Social and Ethical Issues

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Social and Ethical Issues

The emergence of ever-more intelligent machines has potentially serious consequences.
Broad Issues

**Automation**

**Privacy**

**Accountability**

**World Domination**
Industrial Automation

AI is part of a collection of technologies that could massively expand the set of tasks that could be done by machines instead of humans.

Concerns:
- Job losses
- Inequality

Potential upside:
- Standard of living
- Wealth
- Efficiency
The Industrial Revolution

This has happened before!
Some Graphs

via *The Economist*

**Mean height of E**
Aged 20-23 years old,

**Life expectancy at birth**
Cities in England, years

![Graph showing life expectancy for West Derby, Newcastle, Manchester, and Liverpool from 1850s to 1890s.](source: Szreter and Mooney, 1998)

![Graph showing mean height from 1730 to 1911-15.](source: Komlos, 1998)

![Source: Manton & Paly, 2010](source: Manton & Paly, 2010)
Agriculture

And before that!
Autonomous Cars
Manufacturing
Universal Basic Income
Automated Warfare
Automated Warfare

Laws of war:

- Military necessity
- Distinction
- Proportionality
This open letter was announced July 28 at the opening of the IJCAI 2015 conference on July 28. Journalists who wish to see the press release may contact Toby Walsh. Hosting, signature verification and list management are supported by FLI; for administrative questions about this letter, please contact Max Tegmark.

AUTONOMOUS WEAPONS: AN OPEN LETTER FROM AI & ROBOTICS RESEARCHERS

Click here to see this page in other languages: Japanese 🇯🇵 Russian 🇷🇺

Autonomous weapons select and engage targets without human intervention. They might include, for example, armed quadcopters that can search for and eliminate people meeting certain pre-defined criteria, but do not include cruise missiles or remotely piloted drones for which humans make all targeting decisions. Artificial Intelligence (AI) technology has reached a point where the deployment of such systems is — practically if not legally — feasible within years, not decades, and the stakes are high: autonomous weapons have been described as the third revolution in warfare, after gunpowder and nuclear arms.
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Who is responsible for an autonomous agent causing injury?
Accountability
Bias

“The program, Correctional Offender Management Profiling for Alternative Sanctions (Compas), was much more prone to mistakenly label black defendants as likely to reoffend – wrongly flagging them at almost twice the rate as white people (45% to 24%), according to the investigative journalism organisation ProPublica.” (The Guardian)
“… we show that applying machine learning to ordinary human language results in human-like semantic biases. We replicated a spectrum of known biases, as measured by the Implicit Association Test, using a widely used, purely statistical machine-learning model trained on a standard corpus of text from the World Wide Web. Our results indicate that text corpora contain recoverable and accurate imprints of our historic biases, whether morally neutral as toward insects or flowers, problematic as toward race or gender, or even simply veridical, reflecting the status quo distribution of gender with respect to careers or first names.”
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Automation

Accountability

Privacy

World Domination
Taking Over the World
Team Zuck vs. Team Elon
AI: The Very Idea

For as long as people have made machines, they have wondered whether machines could be made intelligent.

(pictures: Wikipedia)