From Digital Literacy to Digital Equity

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Today, digital skills are everything

Digitalization of the World

Telemedicine
Affordable and flexible consultations with doctors

Remote Work
Reducing costs of childcare and commuting

Digitalization of Jobs
Increase of automation in the workforce

Online Education
Access affordable education from anywhere

Online Business
Start a business from anywhere, anytime

Digitalization of Government
Moving government services online

Forbes, 2022
Digital skills distribution mirrors extant socioeconomic disparities.
Uneven distribution of digital skills threatens to reinforce existing social disparities

Deutsche Bank Research
North America

Technology Strategy
Thematic Research

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America’s Racial Gap & Big Tech’s Closing Window

Digitization and the Racial Gap
The exponential growth of the digital economy is going to leave large chunks of minorities with little or no access to jobs. We conduct a bottom up societal study and it shows that 76% of Blacks and 62% of Hispanics could get shut out or be under-prepared for 86% of jobs in the US by 2045. If this digital racial gap is not addressed, in one generation alone, digitization could render the country’s minorities into an unemployment abyss.

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Key takeaway from today’s talk

• The sky is not falling
  – Many important steps are already being taken
  – Maintaining momentum will require better measurement and evaluation of digital literacy interventions
So, what is digital literacy?
What do we mean by digital literacy?

- Digital Literacy is the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.

- Digital literacy a function of cognitive capacity and technical skills
- Digital literacy only relevant once basic access needs have been met
  - Access to internet and devices
What do we mean by capacity

- Offline traits that make technical skill acquisition easier
- General literacy + disposition toward tech
  (reading and writing) (e.g., trust in technology, perceived utility)
What are technical skills?

- Technical skills refer to one’s ability to use technology
  - Consist of two dimensions
    - Basic skills, easily transferrable - find, evaluate, communicate information
      - Charging a device, data entry
    - Context skills, function dependent – create, communicate information
      - Using software for specific tasks (e.g., accounting or data analysis), cookies
Illustration

– Most tasks require combination of basic and context skills:

- **Search for jobs**
  - understand and navigate job search websites, develop networks

- **Prepare application materials**
  - use word processing software, scan documents

- **Apply for jobs**
  - navigate websites, troubleshoot, upload documents

- **Do the work**
  - Use technology to carry out relevant tasks efficiently and effectively
Summary

- Context Skills
  - Intensive training, time intensive
  - Education, social networks

- Basic Skills
  - Limited training, time intensive
  - E.g., basic bookkeeping in excel

- Capacity
  - E.g., knowledge of accounting
Measurement and Evaluation

Two challenges for improving digital literacy
The measurement challenge

- Digital literacy is multidimensional, makes measurement hard
  - Everyone uses different measures
    - Some focus on basic skills, others capacity, others context skills
  - Often, frameworks tie measurement to their specific training program
    - How well these measures predict real world functionality unclear
  - Lack a shared language
    - What do we mean when we say someone is more or less digitally literate
The evaluation challenge

• Without validated measures, how do we know what works?
  – Creates challenges for curriculum development
    • Benchmarking and establishing best practices
    • What training gives us the best ROI?
In summary,

• Measurement and evaluation challenges slow the pace of progress
  • Knowledge exchange/benchmarking more efficient than everyone figuring things out on their own
How do we overcome these challenges?
Three steps to improve digital literacy and promote digital equity

1. Improve measurement
   - Think about ways of creating shareable knowledge

2. Careful problem definition
   - Parsimonious measures that address real world needs

3. Experimentation
   - Test, measure, test
   - Libraries do tremendous work developing digital training curricula that respond to emerging social needs
Closing on a positive note

• The sky is not falling
  – Good progress is being made on establishing infrastructure
    • Structural investments; Digital literacy training taking off
  – Continuing progress means focusing on base hits not home runs
    • Stronger evidence on figuring out what works and what doesn’t
    • Libraries crucial testing ground for experimentation
Thank you!

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