The UNCRPD and AT in the Developing World: Research in India and Peru

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Why Now?

CRPD March 2007, highest opening
153 (110) signatories, 90 (63) optional
Several States with extreme economic challenges

What does it specify
- Defines rights:
  - health, political participation, education, non-discrimination etc
- Recommends steps for states:
  - endorsements of technologies, support for community groups, R&D, education etc.

Important rights-based recognition
CRPD and AT in the developing world

Several articles relating to assistive technology:
- Art 4: Promote R&D of new tech at affordable cost
- Art 9: Promote design and prodn of accessible ICTs
- Art 20: Facilitate access to mobility aids and AT
- Art 21: Urge accessibility to private concerns online
- Art 21: Reasonable accommodation at the workplace

Current AT research and products inaccessible
- Most AT research located in US/EU, E.Asia
- Designed for users from these countries
Paper Contents

- Why the problem is timely
- International law and AT
- Types of AT related to vision impairment
  - Framework technologies
    - OCR, Braille Translators, Speech Rec etc.
  - Output and hardware
    - Braille disp/embossers, Screen Readers, Mobile
  - Focus mainly on computing-based AT
- AT and employability in Peru, India, Guatemala
Current UM Research on AT

Six country study of CRPD reporting

Technology adoption: Screen Reading

Surveys of 120 Screen Reader users

Technology and employability

100 in-depth interviews in Bangalore

30 in-depth interviews in Peru

Descriptive narratives of disability

Information on access patterns – home v/s NGO
Screen reading preferences study

• Initial choice driven by first training module
  – JAWS widespread

• Audio output v/s application support
  – Novices driven by voice output
  – Experts driven by app
  – Technology switching limited

• Home piracy v/s workplace accommodation

• Language localization
  – Complicated issue – predominance of English

• Access locations
  – Females likely to receive institutional locations
Theoretical Explanations

• Some comparable situations from cognitive science on “superficial/surface” features
  – Racquetball racket purchase
• Other examples from behavioural economics
  – Changing service providers such as tax professionals
• But distinctions
  – Higher exit barrier than other populations
  – In other words, it not a switch from Mac to Windows or vice versa.
Narrative Studies of AT & Employability

• India, Peru – 140 interviews
  – Mixed method study (survey + interview)
  – AT users only
  – Coded into key themes

• Next round Jordan, Guatemala, Qatar

• Research in India with broader populations
Themes: Common/Contrasting

• **Exclusion / State**
  – Lack of institutional access to ICTs
  – Limited reliance on state

• **Economic Engineering**
  – Lack of agency on early career choices
  – Diversion to certain positions (transcription)

• **Entry barriers**
  – Lack of visibility of disabled in workplace
  – Intermediation often necessary

• **Peer Effects**
  – Places where peers work influence aspiration
  – Companies gain cache of being “disabled-friendly”

• **Aspiration**
  – AT frequently coincides with increased aspiration
Conclusions / Future directions

• AT users’ narratives critical
  – Does not make a statistic out of disability
  – Replicating similar stories elsewhere builds corpus

• Themes useful for services
  – Placement of AT services
  – Public awareness
  – Workplace compliance

• But what of other disabilities?
  – “Blindness is a disability with a future”
    • Interviewee with quadriplegia from Mexico
Thanks and Questions

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