Disability and the COVID-19 Pandemic: Using Twitter to Understand Accessibility during Rapid Societal Transition

Cole Gleason, Stephanie Valencia, Lynn Kirabo, Jason Wu, Anhong Guo, Elizabeth J. Carter, Jeffrey P. Bigham, Cynthia L. Bennett, Amy Pavel

ASSETS 2020
Turning to Social Media

We turned to Twitter to understand how the pandemic affected accessibility.

People use social media to find and share local information in crises, such as Hurricane Sandy [Maria Kogan et al. 2015]

People with disabilities, especially communication disabilities or who are deaf do this as well [John T. Morris et al. 2014]
April 6 - 12: General Search

- Used 59 general terms
- 3,375 resulting tweets
Domains

Product Delivery

Online Education

Public Health Messaging
April 6 - 12: General Search
● Used 59 general terms
● 3,375 resulting tweets

April 16-22: Domain Specific Search
● Grocery Delivery: 7,877
● Education: 1,244
● Public Health Messaging: 544
FINDINGS
What do tweets reveal about product delivery?

- Offering mutual aid
- Unable to get products:
  - Few slots
  - Narrow high-risk group prioritization
- Requesting help
- Advocating and sharing critiques
What do tweets reveal about online education?

- Advocating for education access
- Sharing resources to make content accessible
- Unpreparedness of institutions, need for universal design approach.
- Accommodations availability changed for the pandemic but were hard to get before
What do tweets reveal about public health messaging?

- Visual info did not have alternative text descriptions.
  - 12 out of 55 health dept. accounts used alt text.
  - 48 of 50 COVID websites inaccessible [The Markup 2020]

- Sign Language at COVID briefings
Existing problems magnified by pandemic

- Lack of funds for basic needs
- Accessible content online

Emergency measures not considering accessibility

- Inaccessible signs in stores
- Inaccessible video platforms for online education

Existing solutions no emergency plan

- Similar: prior work on no consideration for access in emergency plans

Improvements to access but took a pandemic to get there

- Remote learning/work now allowed
- Must ensure these remain in place after pandemic is over
Thank you!

Contact Us:
svalencia@cmu.edu | @svaleval
cgleason@cmu.edu | @colegleason

Paper:
bit.ly/Disability-COVID-on-Twitter

Illustrations by: https://stories.freepik.com