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

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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 practical
  - Individualized teaching (因材施教)
  - Edutainment (寓教于乐)
  - Learning by teaching (教学相长)
Thanks for your attention!

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