DIGITAL TECHNOLOGIES AND THE EMPLOYMENT OF AMERICANS WITH DISABILITIES: FINDINGS FROM A FOCUS GROUP STUDY

Dr. Paul M.A. Baker

Center for 21st Century Universities
Georgia Institute of Technology
Atlanta, Georgia

Dr. Nathan W. Moon

RERC on Workplace Accommodations
Georgia Institute of Technology
Atlanta, Georgia

Dr. James White

Center for Advanced Communications
Policy, Georgia Institute of Technology
Atlanta, Georgia

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Background Discussion

- Limited employment prospects for people with disabilities
  - Older than average worker
  - Work fewer hours per week on average
  - Less likely to be college educated
  - More likely to be employed in low-growth, low-wage occupations

- Key statistics
  - **14.7%** unemployment for persons with disabilities vs. **9.1%** for persons without disabilities (ODEP, May 2010)
  - Working Americans with disabilities **3 times** more likely to live in poverty (**28.2% PWD vs. 9.2% general population**) (CPS, 2008)

Study Background

"The Power of Digital Inclusion: Technology's Impact on Employment and Opportunities for People with Disabilities"

- Report commissioned by National Council on Disabilities (NCD) in 2009
- Completed in 2010, published in October 2011
- Available online at

  http://www.ncd.gov/publications/2011/Oct042011

Digital Technologies

- **Question: Will new technologies represent bridges or barriers to employment for people with disabilities?**

  - **Barriers: Accessibility, usability of digital technologies**
  - **Opportunities**: Participation in "New Economy" based ICT

- **Question: Human capital/Social Capital**

  - **Perceived deficits in skills, talents of PWD**
  - **Scarcity of job opportunities for PWD**

  - **Mechanisms matching job opportunities with job seekers**
  - **Importance of social networks in employment opportunities**
  - **Knowledge generated through social interaction**

Focus on "Vectors"

Study focused on employment opportunities for people with disabilities created by digital technologies, or "vectors"

- Wireless communication platforms
- Social networks
- Immersive digital environments, including virtual worlds and tiered digital interactions, such as electronic games
- Open/peer publishing
- Open source processes

Methodology

User Studies

- Focus groups (3 focus groups, with total of 21 participants)
- Online social network groups (groups on Facebook, LinkedIn)
- Delphi study (3 rounds, with 30 participants)

- Conducted between May and June 2010 - 3 Focus Groups, with 6 to 8 participants in each

- Total of 21 participants

- Motor, sensory, learning, and intellectual disabilities represented

Wireless Platforms

- Smart phones important for communication

- Problems with employer acceptance

- Provide mobility, freedom to access social networks without being locked into single location

- Video features cited as important by Deaf users

- Small, inaccessible keyboards; slow, frustrating interfaces

- Cost as primary impediment to adoption

- Of note: 3/4 of blind, low vision users prefer iPhone

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Social Networking

- Familiarity with social networking, sense that technologies have some workplace applicability

- Social network platforms (e.g. LinkedIn, Facebook) seen as important for making contacts, doing business

- Problems with accessibility, especially due to graphical interfaces

- Of note: Mobile versions cited as somewhat more accessible, compatible with screen readers

Virtual Worlds, Serious Gaming, Tiered Digital Interactions

- 2nd Life known by name/reputation, but not widely used

- Few workplaces make use of virtual worlds, but possibilities for training, team building, etc.

- Virtual worlds conflated with gaming platforms (i.e. WoW)

- Cumbersome interfaces and lack of direct applicability

- Serious gaming/digital interactions tied to personal interest

- Committed adopter can influence workplace adoption

- Deaf gamer cited accessibility features of World of Warcraft (WoW) allowed him to "set aside" disability identity

Findings: Open/Peer Publishing - Open Source

- High perception of utility of open/peer publishing
- Blogging more accessible than social networking
- Familiarity with Wikipedia, Use of wikis in the workplace
- Interest by Deaf community in YouTube for video content
- Useful for info sharing, concerns over collaboration

- Familiarity w/open-source platforms; Criticized as inaccessible
  - Google Docs – Formatting changes, lack of accessibility
  - Microsoft Live – Problem of accounts and passwords
  - Java – A "four letter" word

- Workplace problems with open source platforms
- Less of an user issue, more of an employer issue

Facilitators/Barriers

- **Market forces shift from AT to UD technologies**
  - **Digital technologies may offer user control (e.g. interfaces) through software**
  - **Power of population aging into disability to influence market**

- **Improved communication, collaboration for people with disabilities**
  - **Outreach/awareness vital to success**

- **Accessibility issues exist, but may not be what researchers assume**
  - **Literal inaccessibility (e.g. small keyboards) still main problem**

- **Employer-side awareness still problematic**
  - **Org inertia and employer policies still a major barrier to technology adoption**

- **Cost of devices continues to be issue**

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Overall Study Findings

- Key findings:
  1. Education critical for increased technical skills
  2. Barriers to making a dispersed workforce a reality
  3. Vectors may offer pathways to employment, enhancing proactive social interaction, building social capital, led by the young
  4. Disability community needs to continue awareness outreach of presence, capacities, and potential of people with disabilities
  5. Social, technological, attitudinal barriers exist to potential of the new networked economy among people with disabilities
  6. Encourage the adoption of meta-design approaches
  7. Encourage entrepreneurs with disabilities to flourish

- 14 recommendations based on findings

For More Information

➢ **Full report:**
   www.ncd.gov/publications/2011/Oct042011

➢ **Project Team**
   - **James D. White**, PI, **CACP**
   - **Paul M. Baker**, Co-PI, C21U/CACP
   - **Robert Todd, CATEA**
   - **Brad Fain, GTRI**
   - **Nathan Moon, CACP**
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