Reform of Chinese Education in the Internet Era:
Understanding from a Computer Scientist

Zhou Aoying

East China Normal University

DaSE
Data Science
& Engineering

華東師范大學

EAST CHINA NORMAL UNIVERSITY

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Outline

- Education reform is a prerequisite
- Education has been a restraint factor
- Good timing to do reform
- Internet era is a new era
- Pathway of education reform
- Concluding remarks

Prerequisite

- 40th anniversary of opening-up policy in China
- Four phases
  - Explode superstition→Emancipate minds→Reform and Opening-up→Comprehensively deepening reform (CDR)
- China Dream
  - The great rejuvenation of Chinese nation
- Education reform is an important part of the CDR

Achievements

- China made remarkable achievements in the past 40 years
  - The gross enrollment ratio (GER) of higher education reaches 43.4% in 2017 (which was 4.8% in 1977)
  - The biggest population of higher education all over the world
- Provided abundant human resources for the rapid development of China

Restraint Factor

- Inheritance of the traditional imperial examination system in China

- Adoption of the Soviet education system at the very beginning of new China

- Big issues
  - Exam-oriented education, very low efficiency
  - Lack of initiative spirit and innovative ability

Good Timing

- China has made great progress in social and economic development
- Contemporary China's "New four great inventions"
  - High-speed rails, Alipay, Online shopping, Bike sharing
- Internet plays critical role in all these
  - Internet→Big data→Internet plus→Artificial Intelligence

New Era

- Internet changes the relationship of people, and so changes the world
  - People connection
  - User experience
  - Behavior data

- Internet essentially brings "Democracy and Science" to China through successful industry

Pathway

- Mass Entrepreneurships and Innovation
- Translation of successful Internet industry into education
  - Internet platform for learning and data collection
  - Data-driven and computational pedagogy
  - Design thinking and iteration

Concluding Remarks

- Internet changes the world and opens a new era

- Data is a new power, just like previous steaming power and electricity

- The world is being reshaped by the Internet and big data

- The pedagogical thoughts become feasible and pratical
  - Individualized teaching (因材施教)
  - Edutainment (寓教于乐)
  - Learning by teaching (教学相长)

Thanks
for your attention!

http://dase.ecnu.edu.cn/
ayzhou@dase.ecnu.edu.cn
WeChat: aoyingzhou