

# ARTIFICIAL INTELLIGENCE AND THE SHAPING OF NEW REALITIES: WHAT TO EXPECT FROM THE METAVERSE

JUL 25<sup>TH</sup> — 17:00 74TH SBPC ANNUAL MEETING



# AGENDA

- ✓ Introduction
- ✓ Philosophy
- ✓ Metaverse
- ✓ Challenges



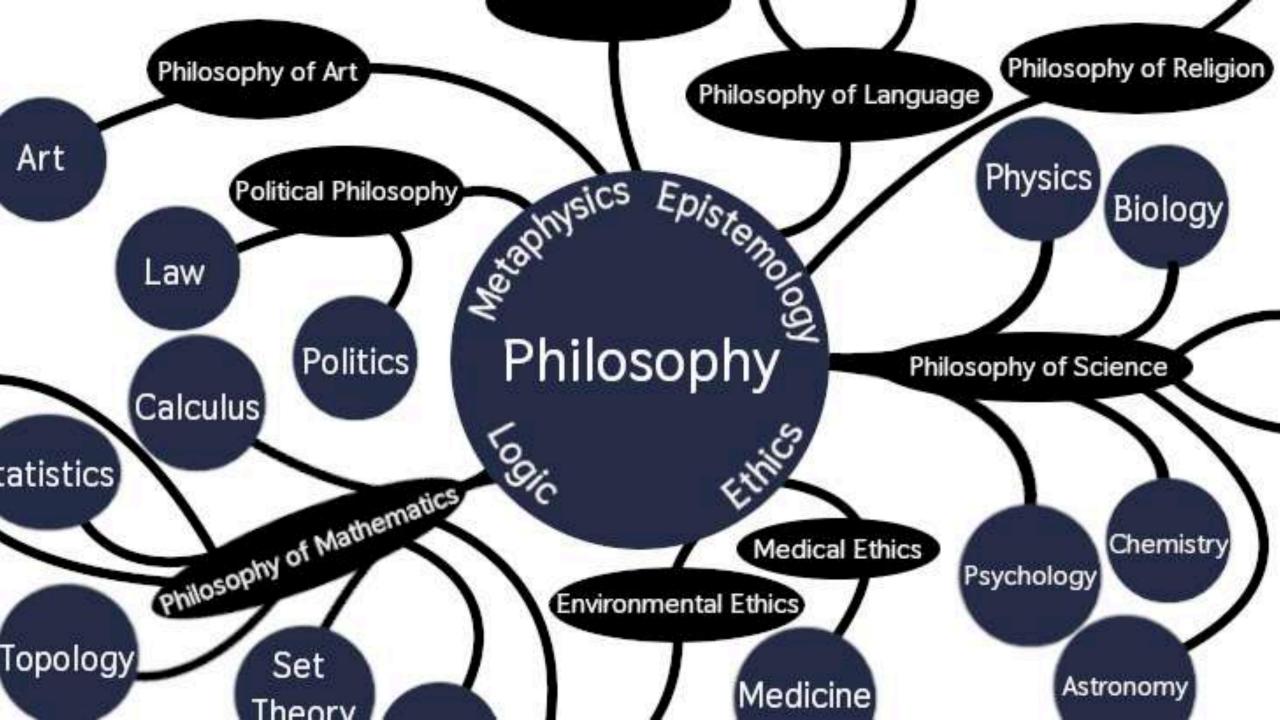
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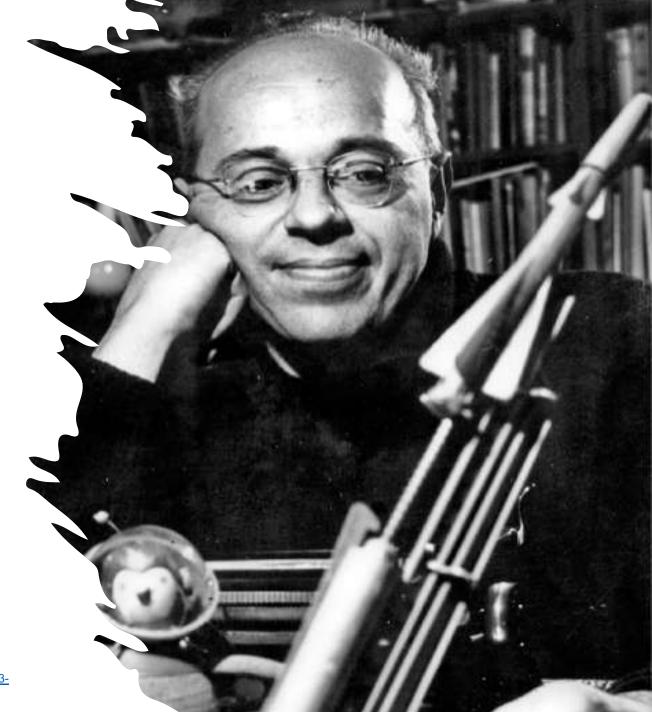
PhD Information and Systems Engineering, MSc Computer Science, BSc Social Sciences, BSc Aeronautical Sciences.



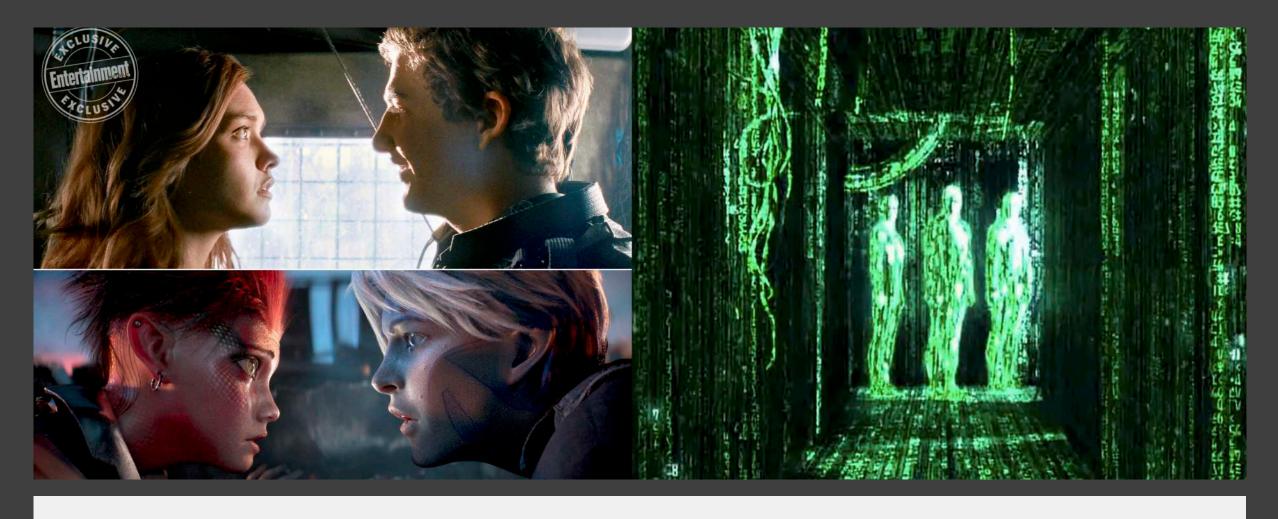


# SUMMA TECHNOLOGIAE

- Ariadnology (= search engines)
- Molectronics (= mol. nanotech)
- Cerebromatics (= cognitive enhancement)
- Phantomatics (= virtual reality)
- Intellectronics (= artificial intelligence)
- Technological Singularity\*



<sup>\*</sup> Eden, Amnon H.; Moor, James H.; Søraker, Johnny H.; Steinhart, Eric, eds. (2012). <u>Singularity Hypotheses: A Scientific and Philosophical Assessment</u>. The Frontiers Collection. Dordrecht: Springer. pp. 1–2. <u>doi:10.1007/978-3-642-32560-1</u>. <u>ISBN 9783642325601</u>.



METAVERSE

"The term "**metaverse**" first appeared in Neal Stephenson's sci-fi novel Snow Crash (1992), where it described a **virtual reality world**."

...multiple persistent virtual spaces hosting **ecosystems**, connected through networks and servers, and perceived as a unit (world).

## METAVERSE X VR



#### DIFFERENCES BETWEEN METAVERSE AND VIRTUAL REALITY

Criteria	Metaverse	Virtual Reality
<b>Definition</b>	The metaverse is an open, shared virtual world with 3D virtual spaces where users can explore and interact with content and other users as digital avatars.	Virtual Reality or VR is the technology for creating three-dimensional environments with elements of sight, touch, and sound.
Ownership	Users have complete ownership of their assets and experiences in the metaverse.	The brand owns the VR system and all related content.
<b>Technologies</b>	Metaverse draws support from various technologies such as VR, AR, decentralization, and connectivity technologies, alongside facilitating open prospects for integrating new technologies.	VR is a limited technology and could only go to the extent of providing simulated 3D environments.
Experiences	Users can access a wide range of experiences in the metaverse.	Users are limited to the virtual experience offered in VR systems.
Persistence	The metaverse is a shared and persistent virtual world that exists even when you are not in the metaverse.	The VR experience of a user stops at the moment they switch off their device.

## METAVERSE **x** WEB 3.0 (4.0?)

#### **WEB 1.0**

- Static web
- HTML is the key technology
- First web browsers like Netscape Navigator are introduced
- Obtrusive advertising (e.g. banners)
- Data is stored on individual website's servers

pixelplex

#### **WEB 2.0**

- Interactive web
- Dynamic HTML, Javascript
- Dominance of interactive platforms and websites like Facebook, Airbnb, Instagram, Twitter
- · Interactive advertising
- Data is owned by large tech giants

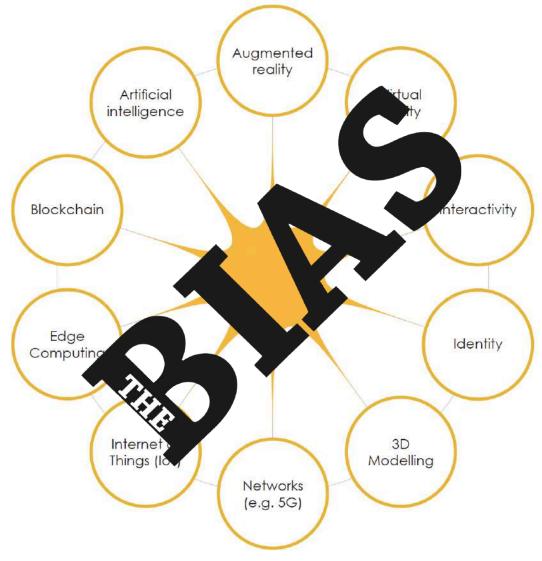
#### **WEB 3.0**

- Interactive web powered by AI
- Blockchain, Al, ML
- Decentralized data networks enabling users to own their data
- Targeted advertising based on user behavior
- Data is distributed across users

- Semantic Web = AI (search engines+social media platforms+websites reading, learning, 'understanding' user data...and responding to it automatically
- Decentralization (dApps bc / P2P)
- NFTs
- VR&AR / Metaverse
- Interoperability

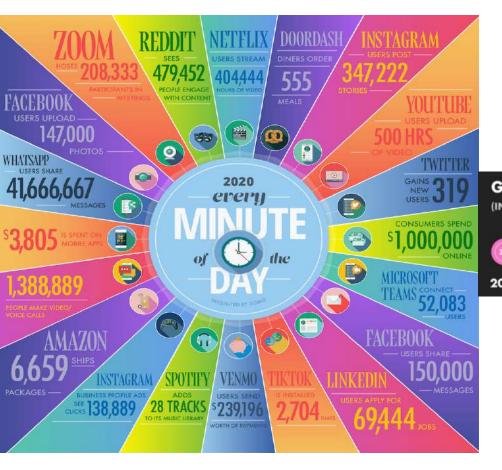
## METAVERSE FOUNDATIONS

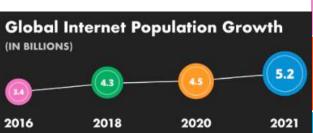
- Security
- Privacy
- Health & Safety
- Trust
- Inclusion & Accessibility

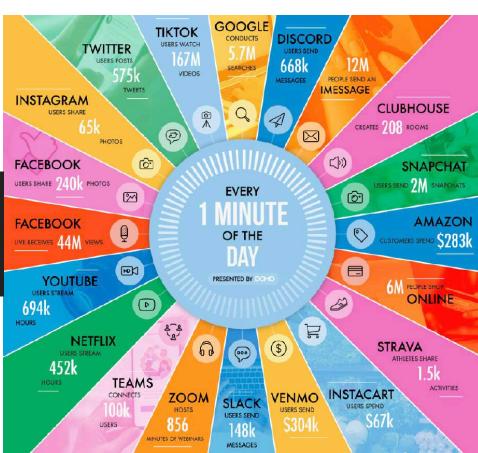


https://www.interac.ca/en/content/ideas/metaverse-converging-our-physical-and-digital-realities/

## WHY ARTIFICIAL INTELLIGENCE...

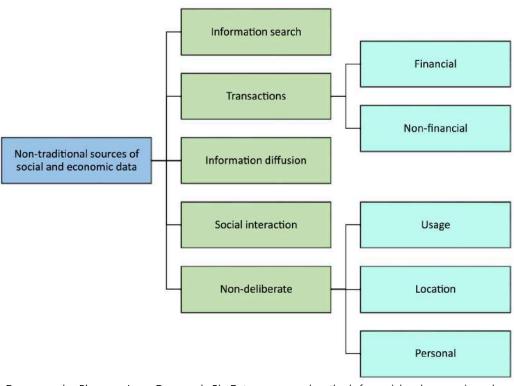






### WHY ARTIFICIAL INTELLIGENCE...

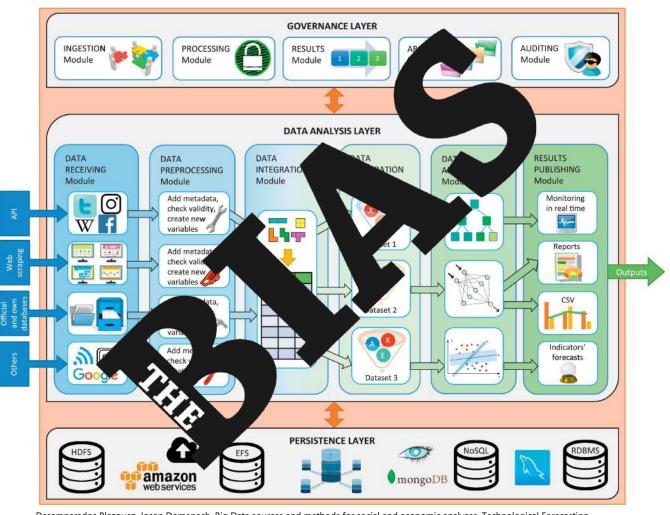




Desamparados Blazquez, Josep Domenech, Big Data sources and methods for social and economic analyses, Technological Forecasting and Social Change, Volume 130, 2018, pp 99-113, ISSN 0040-1625.

## HOW BIG IS THIS CHALLENGE...





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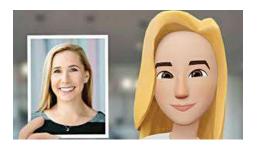
## HOW CRITICAL IS THIS CHALLENGE...

#### Al - Facial Recognition Technology

- The current volume of data housed in various databases (e.g., driver's licenses, mugshots, and social media).
- Unauthorized parties can easily "plug and play" numerous data points to reveal a person's life.
- Data breaches involving facial recognition data increase the potential for identity theft, stalking, and harassment.
- Faces are becoming easier to capture from remote distances and cheaper to collect and store.

#### What about the Metaverse...







# THANK YOU

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