

# Society 5.0 Ethics A Festival of Ideas



An Engaging for Impact Event I17 - 18 June 2024



Enabling Impact  
Platforms  
Social Change



Utrecht  
University

Day One

Society 5.0 Ethics



# Welcome

Professor Lisa Given, FASSA  
RMIT University

Director, Social Change Enabling Impact Platform  
Professor of Information Sciences



## 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 One

*Every new technology brings ethical issues, reminding us to disrupt our current mindsets about what society should become*



Society 5.0 Ethics

Day One

Society 5.0 Ethics



# Welcome

Peggy O'Neal AO  
*Chancellor, RMIT University*

Day One



## Zahra Zainal – Graphic Illustrator

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

*She will be creating live visual representations of many of our sessions over the next two days, which will be available on our website after the event. Watch your email for details!*



Auslan Translation

# 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](mailto:a.n.markham@uu.nl)

Kelly Foo | Email: [kelly.foo@rmit.edu.au](mailto:kelly.foo@rmit.edu.au)



**Utrecht  
University**





# Keynote

## Society 5.0 Ethics: A Clarion Call for Technology- Disrupted Futures

Professor Annette Markham  
Utrecht University

Chair Professor of Future Data Literacies and Public Engagement

# “Society 5.0 Ethics”

A Clarion Call for Technology-Disrupted Futures

Annette Markham, Ph.D.  
Chair Professor, Future Data Literacies  
Utrecht University, the Netherlands



Utrecht  
University

# The Initiative:

Convene a series of summit meetings, bringing together thought leaders, technologists, and policy makers from across the globe to shift from abstract principles to best practices for better ethical societal futures

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**Society 5.0 is a broad label for the inseparable interconnection between humans and technologies in the era of rapid digital transformations.**

**Digital transformations have fostered considerable crises.**

**Continuous digital disruptions converge with robotics, nanotech, biotech, and various forms of artificial intelligences, heralding transformative changes across the planet, across all sectors, and in all aspects of personal, work, and civic lives.**

Society 5.0 Ethics  
...as a mindset

Sociality  
+  
Ethics  
+  
Futures

... being more society centered

... keeping ethics front and center



... getting ahead of the curve

# Will hackers, trolls and AI deepfakes upset the 2024 election?

## Are social media, AI and misinformation undermining Indian democracy?

The Washington Post

### DEMOCRACY IN AMERICA

## Following Elon Musk's lead, Big Tech is surrendering to disinformation

Facebook and YouTube are receding from their role as watchdogs against conspiracy theories ahead of the 2024 presidential election

By [Naomi Nix](#) and [Sarah Ellison](#)

POLITICO

Home Latest news EU election results French election UK gene

Published: 17 May 2024  
Reading Time: 5 mins

## Deepfakes, distrust and disinformation: Welcome to the AI election

EMERGING TRENDS

From phony robocalls to breakneck pace — as billi

### This election year, fighting misinformation is messier and more important than ever



Sign in

NBC NEWS

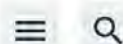
WATCH LIVE

MISINFORMATION

## Disinformation poses an unprecedented threat in 2024 – and the U.S. is less ready than ever

The U.S. presidential election comes at a time of ideal circumstances for

- The Global Risks Report 2024 named misinformation and disinformation a top risk, which could destabilize society as the legitimacy of election results may be questioned.



THE DIPLOMAT  
HEAD THE DIPLOMAT. KNOW THE ASIA-PACIFIC

## How Social Media Will be Weaponized in Bangladesh's Election

As Bangladesh preps for its election, social media is overflowing with information – and being weaponized by political parties.

# Elections and Disinformation Are Colliding Like Never Before in 2024

techxplore



31



Twit

APRIL 5, 2024

Editors' notes

## Microsoft says China using AI to sow division in US

## Rise of AI Puts Spotlight on Bias in Algorithms

As use of artificial intelligence becomes more widespread, businesses are still struggling to address pervasive bias

EDITORS' PICK

## I Interviewed ChatGPT About AI Ethics — And It Lied To Me

## *In the era of deep-fake videos, tech companies must not dismantle their ethics teams / Opinion*

BY ANDREW FIALA

MARCH 19, 2023 5:30 AM

TECH

## From deepfakes to ChatGPT, misinformation thrives with AI advancements: report



By **Rachel Gilmore** • Global News

Posted January 4, 2023 4:59 pm

02-22-23 | CONNECTED WORLD

# GPT-powered deepfakes are a 'powder keg'

Dozens of startups are using generative AI to make shiny happy virtual people for fun and profit. Large language models like GPT add a complicated new dimension

Home // Radio // Here & Now

## Search Engines Like Google Are Powered By Racist, Misogynist Algorithms, Says MacArthur Fellow

November 30, 2021 | By [Robin Young](#) and [Allison Hazen](#)



## Australian commission calls for human rights law to curb AI bias

🕒 Mar 10, 2023, 10:55 am EST | [Larisa Redins](#)

## The ethics of AI: The Cyber Risks posed by Chat GPT

**DAC Beachcroft**



# Crypto crash: how a teacher's dream investment turned into a nightmare loss

BUSINESS

## 2022 was the year crypto came crashing down to Earth no the cost this year after

DECEMBER 29, 2022 · 5:00 AM ET

NEWS

## Crypto's Horrible, No Good, Very Bad Year

### FTX scam explained: Everything you need to know

Cryptocurrency values rose in 2021 but started to decline in 2022, causing some

FORBES > MONEY > MARKETS

WEB3

### The Ethics Of Crypto: Good Intentions And Bad Actors



Professional Ethics & Values

# Ethical Failure Led to the FTX Scandal

## FTX FIASCO AND THE NEED FOR A CRYPTO REGULATORY FRAMEWORK

December 15, 2022 > [India](#) > Cryptocurrency

# Cybercrime in Australia has been on the rise for years, but Optus and Medibank have been wake-up calls

*Josh Taylor*

Experts say the recent prominence of data breaches is just companies being more forthcoming and the media more focused on reporting them

## The AI arms race highlights the urgent need for responsible innovation

Published: March 19, 2023 10:51pm AEDT

Marcel O'Gorman, University of Waterloo

Technology Cybersecurity

Print article

# Optus breach was huge, but companies lose our data all the time

A group of researchers has released a data set on nearly 70,000 users of the online dating site OkCupid. The data dump breaks the cardinal rule of social science research ethics: **It took identifiable personal data without permission.** May 12, 2016



Vox

<https://www.vox.com> › 70000-okcupid-users-data-rele...

[Researchers just released profile data on 70,000 OkCupid ...](#)

## Optus reveals at least 2.1 million ID numbers exposed in massive data breach

Time Magazine

<https://time.com> › U.S. › facebook

### [Mark Zuckerberg Apologizes For Facebook Data Scandal - TIME](#)

Mar 21, 2018 — The Facebook CEO said he was sorry for the exposure of data from 50 million users to Cambridge Analytica in an interview with CNN Thursday.

## Medibank data theft: hackers release records they claim are related to mental health and alcohol issues



**Annette Markham**

Co-initiator and lead  
RMIT Professor, Digital culture  
and ethics expert



**Lisa Given**

Co-initiator and lead  
RMIT Professor, Information  
science and ethics expert



**Julian Thomas**

Co-initiator  
RMIT Professor,  
AI and decision-making expert



**Karin Verspoor**

Co-initiator  
RMIT Professor, Artificial  
Intelligence and health expert

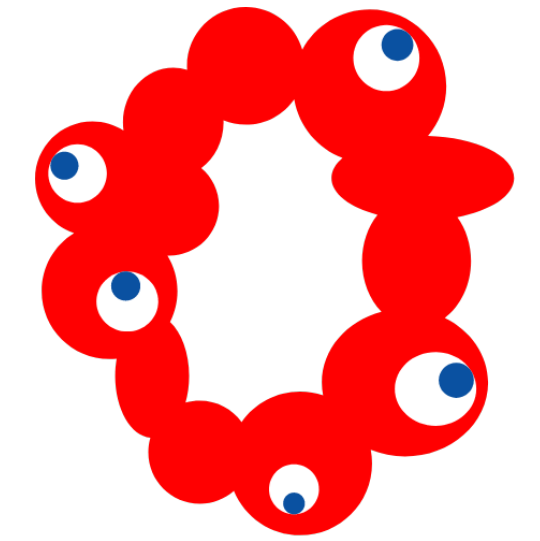


**Jason Potts**

Co-initiator  
RMIT Professor,  
blockchain and web3 futures

# Society 5.0

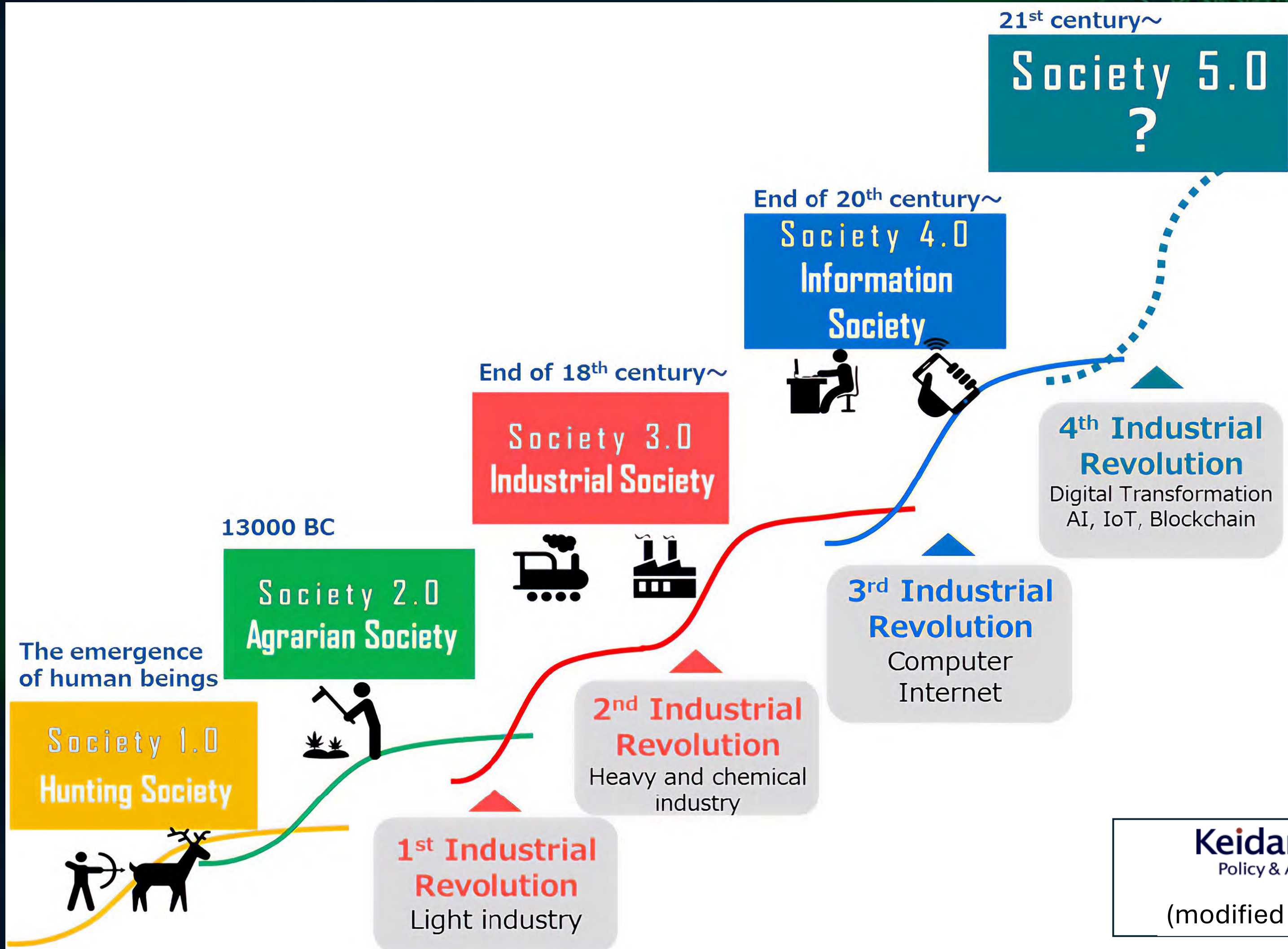
As developed by the Japanese Government: 2016  
(Japanese Council for Science, Technology, and Innovation)



OSAKA, KANSAI, JAPAN

**EXPO**  
**2025**







# How do we get to Society 5.0?

(Still, the Japanese government version, but revised in 2020)

# SOCIETY 4.0

Information Society



**Keidanren**  
Policy & Action

(modified again, ~ 2020)

# SOCIETY 5.0

Creation Society



**Keidanren**  
Policy & Action

(modified again, ~ 2020)

# SOCIETY 5.0

Automated, optimized logistics



Optimized generation, storage, and supply of electricity

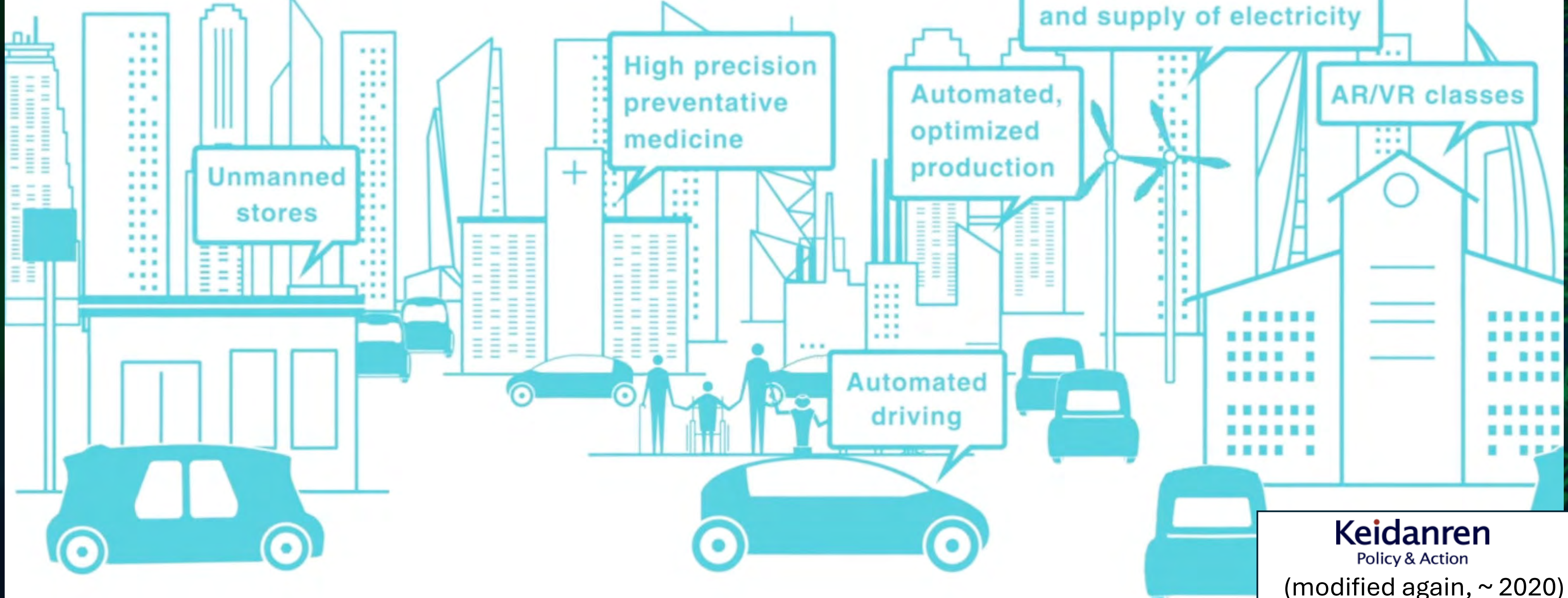
High precision preventative medicine

Automated, optimized production

AR/VR classes

Unmanned stores

Automated driving



# Society 5.0

(The “festival of ideas” version)

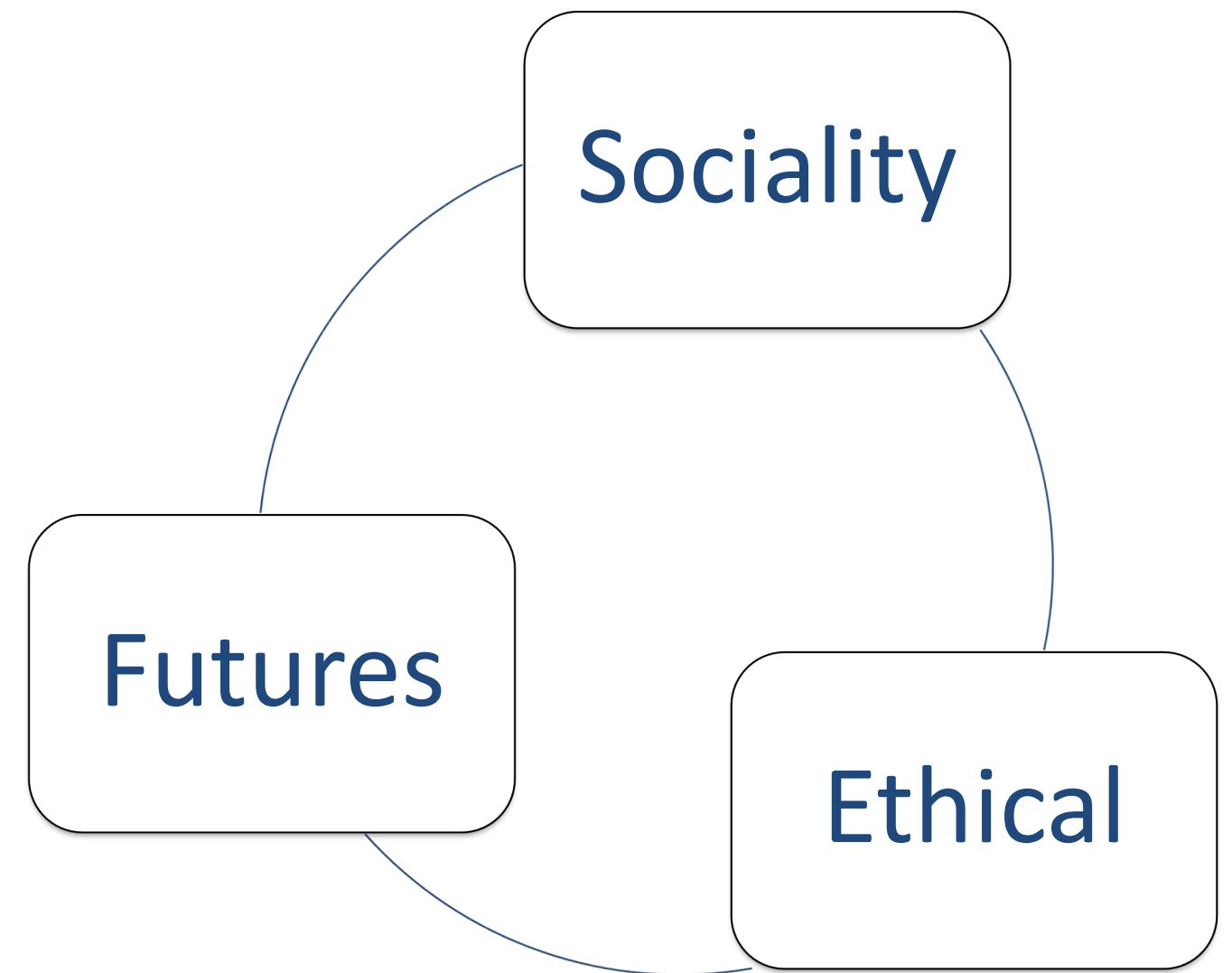


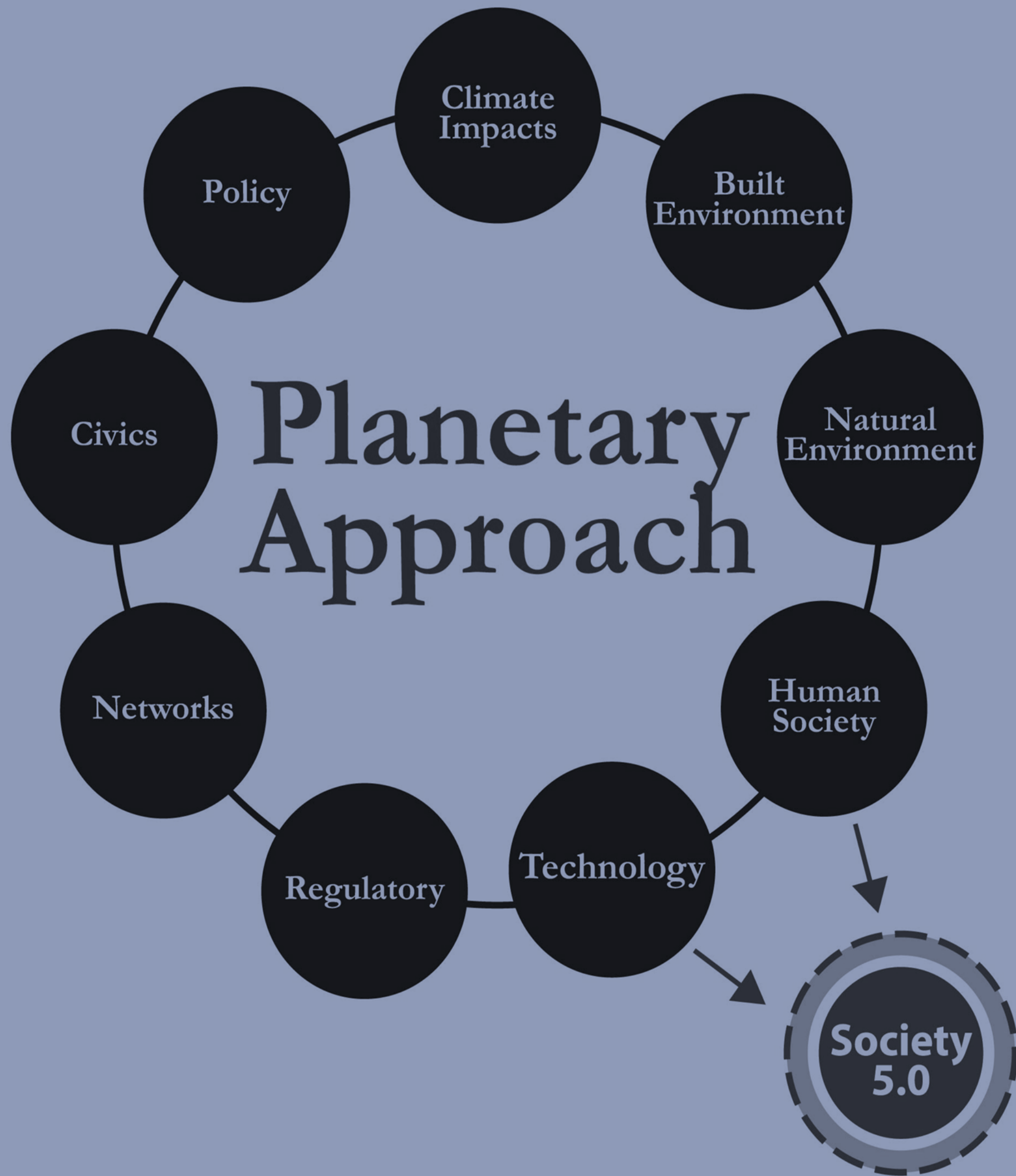
Annette N. Markham



Utrecht  
University

as a  
mindset





# Sociality

Focusing on the social

# Ethical

Considering 'ethics' as futures we produce





# SOCIETY 5.0

Creation Society



**Keidanren**  
Policy & Action

(modified again, ~ 2020)

# SOCIETY 5.0

Automated, optimized logistics



Optimized generation, storage, and supply of electricity

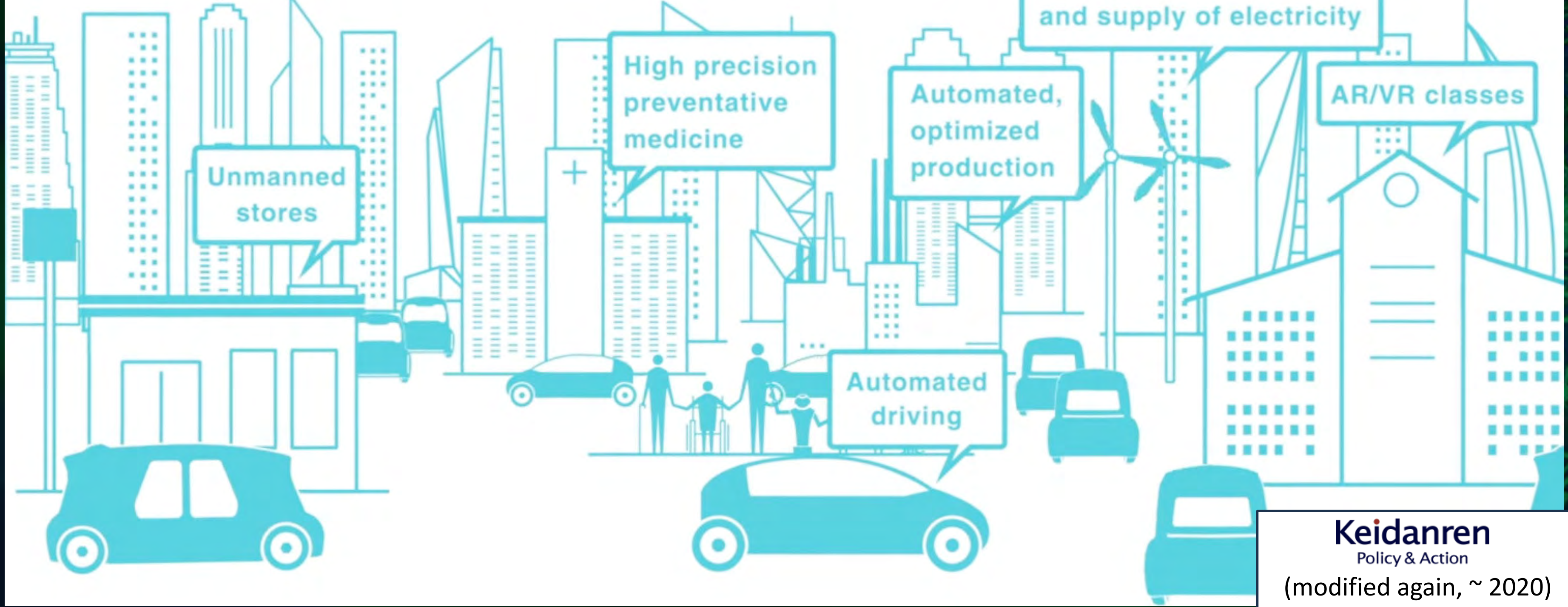
High precision preventative medicine

Automated, optimized production

AR/VR classes

Unmanned stores

Automated driving



# Ethical

Considering 'ethics' as futures we  
produce



## Human Subjects Protection (post WWII)

Error-avoidance  
Risk assessment and mitigation  
Standardization of research procedures  
Focus on what you should *not* do

## Feminist Ethics of Care

Community focused and centred  
Collaborative models for action  
Proactive mindset of advocacy

## The Trolley Problem

Consequence oriented  
Risk/benefit ratio, weighted values  
Emphasizes individual ethical decision making

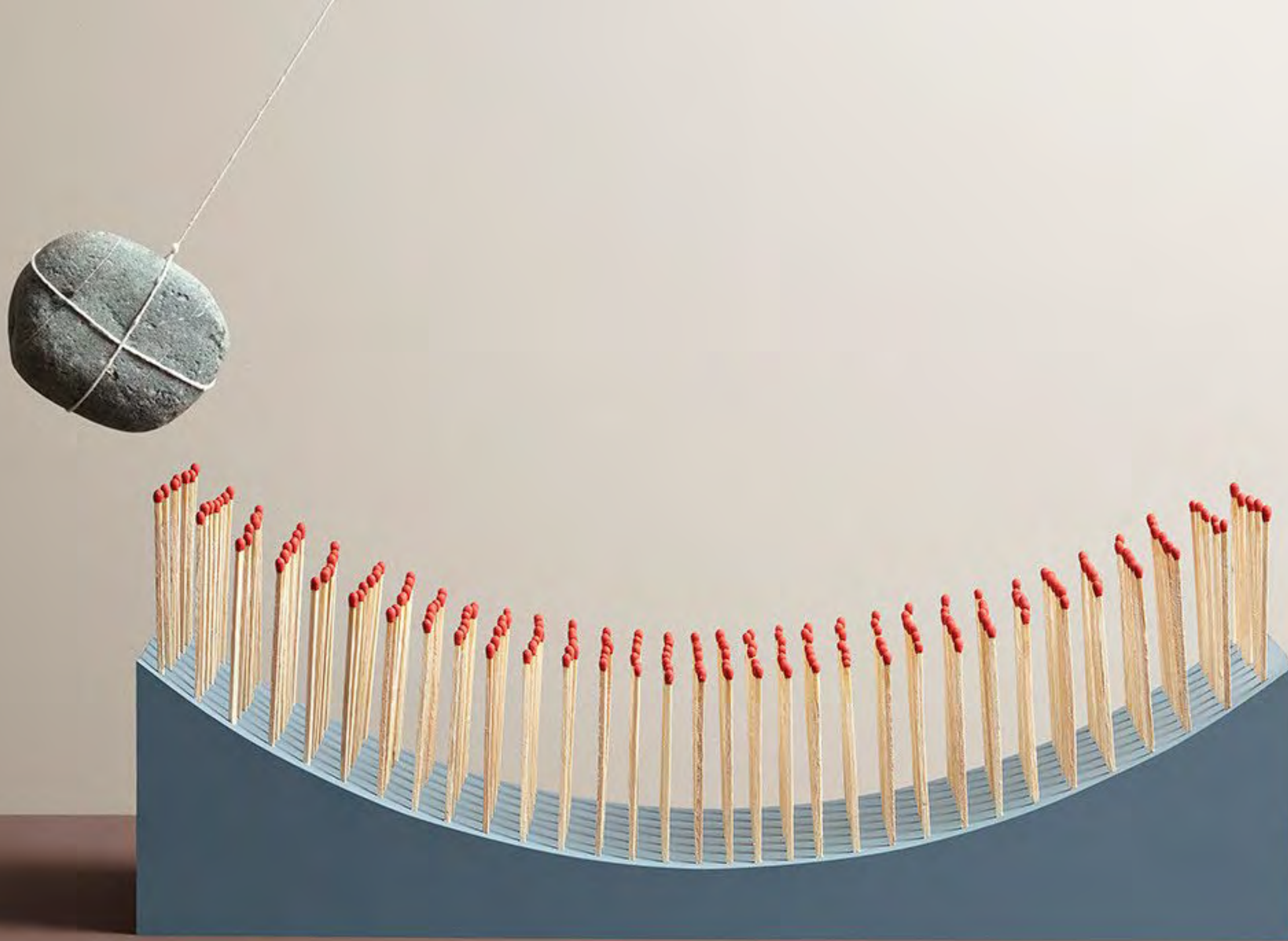


# Futures

considering the position of futures  
...and thus, futuremaking

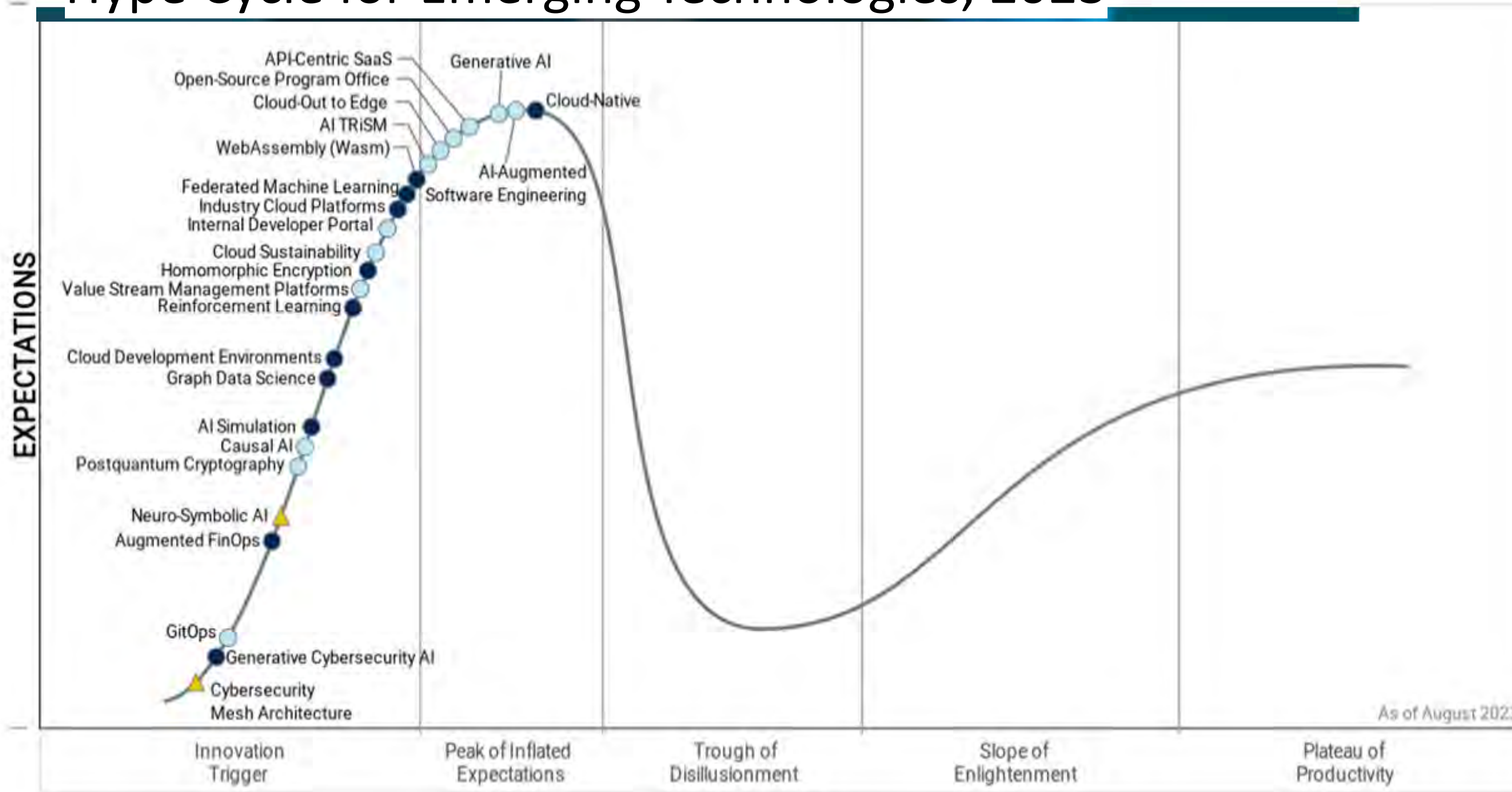


*'In Anxious Anticipation', Aaron Tilley and Kyle Bean, for Kinfolk Magazine 2016)*



*'In Anxious Anticipation', Aaron Tilley and Kyle Bean, for Kinfolk Magazine 2016)*

# Hype Cycle for Emerging Technologies, 2023



Plateau will be reached: ○ <2 yrs. ◐ 2-5 yrs. ● 5-10 yrs. ▲ >10 yrs. ✖ Obsolete before plateau



# The limits of our imaginaries?

# With what consequences?

# How do we fix it?

People use prior knowledges to create future imaginaries, so they don't think differently

People remain stuck in the trajectories already set (for us)  
People become responsive, reactive (versus proactive)

Play with speculative fabulations, counter-factuals, 'backcasting'  
Find different core frames (indigenous knowledges, e.g.)

How can “Society 5.0 Ethics” open  
new pathways of imagining,  
thinking, and acting?

# as a mindset



# How can “Society 5.0 Ethics” open new pathways of imagining, thinking, and acting?

*...an invitation and an open question*



# Workshop

## The AI Primer: Definitions and Reality Check

Professor Karin Verspoor  
RMIT University

Executive Dean, School of Computing Technologies



# Roundtable

Should Australia Recognise a  
Right to the Internet?

A Roundtable Exploring  
Human Rights Priorities in  
Society 5.0

Dr Jonathan Kolieb  
RMIT University

Senior Lecturer in International Law & Co-Director Business and Human Rights Centre



# Interactive Seminar

# Can Money Save the World?

Professor Chris Speed  
RMIT University

Professor of Design for Regenerative Futures

Day One

# 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

 **RMIT**  
UNIVERSITY Enabling Impact Platforms  
Social Change

 **Utrecht**  
University

Day Two – 5:15pm  
“Voices from the Future”

Society 5.0 Ethics



Day One

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# 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 One

Society 5.0 Ethics



# Keynote Welcome

Professor Lisa Given  
RMIT University

Director, Social Change Enabling Impact Platform  
Professor of Information Sciences



# Keynote

Designing Our Ethical  
Approaches to New  
Technologies: Anticipating,  
Reflecting, and Envisioning

Professor Rachel A. Ankeny  
University of Adelaide  
Professor of History and Philosophy

# Designing Our Ethical Approaches to New Technologies: Anticipating, Reflecting, and Envisioning

Rachel A. Ankeny FASSA  
School of Humanities, University of Adelaide  
Philosophy Group, Wageningen University  
Email: [rachel.ankeney@wur.nl](mailto:rachel.ankeney@wur.nl)

RMIT, Society 5.0 Ethics: A Festival of Ideas  
17 June 2024



## Society 5.0

- Goal of integrating digital and physical spaces, and using technologies, to tackle societal challenges
- Fostering diversity, transcending boundaries, by tailoring goods and services
- Knowledge-intensive and data-driven but human-centred approach
- Often led by the technologies—but ethics and responsibilities must come first!



# Key Arguments

- Emerging technologies typically fall into an “institutional void” (Hajer 2003)
- Questions of ethics are about what our society should become
- Shared ethical, reflective approaches are required: we should be ‘responsible by design’ rather than merely being responsive
- Deliberative approaches are essential to envisioning shared understandings



# **We Have Never Been (Just) Consumers**

- Consumerism as traditional way of understanding products and technologies
- Whatever the market will bear!
- But if we are indeed interested in societal challenges and human-centred approaches, we must be citizens
- Need to devise shared understandings and approaches to foster good lives



# Is There an Institutional Void?

- No generally accepted rules or norms for instance for novel or emerging technologies
- Solutions must be global, go beyond usual borders
- Government is no longer the sole or main actor in policy making
- Scientific expertise is no longer a guarantee of trust, nor is it the sole source of truth or information



# Should We Worry, or Celebrate?

- This supposed 'void' is an opportunity!
- Novelty is often contrived: many of the key ethical issues remain the same
- Consider violations of privacy, misinformation, bias, etc.—all about adverse impacts on humans and the world around us
- What *is* new is our clearer focus on using technologies to improve society and foster good lives for all

# **Responsible by Design (RbD)**

**“Research should be ‘responsible by design’ and thus account for societal risks, benefits and impacts right at the beginning”**  
(Technopolis & Fraunhofer 2012, 29)

- **Must take all societal values into consideration in the process of the design of the research**
- **Must integrate attention to concerns and possible negative future impacts into the technology itself**
- **Must engage publics, and consider concerns and desirable endpoints**

# Responsibility 5.0

- Need to abandon individualistic and role-oriented approaches to responsibility (Fisher and Rip 2013)
- Responsibility as collective
- Distributed across actors and throughout research/innovation processes
- Proactive rather than reactive
- Must shape scientific practices from the start by making practitioners commit to socially desirable goals
- Responsibility is not equivalent to compliance or legal requirements
- True responsibility requires engagement with society!



# Responsible Research and Innovation (RRI): AREA Framework



- **Anticipate:** create occasions and spaces to foster anticipation about possible future technologies, and likely outcomes
- **Reflect:** embed opportunities for reflection to identify and assess relevant ethical, philosophical, and societal issues, and to engage in self-critical analysis
- **Engage:** work with publics to understand their priorities, hopes, and fears; allow them to debate and deliberate on aims, visions, and challenges of the topics under investigation
- **Act:** produce practical outcomes based on the previous stages and structure activities to allow responsibilities to be fulfilled

# **Example: Protein Design**

- **AI allowing design of functional biological molecules**
- **Could allow tailored and rapid responses to infectious disease outbreaks, sustainable sources of energy, mitigation of climate change, and so on**
- **However e.g.: biosecurity risks especially if open science approaches are used without anticipation and appropriate action**

# **What Are Models for Communication?**

- (1) Linear: one-way communication from expert to passive listeners**
- (2) Interactive/transactional: two-way exchange typically involving back and forth**
- (3) Engaged: cooperative process using dialogue and true exchange, two-way learning**



## **So How Do We Engage in This Domain?**

- Use deliberative approaches!
- Involve citizens in community problem solving and public decision making
- Deliberation connects people, even with conflicting interests, to allow them to make decisions
- Can reveal new collective possibilities for action
- Allows us to consider which technologies we should support and under what conditions, i.e., how they should be structured to create public and social benefits



# Open Questions

- How do we foster equality in technologies and in decision making about them, while supporting the vulnerable?
- How can we acknowledge, understand, and manage the impact of cultural considerations on research and innovation?
- How do we set priorities?

# Being Responsible by Design

Requires a (shared) goal:

**“Design is a plan for arranging elements in such a way as best to accomplish a particular purpose”**

(Charles Eames)

**“We should think of design as a broader, democratic conversation”**

(Veyard 2018)

*Thank you for your attention and looking forward to discussion!*

# Q&A with Prof Rachel Ankeny

Day One - Session 4.1

## Panel Discussion

# Supply Chain Governance, Human Rights and Ethics

Society 5.0 Ethics

Prof Shelley Marshall  
RMIT University

Professor, Graduate School of Business and Law



Prof Chris Berg  
RMIT University

Director, Digital 3



Leigh Ashlin  
Simbl

Chief Recycling Officer



Day One - Session 4.2

# Workshop

## Altered States: Conversations with Ourselves in the Ambient Surround

Society 5.0

Ethics

Dr Sarah Barns  
RMIT University

Vice Chancellor's Senior Research Fellow



Prof Annette Markham  
Utrecht University

Chair Professor of Future Data Literacies and  
Public Engagement



Day One - Session 4.3

## Workshop

# Digital Futures for People with Disabilities

Society 5.0 Ethics

Dr Kate Anderson  
RMIT University

Vice-Chancellor's Senior Research Fellow



Ms Katy Gagliardi  
VALID

Systemic Advocate



Mr John McKenna  
Better Access

Inclusion Consultant and Community  
Empowerment Advocate



Brenton Ponza



Day One

# Level 3 Foyer Share Your Voice!

We need research that explores...

...to inform ethical futures for Society 5.0



**Thank you for your ideas!**

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Day Two – 5:15pm  
“Voices from the Future”

Society 5.0 Ethics

Day One

# Afternoon Tea



Level 3 Foyer





# Society 5.0 Ethics A Festival of Ideas



An Engaging for Impact Event | 17 - 18 June



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Social Change



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Day One

Society 5.0 Ethics



# Keynote Welcome

Professor Annette Markham  
Utrecht University

Chair Professor of Future Data Literacies and Public  
Engagement



# Keynote

Designing Inclusive Tech:  
Future-Oriented  
Approaches to the Digital  
with the Majority World

Professor Payal Arora  
Utrecht University

Professor of Inclusive AI Cultures & Co-Founder of FemLab, a feminist futures of work initiative

# From Pessimism to Promise

A hand is shown in the process of drawing a curved line for a smile on a large yellow circle. The background is a solid orange color.

Lessons from the Global South  
on Designing Inclusive Tech

**PAYAL ARORA**  
foreword by Charles Hayes

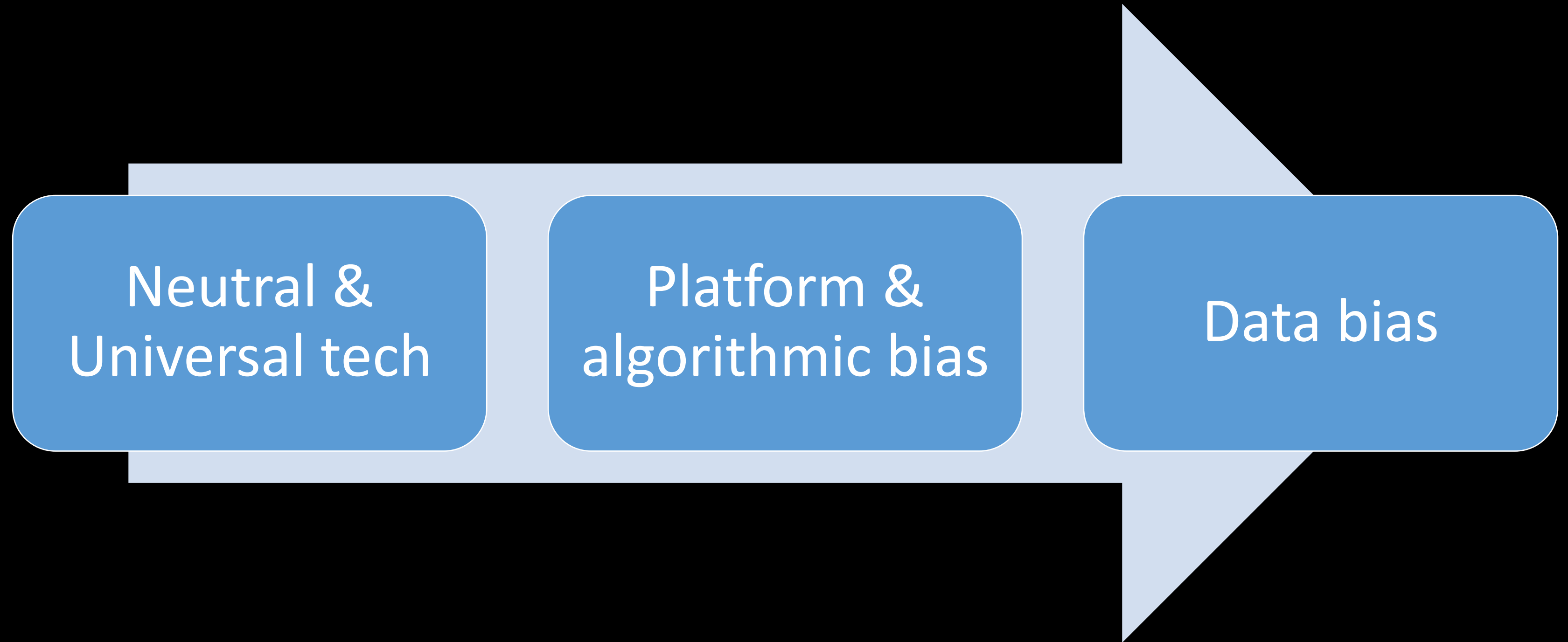
## Designing Inclusive Tech

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**Payal Arora**

Professor and Chair of Inclusive AI Cultures, Utrecht  
University

Co-founder of FemLab

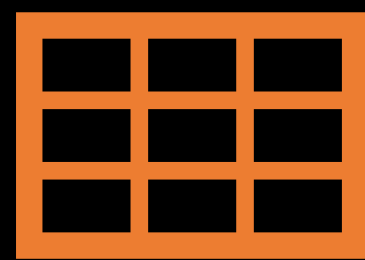


Inclusive: shift from  
default to dialogue  
around purpose,  
impact, and costs

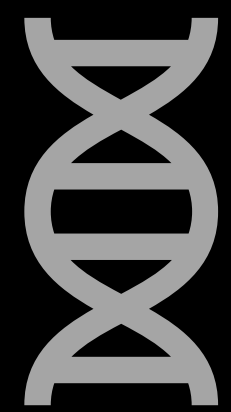
Interdisciplinary:  
value social  
approaches to  
technical questions

Iterative: building  
reflexivity in global  
digital systems

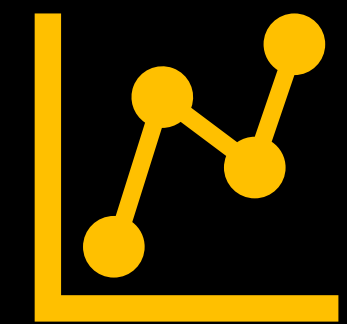
# Beyond the binary



Data deficit & Data glut



Real & Synthetic data



Situated & Scalable data

# Data glut & Data deficit





Global South  
data is the  
radical  
normative



**rest of  
world**

# The Next Billion Users

DIGITAL LIFE  
BEYOND THE WEST

**PAYAL ARORA**

Avoid the 'big' data replay

The Q focus: quality over quantity

# Data corruption, protection, value



# Real & Synthetic data

Sure, here are some images featuring diverse US senators from th



 Generate more

Context matters:  
descriptive vs.  
discriminatory data



findhr



# LGBTQI+ Employee Resource Group



Context matters:  
Is aspirational data representative?  
Unethical?



ghazale.pourreza



ghazale.pourreza

70s

Style by me with #

ما همیشه در خفا و  
...پستوی خانه بوده  
ستش داری زیباترین  
بین عاشق و معشوق  
میتونه بیافته  
گفتن دوستت دارم  
و  
ای کسی که دوستش  
داری...

شن تصور این عشق،  
مه ی این تابو هاست  
، شرم و حیای ایرانی  
زیباست  
عاشقانه به هم نگاه  
با تمام وجود زندگی  
مکن قشنگه





# Situated & Scalable data

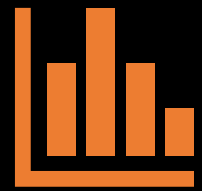
# Debiasing mindsets for meaningful data



Sustainable is  
not always  
scalable



# Concluding thoughts



Revive the data commons  
values and ethos



Rethink the marginalized as  
majority



Recalibrate power brokers in  
data collection and curation



Redistribute value to ensure  
fair use



Resuscitate our appetite for  
productive discomfort

# From Pessimism to Promise

Lessons from the Global South  
on Designing Inclusive Tech

**PAYAL ARORA**  
foreword by Charles Hayes



SCAN ME

# Q&A with Prof Payal Arora

Day One

# Networking Reception



Level 3 Foyer

Society 5.0 Ethics

