

Why Should Data Scientists Care about Ethics?

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Background

MSc. Cyberpsychology, Dún Laoghaire's Institute of Art, Design and Technology, Dublin (Ireland)

Thesis - Becoming More Human: Changing Beliefs Through Cognitive Empathy in Video Games

BSc. Psychology, Université Savoie Mont Blanc, Chambéry (France)

Thesis – The impact of Anger in Moral Dilemmas Resolution

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Unethical Consequences

The Houston Astros And The Ethical Use Of Data And Analytics (Forbes, 2020)

By analysing previous games data, the team's staff and players developed an illegal approach to **stealing pitch signs** from other team's catchers that helped hitters anticipate what pitch was coming.

One Month, 500,000 Face Scans: How China Is Using A.I. to Profile a Minority (NY Times, 2019)

The government applies **facial recognition to identify and track members of the Uighurs**, an ethnic group systematically oppressed by the government. This is the first known case of a government using machine learning to profile by ethnicity.

Digital records could expose intimate details and personality traits of millions (Kosinskia et al., 2013)

Easily accessible digital records of behaviour, Facebook Likes, can be used to automatically and accurately **predict a range of highly sensitive personal attributes** including: sexual orientation, ethnicity, religious and political views, personality traits, intelligence, happiness, use of addictive substances, parental separation, age, and gender.

“With great
power, there
must also
come — great
responsibility!”

Stan Lee

*comic book writer and editor
born December 28, 1922*

Dobson's Improbable Quote of the Day



Responsible for What?

*“The most important thing is not life, but **the good life**”
(Socrates in Plato, 399 B.C.)*

*“Technology shapes how human beings seek the good life,
and with what degree of success.”
(Vallor, 2018)*

- **Need for well-designed and well-used technologies.**

For example: by allowing more efficient use and distribution of essential resources for a good life, such as food, water, energy, or medical care).

- **Poorly designed or misused technologies can make it harder to live well.**

For example, by toxifying our environment, or by reinforcing unsafe, unhealthy or antisocial habits.



Responsibility & Regulations

« Laws and regulations have historically been important instruments **of preserving the good life** within a society, but today they are being **outpaced** by the speed, scale, and complexity of new technological developments and their increasingly pervasive and hard-to-predict social impacts. » (Vallor, 2018)

Lawmakers
(lack of technical expertise)

vs.

Technical experts
(called to **help anticipate** social impacts)

Perception of Technology Ethics

Zhang and Dafoe (2019) - US Based Survey

Computer science or engineering degrees rate « all AI governance challenges as less important » than other respondents.

Resistance to the moral consideration ?

because defined as “AI governance” or “AI ethics,” which technical researchers see as less important than other stakeholders.

Just not their job, but isn't it?



Ethical Responsibility

Ethical Responsibility

Making ethical decisions and implementations choices where legal 'handrails' are outdated and inadequate to safeguard public well-being.



AI4People Principles

Beneficence

Promoting well-being, preserving dignity, and sustaining the planet.

Non-Maleficence

Ensuring privacy, security and “capability caution” (upper limit of future AI capabilities).

Autonomy

Striking a balance between the decision-making power we retain and the one we delegate to AI.

Justice

Creating benefits that are (or could be) shared, preserving solidarity.

Explicability

Enabling the other principles through intelligibility and accountability.

SDGs as Objectives

Sustainable Development Goals by the United Nations (2015)

“adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.”





Positive SDGs Applications

Monitor

SDG 16 – Peace, Justice, and Strong Institutions

Recognition of hate or extremist speech (NLP) → Public opinion on effective governance

SDG 5 – Gender Equality

Monitor movements for Gender Equality

SDG 3 – Good Health and Well Being

Disease & Adverse events monitoring & Quality of healthcare

SDG 11 vs. 15 – Sustainable Cities and Communities vs. Life on Land

Urban Evolution monitoring through spatiotemporal data

Positive SDGs Applications

Take Actions

SDG 16 – Peace Justice and Strong Institutions

Recognition of hate or extremist speech (NLP) → [Inform the adequate authorities](#)

SDG 3 – Good Health and Well Being

Disease & Adverse event monitoring → [Whistle Blower](#)

SDG 15 – Life on Land

On Social Media → [Support disaster management in real time](#)





Thank You
for your Time and Attention

Q&A Time