Between Armageddon and Ubermensch: What shall we do in the world of AI

Chen-Hsiang Yeang
Institute of Statistical Science
Academia Sinica
Taipei, Taiwan

Outline

- **Present**
- Past
- Future
- Conclusion

Three attitudes toward the current development of AI

- **Dismissal from old masters**
- A rare opportunity to lift humans to higher evolutionary status
- An existential crisis

Dismissal from old masters

The false promise of ChatGPT, New York Times Opinion, March 8th, 2023.

Noam Chomsky on ChatGPT, Open Culture, February 10th, 2023.

Artificial Intelligence – The revolution hasn't happened yet. Harvard Data Science Review, July 2nd, 2019.

An alternative view on AI: collaborative learning, incentives, and social welfare. Boeing Distinguished Colloquia, October 5th, 2023.

Judea Pearl, AI and causality: what role do statisticians play? AMSTAT News, September 1st, 2023.

Three attitudes toward the current development of AI

- Dismissal from old masters
- **A rare opportunity to lift humans to higher evolutionary status**
- An existential crisis

A rare opportunity to lift humans to higher evolutionary status

Friedrich Nietzsche, Also sprach Zarathustra, 1892.

https://www.youtube.com/watch?v=ypEaGQb6dJk, 6:00-7:40

https://www.youtube.com/watch?v=AXS8P0HksQo, 0:40-2:25

Donna Haraway, A cyborg manifesto: science, technology, and socialist-feminism in the late twentieth century, 1985.

Richard Dawkins, The extended phenotype, 1982.

https://www.youtube.com/watch?v=Y2F8yisiS6E, 0:25-1:21

Davos 2024: Sam Altman on the future of AI.

How AI can save our humanity, by Kai-Fu Lee, TED Talk, 2018.

AI Superpowers, by Kai-Fu Lee, 2018.

The age of AI has begun, by Bill Gates, 2023.

Yann LeCun on a vision to make AI systems learn and reason like animals and humans, https://ai.meta.com/lecun-advances-in-ai-research/, 2022.

Yann LeCun has a bold new vision for the future of AI, MIT Technology Review, June 24th, 2022.

Yann LeCun emphasizes the promise of AI, The New York Academy of Sciences Blog, April 8th, 2024.

The business of artificial intelligence, Harvard Business Review, July 18th, 2017.

Three attitudes toward the current development of AI

- Dismissal from old masters
- A rare opportunity to lift humans to higher evolutionary status
- **An existential crisis**

An existential crisis

New Testament, Revelation 16:16.

https://www.youtube.com/watch?v=pqZqfTOxFhY

The singularity is near, by Ray Kurzweil, 2005.

The singularity is nearer, by Ray Kurzweil, 2024.

Brief answers to the big questions, by Stephen Hawking, 2018.

Homo Dues: A brief history of tomorrow, by Yuval Noah Harari, 2016.

Why the godfather of AI fears what he's built. The New Yorker, November, 2023.

"Godfather of AI" Geoffrey Hinton: The 60 Minutes Interview. https://www.youtube.com/watch?v=qrvK

"AI Godfather" Yoshua Bengio: We need a humanity defense organization, Bulletin of the Atomic Scientisis, October 2023.

Power and progress, our thousand-year struggle over technology and prosperity, by Daron Acemoglu and Simon Johnson, 2023.

Power and Progress review – why the tech-equals-progress narrative must be challenged, The Guardian, May 7th, 2023.

Outline

- Present
- **Past**
- Future
- Conclusion

What can we learn from history?

- Axial age.
- Printing press and protestant reformation.
- Influence of physics
- Industrial revolution.

Axial Age

The Origin and Goal of History, by Karl Jaspers, 1949.

New World Encyclopedia, https://www.newworldencyclopedia.org/entry/Axial_Age.

Los Angeles Times High School Insider, https://highschool.latimes.com/hs-insider/the-axial-age-a-spiritual-revolution/.

What changed during the axial age: cognitive style or reward systems? Communicative & Integrative Biology, 2015, 8(5):e1046657.

Printing press and protestant reformation

The printing press & the protestant reformation, World History Encyclopedia

https://www.worldhistory.org/article/2039/the-printing-press–the-protestant-reformation/.

Influence of physics

Dialogue concerning the two chief world systems, by Galileo Galilei, 1632.

Philosophie naturalis pincipia mathematica (The mathematical principles of natural philosophy), by Isaac Newton, 1687.

Critique of pure reason, by Immanuel Kant, 1787.

Critique of practical reason, by Immanuel Kant, 1788.

Critique of judgement, by Immanuel Kant, 1790.

What is life? The physical aspect of the living cell, by Erwin Schrödinger, 1944.

Theory of self-reproducing automata, by John von Neumann, 1966.

The double helix, by James Watson, 1968.

Foundations of economic analysis, by Paul Samuelson, 1947.

Maximum principles in analytical economics, Nobel Memorial Prize, by Paul Samuelson, 1970.

Industrial revolution

The communist manifesto, by Karl Marx and Friedrich Engels, 1848.

Capitalism, socialism and democracy, by Joseph Schumpeter, 1942.

Einstein's clocks, Poincare's maps: empires of time, by Peter Galison, 2003.

Kino-Eye: the writings of Dzige Vertov, 1985.

https://www.youtube.com/watch?v=3GyNB4-eN1E, 21:00-22:35

Outline

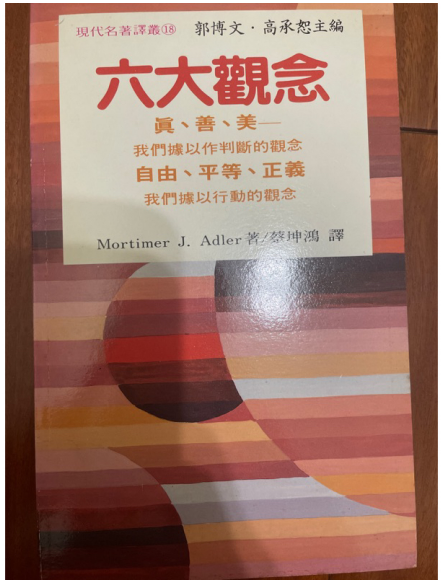
- Present
- Past
- **Future**
- Conclusion

Paradigm and episteme

The structure of scientific revolutions, by Thomas Kuhn, 1962.

The order of things (Les mots et les choses), by Michel Foucault, 1966.

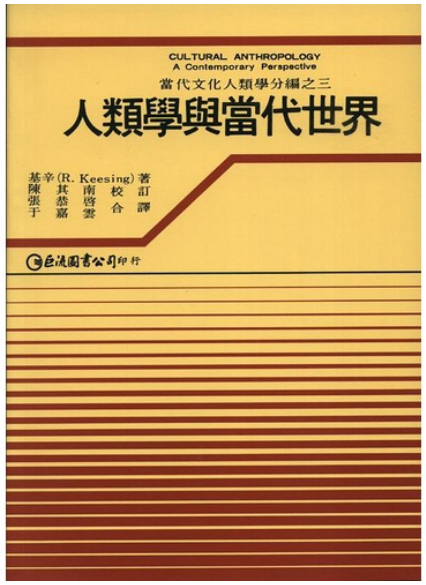
Six Great Ideas



- Truth
- Goodness
- Beauty
- Liberty
- Equality
- Justice

Six great ideas, by Mortimer J. Adler, 1981.

Cultural Anthropology



- Relative, heritage and social structure
- Marriage, family and community
- Economic system
- Unequal social structure – social class and inherited class
- Political organization
- Social control
- Religion, ritual, mythology, cosmology
- World view, cultural integration

Cultural anthropology: a contemporary perspective, by Roger Keesing and Andrew Strathern, 1971.