Machine Intelligence and Higher Education

Andy Wang
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Questions:

- What ASA curriculum look like in 2090’s?
- How do we teach in 2070’s?
- What impact and implication of machine intelligence to higher education?
Machine Intelligence

- 50% of human jobs will be replaced by robots in 50 years
- All human jobs will be automated within the next 120 years
A timeline of Growth ...

Boom and Bust

1956-1974: Logic, heuristic search
1980-1987
1987-2012
2012-Now: Deep Learning Game Theory

Vision, translation, cognitive, robots
Typical Milestones

- 2011: IBM’s Watson AI won a game of Jeopardy! Against the world’s best players.
- 2017: Alpha Go defeated the world’s best player in Go.
Why does it Matter?

- Now computer vision is better than human’s vision.
- Machine will be able to translate languages better than humans by 2024.
- Machine can write high school-level essays by 2026.
- Machine can drive trucks autonomously in 2027.
- Machine can work in retail store in 2031.
- Machine can write books by 2049.
- Machine can perform surgery by 2053.

**Question:** What jobs in higher education can be replaced by machines?
MI Applications in HIED

- Automatic grading
- Intelligent tutoring, individualized tutoring
- E-advisors, personalized advisor
- Smart content – instruction design, study guide, practice exercises, quiz designer, test designer
- SimCoach, ELITE Counseling: More examples can be found
  - USC Institute for Creative Technologies, [http://ict.usc.edu/prototypes/current/](http://ict.usc.edu/prototypes/current/)
Questions?
Thank you!