

Society 5.0 Ethics

A Festival of Ideas



An Engaging for Impact Event | 17 - 18 June



Enabling Impact
Platforms

Social Change



Utrecht
University

Day Two



Welcome

Professor Annette Markham
Utrecht University

*Chair Professor of Future Data Literacies and Public
Engagement*



Acknowledgement of Country

RMIT University acknowledges the people of the Woi wurrung and Boon wurrung language groups of the eastern Kulin Nation on whose unceded lands we conduct the business of the University.

RMIT University respectfully acknowledges their Ancestors and Elders, past and present.

RMIT also acknowledges the Traditional Custodians and their Ancestors of the lands and waters across Australia where we conduct our business.

Artwork 'Luwaytini' by Mark Cleaver, Palawa

Day Two



Alice Edy – Graphic Illustrator

Today we are being joined by a Graphic Recorder, Alice, to help capture our thinking.

She will be creating a live visual representation of our sessions today, which will be made available to you on a request basis. You can email your request to Kelly Foo at kelly.foo@rmit.edu.au.



Auslan Translator

Day Two



RMIT Guest Wi-Fi network

Wi-Fi Passcode

471112

An Engaging for Impact Event

Thank you!

The Society 5.0 Ethics Organising Committee would like to thank everyone who supported this event and helped to make it a success, including:

- Enabling Impact Platform Strategic Impact Fund
- ARC Centre of Excellence for Automated Decision-Making and Society
- RMIT Enabling Impact Platforms
- RMIT School of Computing Technologies
- RMIT Research and Innovation Capability
- Utrecht University
- Media

SCAN TO EXPLORE FURTHER



CONTACTS

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Prof Annette Markham | Email: a.n.markham@uu.nl

Kelly Foo | Email: kelly.foo@rmit.edu.au





Keynote

Big Tech, AI, and Reclaiming the Future

Associate Professor Julia Powles
University of Western Australia

Director of the UWA Tech & Policy Lab and Associate Professor of Law and Technology

BIG TECH, AI, AND RECLAIMING THE FUTURE

Society 5:0 Ethics:
A Festival of Ideas
Melbourne, 18 June 2024

Associate Professor Julia Powles
Director, UWA Tech & Policy Lab



→ WHAT'S THE PROBLEM ? [DIAGNOSIS]

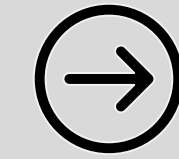
→ HOW DID WE GET HERE? [IMPUNITY]

→ WHERE ARE THEY TAKING US? [NARRATIVE]

→ WHAT DO WE DO? [PRESCRIPTION]



TECH &
POLICY
LAB



WHAT'S THE PROBLEM ? [DIAGNOSIS]

 Microsoft

amazon



Google

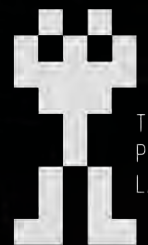


BIG TECH

- Grouping of firms
- Includes market leaders: Google/Alphabet, Apple, Microsoft, Amazon, Facebook/Meta, Tencent, Alibaba – and market makers: Uber, Airbnb, OpenAI
- Offering technology-based products and services
- Leveraging network effects
- Adopted by millions or billions of people
- Price: Money, behavioural surveillance or, increasingly, both

CHARACTERISTICS OF BIG TECH

- 'Blitzscaling': Prioritisation of speed and scale of growth over everything else
- Aim: rapid and total market domination
- Underpinned by unprecedented investments from venture capital firms
- Paradigmatically reckless



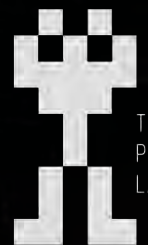
CONSEQUENCES OF BIG TECH

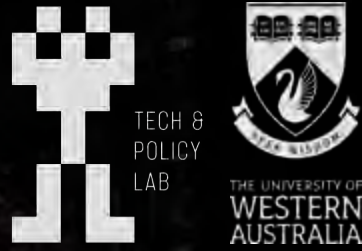
- Tremendously profitable
- Extraordinary stock prices and 'user' numbers
- Untrammelled public, media, and political influence
- Practices and conditions that, for a significant number of those who use or support these products, can be discriminatory, extractive, abusive, unsafe and, in some cases, deadly

CONSEQUENCES OF BIG TECH

- Empirically demonstrated causal links with: psychological illness, body dysmorphia and eating disorders, sexual violence, human trafficking, hate speech, fraud, mis/disinformation, legal and regulatory evasion, political insurrection, and genocide
- Modest legal penalties, in “confined, carefully domesticated areas of law”: privacy and data protection law, competition law (antitrust), consumer law, and employment law

J. Powles, 'The Corporate Culpability of Big Tech' in E. Bant (Ed.), *The Culpable Corporate Mind* (Hart Publishing, Oxford: 2023), 97-115.





➔ HOW DID WE GET HERE? [IMPUNITY]



BIG TECH IMPUNITY

J. Powles, 'The Corporate Culpability of Big Tech' in E. Bant (Ed.), *The Culpable Corporate Mind* (Hart Publishing, Oxford: 2023), 97-115.

Motivation: We need to address the paradox of Big Tech's small liabilities – and break the playbook of scandal, apology, and (marginal) penalty over short-lived media and political cycles.

global witness



'Now is the time to kill':
Facebook continues to approve hate speech inciting violence and genocide during civil war in Ethiopia

AVAAZ
THE WORLD IN ACTION

'Facebook could have prevented 10.1 billion estimated views for top-performing pages that repeatedly shared misinformation'



'Slave markets found on Instagram and other apps'

WSJ

'Facebook Knows Instagram is Toxic for Teenage Girls, Company Documents Show'

The Guardian

Uber broke laws, duped police and secretly lobbied governments, leak reveals

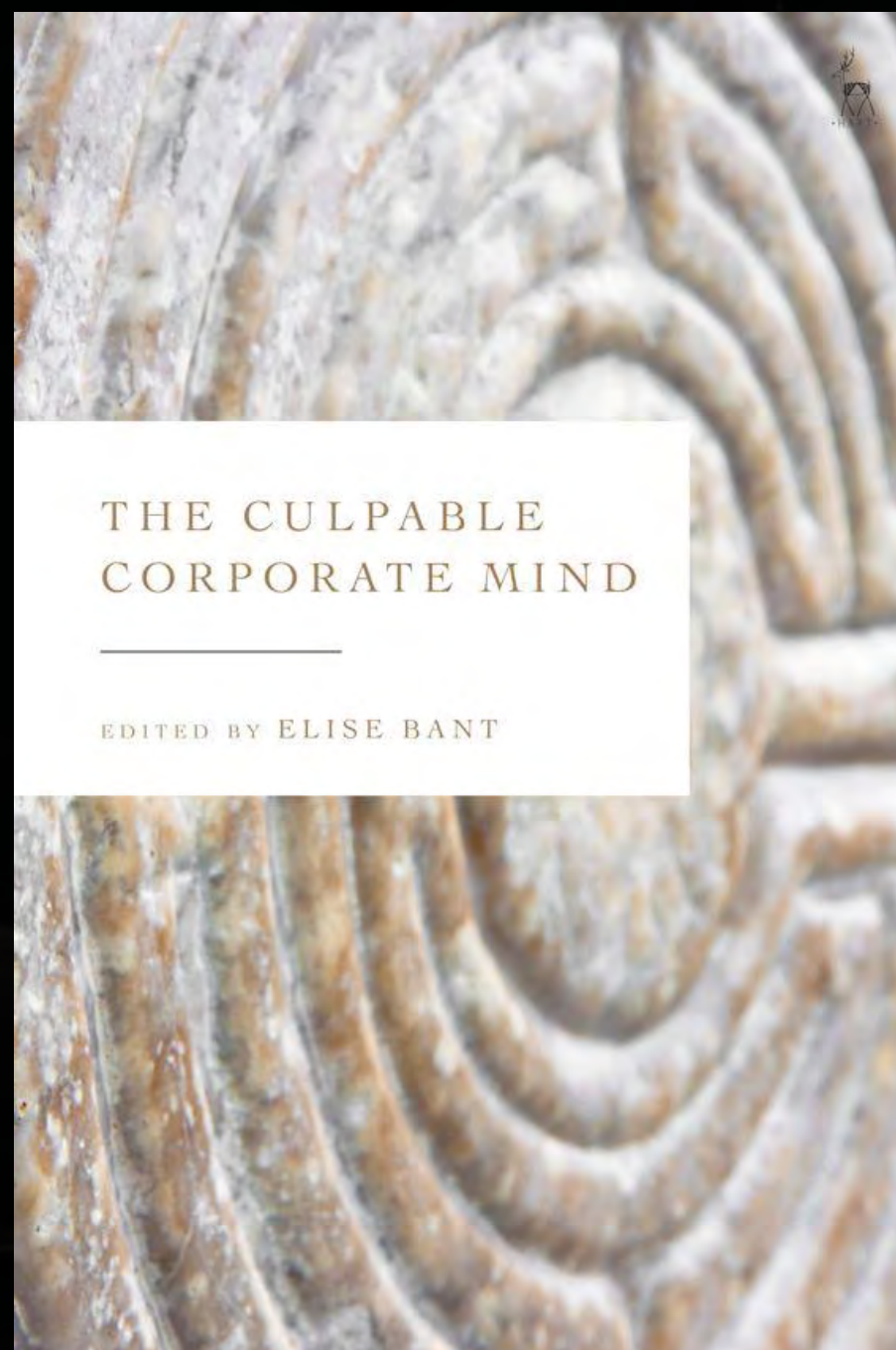


SOMETIMES...IT IS LAW TIME

Big Tech has been successful at dodging substantial legal liabilities. *Why? How?*

- Big Tech's elaborate practices of **jurisdictional and regulatory arbitrage** exploit, in particular, platform immunity under section 230 of the U.S. Communications Decency Act. The practical effect is that these companies are **insulated from (civil) legal consequence both at home and away**.
- **Rhetorics of disruption, innovation, and the promise of economic growth** also powerfully insulate Big Tech.
- Exploiting the affordances of digital technology (network effects, zero marginal cost) to become "market-makers", **Big Tech firms avoid licensure and other typical systems of registration**, e.g., requiring companies to be a 'fit and proper person' to undertake X.

We need a legal response to the challenge of demonstrating culpability of the 'corporate mind'.



- The corporate mind as the directing mind and will of the company exists to 'protect natural individuals from unmerited and overly crushing liability'.
- This approach no longer works for 'massive, massively complex, multi- and trans-national corporate institutions that sit within a web of related entities'.
- **Core insight:** Rather than focus on directing mind and will, assess 'what a corporation routinely and systematically does, and what its systems are objectively apt to produce, to ascertain what it knows, intends or is reckless towards'.

E. Bant, 'Systems Intentionality: Theory and Practice' in E. Bant (Ed.), *The Culpable Corporate Mind* (Hart Publishing, Oxford: 2023), 183-207.

Systems intentionality is a ground-breaking contribution to tackling corporate misconduct by Prof. Elise Bant (University of Western Australia)



By training our attention on Big Tech's systems, we lay bare what is most galling about the behaviour of these firms: their routinised expectation – indeed, tolerance – of the **systematic production of collateral damage**, or negative externalities, as a necessary trade-off of their too-big-to-patrol products and services, their extractive business models, and their tireless hunt for scale and dominance.



—

“Complementarily, the focus on intentionality allows us to unpick the conventional framing by which technology firms have been scrutinised, in particular through areas of law that are largely agnostic as to intent... As a result, there has been very little scrutiny of Big Tech’s corporate behaviours and effects through conceptions of intent, knowledge, recklessness, dishonesty and unconscionability. A model to do so has great promise in bringing areas of law such as criminal law, tort, and a wider spectrum of equity and consumer law, firmly into view.”

APPLICATION: FACEBOOK



the facebook files

Facebook Knows Instagram Is Toxic for Teen Girls, Company Documents Show

Its own in-depth research shows a significant teen mental-health issue that Facebook plays down in public

the facebook files

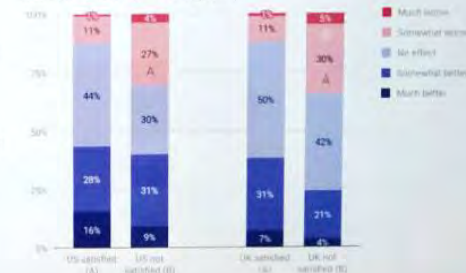
Facebook Employees Flag Drug Cartels and Human Traffickers. The Company's Response Is Weak, Documents Show.

Employees raised alarms about how the site is used in developing countries, where its user base is already huge and expanding

Teens who struggle with mental health say Instagram makes it worse

- Young people are acutely aware that Instagram can be bad for their mental health, yet are compelled to spend time on the app for fear of missing out on cultural and social trends.
- Teens specifically call out the following as ways that Instagram harms their mental health:
 - pressure to conform to social stereotypes
 - pressure to match the money and body shapes of influencers
 - the need for validation -- views, likes, followers
 - friendship conflicts, bullying, and hate speech
 - over-sexualization of girls
 - inappropriate advertisements targeted to vulnerable groups

Stated effect of Instagram



Q: In general, how has Instagram affected [the way you feel about yourself/your mental health]? There were no statistically significant differences among those who answered "the way you feel about yourself" and those who answered "your mental health". (US n = 128; UK n = 15)

FACEBOOK'S SYSTEMS OF MISCONDUCT

Facebook has evolved rapidly from a college look-up directory to an essential component of human **interactions** and **transactions**: buying and selling goods, finding jobs or housing, social, professional, and political organising, and the transmission of news and information.

Facebook's **core system** is focused on the outcome of embedding Facebook as **the essential intermediary of human communication and connection**. It creates this dependency through offering a user experience of unsurpassed **reach** and **convenience**.

There are three integral elements of Facebook's core system, each of which are systems in their own right:

1. **Self-sustenance** through **parastically monetising** human attention and connection,
2. Prioritisation of **growth** over user and workplace **safety**, and
3. Regulatory **evasion** and **insulation** through **novel corporate structuring**.

CASE STUDY: UBER'S BUSINESS MODEL RELIES ON UNLAWFUL ACTIVITY



The Uber files
Uber

The Guardian

'Violence guarantees success': how Uber exploited taxi protests

Leak suggests former CEO believed there was an upside to attacks on drivers as firm campaigned for law changes

Uber bosses told staff to use 'kill switch' during raids to stop police seeing data

Senior executives involved in global operation to thwart law enforcement, leaked files reveal

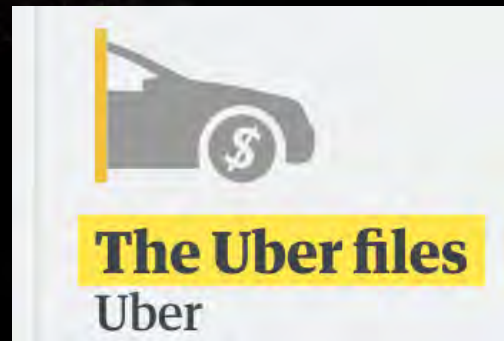
Uber broke laws, duped police and secretly lobbied governments, leak reveals

Internal and external documents reveal that Uber's business model depends on attaining and then retaining a majority market share in any jurisdiction in order to be able to offer better supply and cheaper fares than its competitors.

In order to facilitate this kind of market dominance, Uber has to move faster than competitors, which it can only do by flouting existing regulations surrounding the taxi or private car-hire industry.

Few, in any international business models would so deliberately and systematically break the law in each new market of operation.

CASE STUDY: UBER'S SYSTEMS OF MISCONDUCT



'Violence guarantees success': how Uber exploited taxi protests

Leak suggests former CEO believed there was an upside to attacks on drivers as firm campaigned for law changes

Uber bosses told staff to use 'kill switch' during raids to stop police seeing data

Senior executives involved in global operation to thwart law enforcement, leaked files reveal

Uber broke laws, duped police and secretly lobbied governments, leak reveals

The **core system** of the company is to expand the service at all costs, including by **evading or breaking legal and regulatory requirements**.

This core system is complemented by four other fundamental systems:

1. Prioritisation of **growth** at the expense of driver, passenger and workplace **safety**.
2. Financial **exploitation** of drivers and passengers.
3. Corporate **espionage and sabotage** of competitors to maintain market dominance.
4. **Courting and manipulation of public officials** to ensure governmental support.

J. Powles, 'The Corporate Culpability of Big Tech' in E. Bant (Ed.), *The Culpable Corporate Mind* (Hart Publishing, Oxford: 2023), 97-115.

Novel Australian litigation challenged Uber's systematic practices of misconduct under the tort of conspiracy.

A clear consequence of the launch and operation of UberX in the Relevant States was that Ridesharing Offences were committed systemically and on a large scale. I accept that the commission of Ridesharing Offences was an integral aspect of the UberX business model in respect of the Relevant States.

Systems of licensure and registration provide both proactive and reactive protection.

1. An underdiscussed difference between Big Tech and most other industries is the requirement of licensure or registration.
2. As Pasquale (2021) argues, a lack of licensure in data governance means the legal presumption is out of order: policymakers presume the data practices of firms are legal, and only investigate where there is suspicion of wrongdoing.
3. Big Tech's cascade of scandals suggest this approach is flawed.

SYSTEMS INTENTIONALITY AS A CIRCUIT BREAKER

- Dramatically alters the narrative about law-breaking business models and unsafe, exploitative and anti-competitive practices
- Rather than being accidents or errors on the path to corporate success, each of these outcomes can be seen as a clear manifestation of corporate intent
- Focuses on actual practice – not advertised policy
- Blunts the instinct to isolate wrongdoing to discrete people or areas of the business ('bad apples')

IMMEDIATE MOVES

- 1** – register Big Tech in countries where they operate
- 2** – license Big Tech in countries where they operate (positive expectations of corporate conduct and social responsibility)
- 3** – respond to systemic misconduct, and secure redress (courts/regulation)

WHERE ARE THEY TAKING US? [NARRATIVE]

 Microsoft

amazon



Google



STORYTELLERS & SNAKE OIL



TECH &
POLICY
LAB



NAMING BIG TECH'S INFLUENCE – WHY IS IT HARD?

- Ubiquity
- Power (assent vs. resignation)
- Complicity: we feed the beast; it is of us
- Narrative:
 - Big Tech sells us certainty, in an uncertain world
 - Big Tech sells us progress and levity, in a darkening and burdened world
 - The human compulsion to balance and better tomorrows, even when foreclosed

A BRIEF HISTORY OF THE TECH INDUSTRY'S DIVERSION TACTICS

1. Debate process – who is in the room

2. Dominate the narrative (aka steal the words)

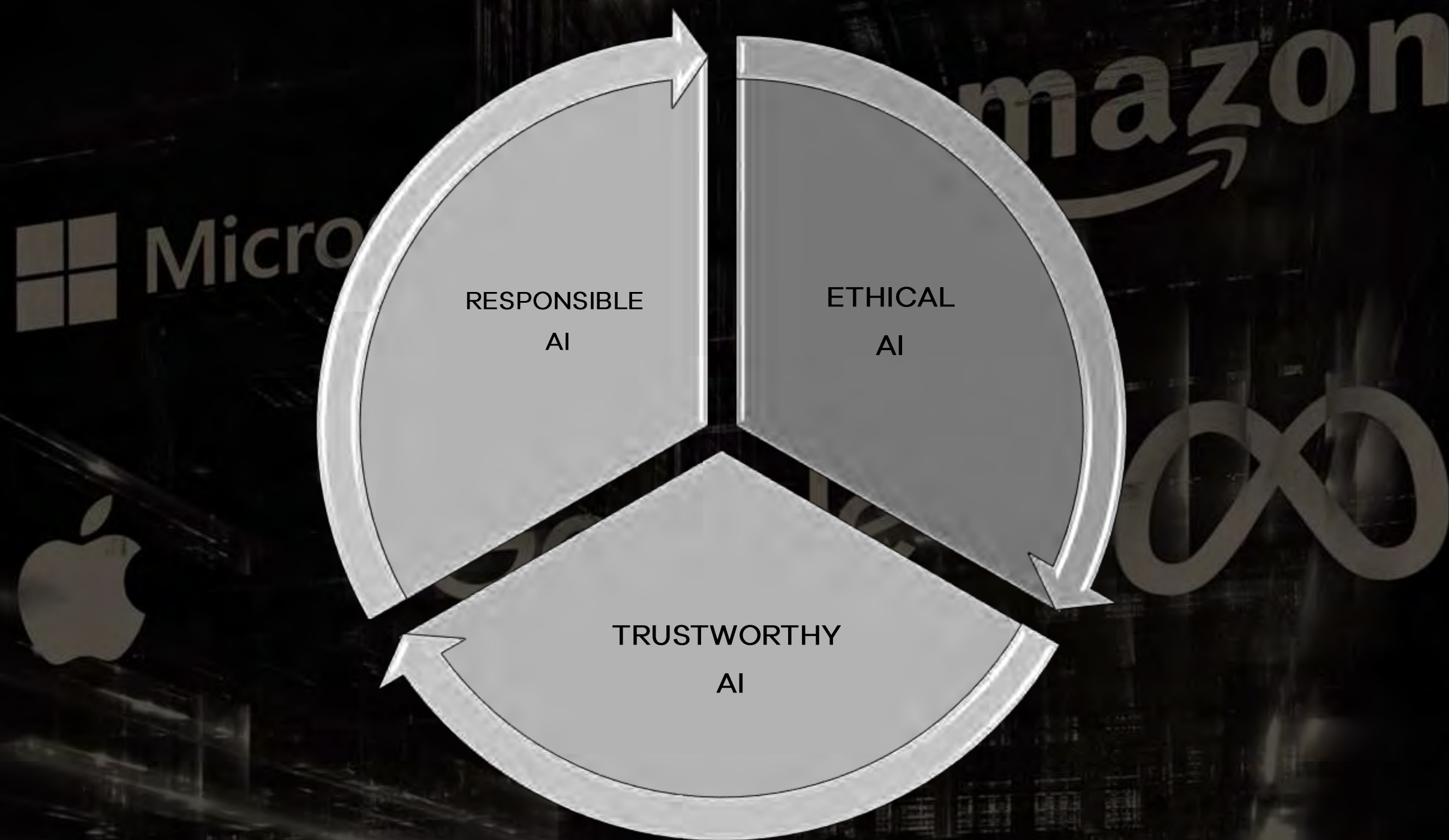
- See: 'Open', 'Free', 'Democratising', 'Connecting', 'Community', 'Empowering', 'Innovating', 'Ethical', 'Trustworthy', 'Responsible'.
- See also: Enclosed, Ungoverned, Divisive, Extreme, Risky, Untested, Unproven, Paradoxical, Fragile, Exploitative, Extractive, Dominating, Toxic.

3. Distract the debate

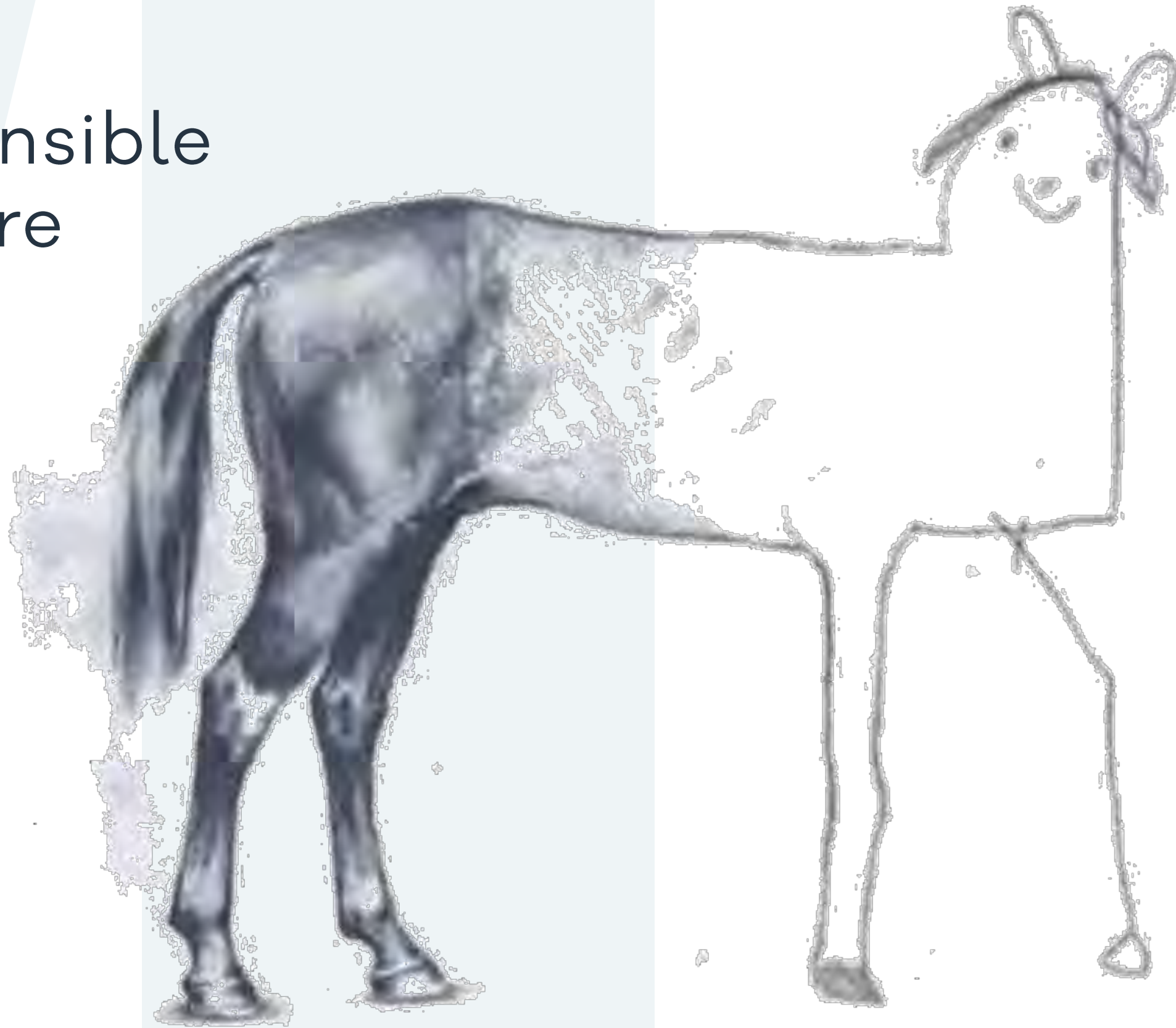
- Three key examples: Right to be forgotten, Right to an explanation, Algorithmic bias and fairness

INTERROGATING THE FRAME

How regulatory avoidance came full circle



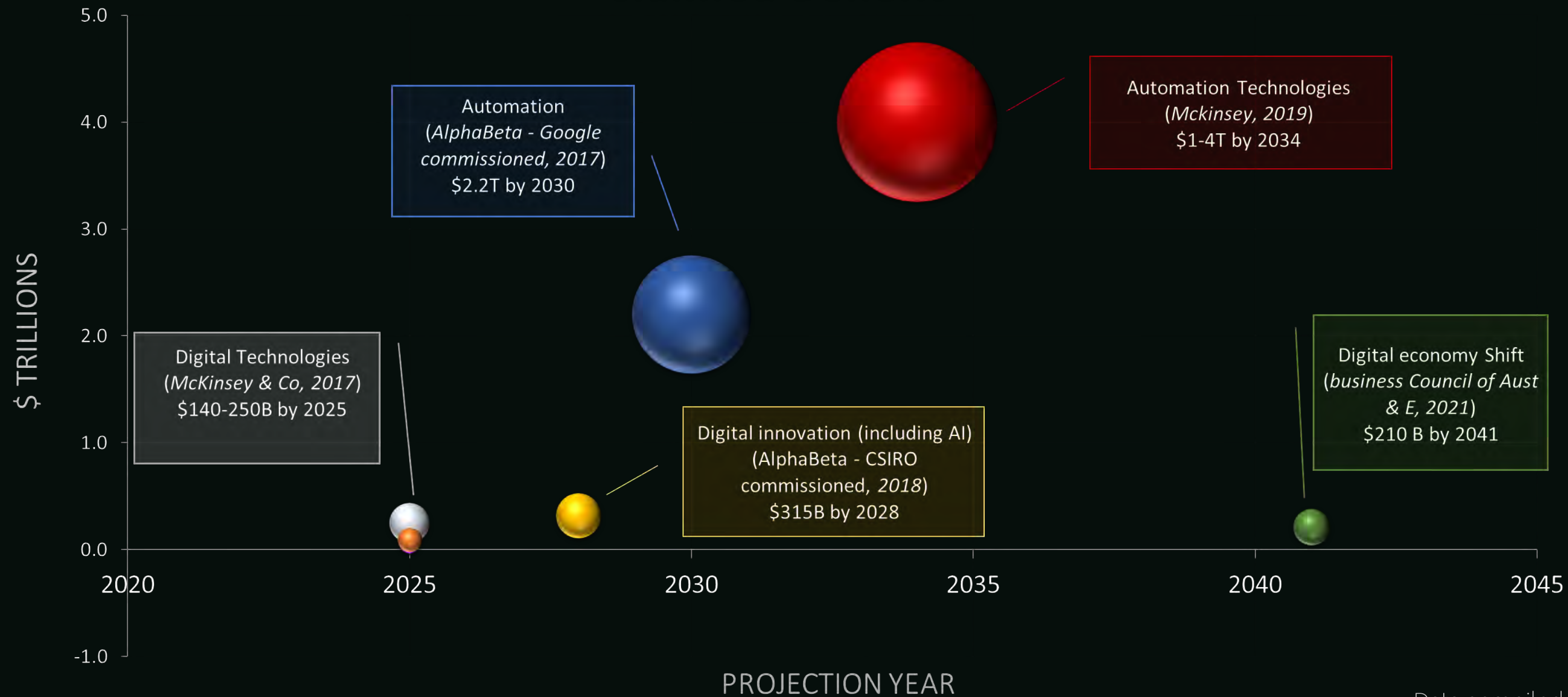
The 'Responsible
AI' we desire



The
'Responsible AI
we've got



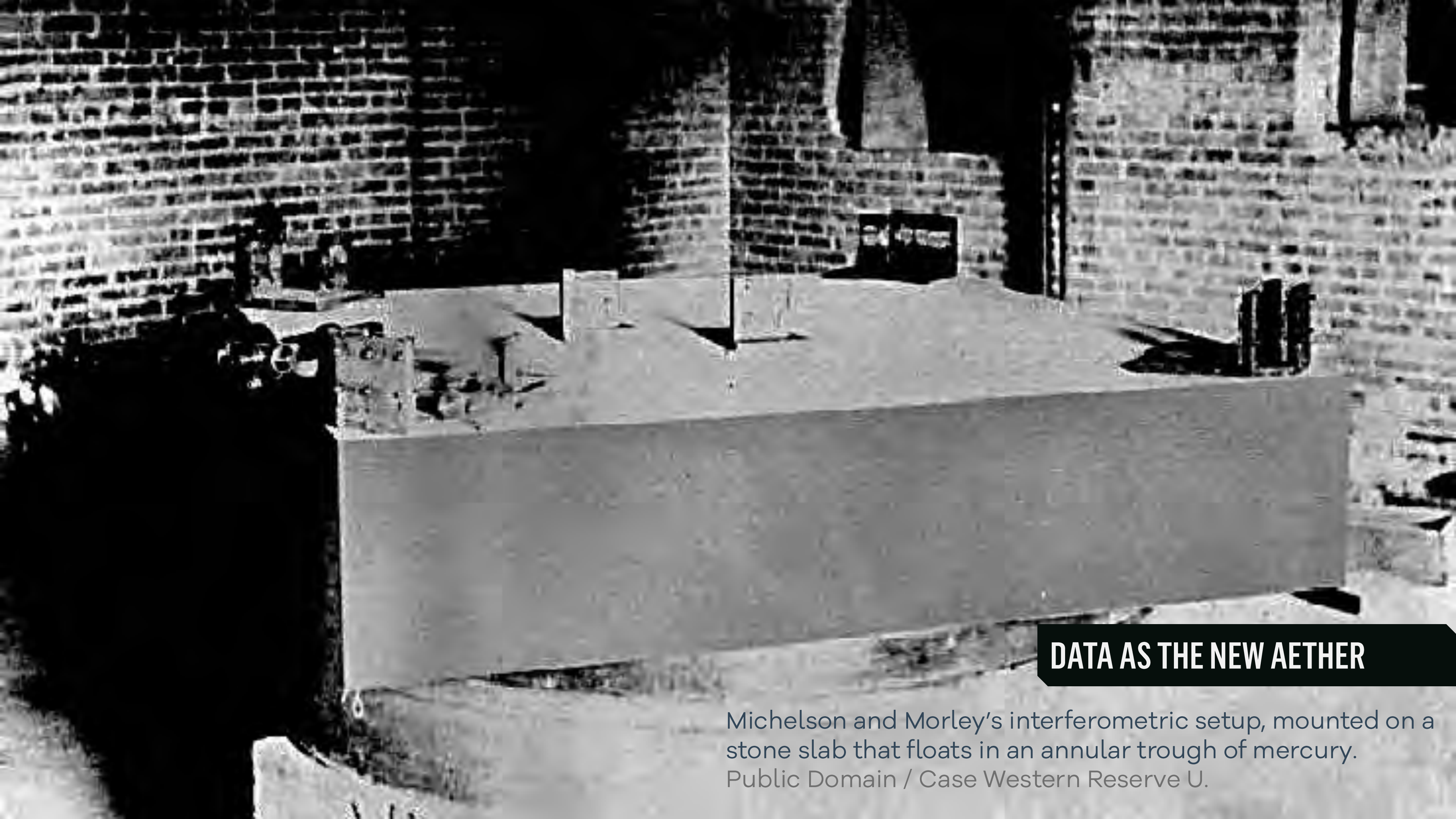
Claimed Benefit



WATCHING THE WORDS

'Data' is capacious enough to include a check-in time, weather patterns in the month of May, components of a movement trajectory, a penguin, or a nation's entire literary canon. In fact—and this is the heart of the problem—there is nothing that cannot be termed 'data'.





DATA AS THE NEW AETHER

Michelson and Morley's interferometric setup, mounted on a stone slab that floats in an annular trough of mercury. Public Domain / Case Western Reserve U.



How Tech Giants Cut Corners to Harvest Data for A.I.

OpenAI, Google and Meta ignored corporate policies, altered their own rules and discussed skirting copyright law as they sought online information to train their newest artificial intelligence systems.

The Times Sues OpenAI and Microsoft Over A.I. Use of Copyrighted Work

Millions of articles from The New York Times were used to train chatbots that now compete with it, the lawsuit said.

Share full article



1.3K



A coalition of artists, journalists and actors calls AI 'the greatest art heist in history'

By Mark Brodie

Published: Tuesday, June 13, 2023 - 10:54am
Updated: Tuesday, June 13, 2023 - 11:12am

Share 5



Getty Images

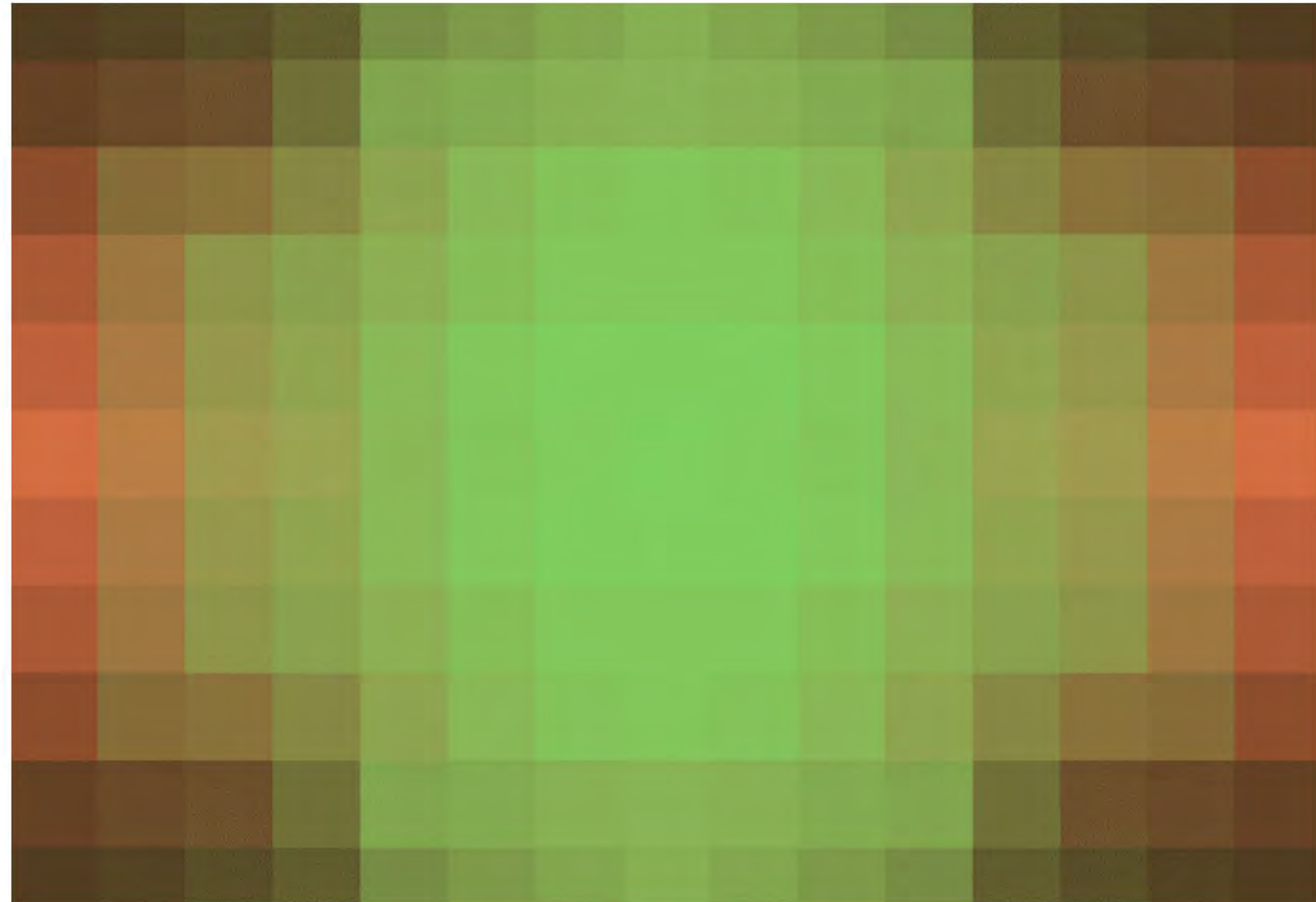
LAW

From ChatGPT to Getty v. Stability AI: A Running List of Key AI-Lawsuits

The rising adoption of artificial intelligence (“AI”) across industries (including fashion, retail, luxury, etc.) that has come about in recent years is bringing with it no shortage of lawsuits, as parties look to navigate the budding issues that these relatively new ...

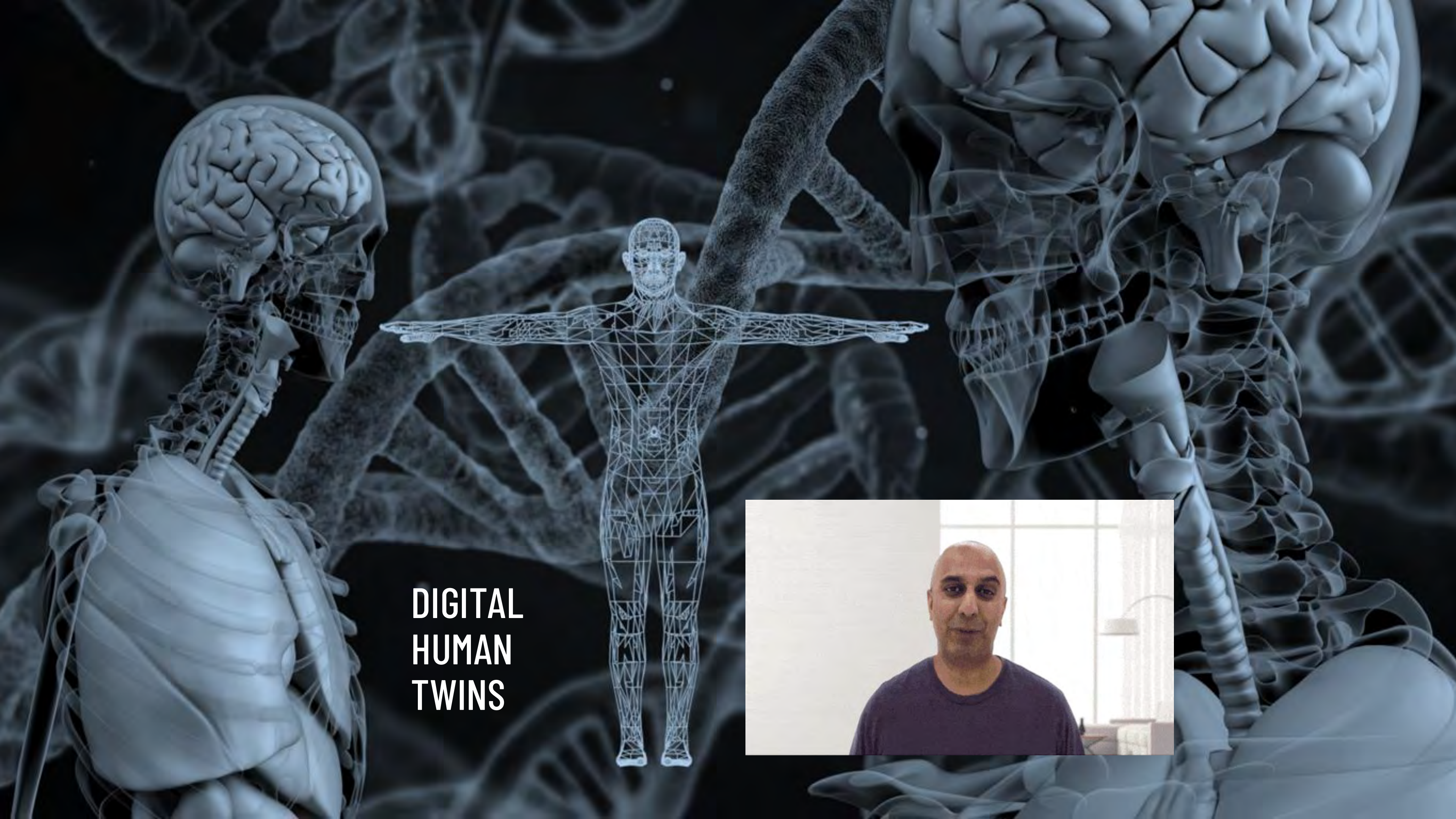
April 2, 2024 - By TFL

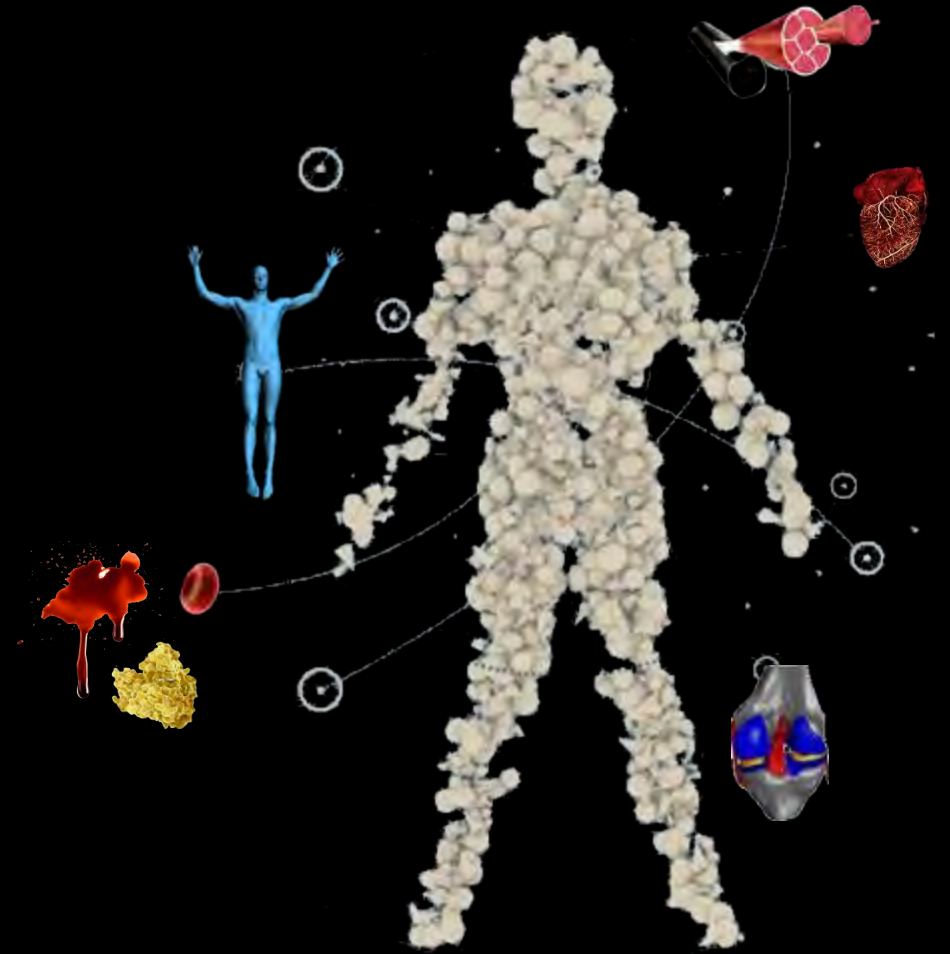
Image : OpenAI



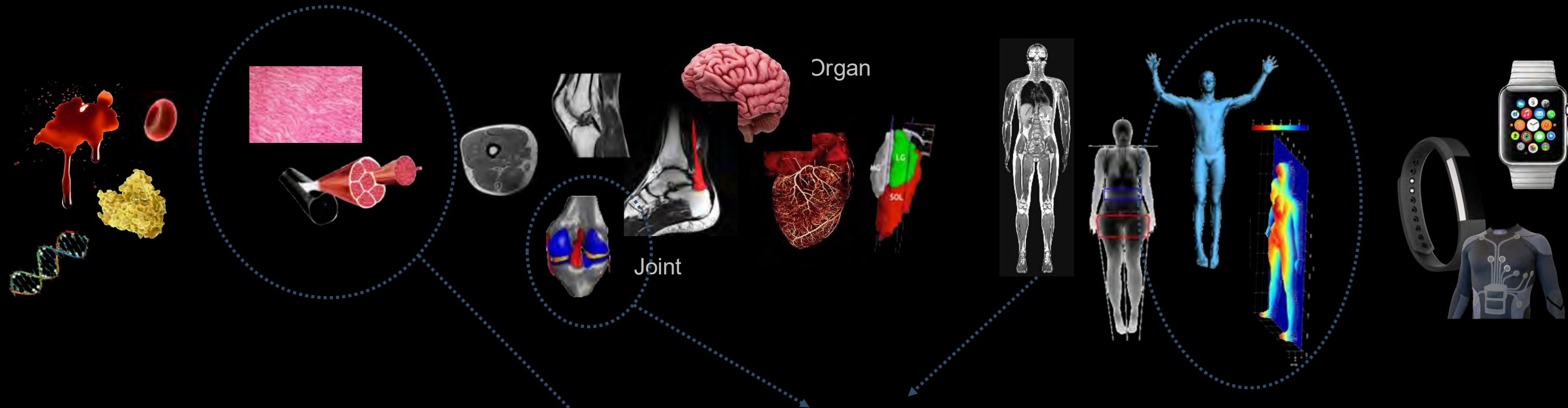
DISALLOW MASS APPROPRIATION

**DIGITAL
HUMAN
TWINS**

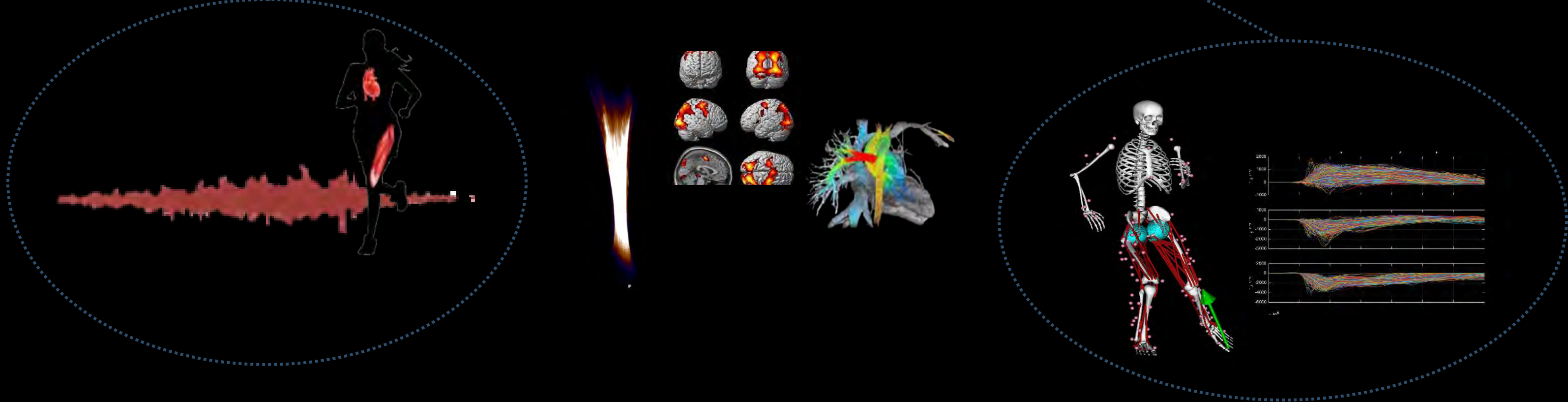




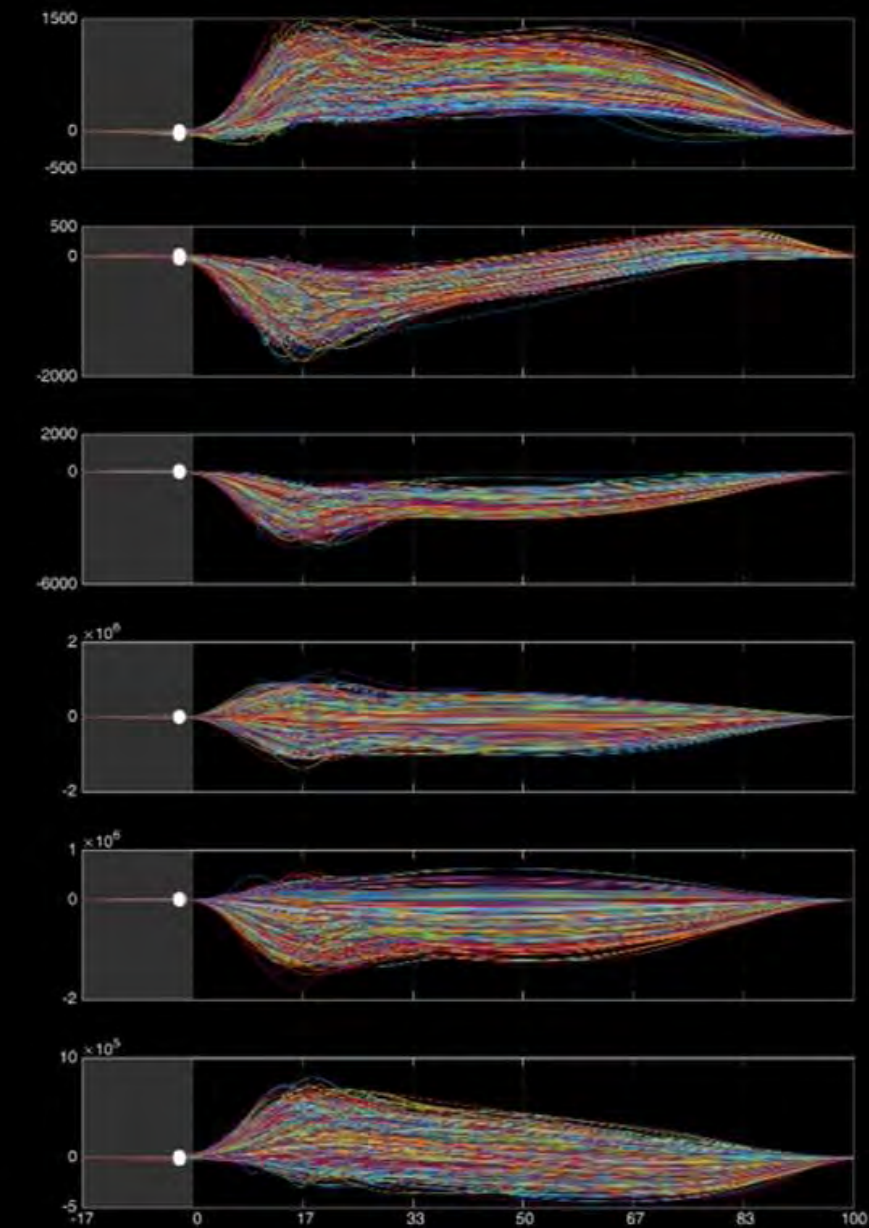
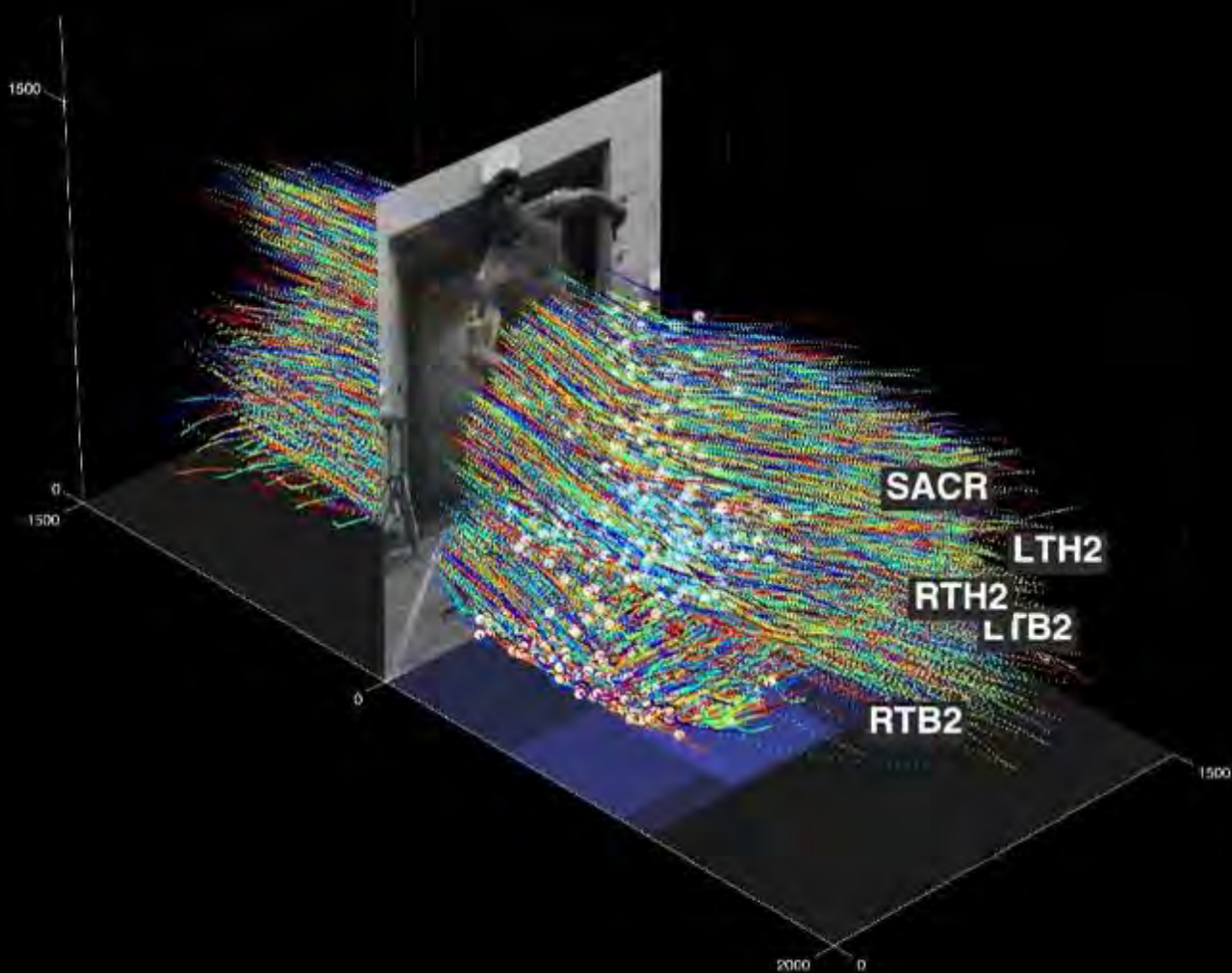
EXTRACTION & AGGREGATION



REDUCTIVE PROCESS FLOW

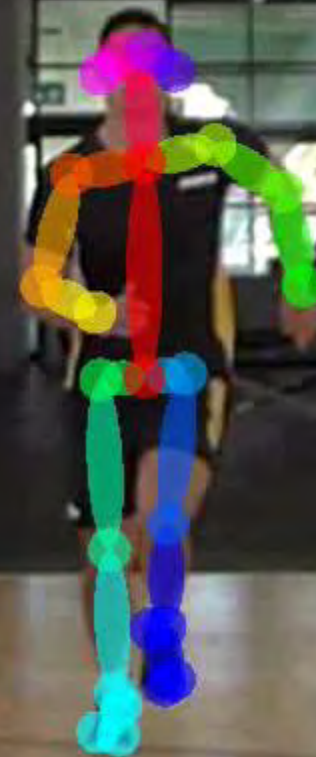


AI IN SPORT



WA researchers compiled the world's first and largest biomechanics dataset for machine learning in sport

KNEE LOADS



AI IN THE 'WILD'



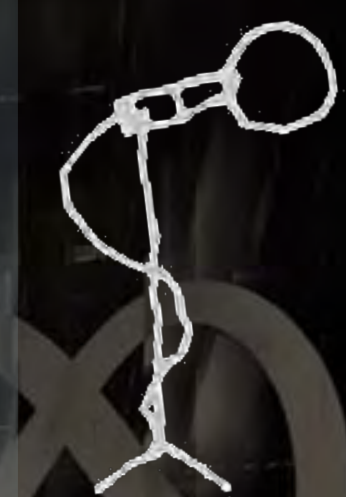
OSTEOARTHRITIS



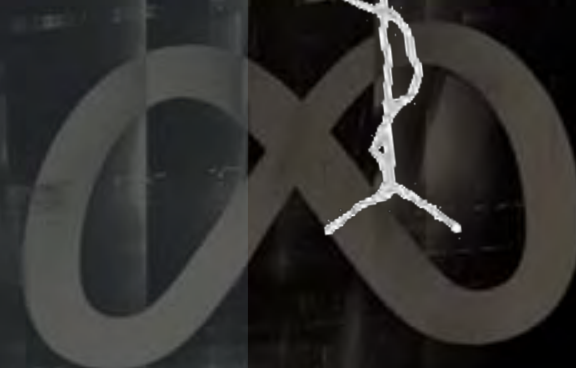
FRAMES SHAPE SOLUTIONS: A DATAFIED WORLD

- 'Fixing' data
- Data access
- Data sharing
- Data competition

amazon



Google



FRAMES SHAPE SOLUTIONS: A CLONED WORLD



ETHICAL IMPLICATIONS OF CRIMINAL LEGACY



reddit u/deepfakes_

Browser window showing a VICE article on Motherboard. The article title is "AI-Assisted Fake Porn Is Here and We're All". The author is Samantha Cole. The article is dated December 11, 2017, 2:18pm. The text of the article reads: "Someone used an algorithm to paste the face of 'Wonder Woman' star Gal Gadot onto a porn video, and the implications are terrifying."

Browser window showing a The Washington Post article. The article title is "Scarlett Johansson on fake AI-generated sex videos: 'Nothing can stop someone from cutting and pasting my image'". The author is Drew Harwell. The article is dated December 31, 2018 at 11:13 a.m. EST. The image shows Scarlett Johansson at a Comic-Con event.

Twitter post by @samanthacole. The text reads: "seeing some AWFUL takes regarding this deep fake situation. we are all humans with real lives that are affected by situations like these. it goes much further than 'it's not real' please have some compassion and think beyond it not affecting you in any way". The post is dated 1:51 PM • Jan 31, 2023 • 1.2M Views. It has 728 Retweets, 20 Quote, 22.1 Likes, and 11 Bookmarks.

Browser window showing a Yahoo! Entertainment article. The article title is "Kristen Bell shocked as her face is used in x-rated 'deepfake' clip". The author is Julia Hunt, Contributor. The article is dated Thu, Jun 11, 2020 • 2 min read. The image shows Kristen Bell.

P.O.W.E.R. FRAMEWORK

J. Powles, 'AI, Education, and World-Building' in P. Hacker, B. Mittelstadt, S. Hammer, and A. Engel (Eds.), *Oxford Handbook on Generative AI* (Oxford University Press, Oxford: 2024).



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WESTERN
AUSTRALIA



P.

POWER

*How much do we think we can
change? A. Markham*



POWER



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0.

OVERSIGHT

“[W]e must consider where we are going and if this is indeed what we want. The speed at which generative AI technologies are being integrated into education systems in the absence of checks, rules or regulations, is astonishing. I am struck that today, in most national contexts, the time, steps and authorizations needed to validate a new textbook far surpass those required to move generative AI utilities into schools and classrooms. In fact, AI utilities often required no validation at all. They have been ‘dropped’ into the public sphere without discussion or review .”

UNESCO's Assistant Director-General of Education, Stefania Giannini.

OVERSIGHT



TECH &
POLICY
LAB



W.

WORKERS

WHAT WORLD ARE WE BUILDING

Exclusive: OpenAI Used Kenyan Workers on Less Than \$2 Per Hour to Make ChatGPT Less Toxic

BUSINESS • TECHNOLOGY

TIME



This image was generated by OpenAI's image-generation software, Dall-E 2. The prompt was: "A seemingly endless view of African workers at desks in front of computer screens in a printmaking style." TIME does not typically use AI-generated art to illustrate its stories, but chose to in this instance in order to draw attention to the power of OpenAI's technology and shed light on the labor that makes it possible. Image generated by Dall-E 2/OpenAI

<https://time.com/6247678/openai-chatgpt-kenya-workers/>

Opinion **Technology**

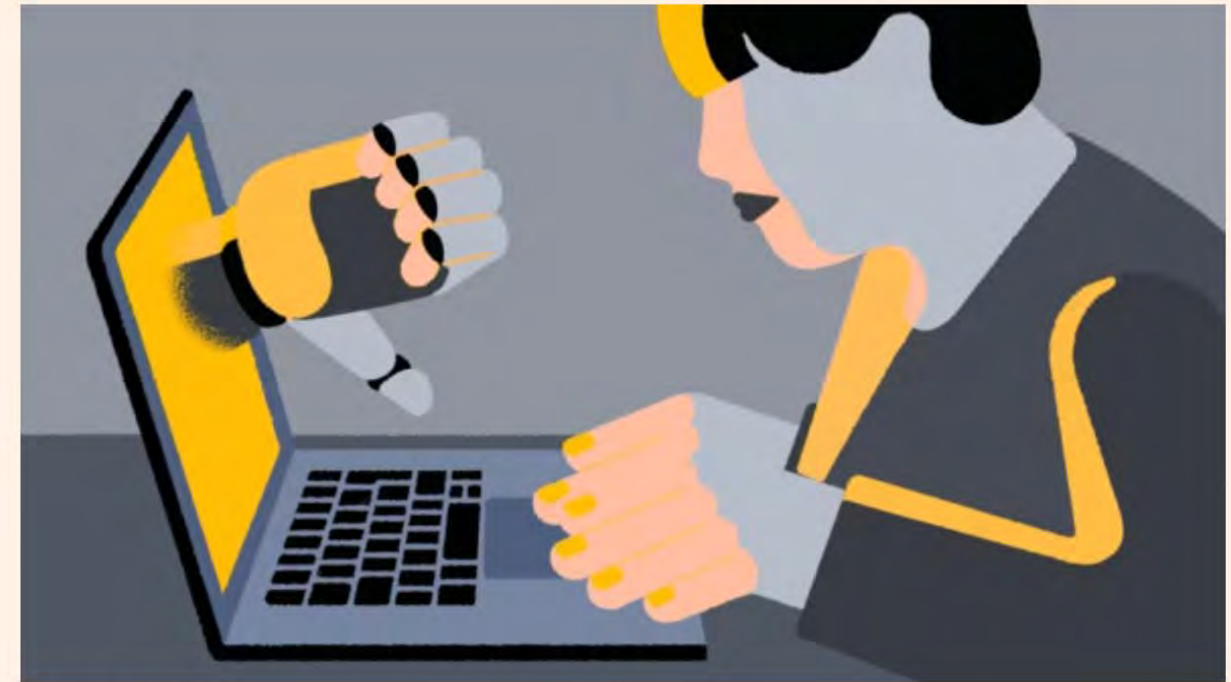
For young people, the job search has never been so miserable

Automated application processes are dehumanising and unhelpful

MARGARET HEFFERNAN [+ Add to myFT](#)

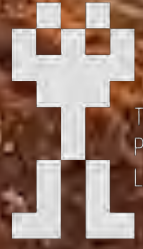


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© Maria Hergueta

WORKERS



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WESTERN
AUSTRALIA



E.

ENVIRONMENT



ENVIRONMENT



TECHNOLOGY

AI IS TAKING WATER FROM THE DESERT

New data centers are springing up every week. Can the Earth sustain them?

By Karen Hao

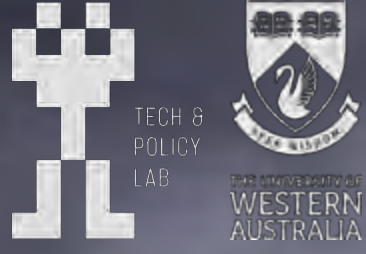
“The data centers needed for computationally intensive AI have high energy costs and carry a massive carbon footprint ...

Data centers also rely on immense amounts of water for both electricity production and cooling. To supply their centers, many tech firms draw from public water supplies and aquifers, adding to regional water stress—while being built in some of the world’s most drought-prone areas.”
(AI NOW 2023 Landscape Report)

Average session (20-50 question engagement) with ChatGPT

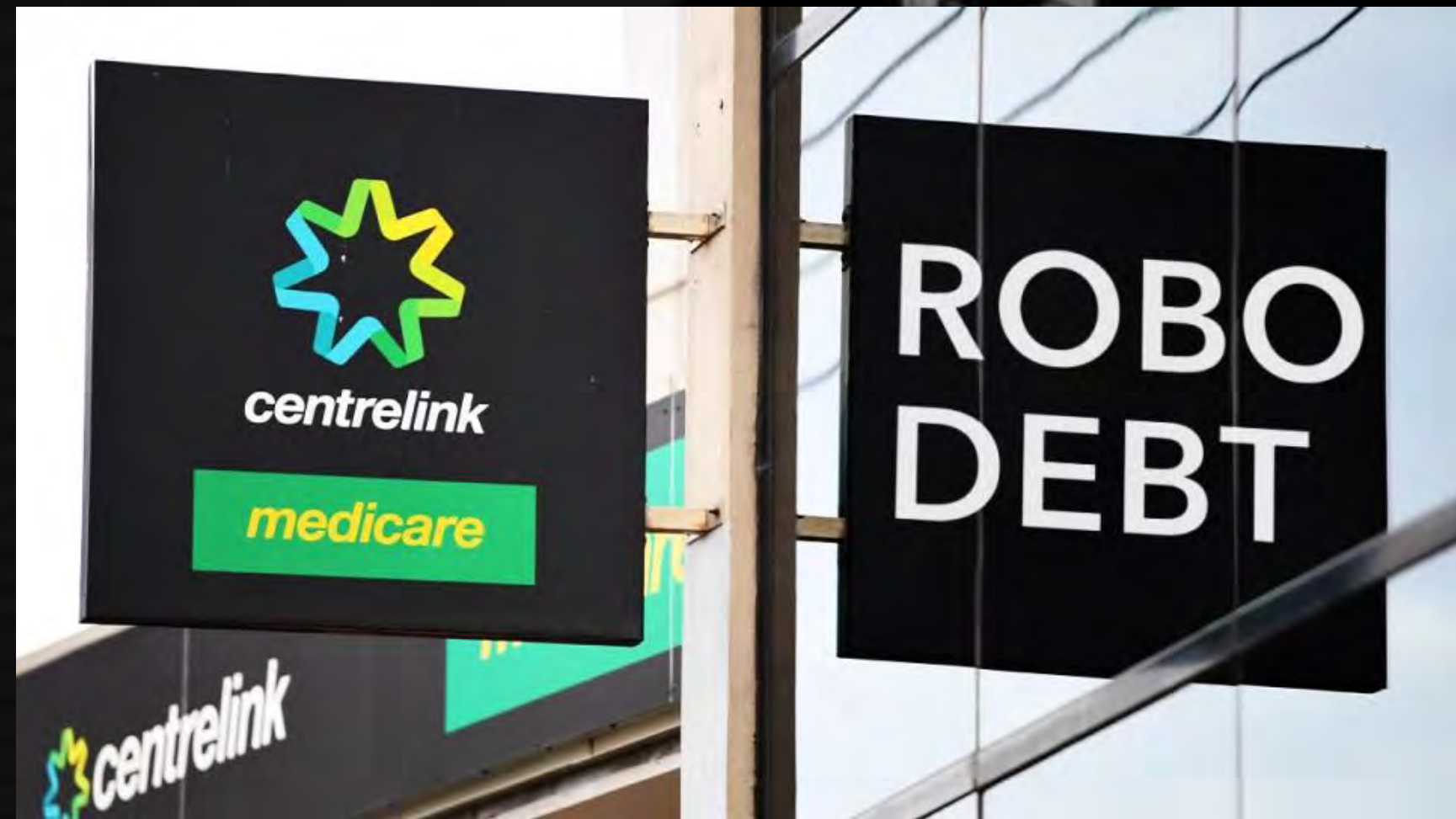


500ml



R.

REDRESS



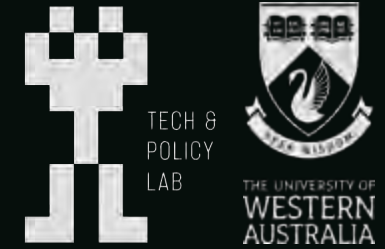
MISSION
Scheme

ROBO
DEBT



THE FAILURE OF
'RESPONSIBLE GAMBLING'

POWER OVERSIGHT WORKERS ENVIRONMENT REDRESS



J. Powles, 'AI, Education, and World-Building' in P. Hacker, B. Mittelstadt, S. Hammer, and A. Engel (Eds.), *Oxford Handbook on Generative AI* (Oxford University Press, Oxford: 2024).



THANK YOU

 @juliapowles

Q&A with Assoc Prof Julia Powles

Day Two

Level 3 Foyer Share Your Voice!

We need research that explores...

...to inform ethical futures for Society 5.0



Thank you for your ideas!

Be sure to attend the "Voices into the Future" session (Tuesday 18 June 2024, 5pm) to hear more about a potential future research agenda for Society 5.0 Ethics.

Society 5.0 Ethics

A Festival of Ideas

An Engaging for Impact Event
17–18 June 2024



Today @ 5:15pm
“Voices from the Future”

Society 5.0 Ethics

Day Two

Morning Tea



Level 3 Foyer



Society 5.0 Ethics

A Festival of Ideas



An Engaging for Impact Event | 17 - 18 June



Enabling Impact
Platforms
Social Change



Utrecht
University

Day Two - Session 2

Plenary & Manifesto

Tackling Misinformation on a Global Scale: The International Panel on the Information Environment (IPIE)

Society 5.0 Ethics

Dr Damiano Spina
RMIT University

Senior Lecturer, School of Computing Technologies



Dr Dang Nguyen
RMIT University

*Research Fellow, ARC Centre of Excellence for
Automated Decision-Making & Society*



Prof Lisa Given RMIT
University

*Director, Social Change Enabling Impact Platforms
Professor of Information Sciences*



Prof Annette Markham
Utrecht University

*Chair Professor of Future Data Literacies and
Public Engagement*





IPPIE

**International Panel on the
Information Environment**

**Interactive Session
Society 5.0 Ethics**

June 2024



Prof
Annette
Markham

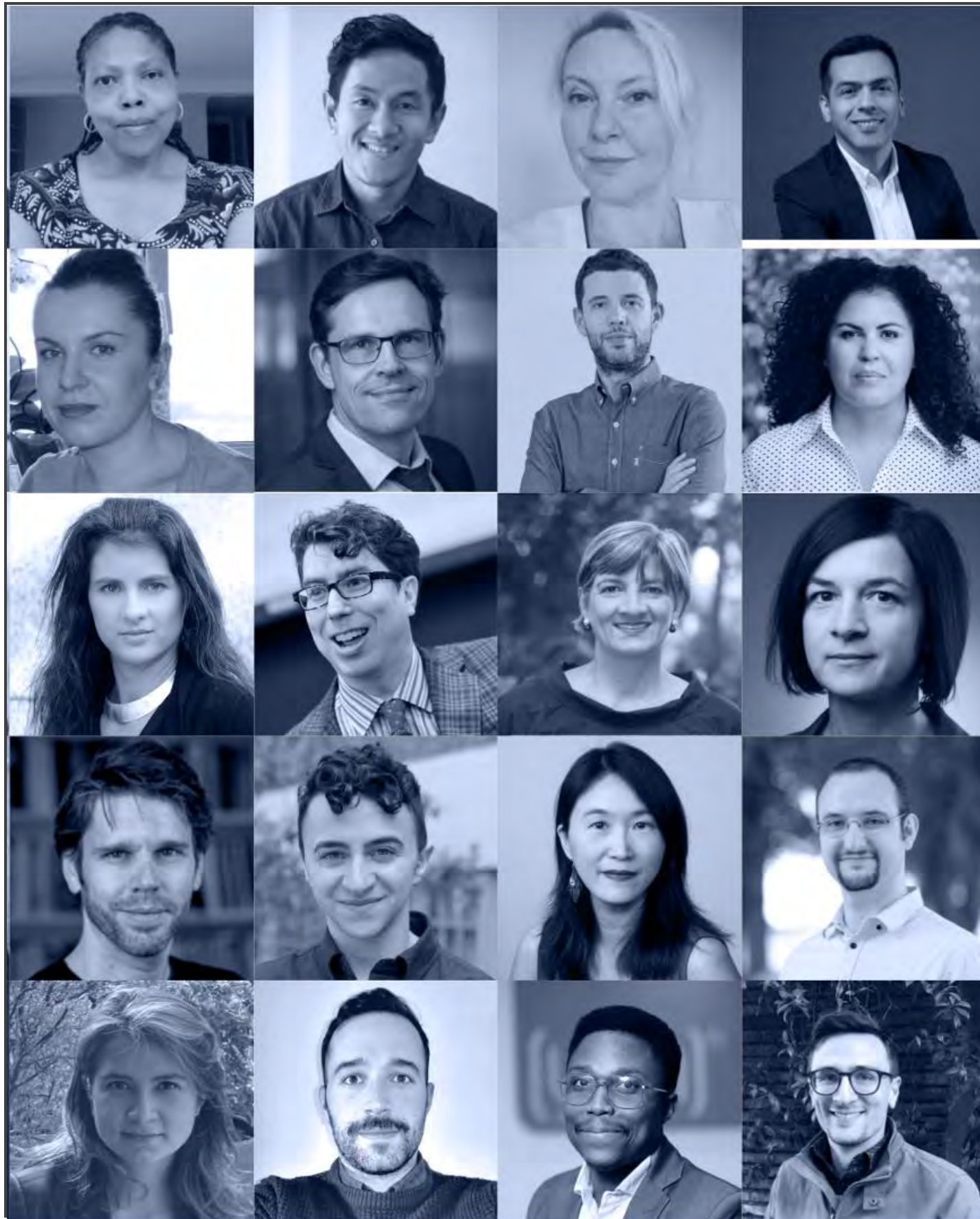
IPIE's Challenge

Manipulation of the world's information environment has become a global and existential threat –it exacerbates social problems, degrades public life, cripples humanitarian initiatives, and prevents progress on other serious threats.

The IPIE is a global scientific effort to independently analyse systems of information manipulation and bias, assess the condition of the global information environment, and evaluate the best policy solutions for addressing threats to that environment.

IPIE's Mission

To provide policymakers, industry, and civil society with independent scientific assessments on the global information environment by organizing, evaluating, and elevating research, with the aim of providing recommendations for improving the global information environment.

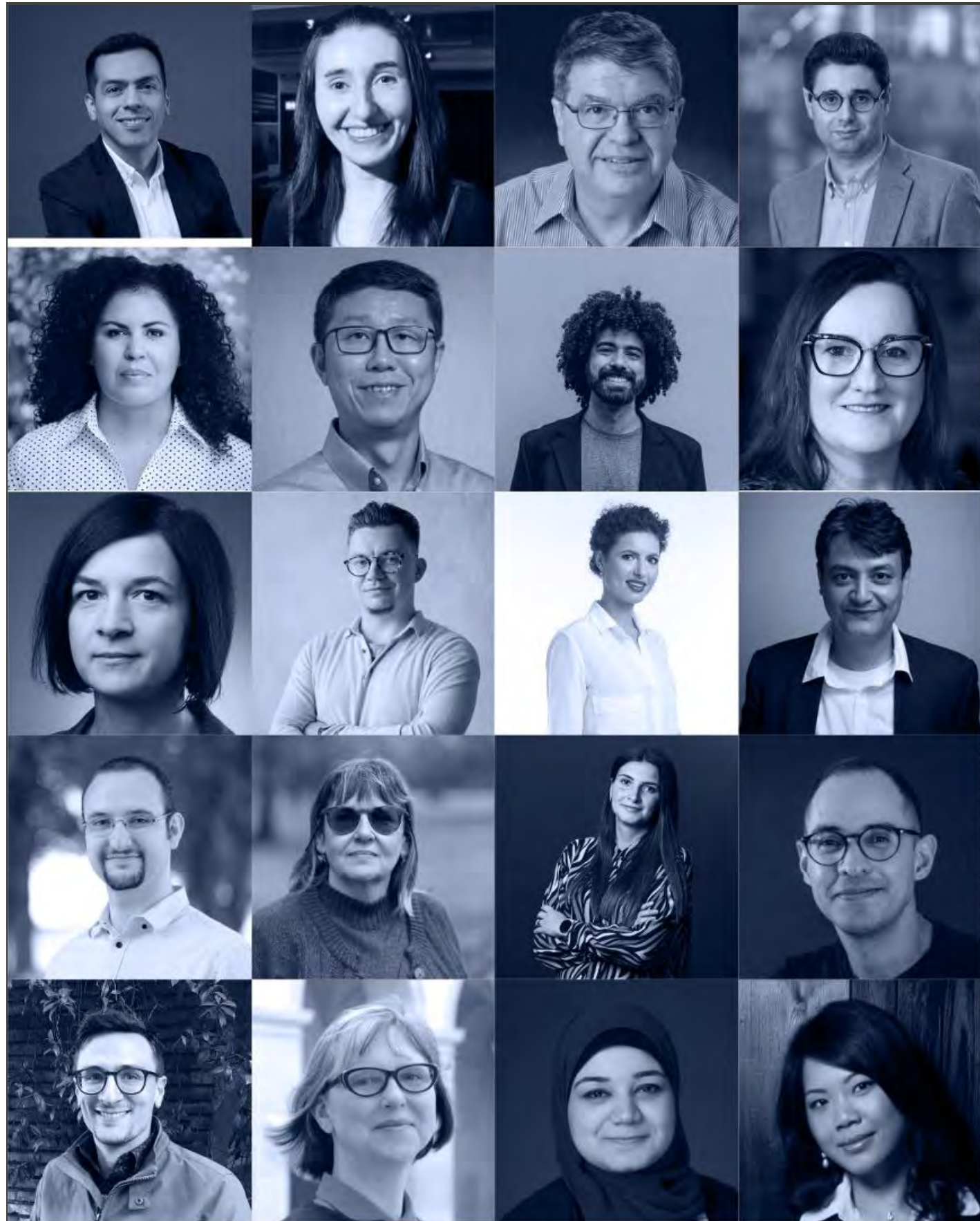


+300 affiliates

From relevant fields of the humanities & social, computer, engineering, and policy sciences

+ 60 Countries

Gender Parity; 60% Global South



"We do know *some* things about how to curb misinformation on social media, and what knowledge gaps need to be filled"

"The world's technology experts are worried about the international trends, but it's not too late for regulators and industry to build a better global information environment."

"The challenge is to work at a speed commensurate with the problems....and be able to also work at scale."

Funding



Ford Foundation



Milestones

September 2022	Chartering Meeting, University of Oxford (UK)
December 2022	Leadership Meeting, University of Zurich (Switzerland)
January 2023	Scientific Panel Meeting, UN University of Peace (Costa Rica)
May 2023	Public Launch, Nobel Summit (USA)
September 2023	First Consensus Statements, on Platform Responses to Misinformation + Expert Concerns for 2024
October 2023	Regional Leadership Meetings (China, Korea, Nigeria)
November 2023	Legal Domicile and Charitable Status Achieved in Canton of Zurich (Switzerland)
January 2024	Launch of First Scientific Panel – Global Standards for AI Audit
March 2024	Miami Summit (USA)
June 2024	Zurich Summit (Switzerland)

Prof Lisa
Given

Membership Committee

- cultivates a **diverse global network** of researchers to address the evolving global information environment
- **manages recruitment, appointments, and relationships**, adapting to technological changes and data science advancements
- with an inclusive approach, it leverages expertise across disciplines, **fostering strategic partnerships** to build a resilient, equitable information environment

Ethics Committee

- **enforces ethical standards in research**, focusing on protecting human subjects and addressing ethical concerns in the IPIE's operations
- **reviews research proposals**, providing risk mitigation strategies and respecting the rights of all involved
- **oversees funding sources and potential conflicts of interest**, playing a crucial role in ensuring the credibility of the IPIE's research outputs

Science & Methodology Committee

- **evaluates the global information environment**, assesses risks, and investigates response strategies
- **organizes global research**, to address threats such as algorithmic bias and misinformation, contributing to evidence-based policies
- **generates reports**, collaborates with domain-specific Science Panels, and ensures rigorous peer-review

Scientific Panels

(9- or 12-months)

- advance scientific consensus in particular domains and on important policy challenges
- commission synthesis and/or technical reports
- feed into IPIE's Global Assessment reports

E.g., Panel on Global Standards for AI Audits

- Draws on expertise from social sciences, computing, and engineering
- Will identify how public-facing AI systems should be inspected and identify protocols that should be used

Reports - Available Online

<https://www.ipie.info/reports-and-publications/reports-and-publications>



Trends in the Global Information Environment

2023 Expert Survey Results



Platform Responses to Misinformation

A Meta-Analysis of Data



Countermeasures for Mitigating Digital Misinformation

A Systematic Review



Expert Survey on the Global Information Environment 2023

Lessons for Technology Policy and Design



Strategies for Improving the Global Information Environment

Results from a Systematic Review and Meta-Analysis

Dr Dang
Nguyen

Diversity of voices

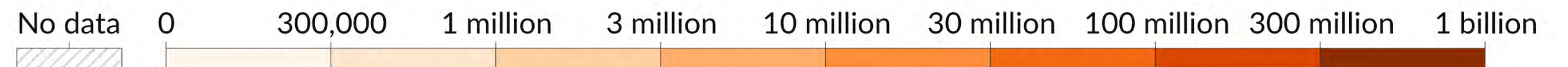
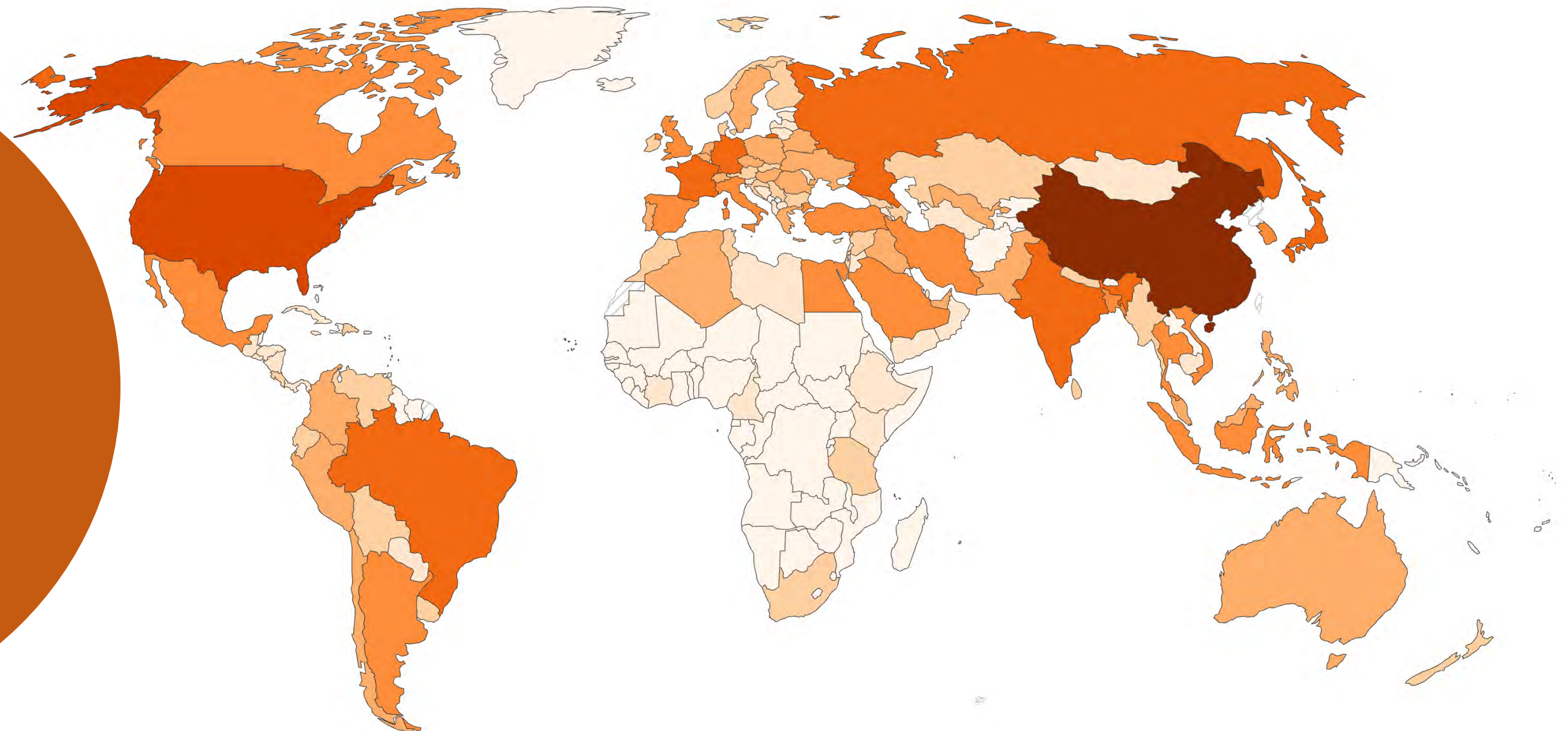
Global South/Majority World perspectives:

- Who gets to decide what misinformation is/is not?
- What does information disorder look like across different socioeconomic groups?
- Who are most impacted by the effects of information disorder?
- Who stand to benefit the most from corrective efforts?

Landline Internet subscriptions, 2022

Subscriptions to fixed access to the public Internet with a download speed of at least 256 kbit/s.

Contextualising
the
Information
Environment





AI and the information environment

- To what ends?
- With whose knowledge?
- What are the benefits and for whom?
- What are the risks?
- What is the degree of transparency?
- To whom is it accountable?

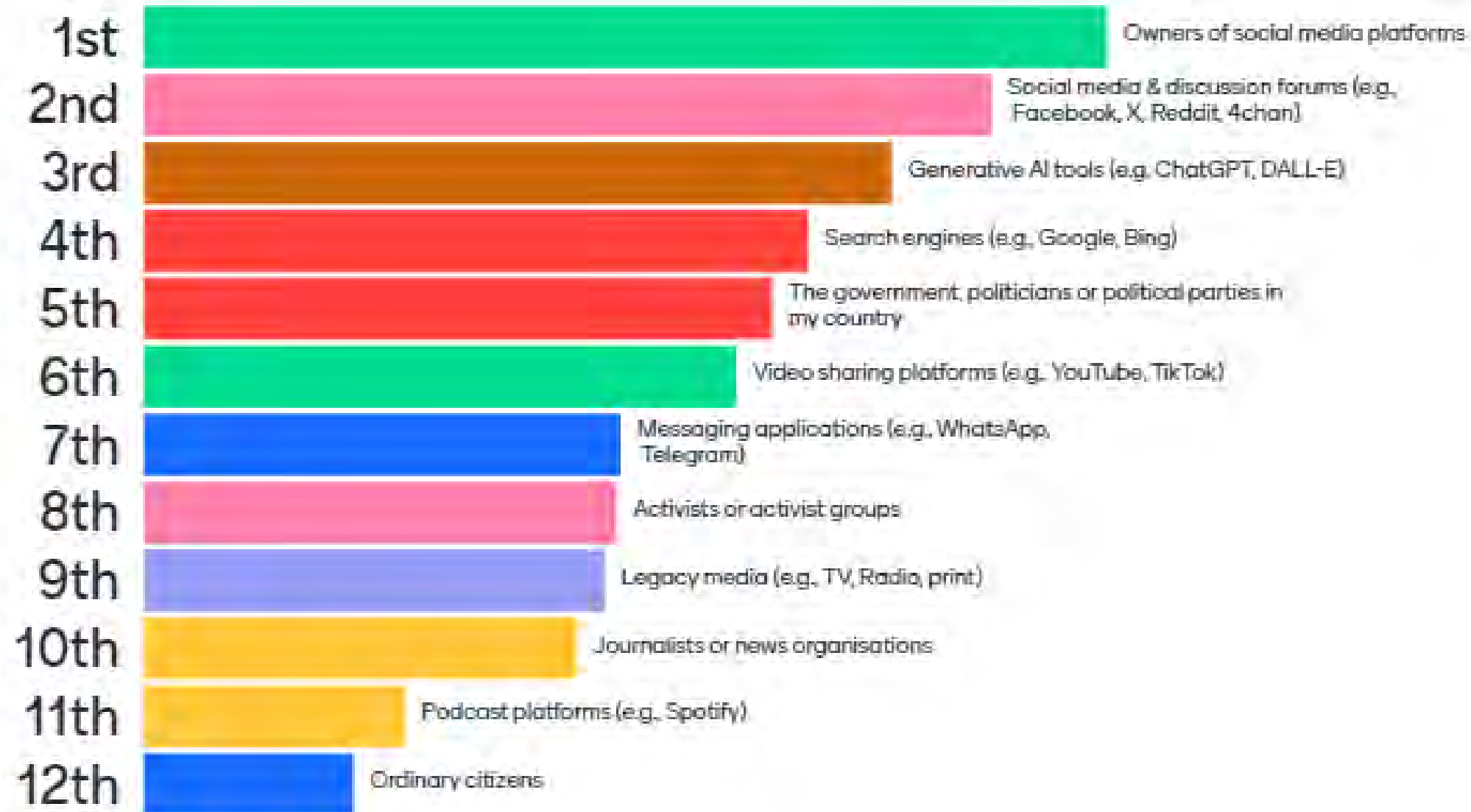
You!



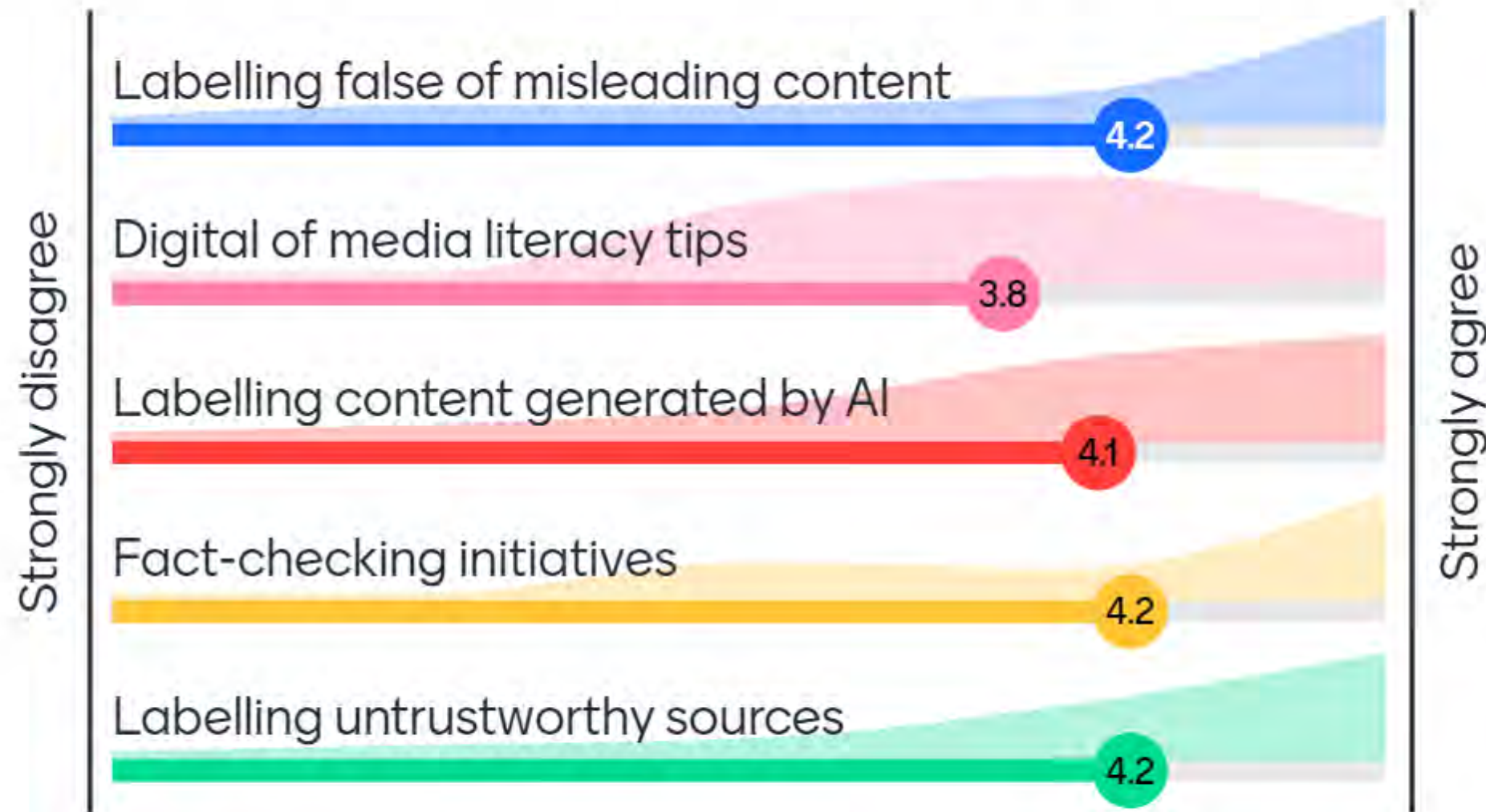
Menti.com
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Potential threats to the information environment...



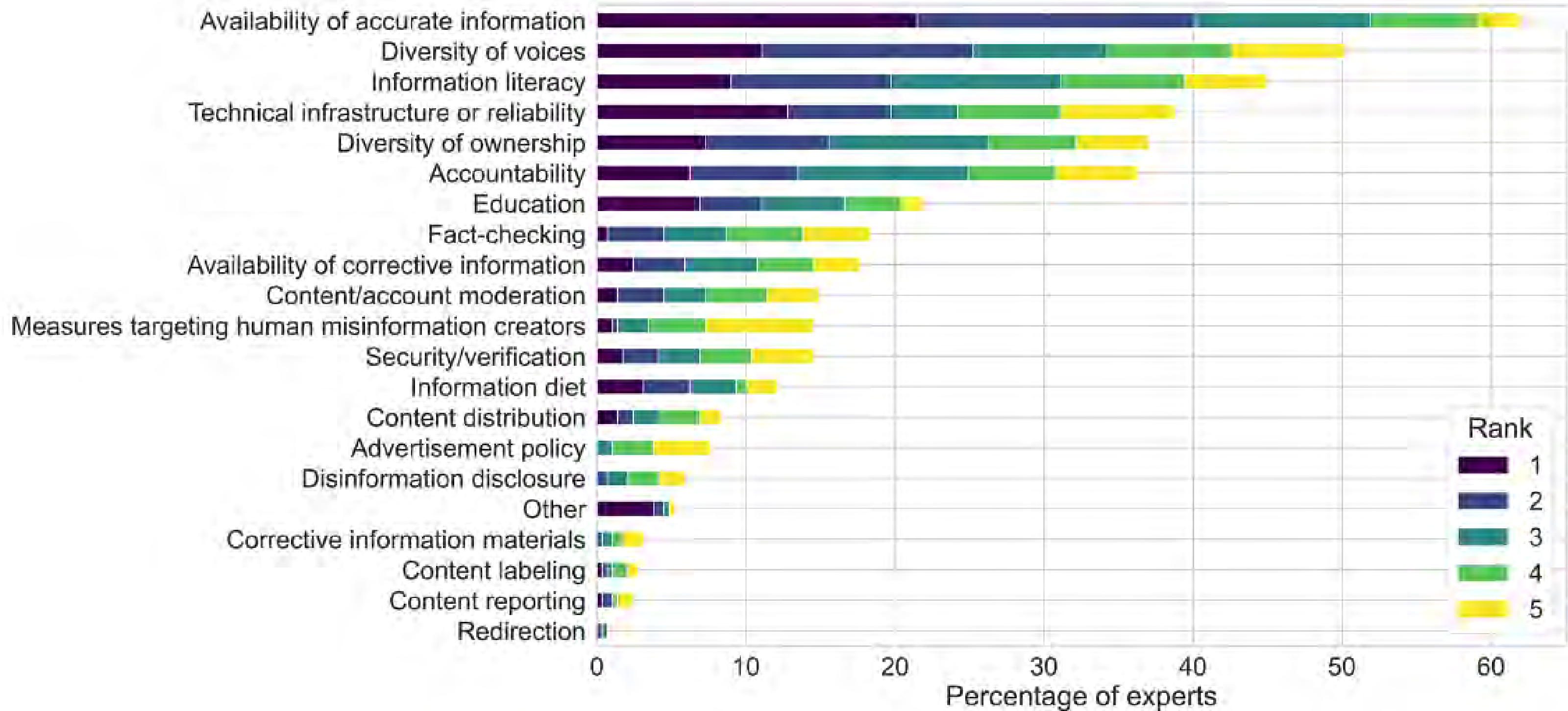
The information environment would improve if each of the following were deployed at scale and adopted widely:





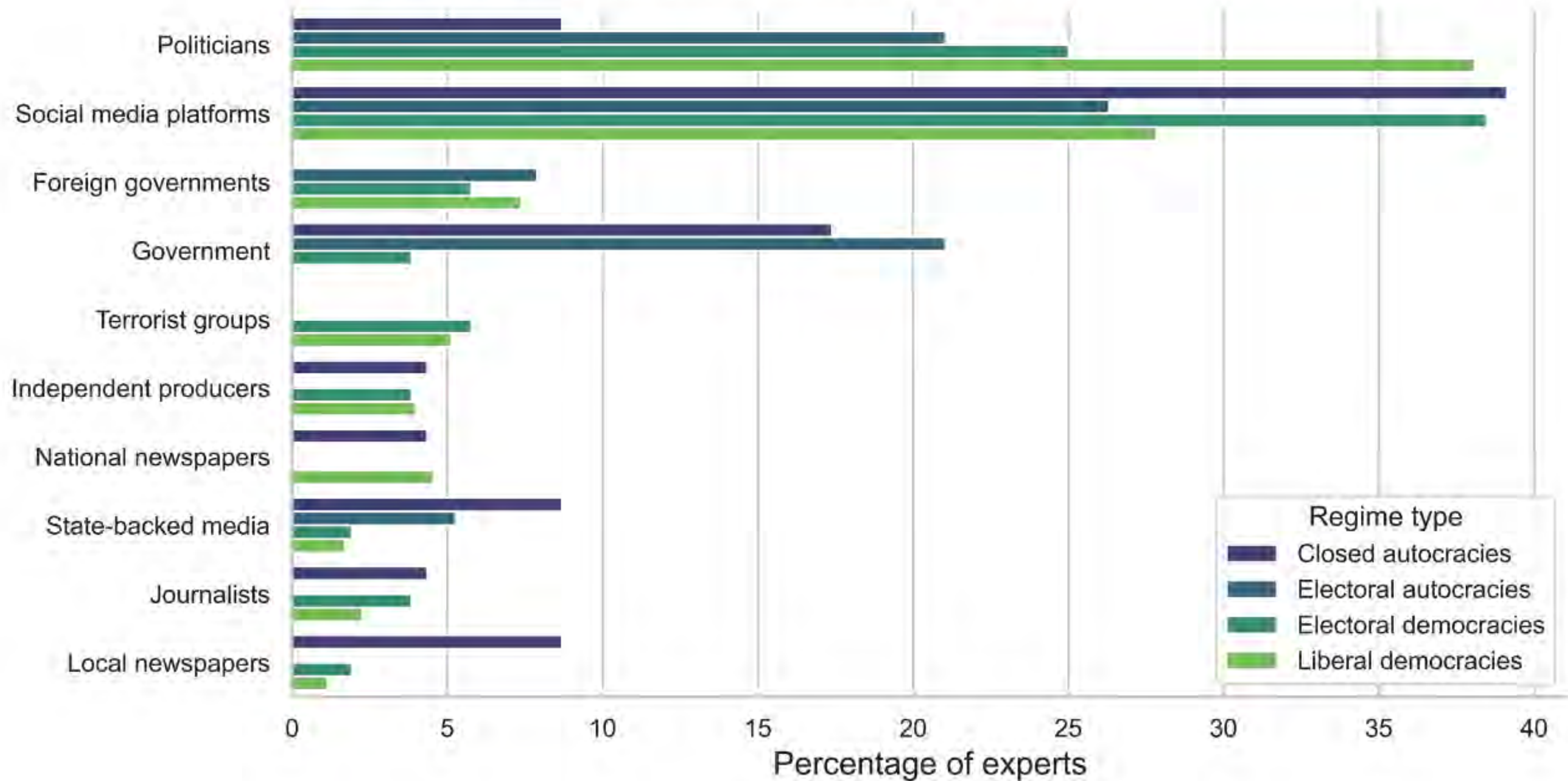
- In 2023, the IPIE surveyed **289 scientists** —researchers who had authored a relevant, peer-reviewed journal article.
- Survey was offered in **Arabic, Chinese, English, French and Spanish**
- Experts reported on trends in **54 countries**

Figure 1. Features of a Healthy Information Environment.



Source: Based on data collected by the IPIE 05/04/2023-06/02/2023.

Figure 2. Perceptions of the Most Threatening Actors to the Information Environment.



Source: Based on data collected by the IPIE 05/04/2023-06/02/2023.

Q&A
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Let's Make Manifestos

“A manifesto is a communication made to the whole world ...[The] only pretension is the discovery of an instant cure for political, astronomical, artistic, parliamentary, agronomical and literary [problems]. It may be pleasant, and good-natured, [.....] it's always right, it's strong, vigorous and logical.”

*--Tristan Tzara,
Dadist artist, early 20th
century (circa 1918)*

Writing a Manifesto

Writing a Manifesto in 5 easy steps:

1. Address the questions: “what do we believe?” and “who are we?” in relation to the central topic
2. Focus on what you are resisting, or what you are insisting.
3. Make strong and bold statements.
4. Write statements as declarative sentences (T/F)
5. Aim toward the big goals, saving the world

Let's Go to the Breakout Rooms

Society 5.0 Ethics

A Festival of Ideas



An Engaging for Impact Event | 17 - 18 June



Enabling Impact
Platforms
Social Change



Utrecht
University

Day Two

Society 5.0 Ethics



Keynote Welcome

Professor Lisa Given
RMIT University

Director, Social Change Enabling Impact Platforms
Professor of Information Sciences



Keynote

Society at the Edge of the Future

Laureate Professor Sarah Pink
Monash University

Director of the Emerging Technologies Lab

Society at the Edge of the Future

Sarah Pink, FUTURSHub

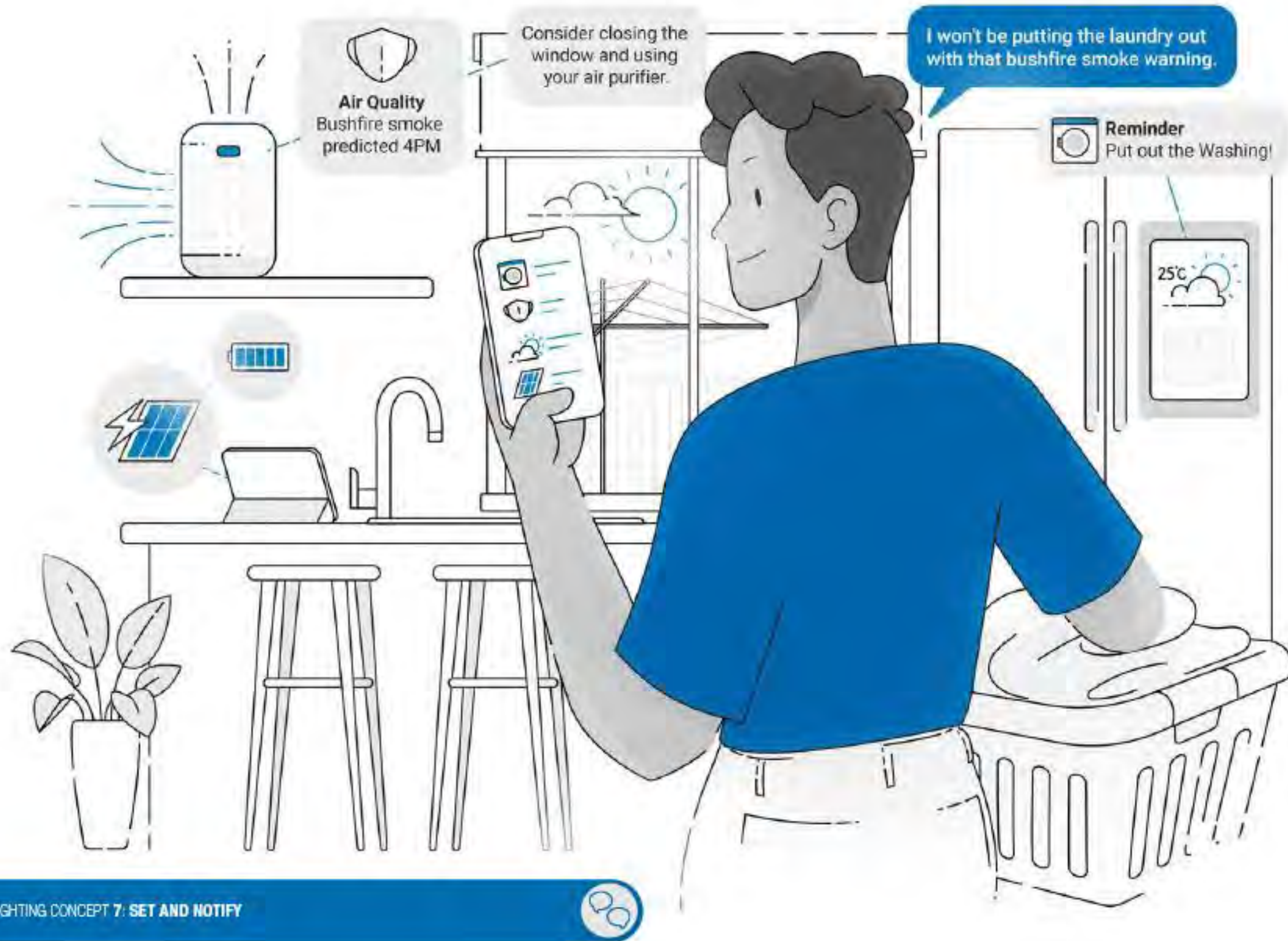
Emerging Technologies Lab

sarah.pink@monash.edu

5.0

2050







▶ FORESIGHTING CONCEPT 13: EVERYDAY INNOVATORS 



5.0



Industry

5.0



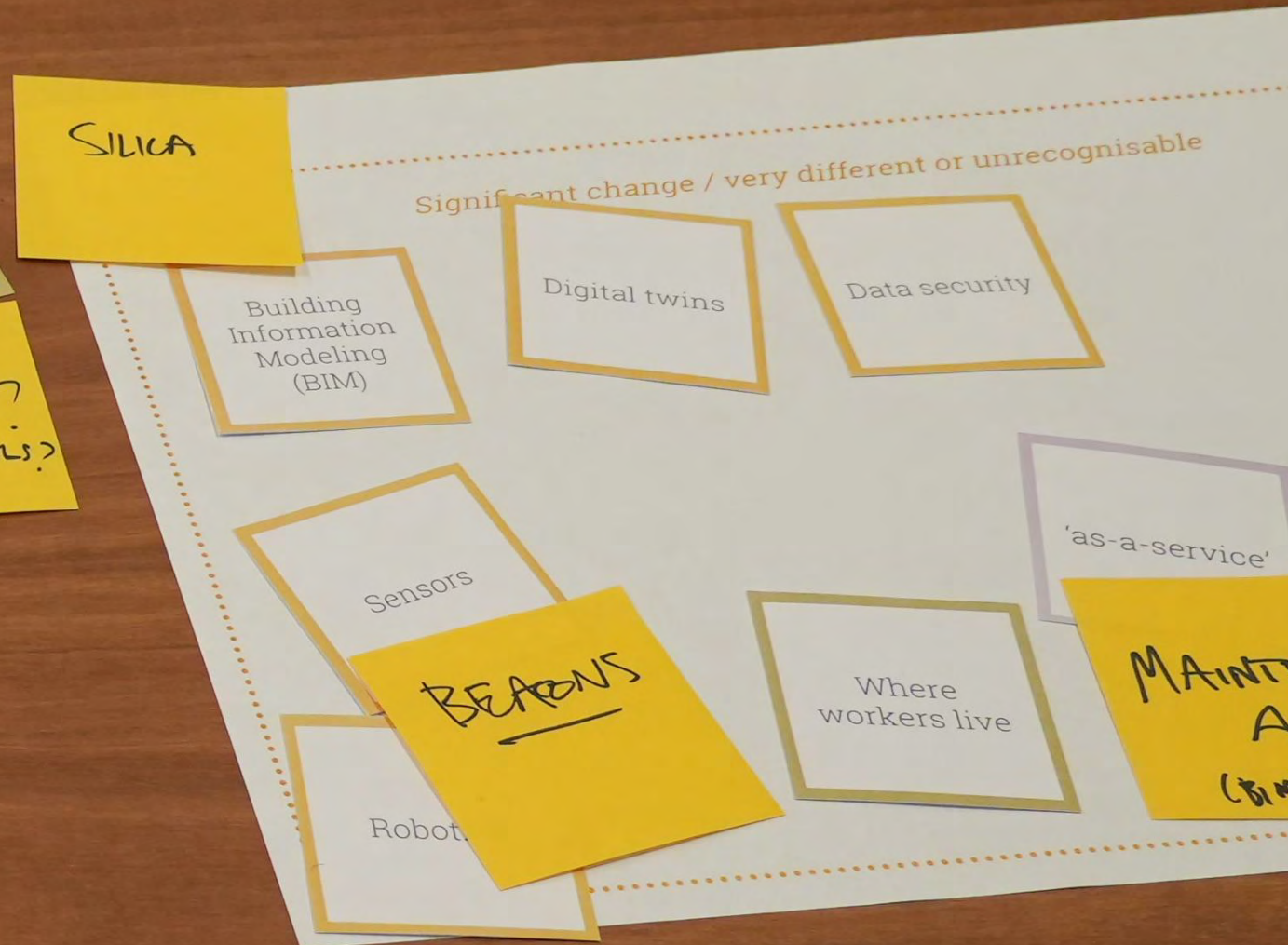
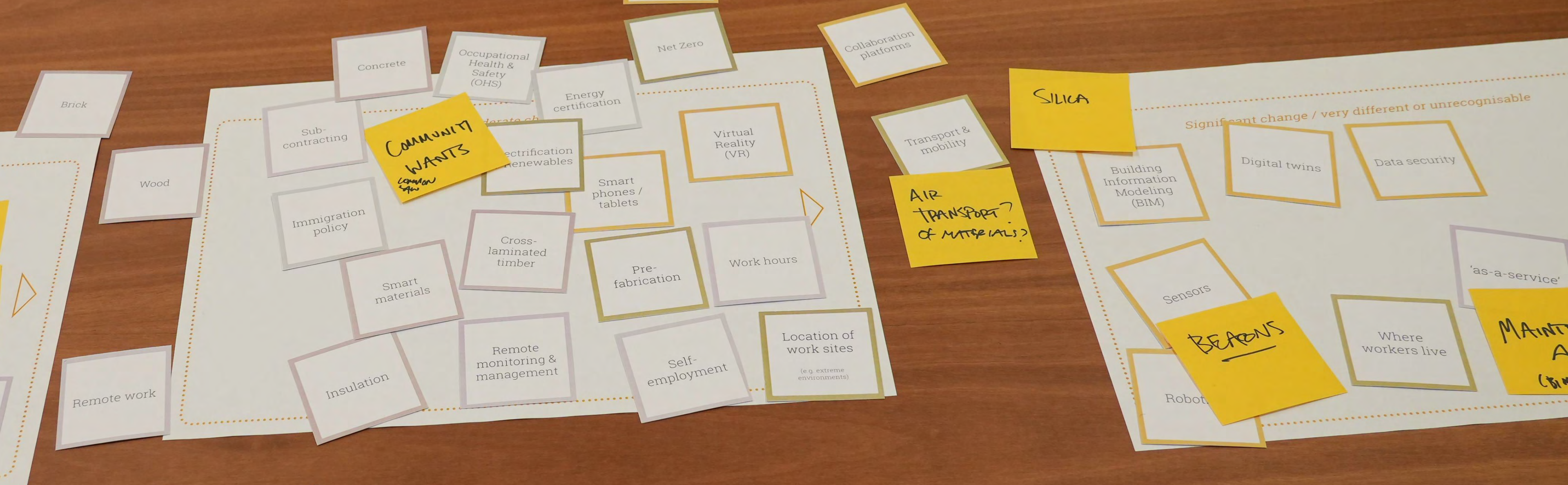
FBR
BRICKWORKS - CMU



4.0

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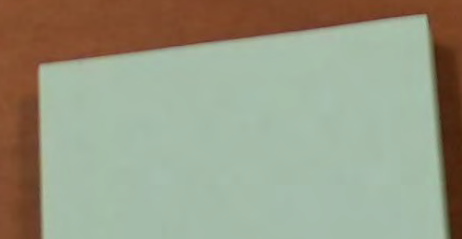
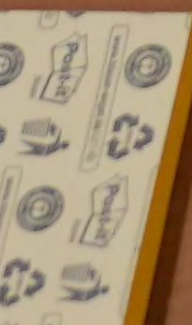


MATERIALS

PLACE

Biomaterials

WORK



5.0

2050



Acknowledgements (my research is collaborative)

Professor Yolande Strengers

Dr Larissa Nicholls

Dr Kari Dahlgren

Dr Rex Martin

Dr Hannah Korsmeyer

Dr Fareed Kaviani

Dr Ben Lyall

Dr Emma Quilty

Dr Darren Sharpe

Professor Rob Raven

Dr Dion Tuckwell

Jeni Lee

Sam Rye

Bianca Vallentine

Caitlin Cronin

2024-2029 ARC Laureate Fellowship. The impact of human futures on Australia's digital and net zero transition. Australian Research Council. FL230100131.

2021-2024 'Net Zero Precincts: an interdisciplinary approach to decarbonising cities. Australian Research Council Linkage project. LP200100296.

2020-2025 Workers in transition through automation, digitalization and robotization of work (AUTOWORK) Norwegian Research Council.

2020-2027 ARC Centre of Excellence for Automated Decision Making. CE200100005.

2019-2023 CI 'Digital energy futures: forecasting changing residential electricity demand' ARC Linkage project. LP180100203.

Society at the Edge of the Future

Sarah Pink, FUTURESHub

Emerging Technologies Lab

sarah.pink@monash.edu

Q&A with Prof Sarah Pink

Day Two - Session 4.1

Panel Discussion

When Tools Become Weapons: The Dark Side of Everyday Technology

Prof Nicola Henry
RMIT University

Professor, School of Global, Urban, and Social Studies



Dr Dana McKay
RMIT University

Associate Dean (Interaction, Technology & Information), School of Computing Technologies



Dr Nicole Shackleton
RMIT University

Lecturer in law



Dr Laura McVey
eSafety

Assistant Manager, eSafety (Gender & Tech team)



Day Two - Session 4.2



Roundtable

Working from Phone: Ethics, Technology, and the Future of Gig Work

Society 5.0 Ethics

Dr Paul Scifleet
Swinburne University of
Technology

Senior Lecturer



Dr Paul Bowell
Swinburne University of
Technology

Lecturer, Sports Innovation Research Group



Dr Jason Sargent
Swinburne University of
Technology

Lecturer



Ms Katie Dang
Swinburne University of
Technology

PhD candidate



Day Two - Session 4.3

Workshop

Essentials of Generative AI for HASS Scholars

Dr Robert Shen
RMIT University

*Director, RMIT AWS Cloud Supercomputing and
Cloud Innovation Centre*



Ms Emma Arrigo
AWS

Solutions Architect



Mr Patrick Taylor
AWS & RMIT University

Cloud Application Specialist and PhD candidate



Day Two

Level 3 Foyer Share Your Voice!

We need research that explores...

...to inform ethical futures for Society 5.0



Thank you for your ideas!

Be sure to attend the "Voices into the Future" session (Tuesday 18 June 2024, 5pm) to hear more about a potential future research agenda for Society 5.0 Ethics.

Society 5.0 Ethics

A Festival of Ideas

An Engaging for Impact Event
17–18 June 2024



Today @ 5:15pm
“Voices from the Future”

Society 5.0 Ethics

Day Two

Afternoon Tea



Level 3 Foyer



Society 5.0 Ethics

A Festival of Ideas



An Engaging for Impact Event | 17 - 18 June



Enabling Impact
Platforms
Social Change



Utrecht
University

Day Two

Society 5.0 Ethics



HDR Plenary Welcome

Professor Annette Markham
Utrecht University

*Chair Professor of Future Data Literacies and Public
Engagement*

Day Two - Session 5

Plenary Session

Voices into the Future: Setting a Potential Research Agenda for Society 5.0 Ethics

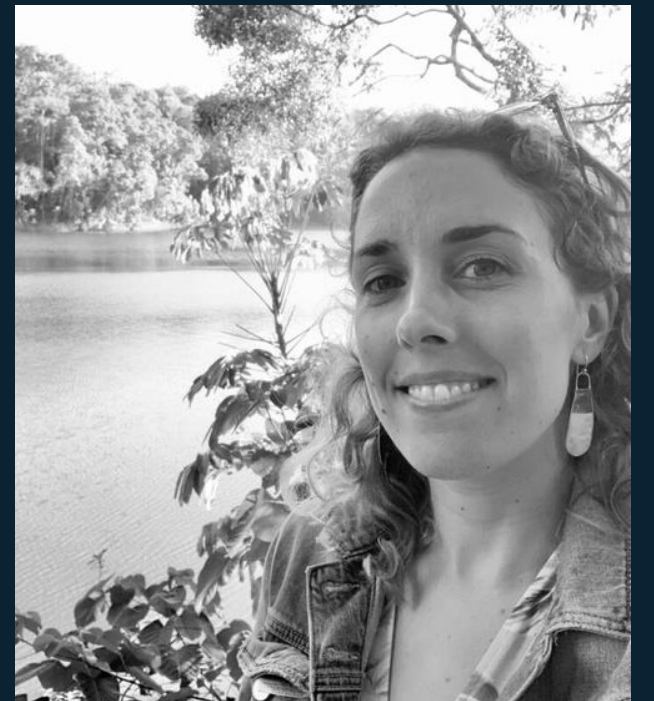
Ms Joann Cattlin
RMIT University

PhD Candidate and Research Assistant



Ms Stephanie Livingstone
RMIT University

*PhD student, School of Media and
Communication*



Society 5.0 Ethics

Voices into the future: setting
a potential research agenda
for Society 5.0 Ethics

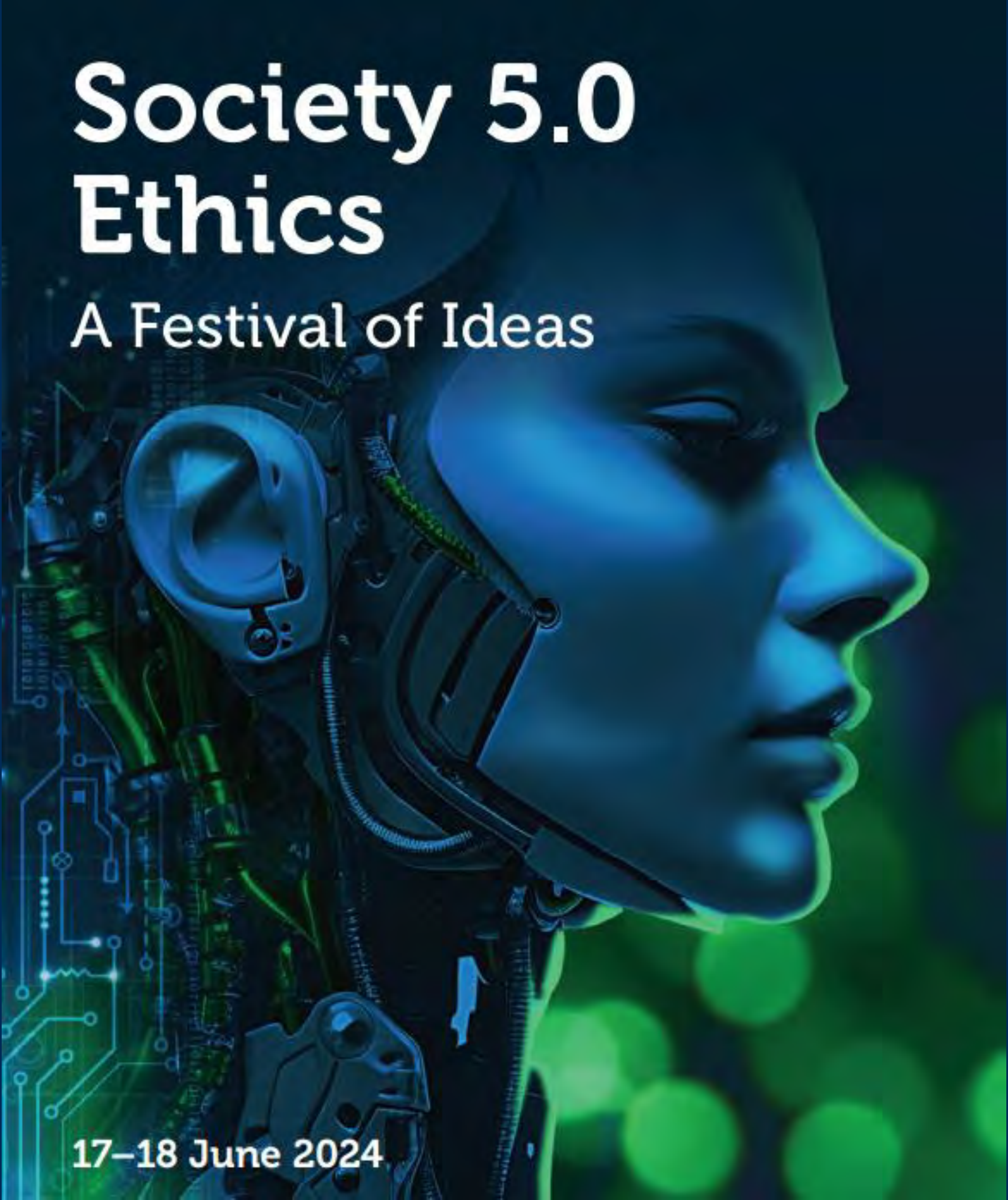
Joann Cattlin - PhD Candidate, RMIT
University

Stephanie Livingstone - PhD
Candidate, RMIT University

Society 5.0 Ethics

A Festival of Ideas

17-18 June 2024





What research do we need to inform ethical futures for Society 5.0?



human agency in Society 5.0

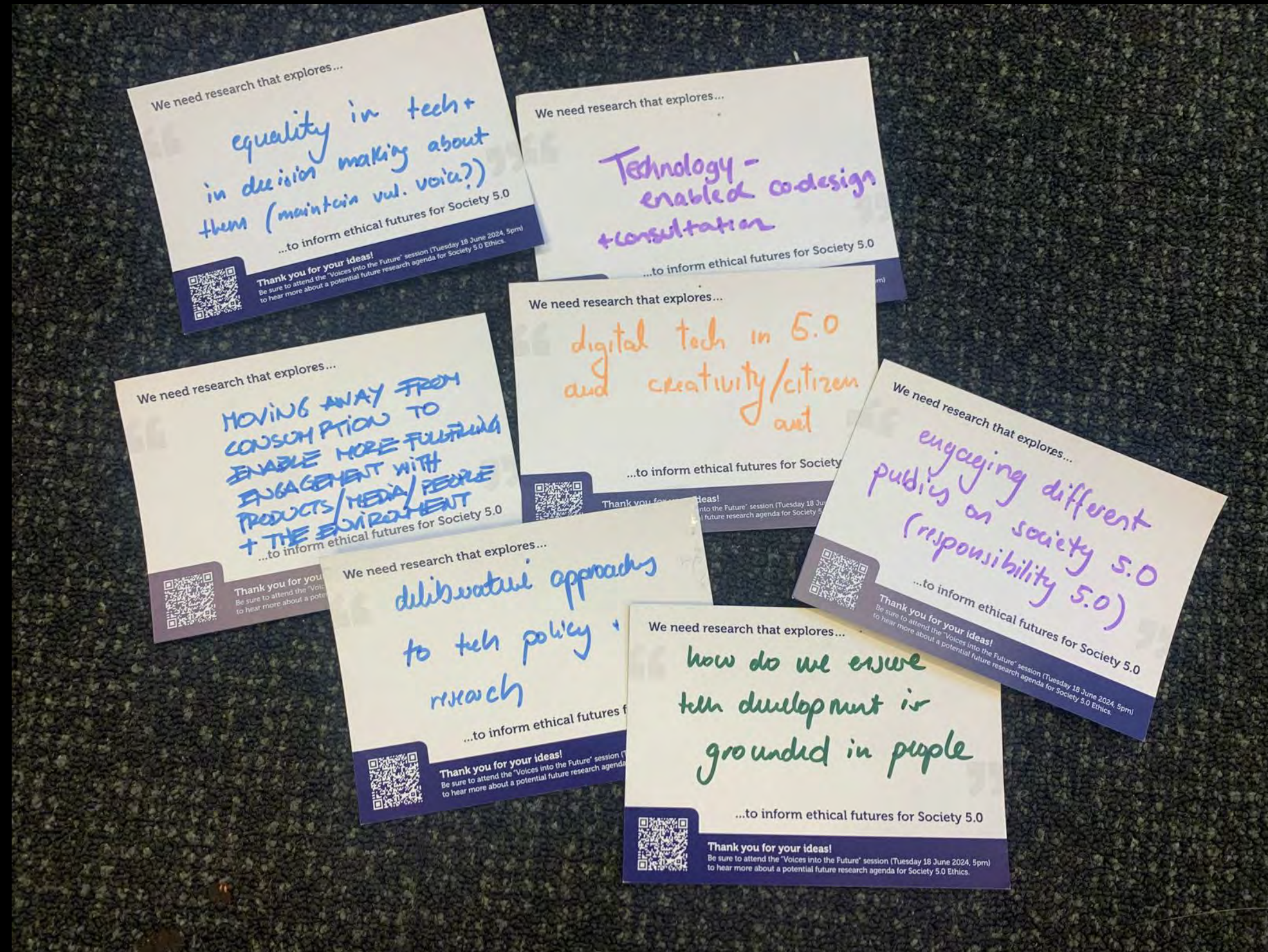
Engaging different publics in society 5.0

Preparing for transdisciplinary research

Reflexivity in research

Reimagine Human Rights

Communicating and engaging



Communicating and engaging

contexts: research, industry and community

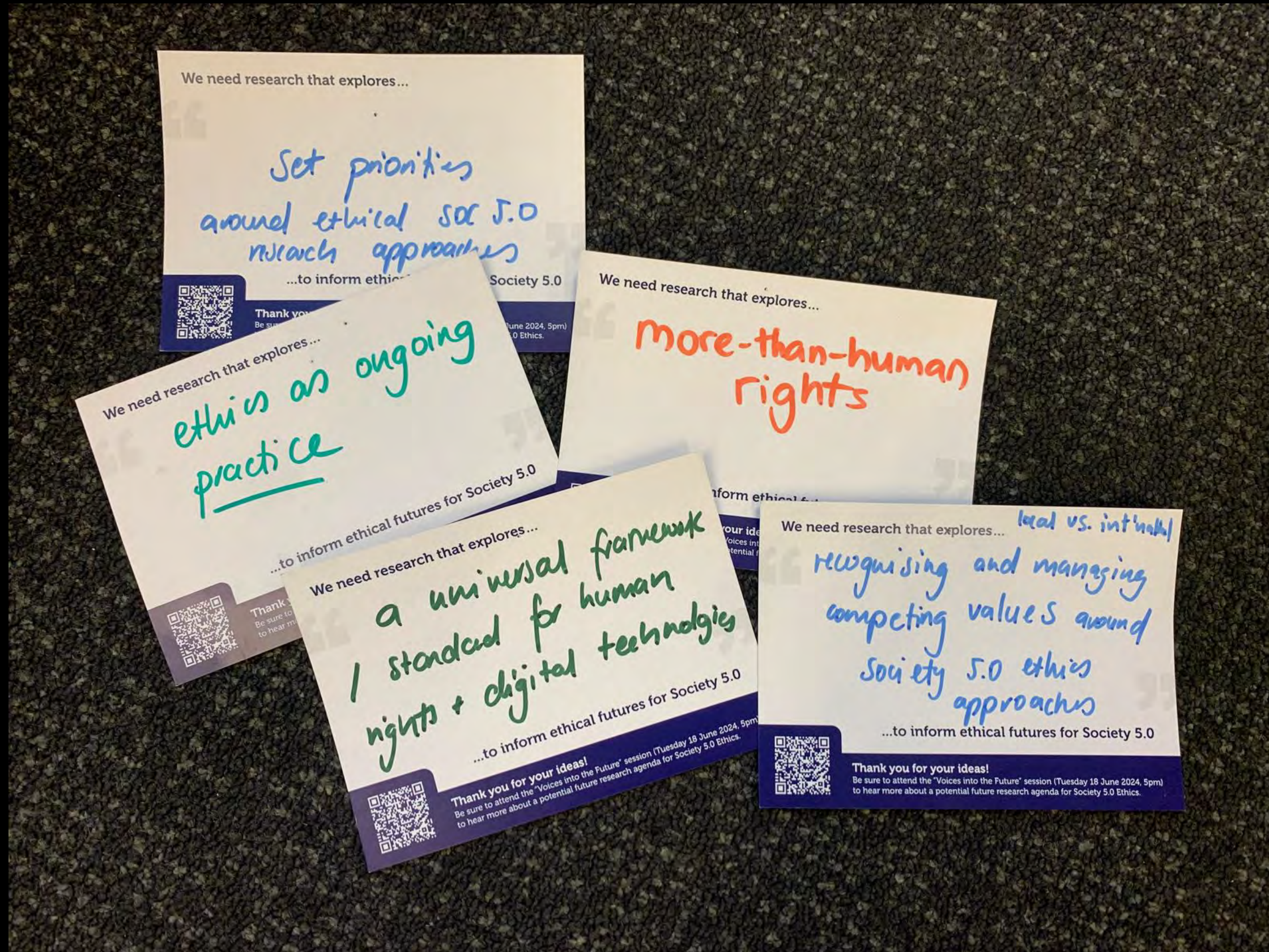
What does engagement look like?

- **deliberative approaches to tech design and consultation**
 - genuine engagement: e.g.
 - intentionally capturing the nuance of human experience
- **appropriate use of co-design FOR genuine engagement**

What does communication look like?

- **cross-disciplinary, research to industry: finding language common ground/middle ground**
- **how to demystify complex tech probs for public access/understanding?**
 - making tradeoffs visible
 - naming big tech influence (Julia)
- **digital literacy (re dis/misinformation)**
- **reflexivity: "What are the consequences of definitions?" (Sarah Pink)**

Pathways to people-focused design



Pathways to people-focused design

RESEARCH AREAS

GOALS

defining the individual
grounding design work in people
Human rights, ethics as ongoing
practice
equity and access
consultation / engagement

re-imagining human rights in digital
ecosystems
being intentional about diversity (of
knowledge and engagement)
re-configuring ethics as ongoing
practice
co-design as democratic process
(Rachel)
how to establish society as starting
point for research and design

negotiating our individual identities in Society 5.0

Aspiration as a navigational tool

locating responsibility (to environment, to our emotions, to our own attention and qualities of life, negotiating online and offline otherselves)

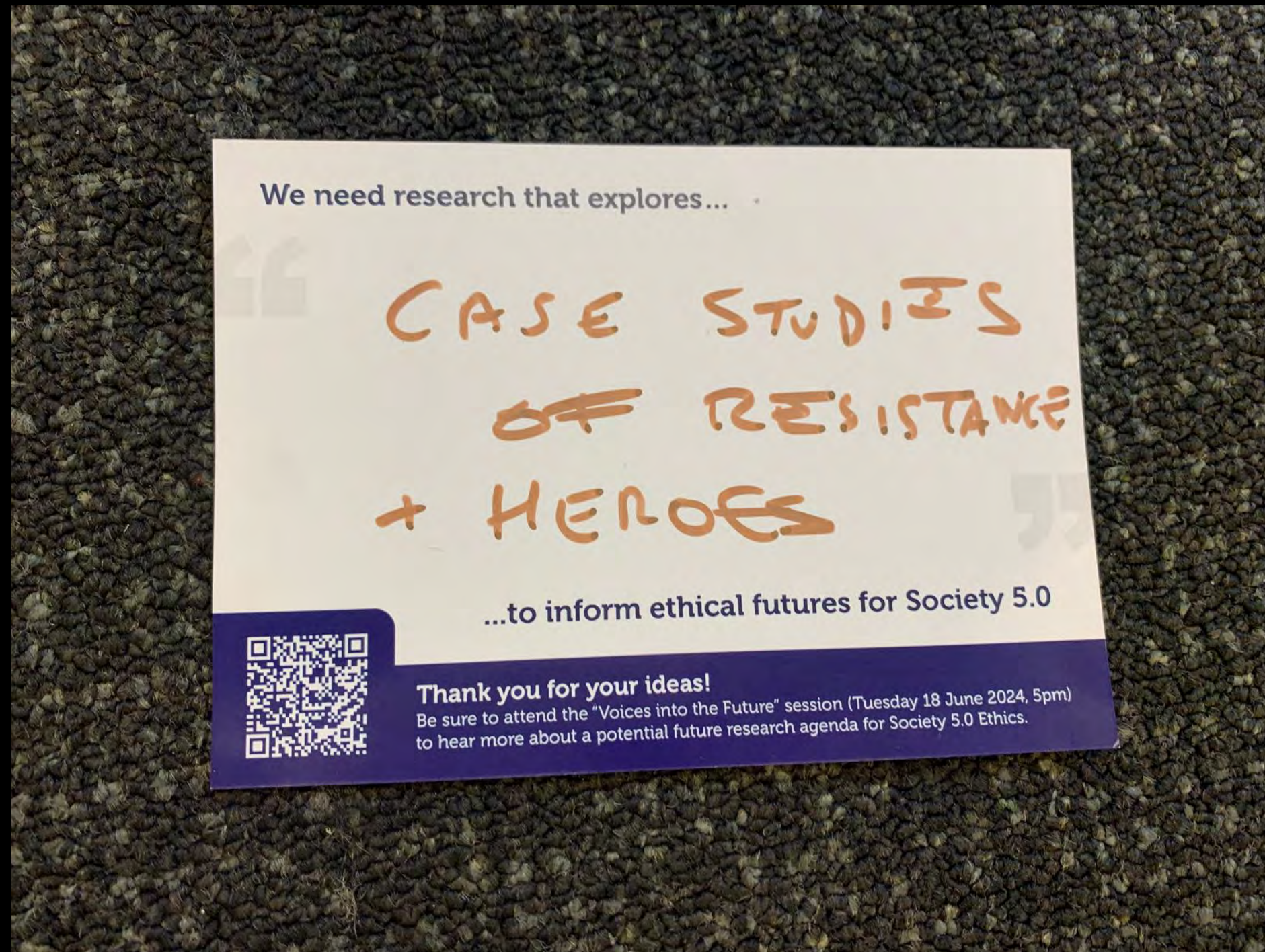
being proactive: preparing for future otherselves

data as obfuscating our true identities (Annette saying that data flattens, separates and equalises)

where we assign value / how we do this?



Power



We need research that explores...

CASE STUDIES
OF RESISTANCE
+ HEROES

...to inform ethical futures for Society 5.0



Thank you for your ideas!

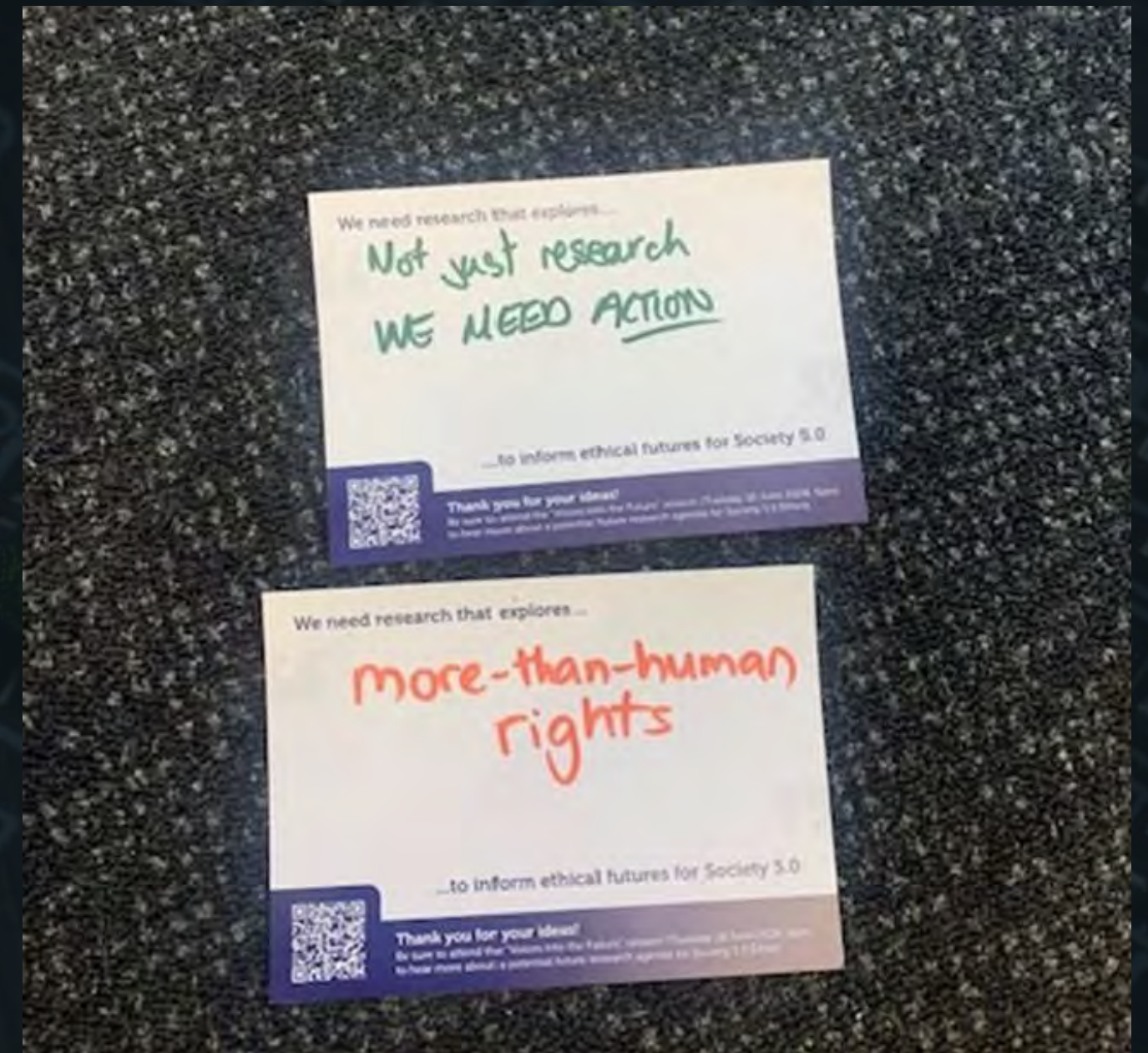
Be sure to attend the "Voices into the Future" session (Tuesday 18 June 2024, 5pm) to hear more about a potential future research agenda for Society 5.0 Ethics.

Power

- **Countering invisible mechanisms of control - e.g. taking back power // nudges and data trails**
- **Bias and misinformation/disinformation in automated ecosystems**
- **Commodification and capitalism: recognising, resisting, slowing down**
 - **Using story to slow down**
- **revealing how data elusively stewards our thoughts emotions interactions behaviours perceptions**
 -
 -

Other provocations which came up

- More than human considerations
- Impact on health
- Impact on planet





Day Two

Society 5.0 Ethics



Keynote Welcome

Professor Annette Markham
Utrecht University

*Chair Professor of Future Data Literacies and Public
Engagement*

Keynote

A Transdisciplinary Ethos for a Society 5.0 Ethical Future



Professor Lisa Given, RMIT University

Director, Social Change Enabling Impact Platform

Professor of Information Sciences

A Transdisciplinary Ethos for a Society 5.0 Ethical Future

Lisa M. Given, PhD

Professor of Information Sciences

Director, Social Change Enabling Impact Platform

Co-Director & Co-Founder, CHAI

@lisagiven

<http://lisagiven.com>

lisa.given2@rmit.edu.au



Acknowledgement of Country

RMIT University acknowledges the people of the Woi wurrung and Boon wurrung language groups of the eastern Kulin Nation on whose unceded lands we conduct the business of the University.

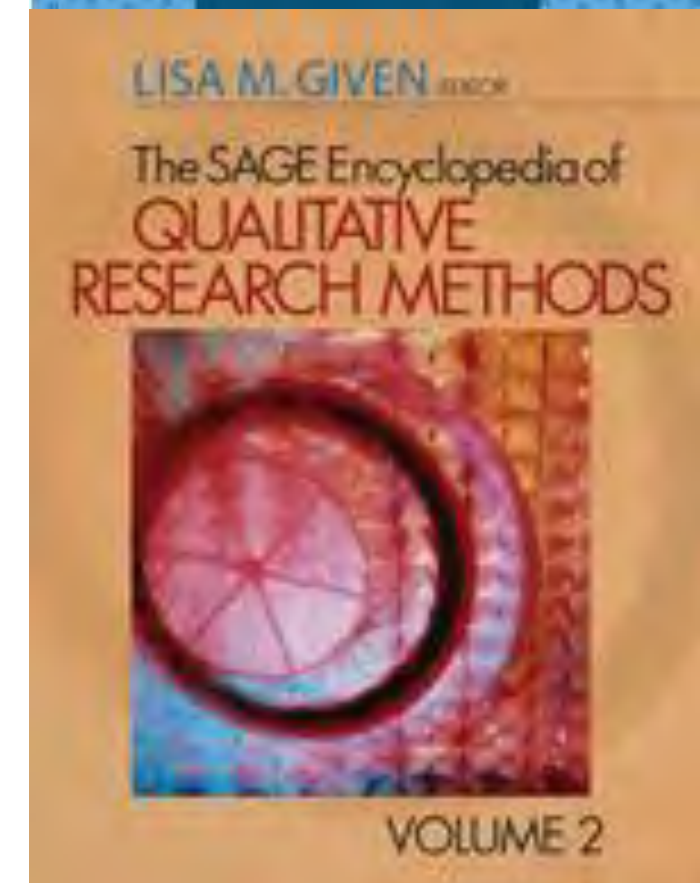
RMIT University respectfully acknowledges their Ancestors and Elders, past and present.

RMIT also acknowledges the Traditional Custodians and their Ancestors of the lands and waters across Australia where we conduct our business.

Research Practice for Social Change

Information Behaviour Scholar & Research Methodologist

- **Transdisciplinarity** – collaborative teams with nursing, ecology, wine sciences, medicine, architecture, digital humanities... among others – in partnership with industry
- User experience design & technology use
- Qualitative and mixed methods design; societal impact
- Fellow, Academy of Social Sciences in Australia
- Co-Director/Co-Founder RMIT's new Centre for Human-AI Information Environments (CHAI) @lisagiven



Societal Research Impact as “Ethos”

Rickards, L., Steele, W., Kokshagina, O. and Morales, O. (2020) *Research Impact as Ethos*. RMIT University, Melbourne, Australia. DOI 10.25439/rmt.12787244

1ST GENERATION

Focuses on complementing academic rigour by demonstrating the relevance of research, increasing its reach by making it more publically accessible, and encouraging end users to adopt it.

2ND GENERATION

Shifts the focus to working with partners to ensure research is legitimate, generating value for and with research partners, and improving research impact literacy across the institution.

3RD GENERATION

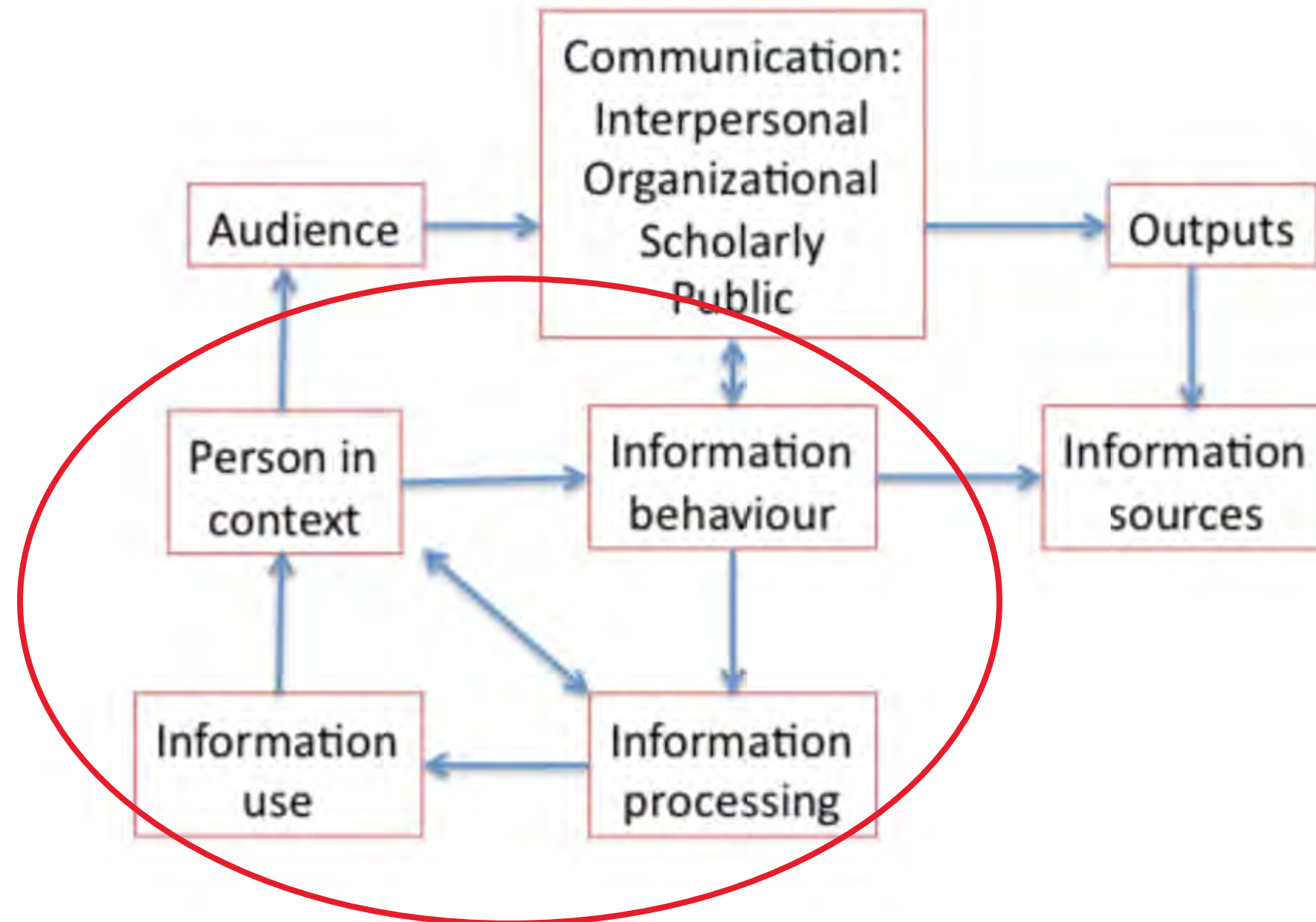
Emphasises the need to focus on what is most important, consciously operate within genuinely eco “innovation ecosystems”, assess impacts and generate synergies across projects, adapt to dynamic conditions and continually learn, improve and build.



The Scope of Information Behaviour Research

Wilson, T.D. 2016. A general theory of human information behavior. *Information Research* 21,4

<http://www.informationr.net/ir/21-4/isic/isic1601.html> (Proceedings of the 2016 ISIC – Zadar, Croatia, 20-23 September)



“...behavioural theory of human information interaction”

Focus on technology use – social media, artificial intelligence tools, internet sources, apps, etc.

Society 5.0 Ethics – centring human experience in system design and use – to disrupt technological determinism and examine implications for “real people” across contexts

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CSIRO Megatrends (2022)



"Australia is at a pivotal point. There is a tidal wave of disruption on the way, and it's critical we take steps now to get ahead of it."

*CSIRO Chief Executive Dr
Larry Marshall*





CSIRO Megatrends (2022)

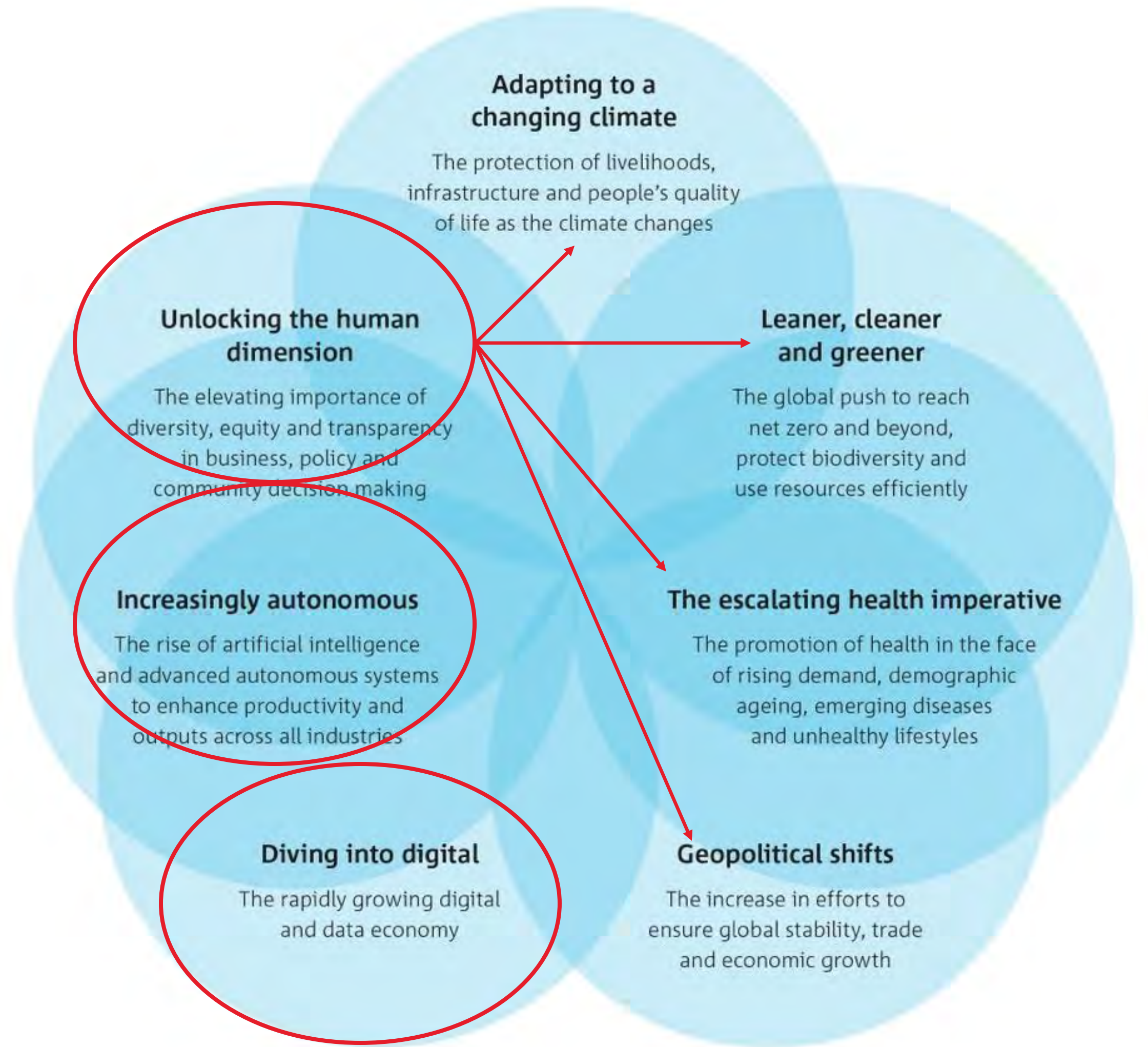




CSIRO Megatrends (2022)

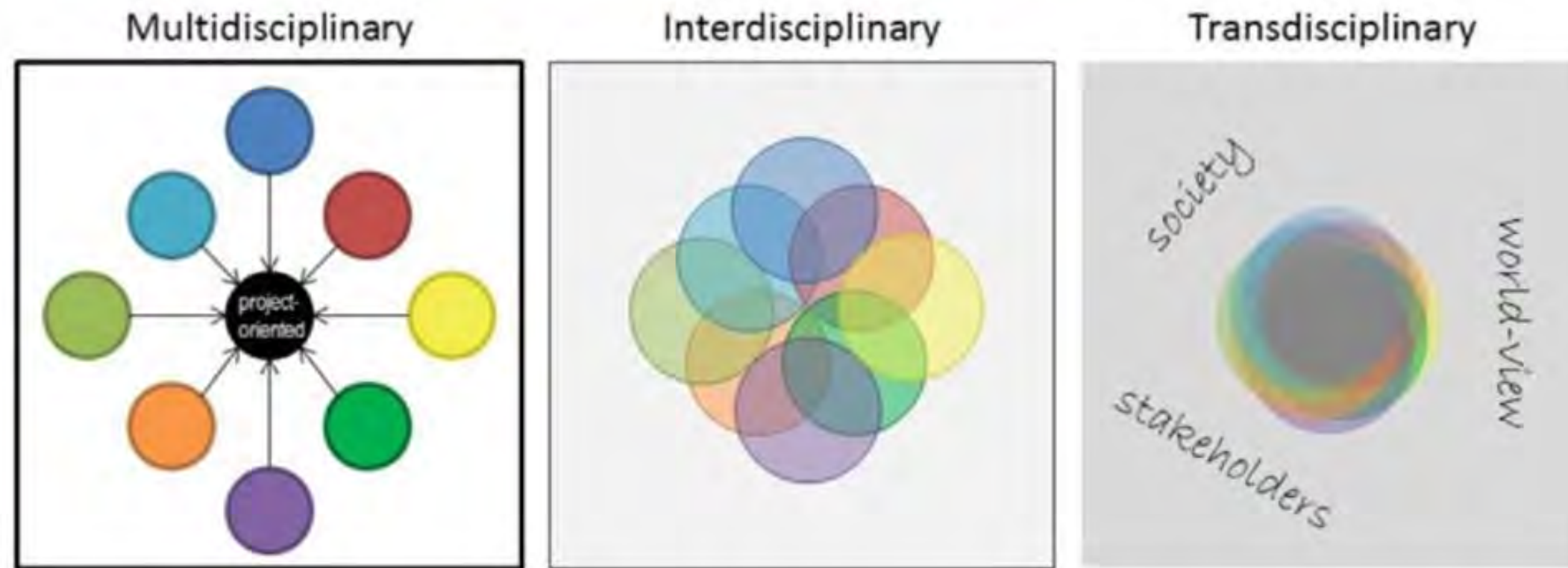


CSIRO Megatrends (2022)



Are Researchers and Our Partners Ready?

Multi- → Inter- → Transdisciplinary



Differentiation between Interdisciplinary and Transdisciplinary Concepts





What Does it Mean to Engage in Transdisciplinary Research?

Interdisciplinary, collaborative research teams bring:

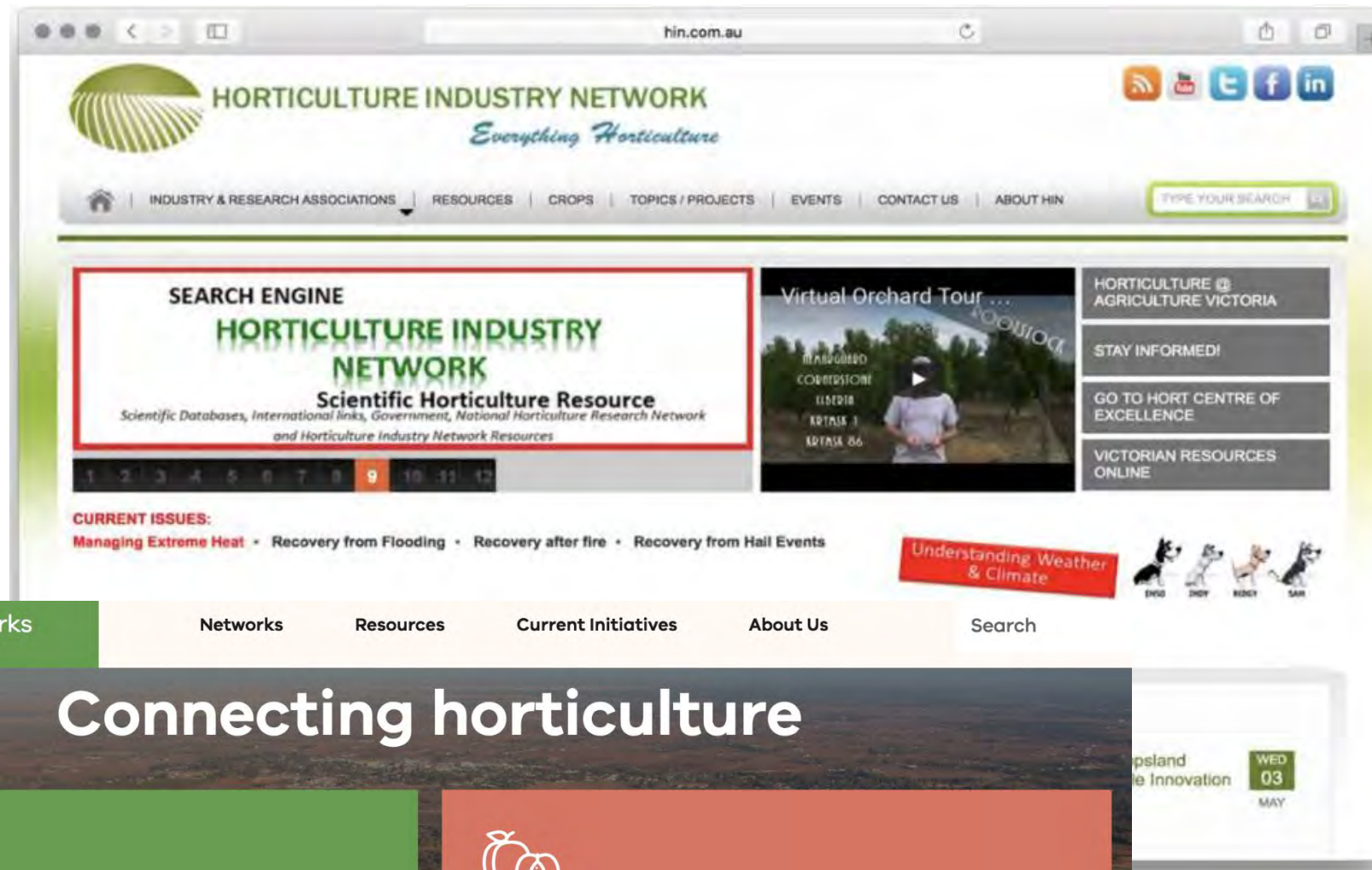
- **sustained, meaningful engagement** of community, industry, and/or government from the outset
- emphasis on **complex** issues
- focus on **applied** outcomes

(Polkinghorne, S., Bowell, P., and Given, L.M. 2024. Transdisciplinarity: An imperative for information behaviour research. *Information Research* – forthcoming August).

- Transdisciplinary research practices are understudied but critical to project success and societal impact



Information Seeking & Research Adoption in the Wine Industry (ARC Linkage)



Horticulture Industry Networks

Connecting horticulture

- Profitable Pears**
Blush pear research for producers →
- Profitable Stonefruit**
Research for summerfruit producers →
- Horticulture Industry Network**
Network of horticulture industry organisations with significance to Victoria
- Horticulture Biosecurity Network**
Members only login



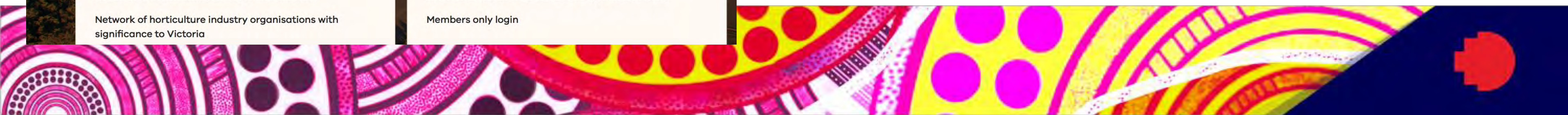
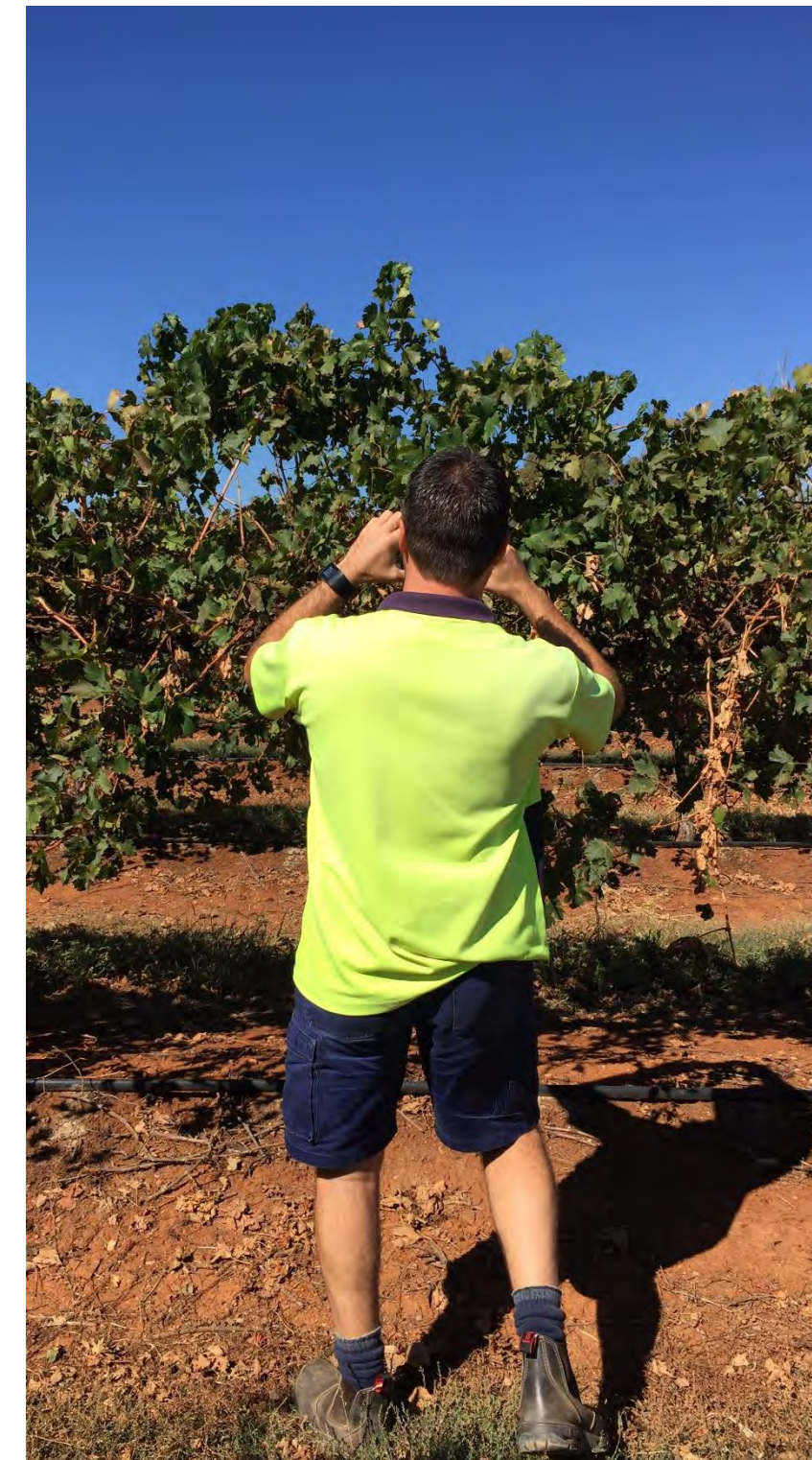
Vine Assessments

How to dissect a vine >

Info - How to use this app >



@lisagiven

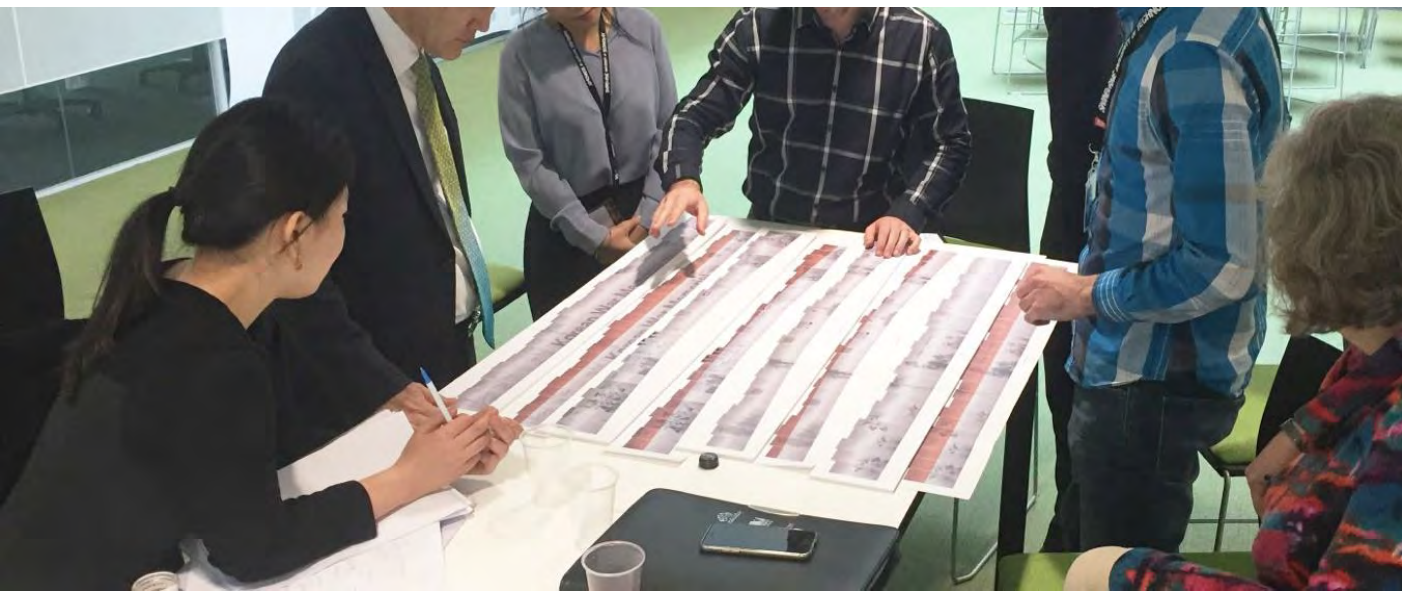


The “Informing Aesthetic” of Memorial Design

Given, L.M., & B. Kuys. 2022. Memorial design as information creation: Honoring the past through co-production of an informing aesthetic. *Library and Information Science Research*. <https://doi.org/10.1016/j.lisr.2022.101176>



KOREAN WAR MEMORIAL



@lisagiven





**Mapping Transdisciplinary Research
Practice *Problem Spaces (and Solutions)*
for a Society 5.0 Ethical Future**



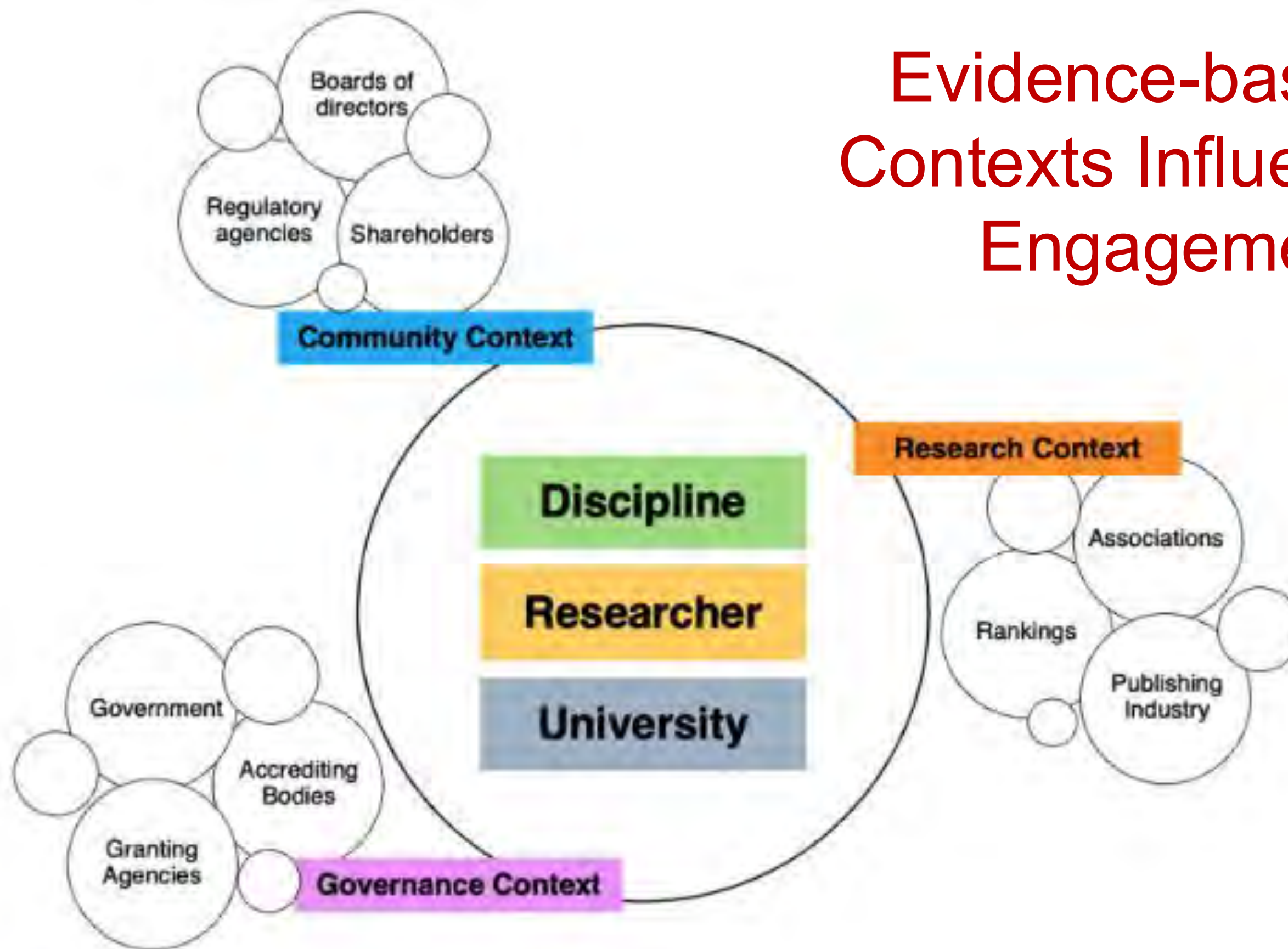


Problem Space #1 – Research does not happen in isolation from (e.g.,) geopolitics, disciplinary expectations, university goals, and other “external” influences

These contexts shape team members’ goals, ways of working, funding options, etc.



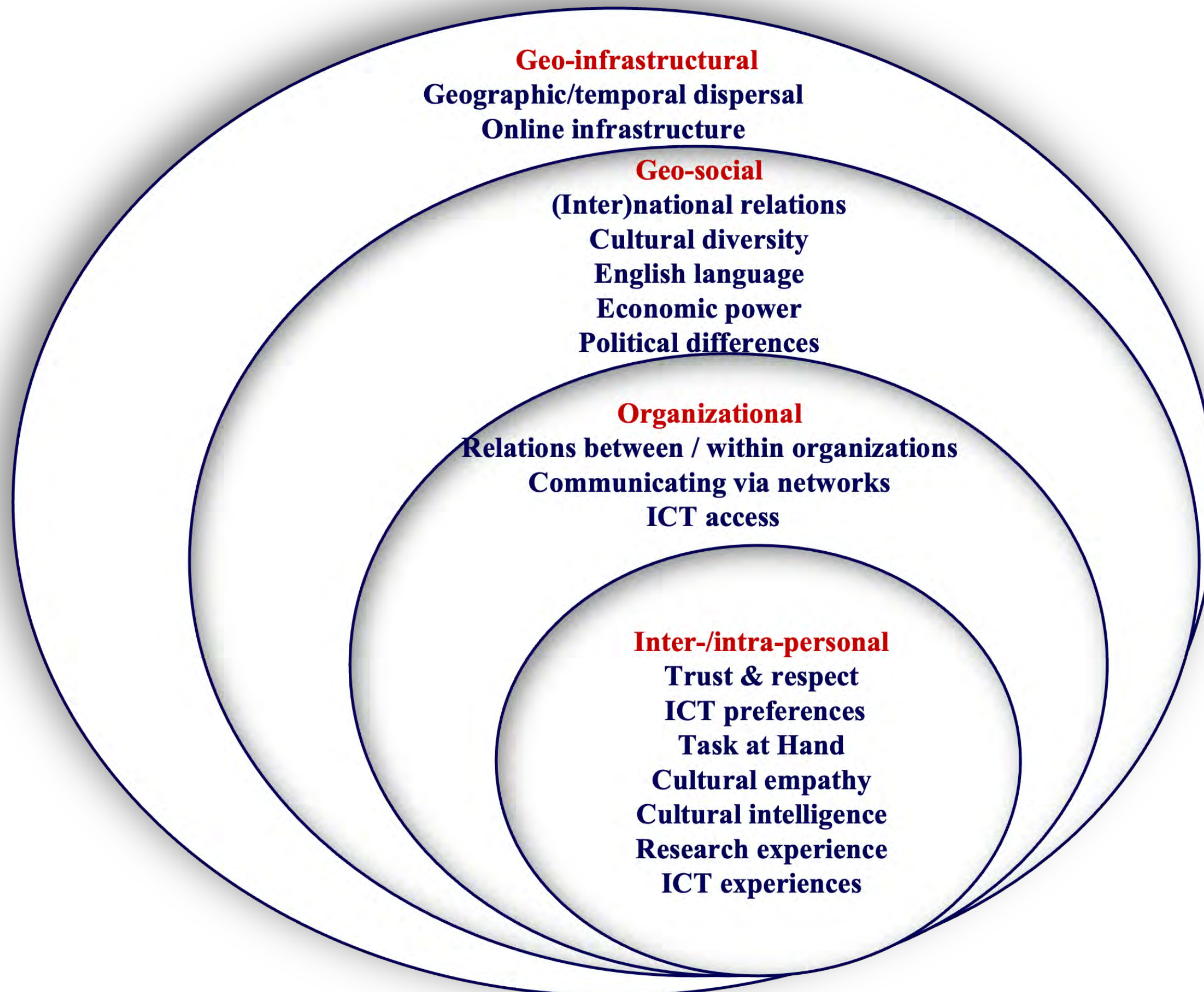
Evidence-based Model of the Contexts Influencing Community Engagement for Impact



Kelly, W.B., & Given, L.M. (2023). The Community Engagement for Impact (CEFI) Framework: An evidence-based strategy to facilitate social change. *Students in Higher Education*. <https://doi.org/10.1080/03075079.2023.2238762>

Figure 2. Contextual model of community engagement (CMCE) framework.





Evidence-based Model of the Contexts Influencing Intercultural Transdisciplinary Teams

Ward, W.S., and Given, L.M.
2024. The Geo-Social-Personal
Model: Mapping complex
information ecosystems for
research-related information
behaviours. *ASIST Annual
Meeting – forthcoming October.*





Problem Space #2 – Researchers and non-academic partners bring different expertise, backgrounds, skills, techniques, paradigmatic approaches, etc.

These shape interactions and decisions across the entire research project and affect potential for engagement/impact success





Framework for Designing “Holistic” Studies

Polkinghorne, S., & Given, L.M. 2021.
Holistic information research: From
rhetoric to paradigm. *Journal of the
Association for Information Science and
Technology*, 72(10), 1261-1271.
<https://doi.org/10.1002/asi.24450>



TABLE 1. General and intercultural heuristics used in the intercultural combined heuristic evaluation tool (I-CHET).

General heuristics	Intercultural heuristics
1. Visibility of system status	11. Language used
2. Match between system and real world	12. Geographic/temporal distance
3. User control and freedom	13. Interpersonal relations
4. Consistency and standards	14. Specific cultural cues
5. Error prevention	15. Conversation and group support
6. Recognition rather than recall	16. Communication style
7. Flexibility and efficiency of use	17. Readiness to use
8. Aesthetic and minimalist design	18. Legal adaptability
9. Help users recognize, diagnose and recover from errors	
10. Help and documentation	

InterCultural Assessment of Technology Tools for Team Communication – iCHET Framework

Ward, W.S., and Given, L.M. 2019. Assessing intercultural communication: Testing technology tools for information sharing in multinational research teams. *Journal of the Association for Information Science and Technology*, 70(4): 338-350. DOI: <https://doi.org/10.1002/asi.24159>





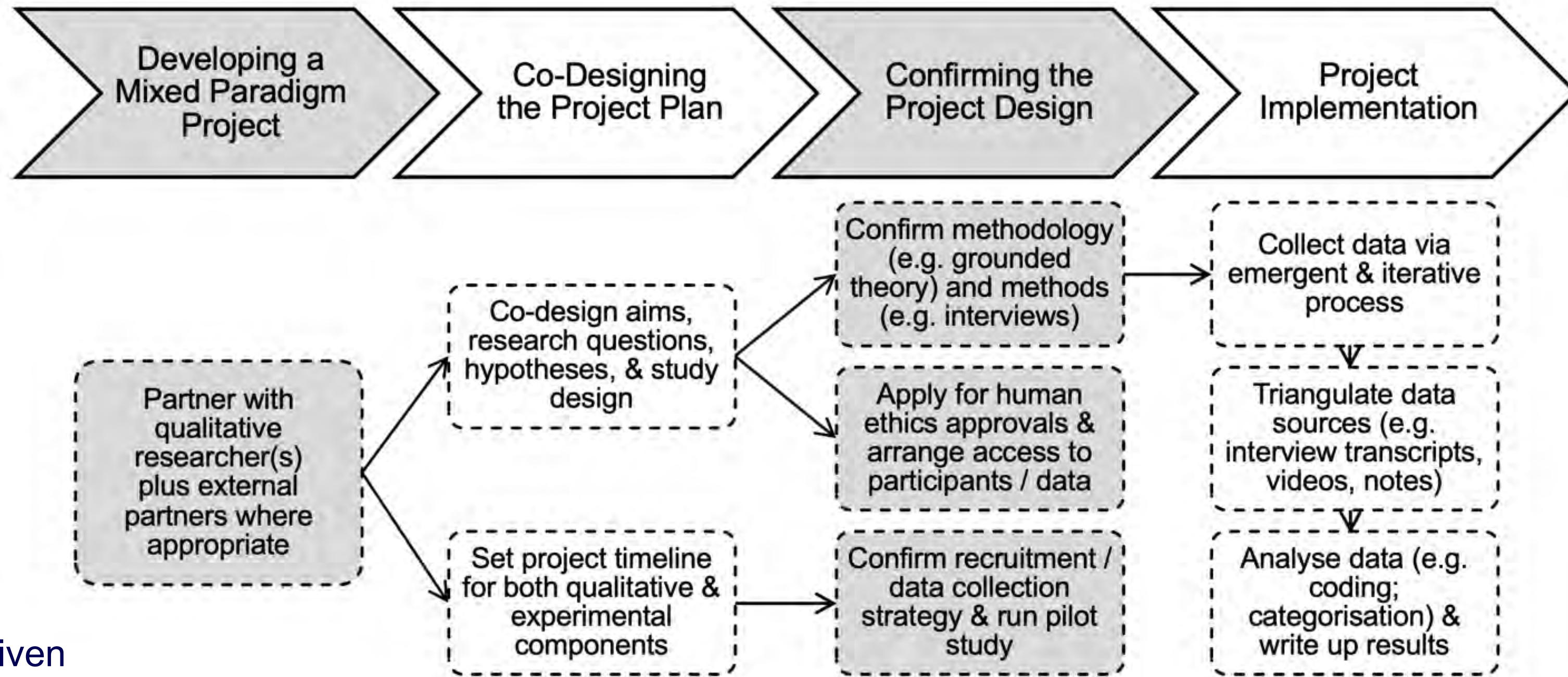
Problem Space #3 – Strategies are needed for bridging across team members' different paradigms, experiences, and expectations

Support is needed when projects are being developed *and* during implementation, translation of outcomes, and impact work following project completion



Tool for Designing Collaborative, Cross-Paradigm Research

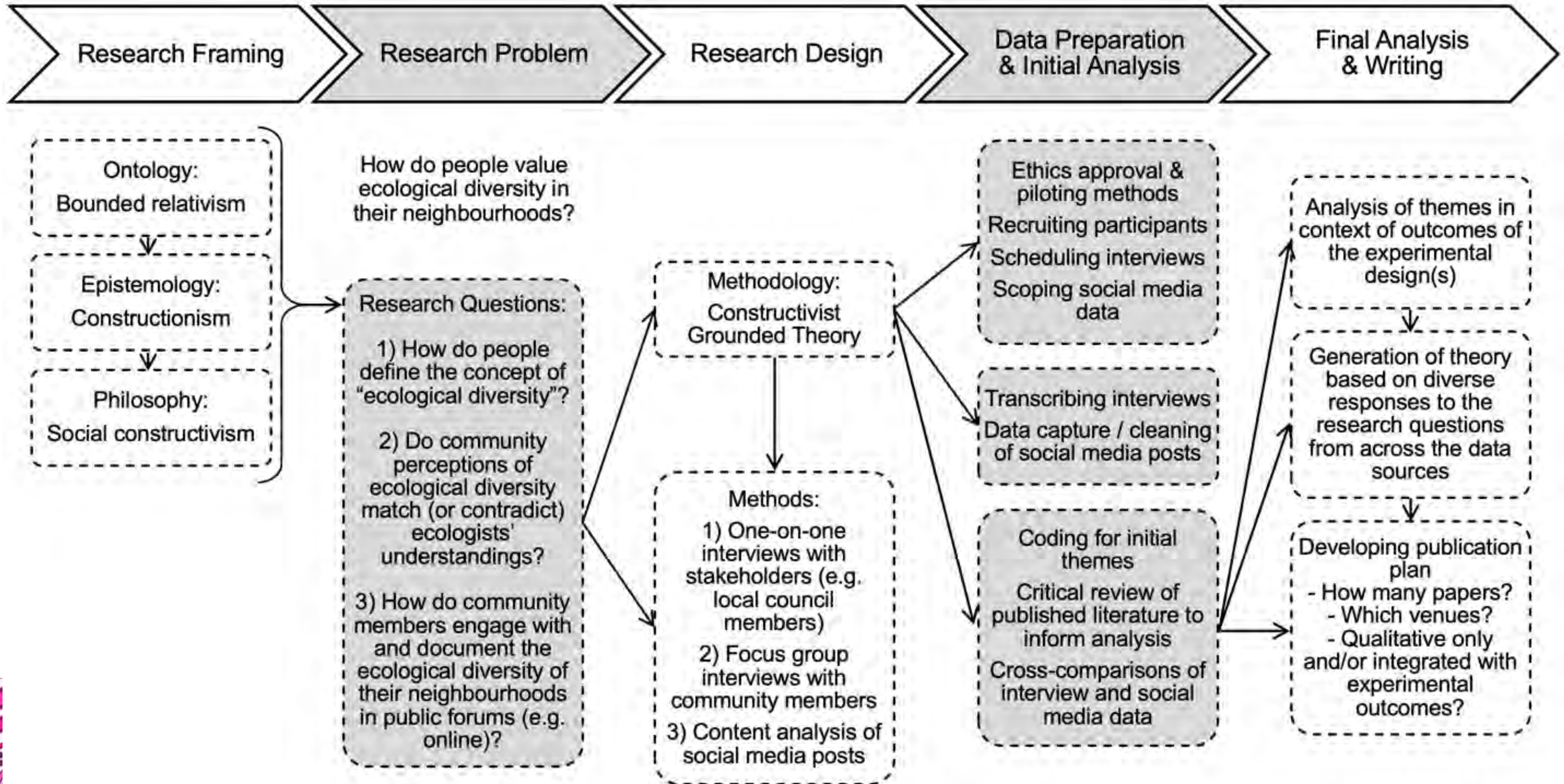
Keith, R., Given, L.M., Martin, J., & Hochuli, D. 2022. Collaborating with qualitative researchers to co-design social-ecological studies. *Austral Ecology*, 47(4), 880-888. <https://doi.org/10.1111/aec.13172>



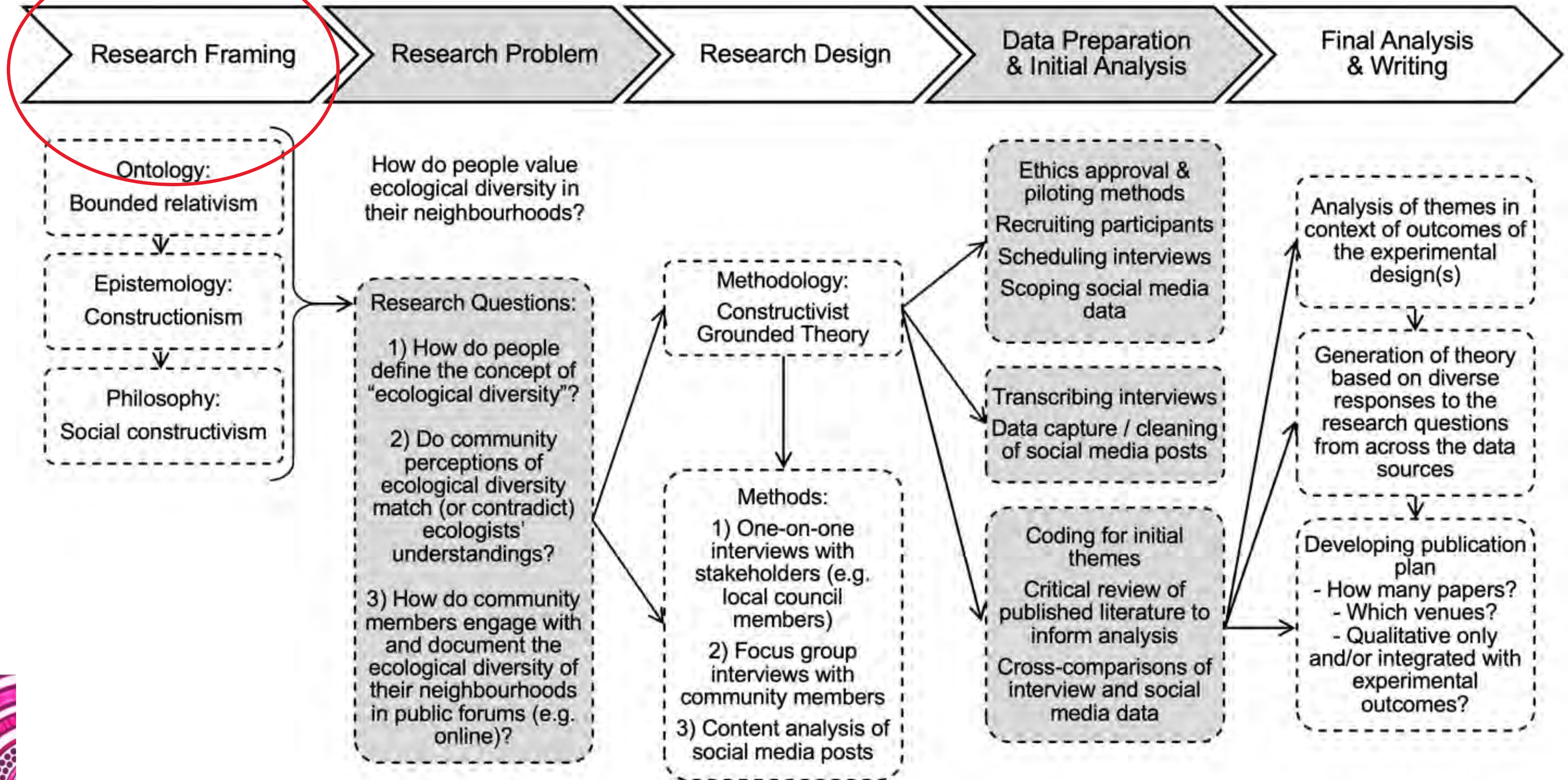
@lisagiven



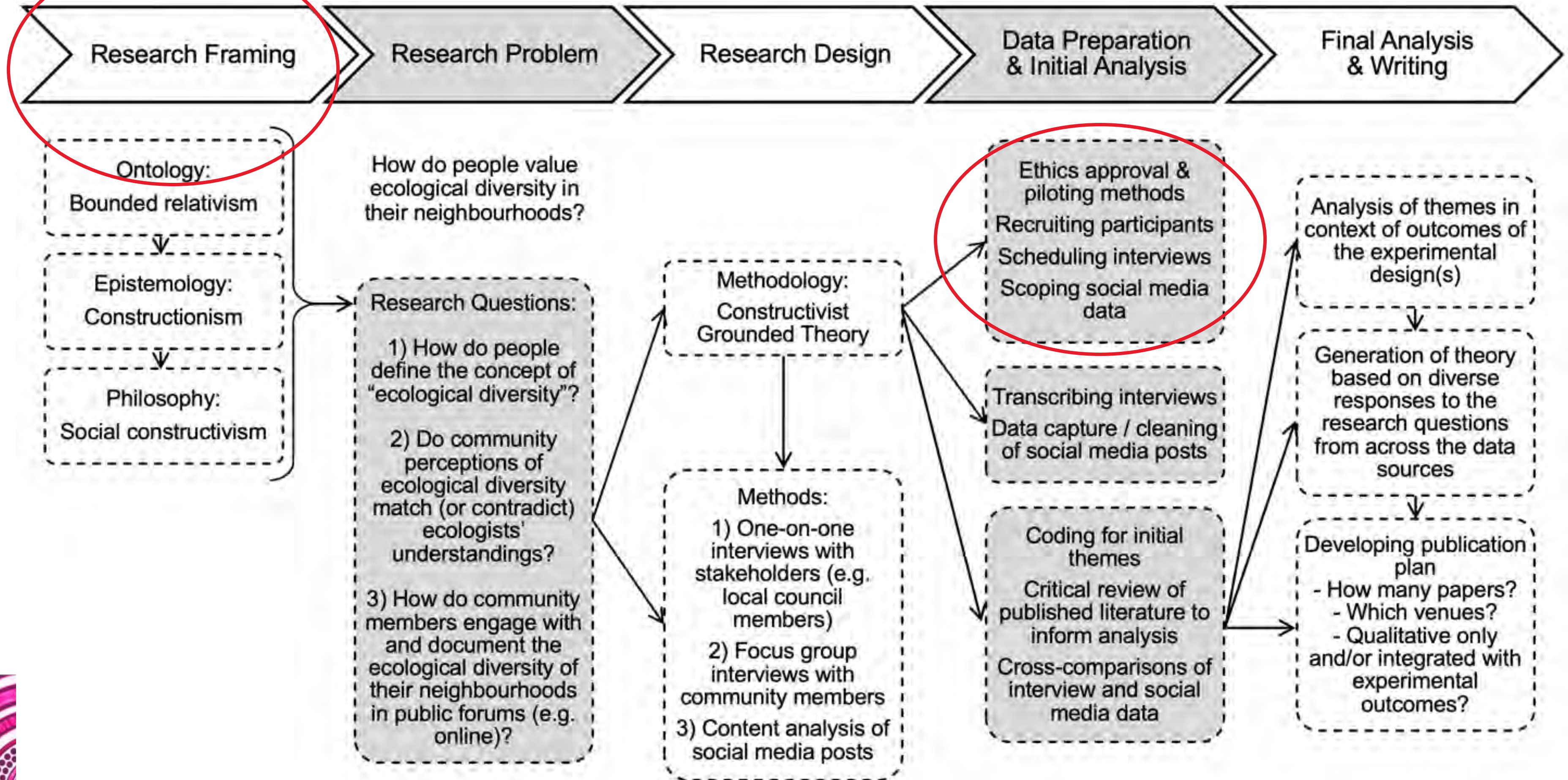
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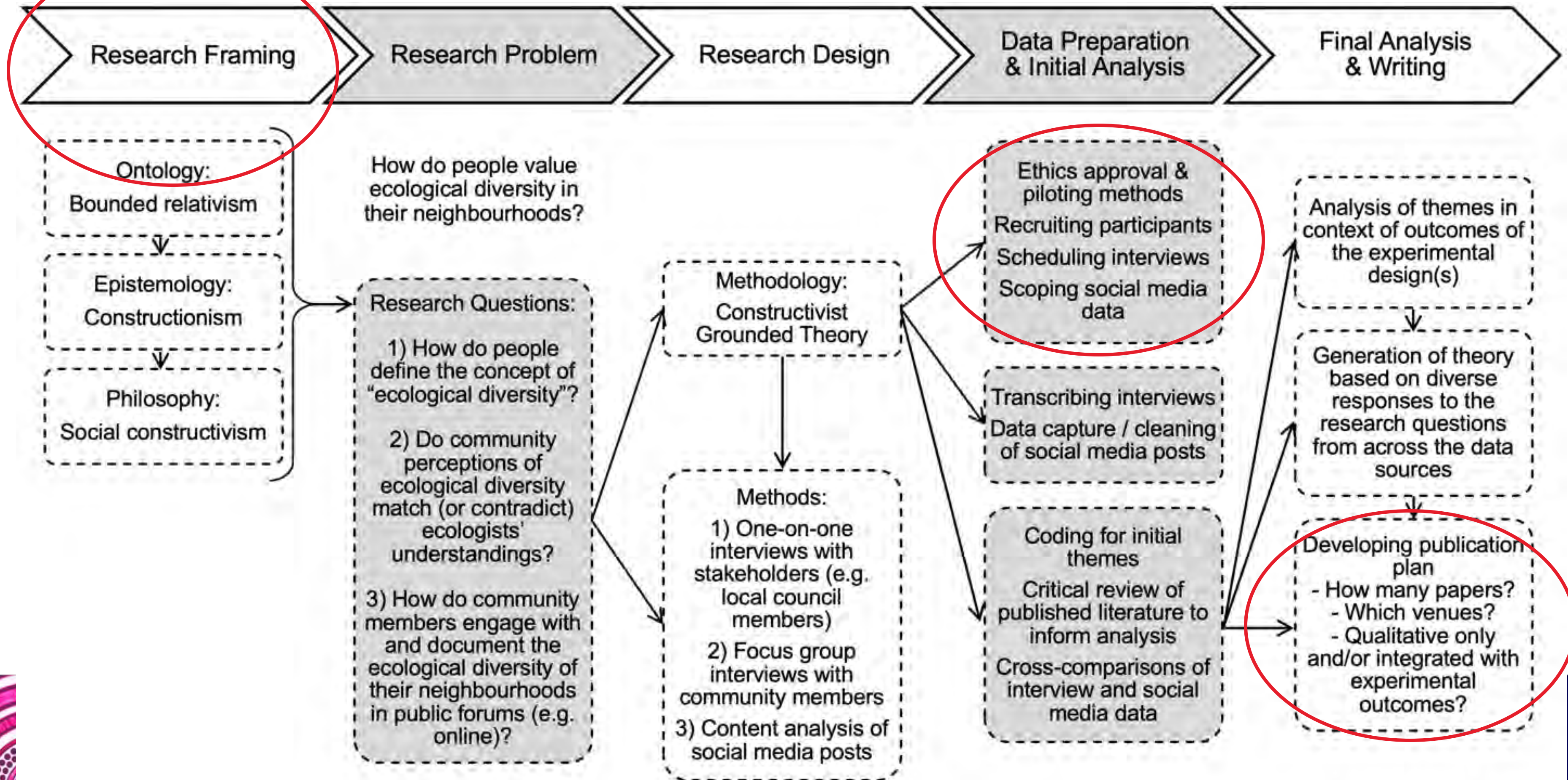
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Thank you!

Questions and Discussion

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Closing



Professor Annette Markham
Utrecht University

Chair Professor of Future Data Literacies and Public Engagement



Professor Lisa Given
RMIT University

*Director, Social Change Enabling Impact Platform
Professor of Information Sciences*

An Engaging for Impact Event

Thank you!

The Society 5.0 Ethics Organising Committee would like to thank everyone who supported this event and helped to make it a success, including:

- Enabling Impact Platform Strategic Impact Fund
- ARC Centre of Excellence for Automated Decision-Making and Society
- RMIT Enabling Impact Platforms
- RMIT School of Computing Technologies
- RMIT Research and Innovation Capability
- Utrecht University
- Media

SCAN TO EXPLORE FURTHER



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