

***Data Ethics of Power – A
Global Human Approach in
the Big Data and AI Era***

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Gry Hasselbalch



WHAT

1. The transformation of power in the big data and AI era
2. AI and big data as "socio-technical infrastructures" of power ("BDSTIs and AISTIs")

HOW

3. Socio-technical change
4. A global narrative: "The Human (-Centric) Approach"
5. Human socio-technical infrastructures of **empowerment**

AI and big data as infrastructure



**APPEARANCE
MATERIAL
DESIGN
CONSTRUCTION
ARCHITECTURE**



1. “BDSTIs”

Big Data Socio-Technical Infrastruct



CPDP, 2017, Artwork: Rayman, Concept: Dara Hallinan

2. "AISTIs"

AI Socio-Technical Infrastructures

DATA ETHICS OF POWER

A Human Approach in the
Big Data and AI Era

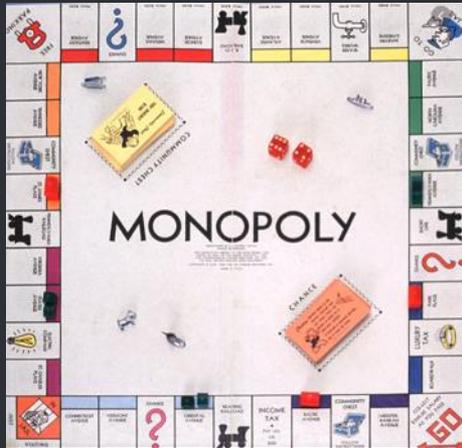


3. Humans

**Human Socio-Technical
Infrastructures of
empowerment**

The Geo-Politics of AI

What kind of power do we want? What kind of society are we reinforcing and creating with big data and AI?



1. Phases of Socio-Technical Change (Thomas P. Hughes)

Invention and development: The first phase is dominated by inventors and entrepreneurs that are the key drivers for the invention and the initial development of the system, while managers, engineers and financiers are involved secondarily.

Transfer: In the second phase the focus moves to the process of transferring the technology from one region and society to another and equally the dominant agents involved in this phase change to include, in addition to the entrepreneurs and inventors, the financiers and organisers of enterprises as key actors.

Growth: In the third phase a range of actors, entrepreneurs, inventors, engineers and others, dedicate their efforts on correcting and finding solutions to what Hughes refers to as their “reverse salients” that are formulated as critical problems that prevents the system from growing.

Momentum, competition and consolidation: A large socio-technical system requires a momentum with “mass, velocity and direction” which is created by the different interests invested in the system in the fourth phase of societal consolidation. ”

Hasselbalch, *Data Ethics of Power*, with reference to Thomas P. Hughes, 1983



You are here

When infrastructures “break down” narratives of power and interests become visible ...



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The Liquid Surveillance Society

Does not come from a centralised visible above (“sur”) (Baumann & Lyon, 2013)

Is embedded in digital infrastructures, networked, distributed and sustained by increasingly bigger distances between the ones that watch and those that are being watched. (Galic et al., 2017)

Is opaque and bottom up, invisibly intertwined with individuals’ lives, and therefore also inscrutable and difficult to address (Lyon, 2010).

Is not exceptional, but a condition of experience and human life. It is our “culture” (Lyon, 2018).

Is based on “dataveillance”, a systematic monitoring, tracking and analysis of personal data systems (Bauman & Lyon, 2013, Clarke, 2018).

Is an “assemblage” that abstracts the human body from a digital “data double”, that can be scrutinized and used for purposes of control by governments or can be “sold” for profit in commercial interchanges (Haggerty & Ericson, 2000).

2. The “Computer revolution” (James H. Moor)

Ethics in Policy Vacuums

In 1985, professor of moral philosophy James H. Moor predicted a computer revolution of society. Importantly, the adoption of computers in society will, he argued, ‘leave us with **policy and conceptual vacuums**’ (Moor, 1985, p. 272) that will generate particular forms of ethical reflection and value negotiation. The societal computer revolution occurs in two stages, Moor proposed, marked by the questions we will ask. In the first ‘Introduction Stage’, we will ask functional questions: How well do particular technologies function for their purpose? In the second ‘Permeation Stage’, when institutions and activities are transformed, **we will ask questions regarding the nature and value of things** (Moor, 1985, p. 271).

Hasselbalch, *Data Ethics of Power*, with reference to James H. Moor, 1985

The Ethical and existential questions in our “AI moment” of controversy

The Machine? “Ethics by design”, “machine ethics”, “value sensitive design” (The design of the technology)

The Human? “The ethics of care” (the AI practitioner, the patient, the medical practitioner, the counsellor).

Culture & Society? “Science and Technology Studies”, “Data ethics of power” (Power dynamics, geo-politics, cultural paradigms, socio-technical systems)

Existence? “Philosophy” (What does it mean to be human?)

The moment between “growth” and “momentum”,
the “policy vacuum” when...



... “**infrastructure**” and “**ethics**” become
ONE in interest negotiation and geo-politics...

... **values** become a **position**

AI ethics principles and recommendations

OECD Principles on Artificial Intelligence, 2019

(Adopted by OECD 38 member states. GPAI based on the principles)



EU AI High-Level Expert Group's Ethics Guidelines for Trustworthy AI, 2019

(ethical framework for EU AI Act)

UNESCO Recommendation on the ethics of artificial intelligence, 2021

(adopted by UNESCO 193 member states)

EU HIGH-LEVEL EXPERT GROUP ETHICS GUIDELINES FOR TRUSTWORTHY AI

According to the Guidelines, trustworthy AI should be:

- (1) lawful - respecting all applicable laws and regulations
- (2) ethical - respecting ethical principles and values
- (3) robust - both from a technical perspective while taking into account its social environment



ALTAI - The Assessment List on Trustworthy Artificial Intelligence

Welcome to the ALTAI portal!

The Assessment List for Trustworthy Artificial Intelligence (ALTAI), is a practical tool that helps business and organisations to self-assess the trustworthiness of their AI systems under development.

The concept of Trustworthy AI was introduced by the [High-Level Expert Group on AI](#) (AI HLEG) in the [Ethics Guidelines for Trustworthy Artificial Intelligence](#) (AI) and is based on seven key requirements:

1. Human Agency and Oversight;
2. Technical Robustness and Safety;
3. Privacy and Data Governance;
4. Transparency;
5. Diversity, Non-discrimination and Fairness;
6. Environmental and Societal well-being; and
7. Accountability.

The AI HLEG translated these requirements into a [detailed Assessment List](#), taking into account feedback from a six month long piloting process within the European AI community. Furthermore, to demonstrate the capability of such an Assessment List the Vice-Chair of the AI HLEG and his team at the Insight Centre for Data Analytics at University College Cork, developed a [prototype web based tool](#), to practically guide developers and deployers of AI through an accessible and dynamic checklist.

What do they have in common?

The Human (-Centric) Approach to AI



approach'. The human approach, I suggest, is one concerned with the role of the human as an ethical being with a corresponding ethical responsibility; or in other words, the human approach is not about prioritising the individual human being (it is not about 'individualisation', as Zygmunt Bauman (2000) would have called it) – it is about the human as an ethical being, our human *ethical responsibility* for not only ourselves but for life and being in general, and it is about prioritising the *human dynamic qualities, a human infrastructure of empowerment*, in very concrete ways in big data and AI sociotechnical infrastructures. That is, the human approach also encourages, in practical terms, the empowerment of dynamic human moments in their very data design, use and implementation, which does indeed also include, but is not limited to, the empowerment of the individual human being.

– Data Ethics of Power A Human Approach in the Big Data and AI Era



International Outreach **InTouch** **AI.EU** for Human-Centric

To contribute to the setting up of a framework for ethics and trust to enable the growth of AI in accordance with EU and universally recognized values and prepare the ground for global alliance building in this field.

www.intouchai.eu



Pencil drawing by Gry Hasselbalch

WHAT'S NEXT?

Gry Hasselbalch

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Thank you!

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[New book: Data Ethics of Power – A Human Approach in the Big Data and AI Era](#) – 40% discount (plus postage), via orders on the website [here using the discount code: DATA40](#)