
and History of Medicine



**UNIVERSITY  
OF OSLO**

Center for Medical Ethics



# Aims of this presentation

- Present myself and my work (so that I can be a useful resource to you folks)
- Present the 1st piece of the TERA study I am conducting with Kristine



2012: BA in Philosophy @ UniPD

2015: MA in Philosophical Sciences @ UniPD

2017: International Research Fellow @ RUB, Institute for Medical Ethics and History of Medicine

2022: PhD in medical sciences @ UZH, Institute of Biomedical Ethics and History of Medicine

2025: Visiting research fellow @ CME, University of Oslo

### Other fancy stuff:

WHO rapporteur

TEDx speaker

Open Science Ambassador @ UZH

Scientific coordinator of Academia Engelberg

Paragliding pilot and nerd, big fan of cows

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


Fancy stuff I enjoyed working on

# Patients' perspectives



Cross country analysis of qualitative interviews: Developing a method, a community and an understanding of how Covid has been experienced around the globe

Sue Ziebland , Rika Sakuma-Sato , Rachel Grob , Anna Dowrick , Alicia Regina Navarro Dias de Souza , Giovanni Spitale , Mark Schlesinger 

Review article: Biomedical intelligence  
Vol. 153 No. 1 (2023)

## Patient narratives – a still undervalued resource for healthcare improvement

Giovanni Spitale, Andrea Glässel, Mirriam Tyebally-Fang, Corine Mouton Dorey, Nikola Biller-Andorno

[Fulltext PDF](#) [Fulltext HTML](#)

[Appendix 1](#) [Appendix 2](#) [Appendix 3](#) [Appendix 4](#) [Appendix 5](#)

DOI  
<https://doi.org/10.57187/smw.2023.40022>

Cite this as:  
Swiss Med Wkly. 2023;153:40022

Research | [Open access](#) | Published: 23 October 2023

## Women's experiences with non-invasive prenatal testing in Switzerland: a qualitative analysis

[Mirriam Tyebally Fang](#), [Federico Germani](#), [Giovanni Spitale](#), [Sebastian Wäscher](#), [Ladina Kunz](#) & [Nikola Biller-Andorno](#) 

[BMC Medical Ethics](#) **24**, Article number: 85 (2023) | [Cite this article](#)

Narrative Inquiry in Bioethics  
Volume 15, Number 1, 2025  
Johns Hopkins University Press



[Article](#)

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Additional Information

## Women's Perceptions of the Medicalization of Pregnancy and Their Preferred Models of Care:

A Qualitative Analysis

*Mirriam Tyebally Fang, Ladina Kunz, Giovanni Spitale, Sebastian Wäscher, Federico Germani, and Nikola Biller-Andorno*

# Pandemics

Medicine, Health Care and Philosophy (2020) 23:603–609  
<https://doi.org/10.1007/s11019-020-09971-2>

SCIENTIFIC CONTRIBUTION



## COVID-19 and the ethics of quarantine: a lesson from the Eyam plague

Giovanni Spitale<sup>1</sup> 

## Addressing Volatile Ethical Issues of Covid-19 with the Core Five Enduring Values List for Health Care Professionals

As we continue to adjust and assess our efforts to address changing pandemic challenges, we need to consider not just clinical metrics, but also key moral and societal core values: autonomy, privacy, equity, proportionality, and trust.

**Authors:** Nikola Biller-Andorno, Dr Med, Dr Phil, MHBA , and Giovanni Spitale, MA  [Author Info & Affiliations](#)

NEJM Catalyst | August 4, 2022 | [Copyright © 2022](#)

# Infodemics and social listening





Target Article

## The PHERCC Matrix. An Ethical Framework for Planning, Governing, and Evaluating Risk and Crisis Communication in the Context of Public Health Emergencies

Giovanni Spitale , Federico Germani  & Nikola Biller-Andorno  

Pages 67-82 | Published online: 28 Apr 2023

## Beyond Trade-Offs: Autonomy, Effectiveness, Fairness, and Normativity in Risk and Crisis Communication

Federico Germani , Giovanni Spitale  & Nikola Biller-Andorno  

Pages W2-W5 | Published online: 20 May 2024

## Digital Democracy and Emergency Preparedness: Engaging the Public in Public Health

 Giovanni Spitale<sup>1†</sup>  Nikola Biller-Andorno<sup>1†</sup>  Federico Germani<sup>1†</sup>

 Sonja Merten<sup>2,3\*†</sup>



## A Novel Risk and Crisis Communication Platform to Bridge the Gap Between Policy Makers and the Public in the Context of the COVID-19 Crisis (PubliCo): Protocol for a Mixed Methods Study

Giovanni Spitale<sup>1</sup> ; Sonja Merten<sup>2,3</sup> ; Kristen Jafflin<sup>1,2,3</sup> ; Bettina Schwind<sup>1,2,3</sup> ; Andrea Kaiser-Grolimund<sup>2</sup> ; Nikola Biller-Andorno<sup>1</sup> 






## Concerns Around Opposition to the Green Pass in Italy: Social Listening Analysis by Using a Mixed Methods Approach

Giovanni Spitale<sup>1</sup> ; Nikola Biller-Andorno<sup>1</sup> ; Federico Germani<sup>1</sup> 

## Soliciting Diaries for “Real-Time” Insights Into the COVID-19 Pandemic: Methodological Reflections on Using Digital Technologies to Engage the Public

 Andrea Kaiser-Grolimund<sup>1,2,3\*†</sup>  Bettina Schwind<sup>4†</sup>  Laura Kämpfen<sup>3</sup>

 Anna Lea Morgan<sup>3</sup>  Giovanni Spitale<sup>4</sup>  Nikola Biller-Andorno<sup>4</sup>

 Sonja Merten<sup>1,2\*</sup>



# Emerging tech





Home > Science and Engineering Ethics > Article

## Disruptive Technologies and Open Science: How Open Should Open Science Be? A 'Third Bioethics' Ethical Framework

Original Research/Scholarship | Open access | Published: 09 August 2024  
Volume 30, article number 36, (2024) [Cite this article](#)



Exploring the role of AI in classifying, analyzing, and generating case reports on assisted suicide cases: feasibility and ethical implications

-  Giovanni Spitale<sup>1†</sup>
-  Gerold Schneider<sup>2†</sup>
-  Federico Germani<sup>1†</sup>
-  Nikola Biller-Andorno<sup>1\*†</sup>

## Evaluating Transformers on the Ethical Question of Euthanasia

Gerold Schneider and Giovanni Spitale  
University of Zurich



## Privacy, Data Sharing, and Data Security Policies of Women's mHealth Apps: Scoping Review and Content Analysis

Najd Alfawzan<sup>1</sup> ; Markus Christen<sup>1</sup> ; Giovanni Spitale<sup>1</sup> ; Nikola Biller-Andorno<sup>1</sup> 

# Emerging tech

RESEARCH ARTICLE | PUBLIC HEALTH



## AI model GPT-3 (dis)informs us better than humans

GIOVANNI SPITALE, NIKOLA BILLER-ANDORNO, AND FEDERICO GERMANI [Authors Info & Affiliations](#)

SCIENCE ADVANCES • 28 Jun 2023 • Vol 9, Issue 26 • DOI: 10.1126/sciadv.adh1850



### The Dual Nature of AI in Information Dissemination: Ethical Considerations

Federico Germani<sup>1</sup> ; Giovanni Spitale<sup>1</sup> ; Nikola Biller-Andorno<sup>1</sup>

## Emotional prompting amplifies disinformation generation in AI large language models

- Rasita Vinay<sup>1,2††</sup>
- Giovanni Spitale<sup>1††</sup>
- Nikola Biller-Andorno<sup>1†</sup>
- Federico Germani<sup>1\*†</sup>

# Religion and bioethics

bioethics



ORIGINAL ARTICLE |  Open Access |  

## On Religious Influence in Bioethics: The Limits of Pluriversalism

Giovanni Spitale, Federico Germani, Brian D. Earp, Sebastian Porsdam Mann, Maide Barış, Marco Annoni, Kiarash Aramesh, Zohar Lederman, Calvin W. L. Ho, Karel Caals, Ambra D'Imperio, Marcello Ienca, Shenuka Singh, Debora Spagnolo, Nikola Biller-Andorno  ... See fewer authors 

First published: 28 April 2025 | <https://doi.org/10.1111/bioe.13419>

Giovanni Spitale and Federico Germani are co-first authors.

# Science, ethics, and society



The background of the slide features a photograph of a large, multi-masted wooden sailing ship, possibly a galleon, on a snowy or icy terrain. A person is visible in the lower center, standing near the base of the ship. The entire image is overlaid with a semi-transparent orange filter. The text "Fancy stuff I am currently working on" is centered in white.

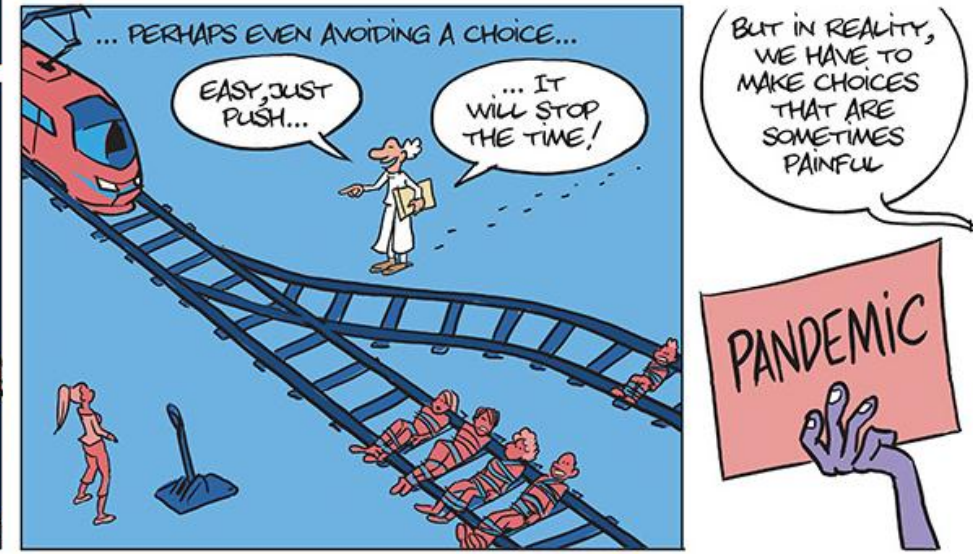
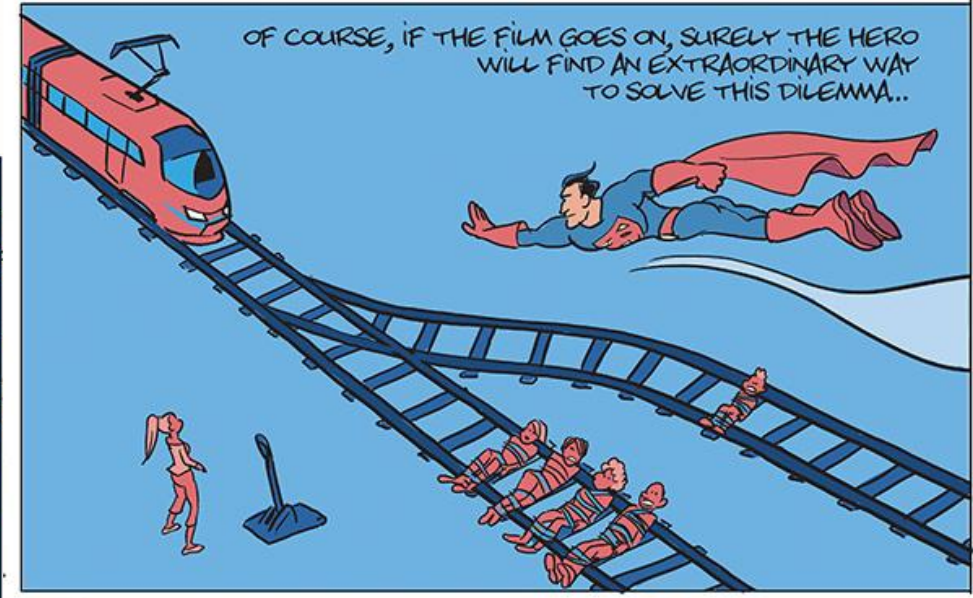
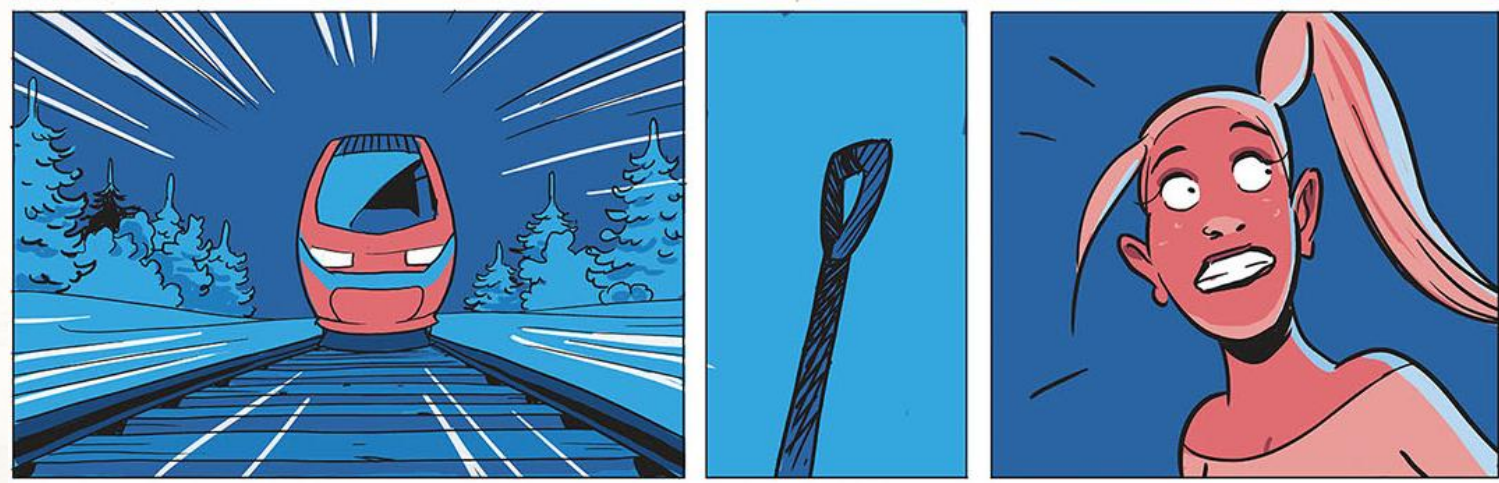
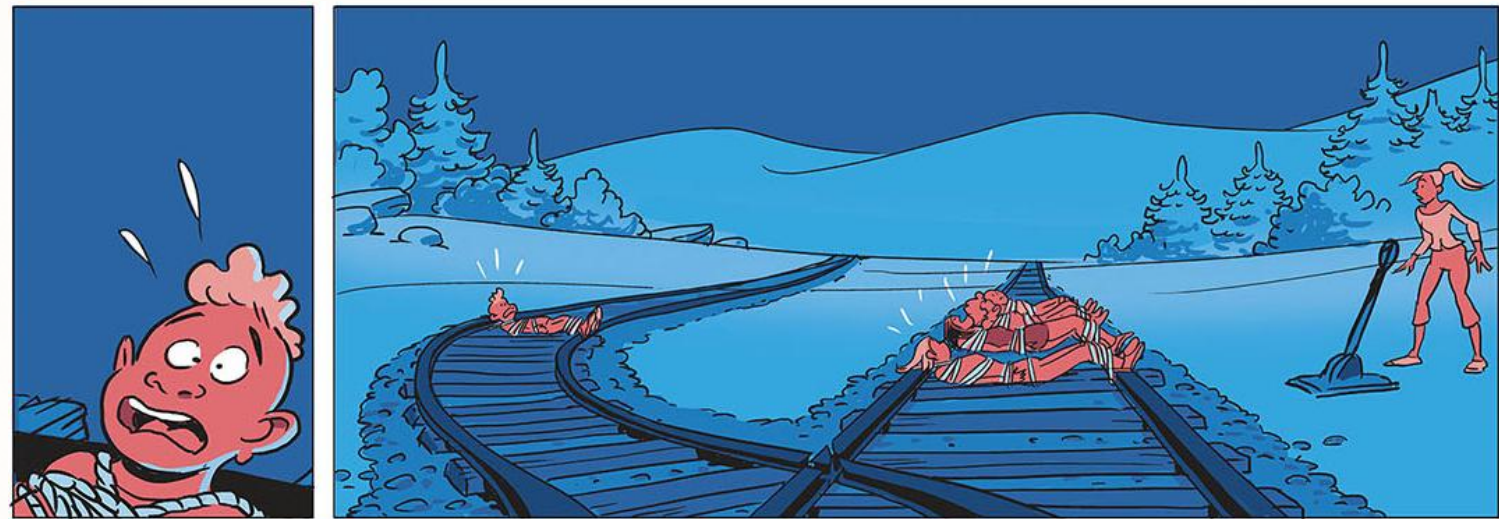
Fancy stuff I am currently working on

# Ongoing research

- Alignment and biases of LLMs
- Can Critical Thinking Skills Help Us Recognize Misinformation better?
- ITINERARE - A Swiss Perspective on Rare Disease Resource Allocation
- PSA PrEpidemiology: Exploring Public Preferences and Knowledge in PSA Screening for Prostate Cancer in Switzerland
- SPEAK: SPeech-to-text Evaluation and Analysis of ICU Knowledge among the elderly
- NRP80 - Boosting Public Discourse: Towards a Targeted, Evidence-Based Strategy to Improve Moral Reasoning
- Ethics teaching with graphic novels
- **TERA - Translating Ethics into Regulations and Action**



# Graphic novels



# Music

Experimental project blending **music with science and ethics.**

Translate complex **scientific and ethical concepts into an emotional and sensory experience.**

Invites listeners to **feel science:** its beauty, uncertainty, and consequences, through music.

The project aims to communicate science (**each song is based on a paper**), engage curiosity, provoke reflection, and create a space where **art and knowledge intersect.**

Find out more: <https://www.giovanispitale.net/ono-sendai-songs-of-science-vol-1/>



# TERA – Translating Ethics into Regulatory Action

# Why TERA?



## Der Einfluss von Zustimmungsmodellen, Spenderegistern und Angehörigen-Entscheid auf die Organspende

Eine Beurteilung der aktuellen Literatur

Markus Christen, Holger Baumann, Giovanni Spitalè

17.12.2024

**A pairing scheme is bringing researchers and members of Parliament together. Thirteen researchers from NRP 80 are currently taking part in this unique nationwide initiative.**

The Covid-19 pandemic highlighted the challenges involved in the dialogue between science and politics. Switzerland has taken note, and in 2023 introduced a [Code of Practice](#) on scientific policy advice and a [formalised system](#) for involving advisory groups before and during a crisis.



**Covid-19 in Society**  
National Research Programme

Senato, disegno di legge presentato da [Rosanna FILIPPIN \(PD\)](#)

**Modifica del Regio decreto 18 giugno 1931, n. 773, recante il Testo Unico delle leggi di Pubblica Sicurezza, in materia di donazioni di organi e tessuti ex vivo**

presentato il: **06/07/2016** tipo di iniziativa: **Parlamentare** [link alla fonte](#)

ultimo status: **25/10/2016 Senato: assegnato (non ancora iniziato l'esame)** [tutti gli status](#) [ [apri](#) ]

iter parlamentare del disegno di legge:

06/07/2016 **S.2465**

presentato al Senato

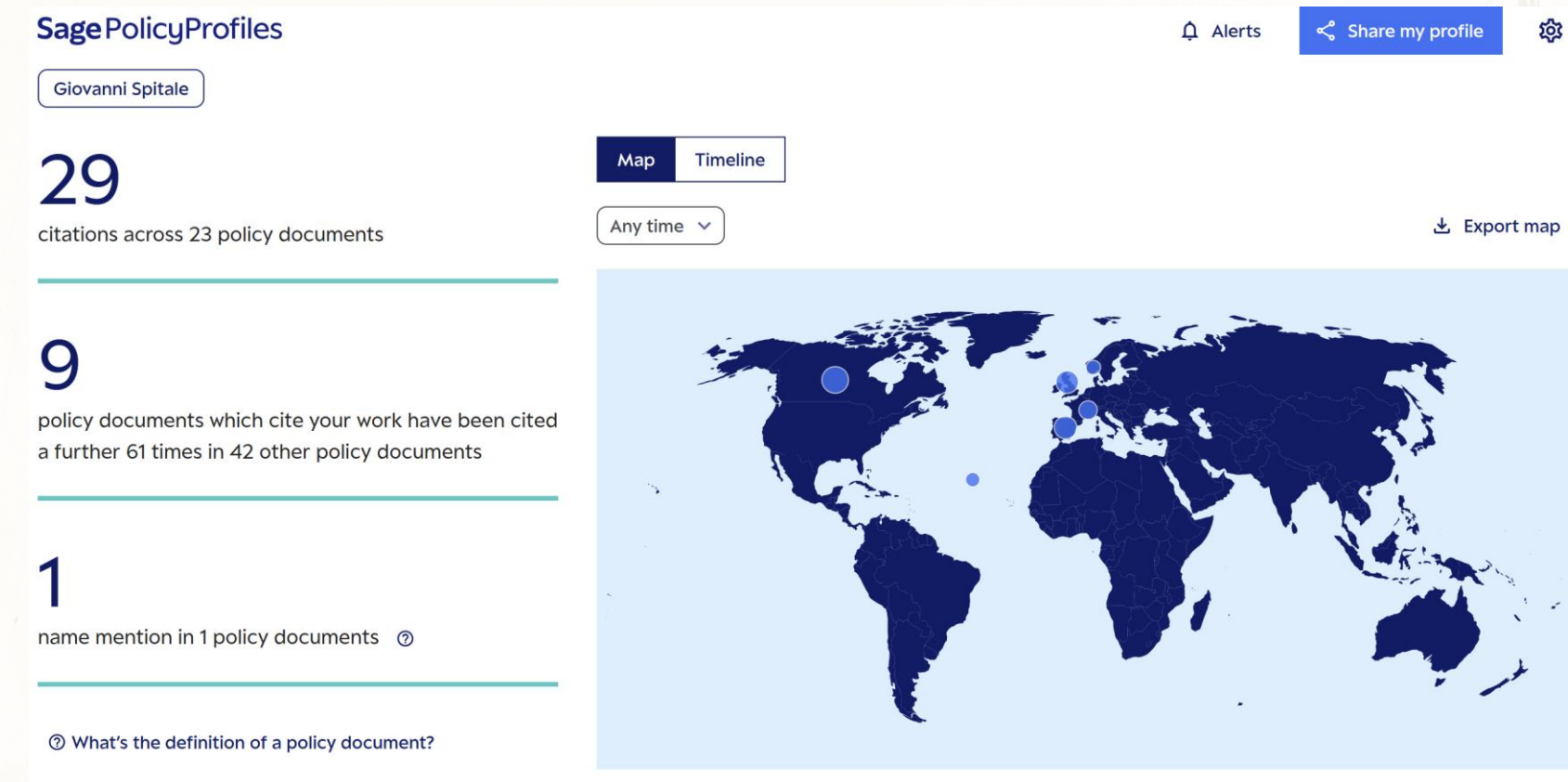
**S.2465**

da approvare al Senato

da approvare alla Camera

diventa legge

## Why TERA?



### What's the definition of a policy document?

There isn't a broadly accepted, pragmatic definition of what a "policy document" is. The data used in [Sage Policy Profiles](#) comes from [Overton](#), who define policy documents very broadly as **documents written primarily for or by policymakers that are published by a policy focused source.**

This includes policy documents from **governments** and **official bodies** but also from **IGOs**, some **NGOs** and **think tanks.**

# Why TERA?

- Ethical insights **often remain abstract**, limiting their real-world impact.
- **I care about “true impact”** – on people’s life, not about impact factor.
- The concept of 'translation' is widely used in bioethics – but to date **a mapping of what we are translating was missing**.
- This study maps **which structured ethical concepts are actually discussed** in relation to translation to regulations.
- It’s a cool acronym!

# Types of translation

1. Ethical ideas **from one form of expression to another**, e.g. from academic jargon to accessible language for broader understanding.
2. Ethical ideas **to action-guiding statements**, i.e. interpreting and applying ethical principles or guidelines in specific, practical contexts. From high-level ethical principles to concrete action-guiding policies.
3. Translation **across domains of knowledge production**, i.e. moving structured ethical ideas (e.g., theories, frameworks) from academia into regulatory, clinical, or governance contexts (focus of this paper).

# Aims of the study

- To **map the biomedical literature** on how structured ethical concepts, e.g. principles, frameworks, or theories, are translated into policy, regulation, and governance tools.
- To identify which **ethical topics are gaining or losing prominence** over time in this ethics-to-policy interface (2014–2024), using keyword frequency and trend metrics.
- To uncover and analyze **clusters of thematically related keywords**, using network analysis to reveal how ethics-related concepts group together in the literature.

# Methods and dataset

Corpus: 1,014 PubMed records from 2014–2024.

Pipeline: smart querying via TopicTracker; keyword frequency and trends + co-occurrence network (Gephi); manual thematic cluster analysis.

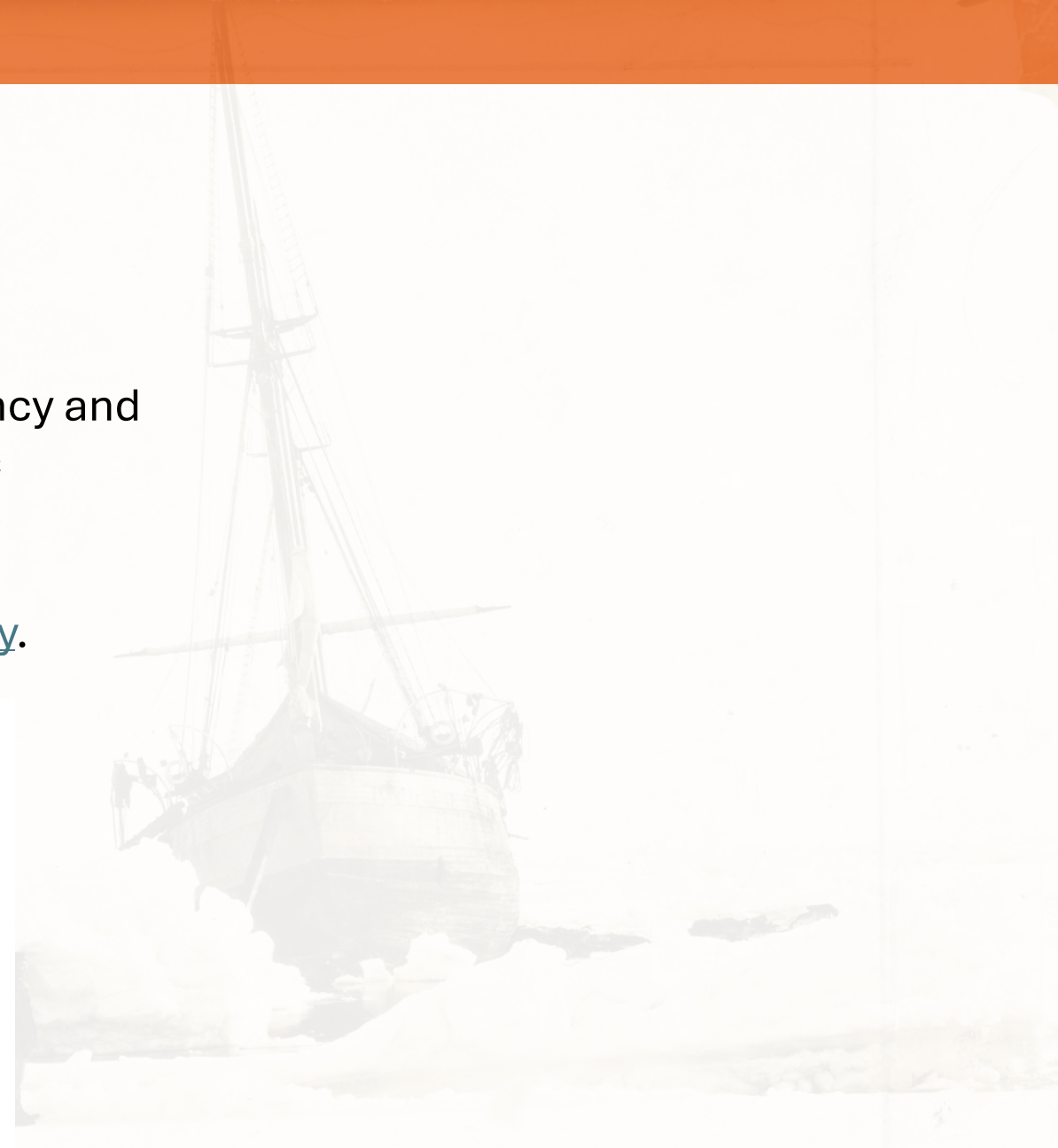
All materials (data and code) available in an [OSF repository](#).

**TopicTracker – An advanced software pipeline for text mining on PubMed data: Bridging the gap between off-the-shelf tools and code based approaches**

Giovanni Spitale <sup>1 2</sup>, Federico Germani <sup>1</sup>, Nikola Biller-Andorno <sup>1</sup>

Affiliations + expand

PMID: 39281629 PMCID: PMC11399583 DOI: 10.1016/j.heliyon.2024.e36351



## Query

((("ethics"[TiAb] OR "ethic"[TiAb] OR "ethical"[TiAb] OR "ethics"[MeSH Terms] OR "bioethics"[TiAb] OR "bioethic"[TiAb] OR "bioethical"[TiAb] OR "bioethics"[MeSH Terms]))

AND ("framework"[TiAb] OR "frameworks"[TiAb] OR "principles"[TiAb] OR "model"[TiAb] OR "models"[TiAb] OR "theory"[TiAb] OR "theories"[TiAb]))

AND (("translation"[TiAb] OR "translations"[TiAb] OR "translating"[TiAb] OR "translate"[TiAb] OR "translates"[TiAb] OR "translated"[TiAb] OR "implementation"[TiAb] OR "implementations"[TiAb] OR "implementing"[TiAb] OR "implement"[TiAb] OR "implements"[TiAb] OR "implemented" OR "enforcement"[TiAb] OR "enforcements"[TiAb] OR "enforcing"[TiAb] OR "enforce"[TiAb] OR "enforces"[TiAb] OR "enforced"[TiAb] OR "impact"[TiAb] OR "impacts"[TiAb] OR "effect"[TiAb] OR "effects"[TiAb]))

AND ("policy"[TiAb] OR "policies"[TiAb] OR "policy making"[MeSH Terms] OR "health policy"[MeSH Terms] OR "public policy"[MeSH Terms] OR "policy"[MeSH Terms] OR "governance"[TiAb] OR "guidance"[TiAb] OR "guidelines"[TiAb] OR "regulation"[TiAb] OR "regulations"[TiAb] OR "law"[TiAb] OR "laws"[TiAb]))

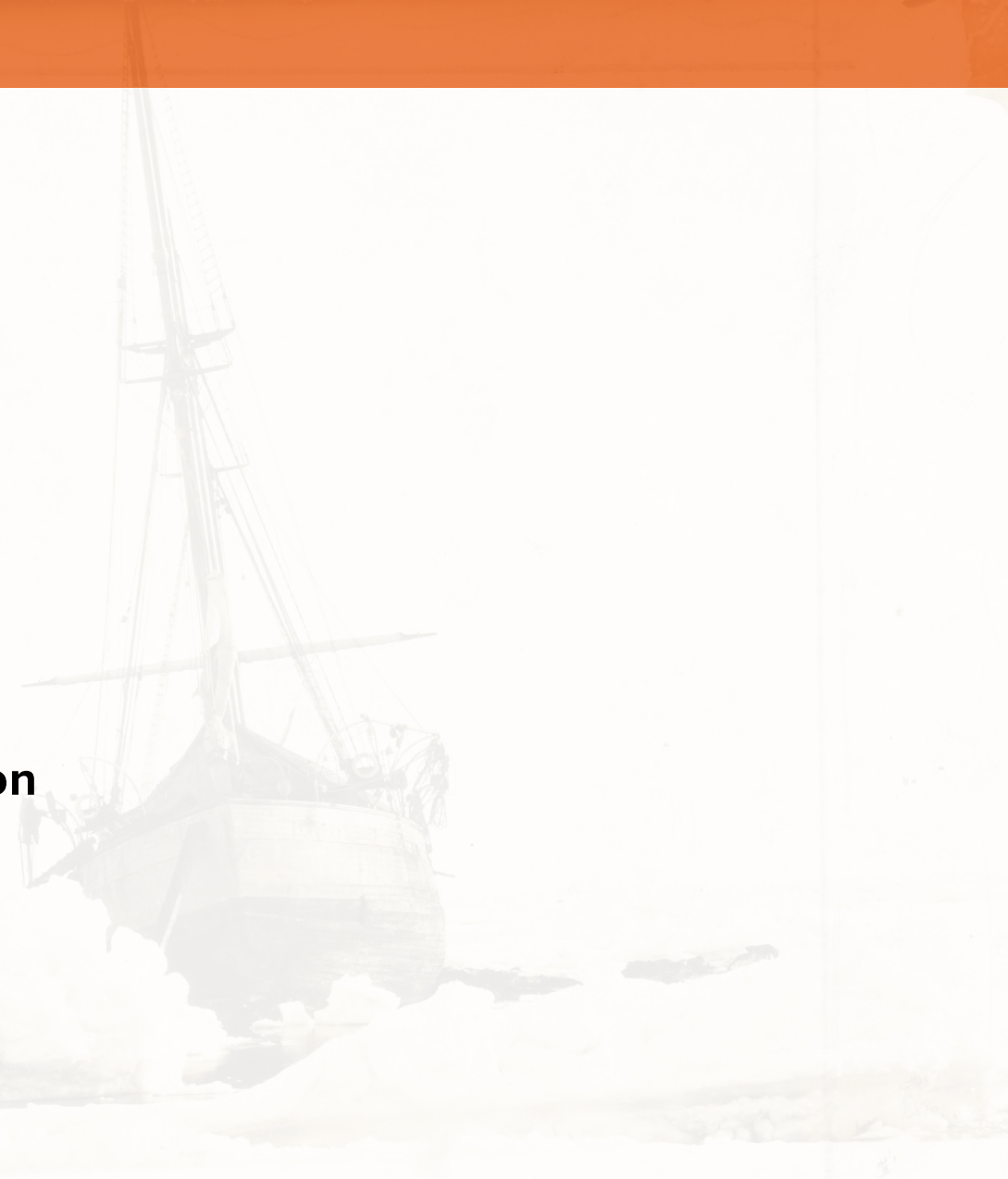
AND (Evaluation Study[Publication Type] OR Validation Study[Publication Type] OR Observational Study[Publication Type] OR Review[Publication Type] OR Systematic Review[Publication Type] OR Meta-Analysis[Publication Type] OR Guideline[Publication Type] OR Practice Guideline[Publication Type] OR Consensus Development Conference[Publication Type] OR Government Publication[Publication Type] OR Technical Report[Publication Type] OR Expression of Concern[Publication Type])

AND English[Language]

AND (2014:2024[pdat])

# Frequency analysis

- "Ethics" – **most frequent keyword** (not really a surprise...)
- "Artificial intelligence" – **second highest (0.60)**, reflecting growing relevance in health ethics
- Other frequent terms: **"health policy," "public health," "policy," and "research ethics"**
- Caveat: **trends show prominence, not depth. Interpretation should remain cautious.**



# Trend analysis

## Going up:

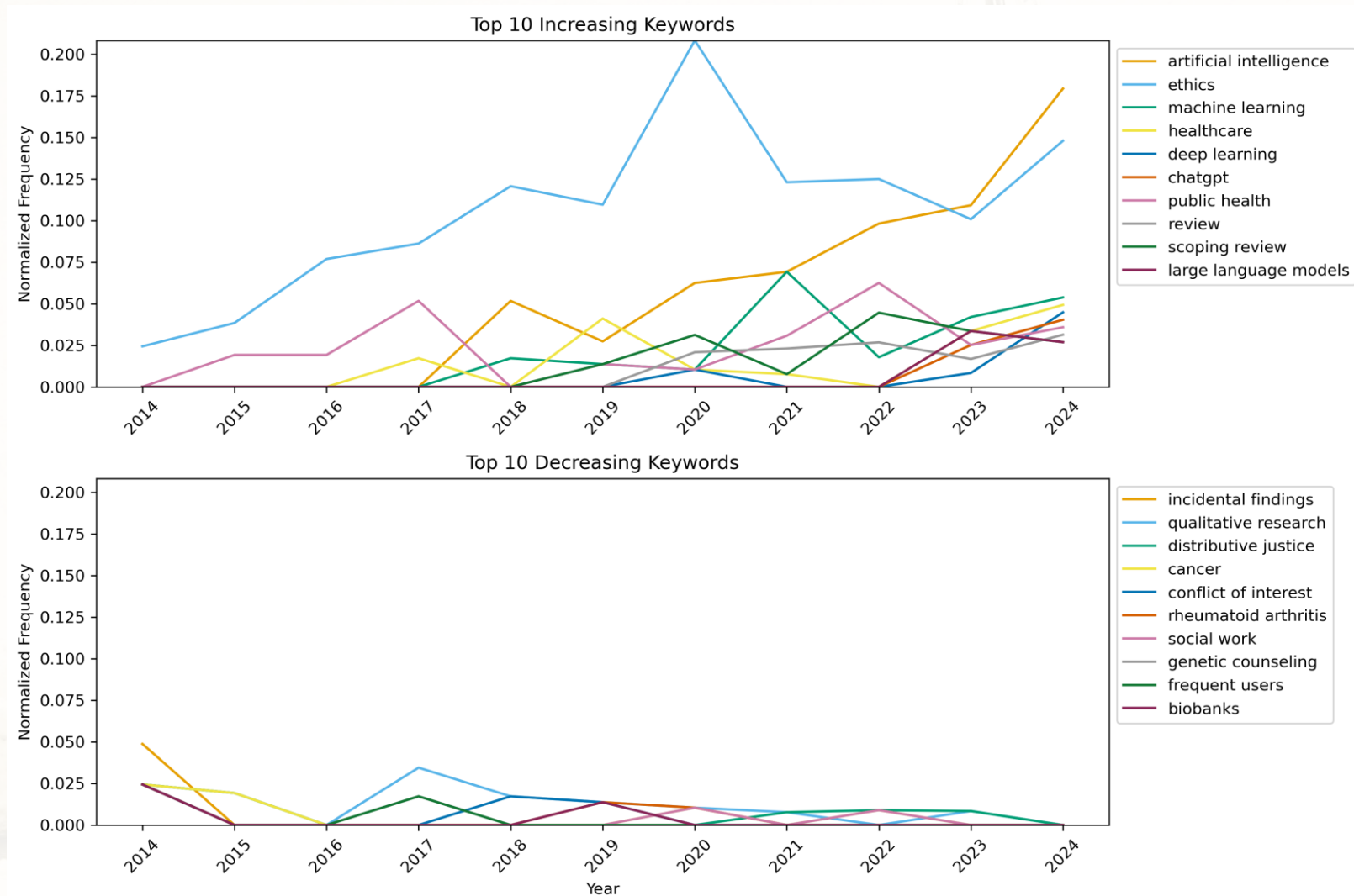
- "Artificial intelligence" had the strongest positive trend (+0.179)
- Others on the rise:
  - "Machine learning" (+0.053)
  - "Deep learning" (+0.044)
  - "ChatGPT" (+0.040)
  - "Scoping review" (+0.027)

## Going down:

- Small declines overall; most topics are stable or growing
  - "Incidental findings" had the largest drop (-0.049)
  - Other slight declines: "qualitative research," "distributive justice," "cancer," "conflict of interest"



# Trend analysis

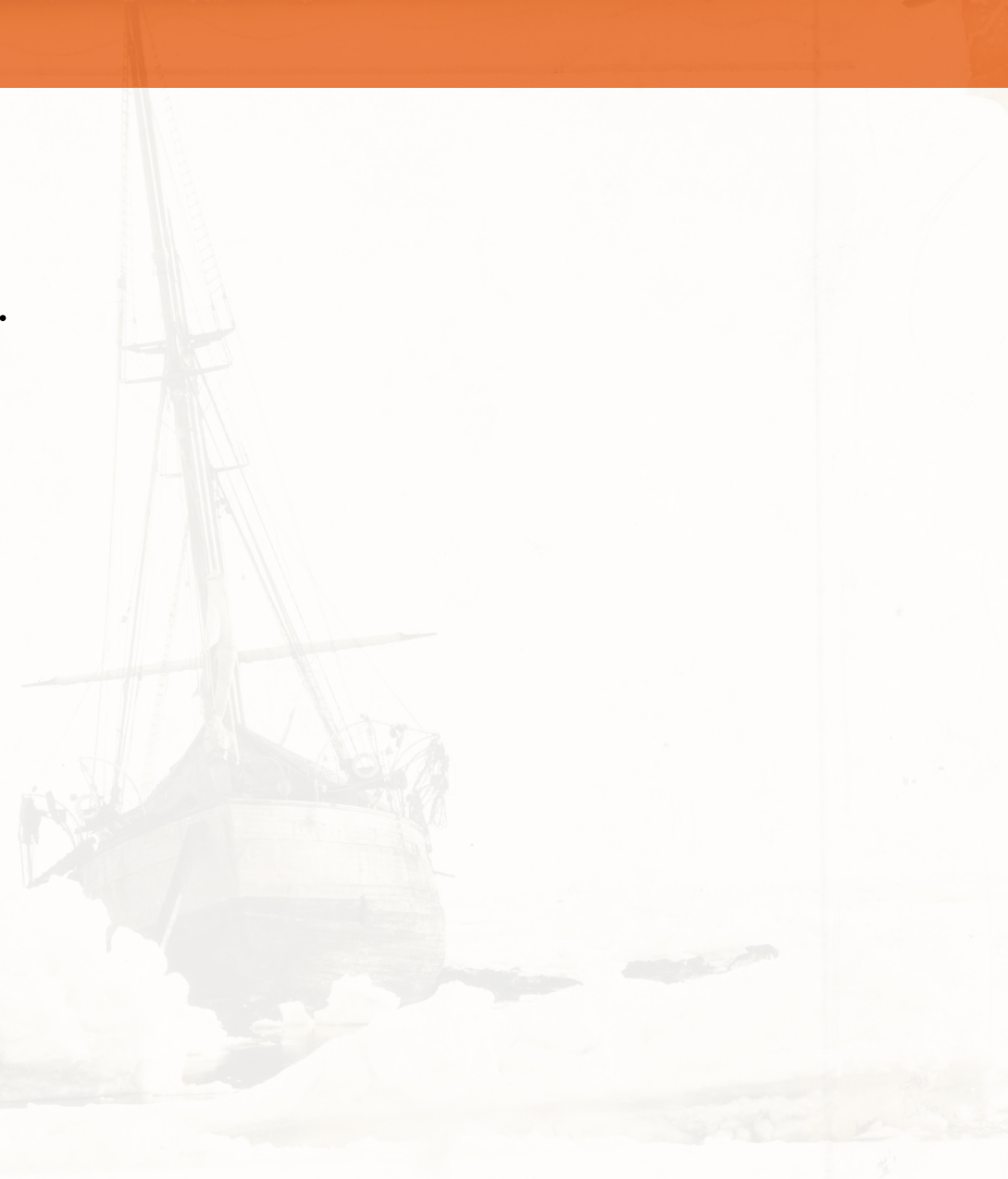


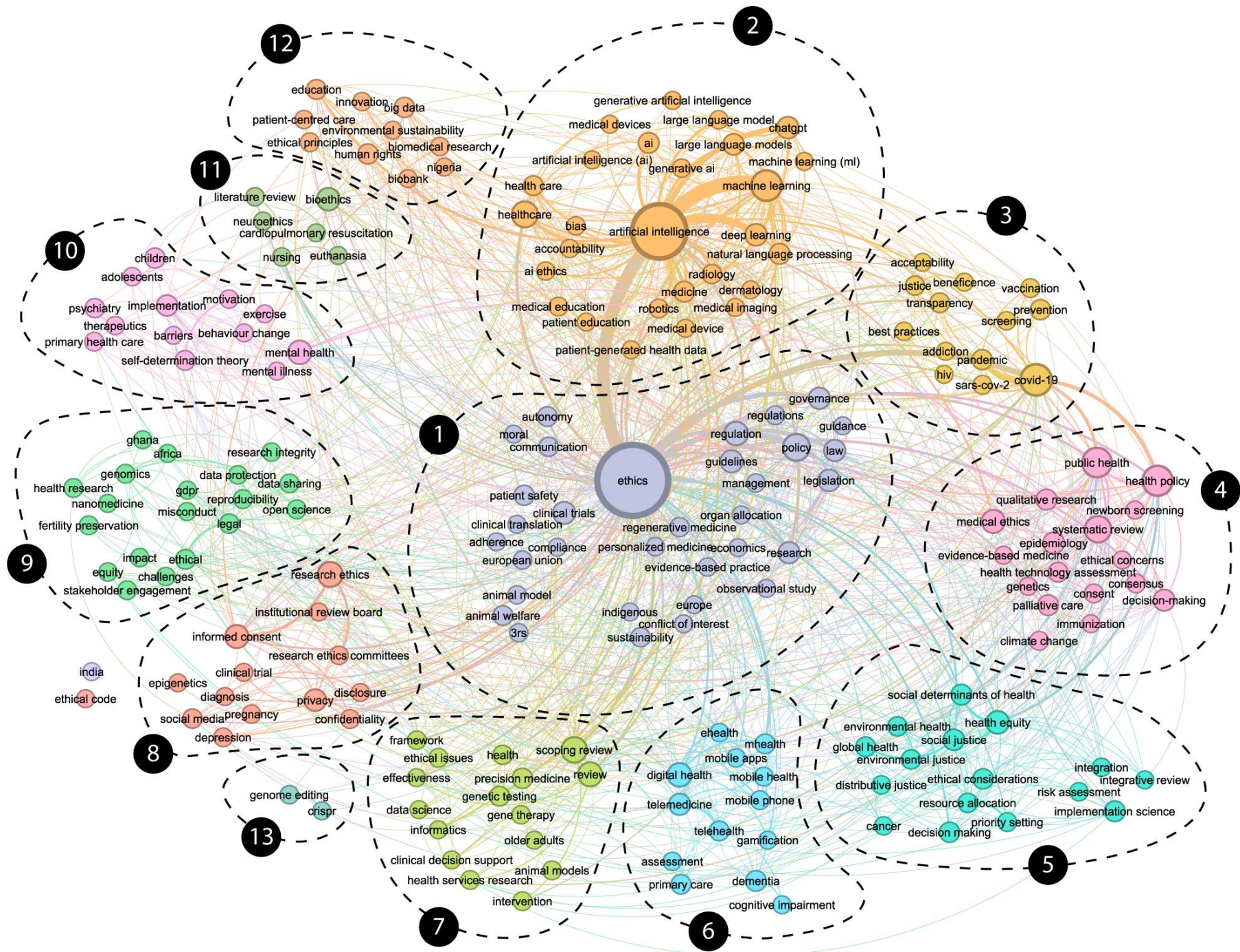
# Network analysis

Co-occurrence network of **top 200 keywords** built using Gephi.

Keywords grouped into **13 thematic clusters** using MCA(modularity class analysis) – based on co-occurrence patterns (*quantitative relatedness*).

Node size = frequency (normalized); edges = co-occurrence (normalized) strength; color and topology = cluster.



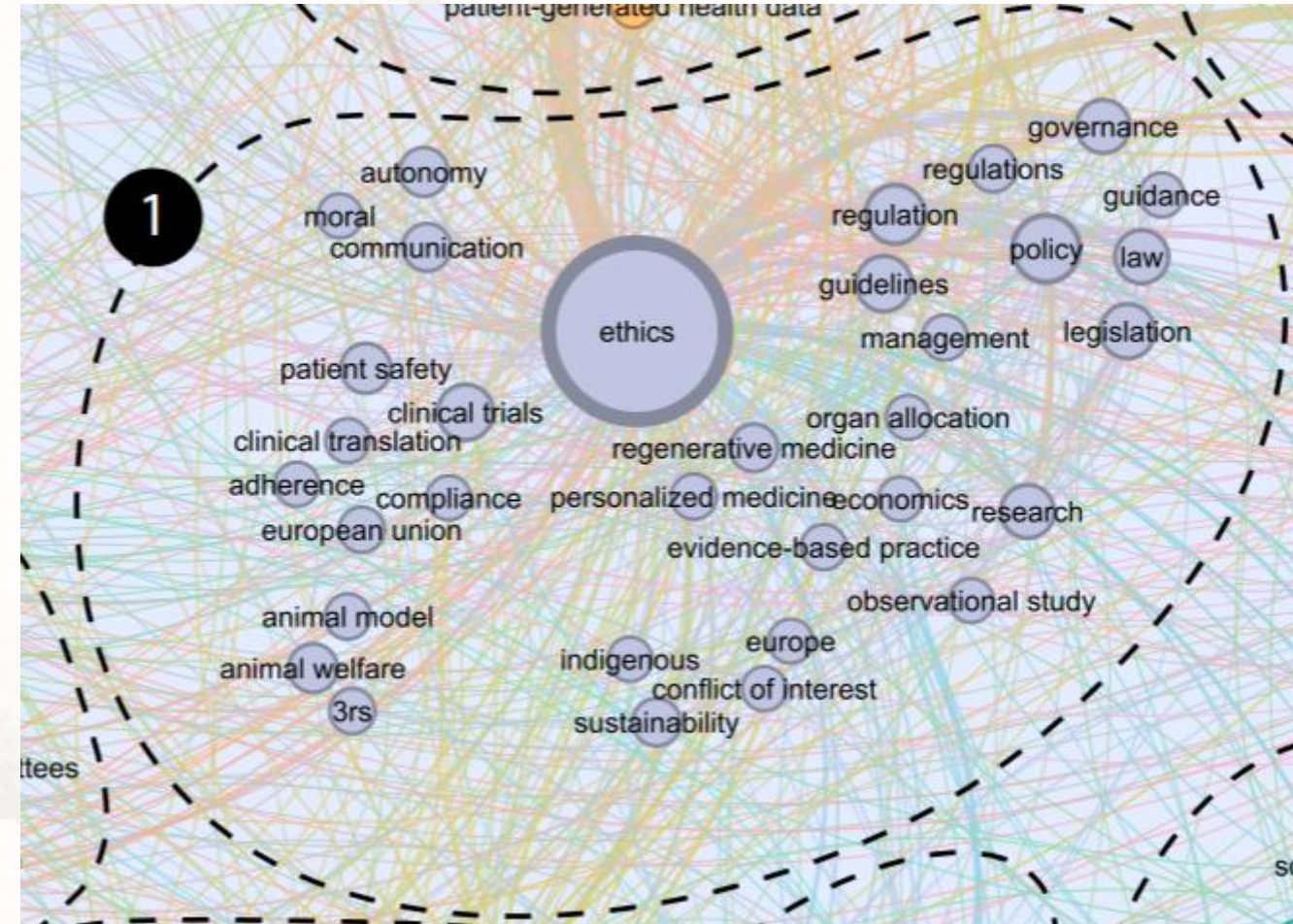


# Cluster 1: Core Ethics

How the academic literature conceptualizes the **relationship between ethics and governance** within biomedical contexts.

**Clinical trials and translational research** feature prominently, with a focus on **ethical oversight**.

Extends to **preclinical research**. Touches on **communication and stakeholder interaction**, exploring how autonomy and moral considerations influence decision-making processes in healthcare and research.



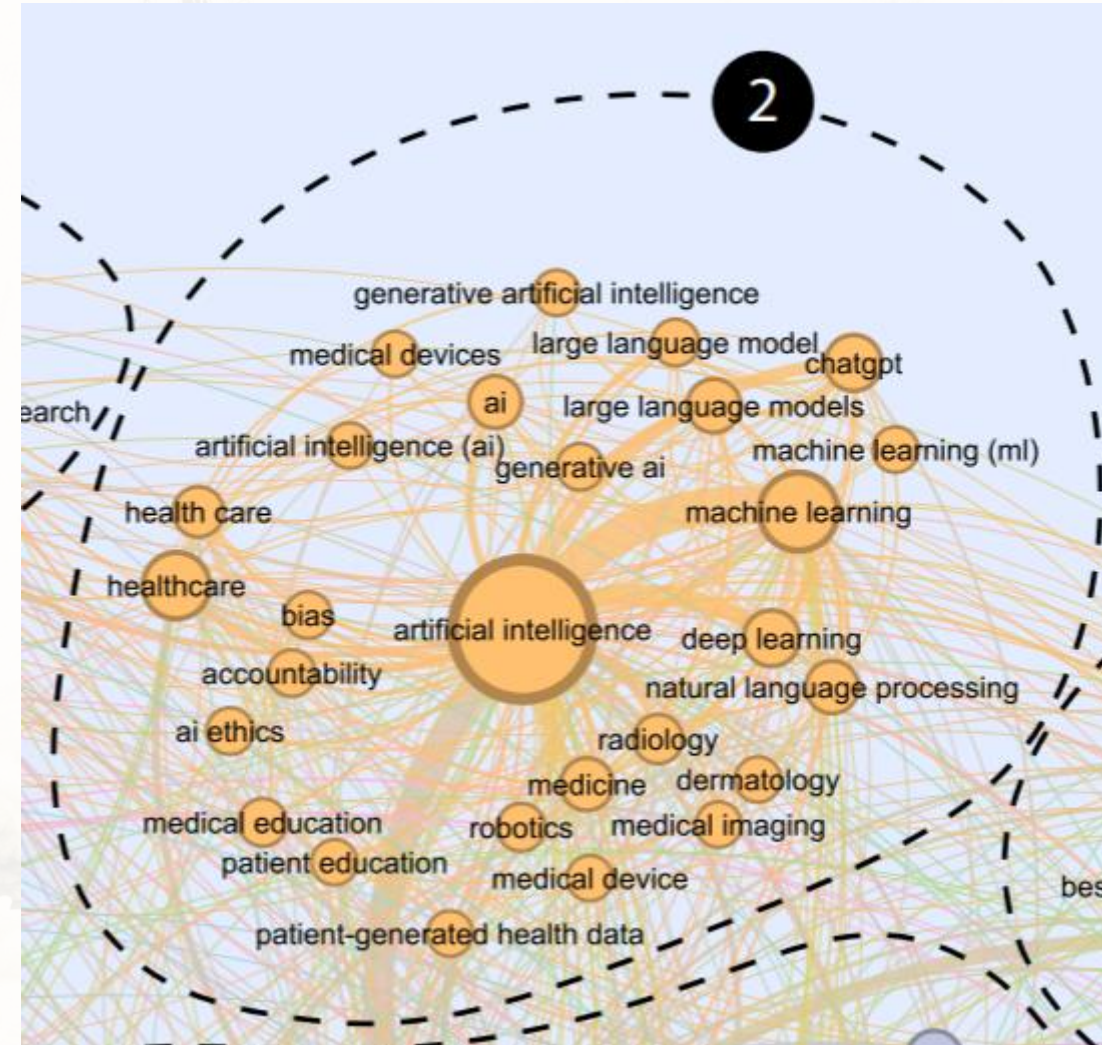
# Cluster 2: Artificial Intelligence

Integration of **artificial intelligence** into healthcare.

Highlights the transformative potential of technologies in fields like **diagnostics, medical imaging, and robotics**.

Ethical issues such as **algorithmic bias, accountability, and transparency** remain central.

How AI tools are **reshaping medical and patient education**.



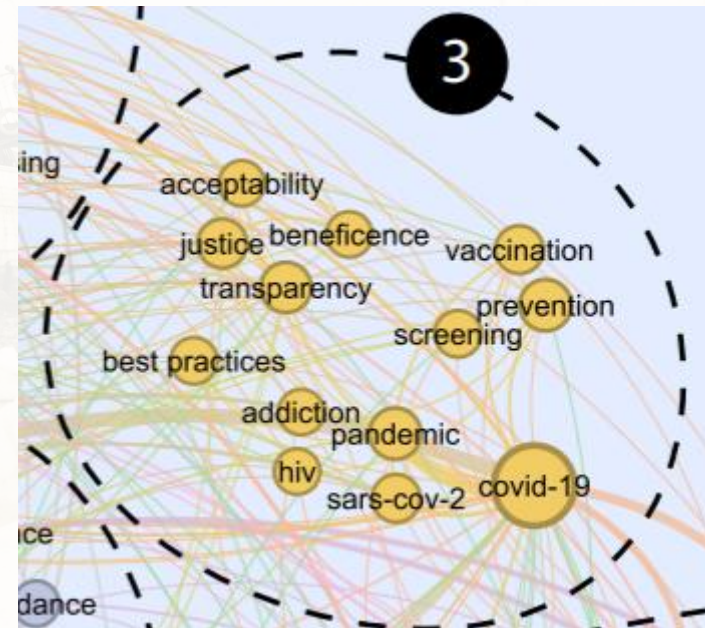
# Cluster 3: Ethics in Public Health During Crises

Role of ethical principles in **guiding public health responses during crises** such as pandemics and infectious disease outbreaks.

**Justice, beneficence, transparency, and societal acceptability** emerge as foundational principles.

Examines key interventions like **vaccination campaigns, preventive strategies, and screening programs.**

Crises such as COVID-19 reveal the **strain on ethical frameworks due to the urgency of decisions**, resource allocation challenges, and the need for public compliance.

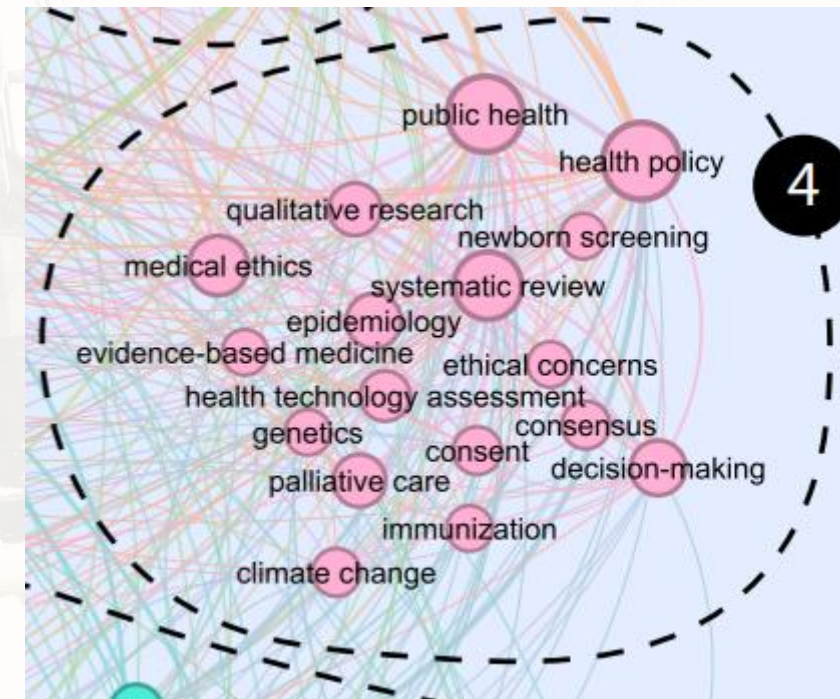


# Cluster 4: Ethical Decision-Making in Public Health

Explores the **integration of ethical considerations into public health policy** and decision-making.

It reflects on the **role of governance systems in addressing societal challenges while ensuring ethical standards**, with a focus on **consent, equity, and justice**.

**Evidence-based methodologies** such as health technology assessments and systematic reviews are highlighted as **essential tools**.



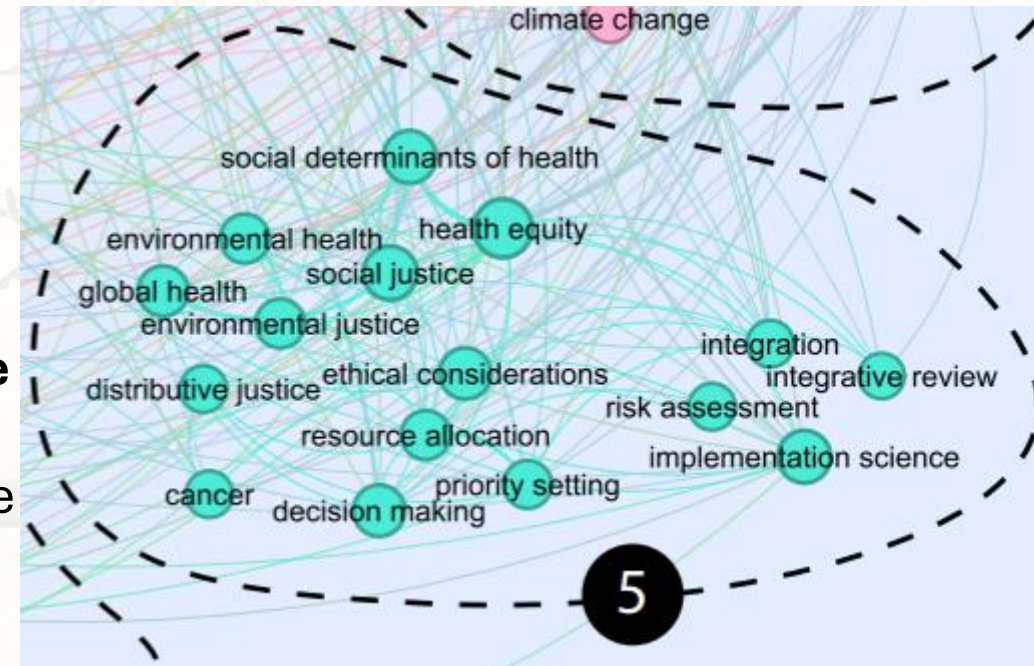
# Cluster 5: Justice and Equity in Global/Environmental Health

Examines the **intersection of global and environmental health challenges with ethical principles**, focusing on **justice and equity**.

Explores how **resource allocation and priority setting** can address health disparities.

Concepts such as **health equity, social justice, environmental justice, and distributive justice**, provide the **foundation** for developing equitable public health policies.

The cluster also highlights **methodological tools like integrative reviews, risk assessments, and implementation science**, which support the translation of ethical principles into actionable interventions.

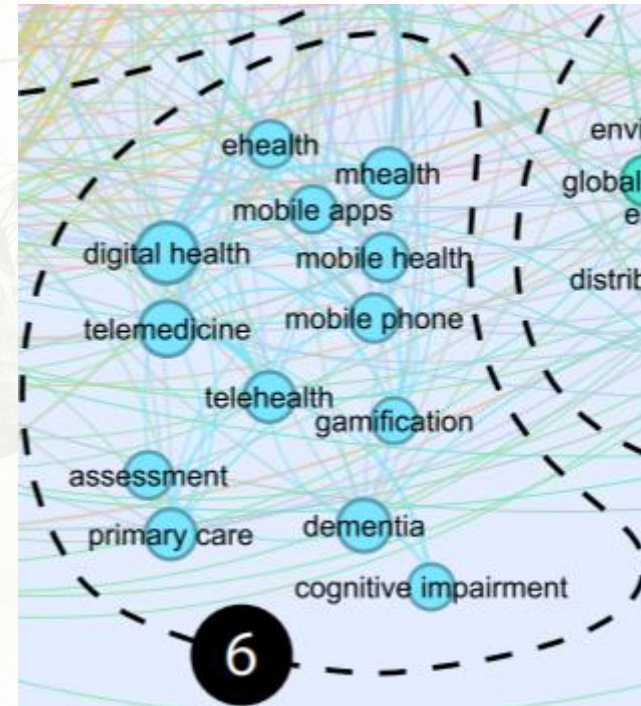


# Cluster 6: Mobile Health and Apps

Tools like **telemedicine, eHealth, and mobile apps** are transforming healthcare by improving accessibility, enhancing communication, and enabling remote patient management.

Focuses on their application in **general primary care**, and in addressing **cognitive health challenges**, particularly in patients with dementia or cognitive impairment.

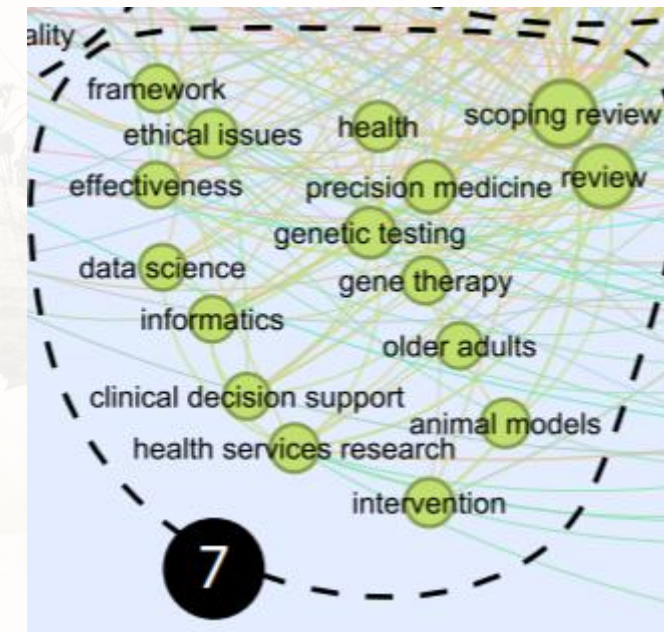
Practical applications of these technologies include **early assessment and primary care**, where mobile health solutions help bridge gaps in healthcare delivery and provide tailored interventions for underserved populations.



# Cluster 7: Reviews as Tools for Policy Translation

**Importance of reviews**, particularly scoping reviews, in **bridging the gap between ethics and policy**.

Reviews serve as a structured approach for **synthesizing evidence, identifying gaps, informing ethical frameworks, evaluating the effectiveness of health services and interventions**, ensuring that policies align with ethical principles while being evidence-based.

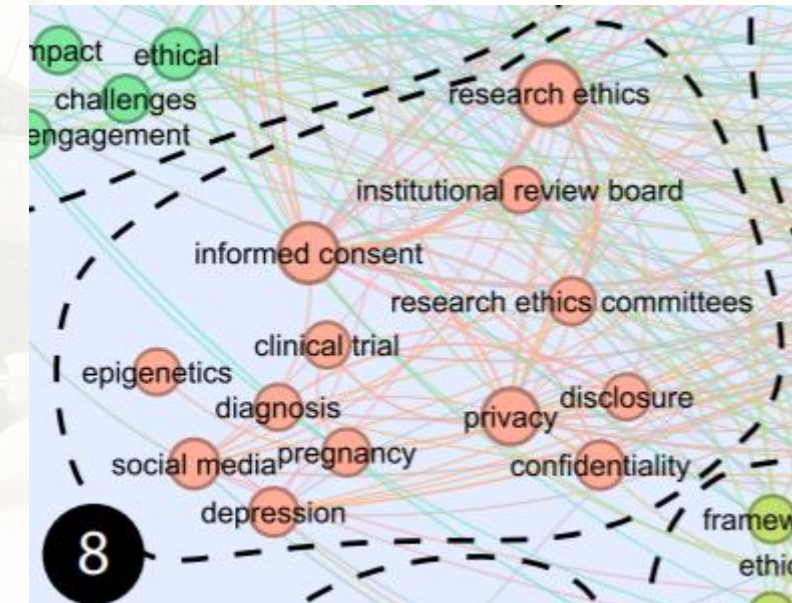


# Cluster 8: Research Ethics and Oversight

**Ethical governance of research practices**, emphasizing the role of **institutional review boards and research ethics committees** in ensuring compliance.

Core ethical principles such as **informed consent, privacy, confidentiality, and disclosure** are central to discussions about safeguarding participant rights and maintaining trust.

Applied challenges in research include **ethical considerations in clinical trials, diagnosis**, and emerging fields like **epigenetics and pregnancy research**.



# Cluster 9: Integrity, Equity, and Innovation in Health Research

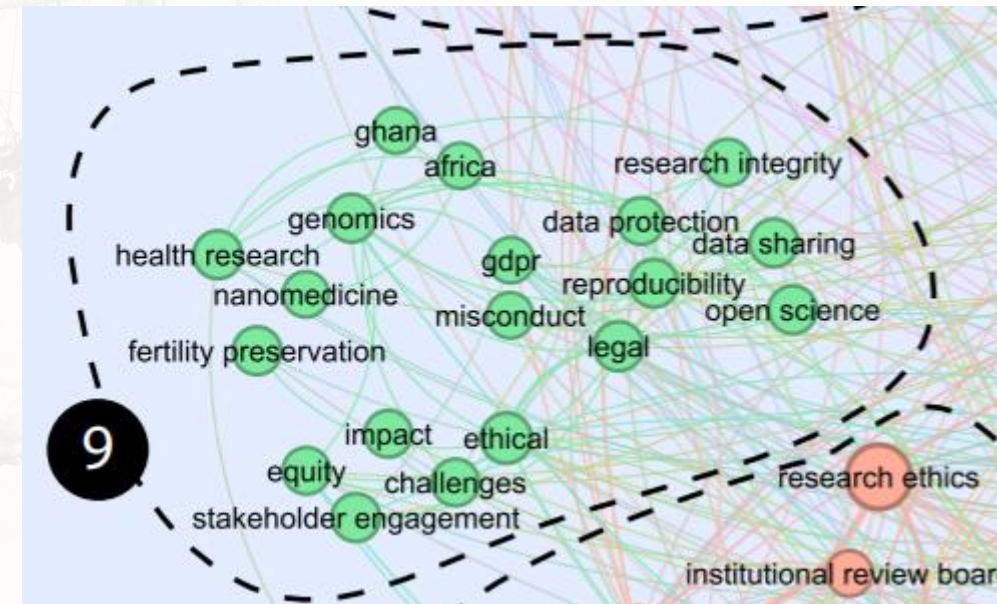
Interplay between **research integrity, ethical innovation, and equity in health research.**

**Transparency, data sharing, and open science** are identified as critical elements in fostering trust and collaboration.

The cluster examines applications in **genomics, nanomedicine, and fertility preservation.**

**Equity and stakeholder engagement** are highlighted as essential for ensuring that health research aligns with societal values and addresses ethical challenges.

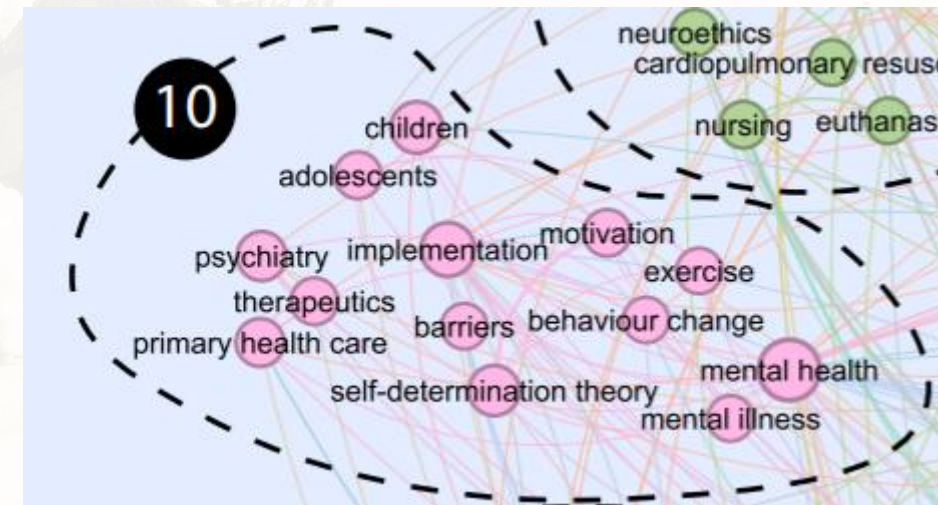
Regional perspectives, including discussions about Africa and countries like Ghana, add depth to the cluster by emphasizing context-specific issues.



# Cluster 10: Mental Health and Illness

Terms associated with **mental health and mental illness**, with a **focus on behavioral and motivational aspects, population-specific considerations, healthcare contexts, and implementation challenges**.

The connections between the terms suggest potential areas of discussion, including the **role of exercise and motivation** in behavior change, the **mental health needs** of children and adolescents, and **barriers to implementation** in primary healthcare and psychiatry.

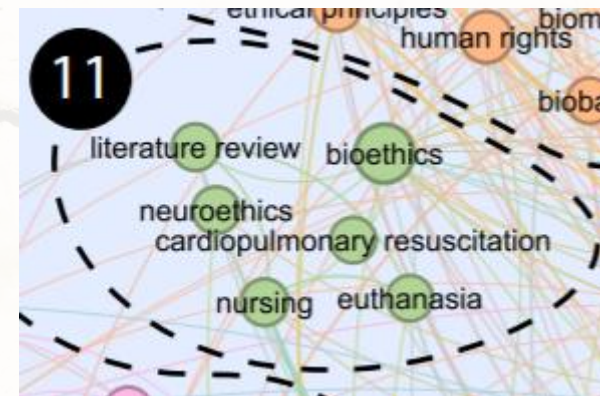


# Cluster 11: Ethics at the Margins of Life

Ethical dilemmas that arise at the boundaries of life and death, encompassing issues such as **cardiopulmonary resuscitation, euthanasia, and end-of-life care** within the domains of bioethics and neuroethics.

The inclusion of **nursing** highlights the role of healthcare professionals in navigating these morally complex situations, where medical, ethical, and legal considerations intersect.

**Literature reviews** within this cluster suggest a **reflective and analytical approach** to these debates, consolidating discussions on autonomy, dignity, and the ethical frameworks that guide decision-making in critical and often irreversible moments.



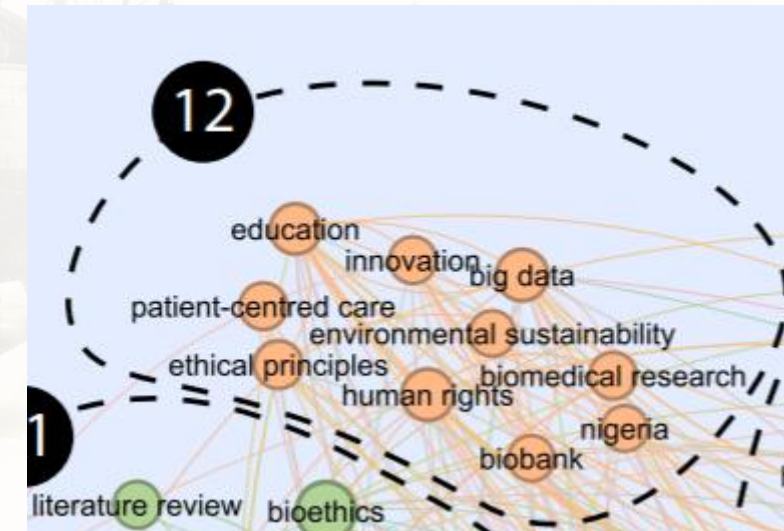
# Cluster 12: Patient-Centeredness, Education, and Innovation

Central role of **patient-centered care and education** in biomedical research and healthcare practices.

Adherence to **ethical principles and human rights** is highlighted as foundational to patient-centered approaches.

**Education** is framed as a **key enabler** for addressing emerging ethical challenges, particularly in the context of big data and technological innovation.

The cluster also explores how tools like **biobanks and big data** contribute to advancements in research, raising questions about the **balance between innovation and patient-centered ethical practices**.



# Cluster 13: Genome Editing and CRISPR/Cas9

Centers on **genome editing technologies**, particularly **CRISPR/Cas9**.



Explores the ethical, regulatory, and societal implications of these technologies, emphasizing the **need for robust frameworks** to guide their application in biomedical research and healthcare.



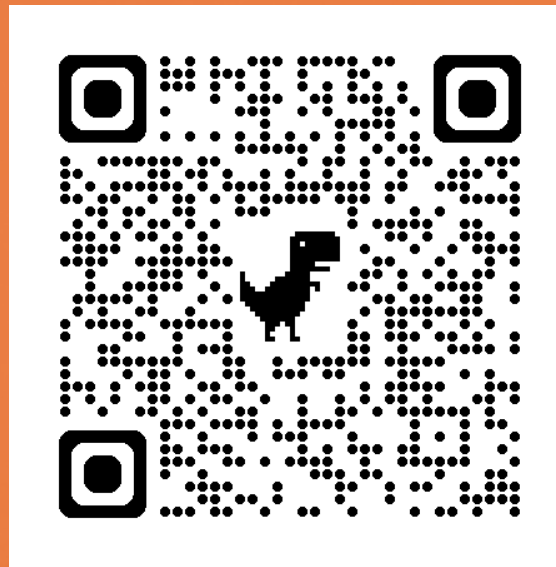
# Conclusions

- **Translational movements are dialectical:** ethics is reshaped by the **constraints, urgencies, and imaginaries of policy domains.**
- **Procedural values** (e.g., transparency, reflexivity, inclusion) are becoming **infrastructural to ethics-policy frameworks.**
- **Reviews and synthesis tools** (especially scoping reviews) act as **bridges between ethical theory and policy implementation.**
- **Ethics-to-policy translation is a civic craft:** not mere application, but an **ongoing negotiation of values** within social complexity.
- The field is **expanding and thickening:** new domains (**e.g. AI, public health emergencies**) are redefining what counts as ethical terrain.

## Next steps

- What do we talk about when we talk about translating complex ethical ideas in regulation? **Done**   
**(feedback and questions are welcome).**
- How engaged are we (i.e. European bioethicists) in ethics-to-policy translations? **To do** 
  - Survey to map out how many of us are doing translational work, in which domains, barriers and enabling factors, ... **(ideas are welcome).**

# Thanks for your patience!



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