

Artificial Intelligence and Society: Opportunities, Risks, Challenges

Special Seminar (*Specseminārs*)

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Overview: Artificial intelligence (AI) is one of the fastest-growing and most exciting fields of Computer Science (CS), which has attracted attention not only of researchers, software developers, and entrepreneurs, but also of the general public. The discussions about AI and its future go beyond the boundaries of CS, as they involve ethics, sociology, philosophy, neuroscience, economics, and other disciplines. Here are just some of the questions that arise in such discussions:

- Is it possible in principle to create Artificial general intelligence (AGI), i.e., AI that can deal with any intellectual task that humans can deal with?
- If AGI can be created, which approach could succeed: the current start-of-the-art machine learning (ML) techniques such as deep learning? reengineering the human brain by drawing on the advances of neuroscience? some other approach?
- Is it permissible to use AI for military purposes?
- What impact the further development of AI will have on the labor market: will it result in job losses or new job openings? Which careers are most and least likely to be affected? Also, will we have to adopt the universal basic income (UBI) because of AI?
- Will AI lead us to a more democratic and egalitarian society or to more restrictions of individual freedom?

AI technologies are already affecting our lives in various ways and are likely to lead to even more dramatic societal changes, for better or for worse. **Therefore, it is essential for CS students to not only learn some particular ML methods or software frameworks , but also to gain some insight into the overall AI landscape and future prospects. The goal of this seminar is to help its participants with that.**

To apply, send an email with your name, student ID number, and the year of study to m.ivanovs@lu.lv.

Day and time: every Thursday 16:30 - 18:00 in MS Teams. The first meeting will be on February 16.

Working language: English.

Requirements for passing the course:

- attendance: at least 50 percent of classes;
- two presentations (45 percent of the final grade each);
- optional assignment for extra credit: an essay on a relevant topic (10 percent of the final grade).

Some sources to inspire prospective participants:

1. Bostrom, Nick. *Superintelligence*. Dunod, 2017.
2. Lee, Kai-Fu. *AI superpowers: China, Silicon Valley, and the new world order*. Houghton Mifflin Harcourt, 2018.
3. O'neil, Cathy. *Weapons of math destruction: How big data increases inequality and threatens democracy*. Broadway Books, 2016.
4. Reese, Byron. *The fourth age: Smart robots, conscious computers, and the future of humanity*. Simon and Schuster, 2018.