Effect of technology on children’s education

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Children’s Tech Proficiency

“Why am I going to school if my phone already knows everything?”

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“You’re telling me it will take 13 years to install my education! What kind of outdated software is this school using?”
Observation of Change

Children’s Tech Proficiency  K-12 Education

• Children are now familiar with digital devices and networked communications
• K-12 education is not yet fully utilizing these new capabilities

Hypothesis: Adaptive, personalized curricula will soon revolutionize K-12.
K-12 Education timeline

- 1892: K-12
- 1900: K-12
- 1970: Flipped education
- 1990-00: Adaptive, Personalized K-12
- 2004: K-12 MOOC
- 2014: Beyond

Berkeley University of California
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Traditional Curricula

- Teacher Input
- Class Curriculum
- Progress, Performance, & Engagement Metrics
Personalized Curricula

Digital Instruction and Assessment

Progress, Performance, & Engagement Metrics

Data Analytics

Continuous ‘Report Card’

Personalized Curriculum Playlist

Teacher Input

Berkeley
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University of California
Adaptive Personalized Curricula

Digital Instruction and Assessment → Progress, Performance, & Engagement Metrics → Data Analytics → Continuous ‘Report Card’

Adaptive Personalized Curriculum Playlist → Curriculum Personalization Engine

Parent/Student Preferences → Teacher Input

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Ecosystem Players

- Traditional Educational Materials
- Personalized Curriculum
- Brick & Mortar
- Home Schooling
- K-12

Ecosystem Players:
- Gooru
- Knewton
- AltSchool
- Pearson
- McGraw Hill Education
Societal Factors

• **Resistance to change**
  – Parents - unfamiliar format; security/privacy
  – School districts - funding; social skill development; special needs; coexistence with K12
  – Teachers’ union - new skills, roles, and responsibilities

• **Acceptors of change**
  – Taxpayers - reduced costs per student
  – Universities - better prepared students
  – Employers - better prepared workers

• **Equalization Effect**
  – Levels the playing field

  – Real Estate values
Predictions

• **KNEWTON** best positioned for this $10B+ market

• 10 year evolution toward
  – **better educated students** - increased college attendance, preparation, and specialization
  – **increased efficiency** - reduced cost per student while covering more material

• Significant shift in K-12 institution
  – Adaptive Personalized Curricula via tablets
  – Less stratified by grade-level
  – School district and educators - evolve to support non-academics (physical fitness/extracurriculars) and special needs
Conclusion