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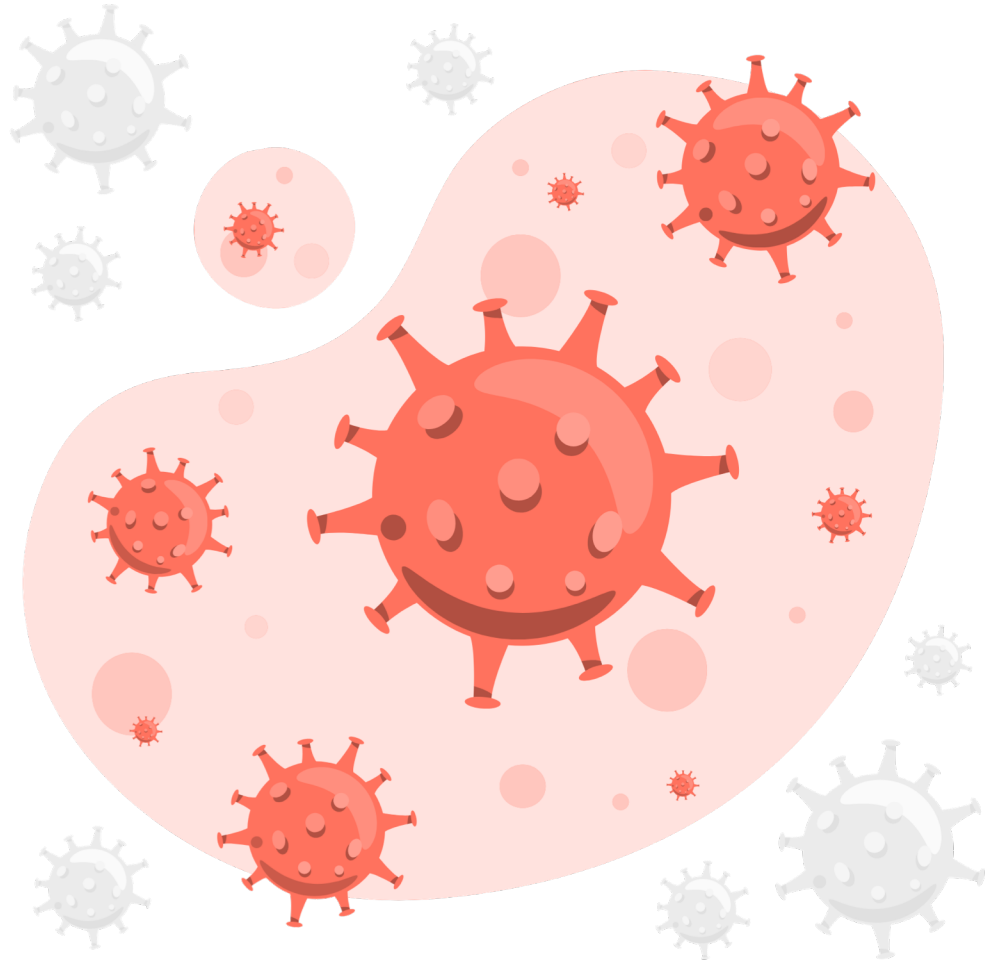Using Twitter to Understand Accessibility during Rapid Societal Transition

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

ASSETS 2020

CORONAVIRUS COVID-19

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]

Timeline: Twitter Search Windows amid COVID-19 Cases

Search: General
April 6-12, 2020
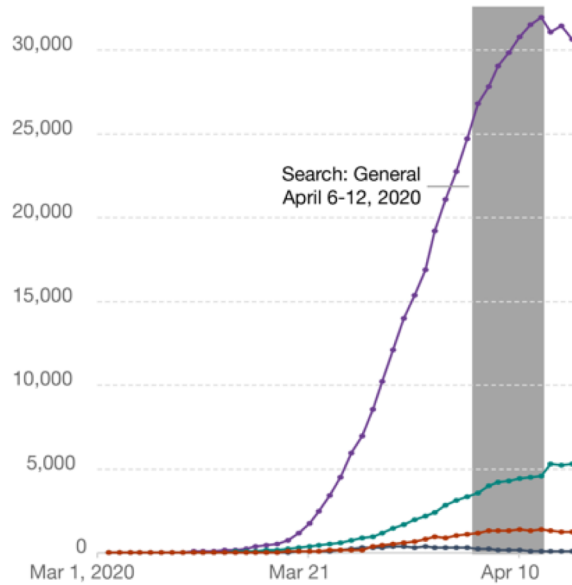
April 6 - 12: General Search
- Used 59 general terms
- 3,375 resulting tweets

Domains

Product Delivery

Online Education

Public Health Messaging

Timeline: Twitter Search Windows amid COVID-19 Cases

Search: General
April 6-12, 2020

Search: Domain Specific
April 16-22, 2020

United States

United Kingdom

Canada

Australia
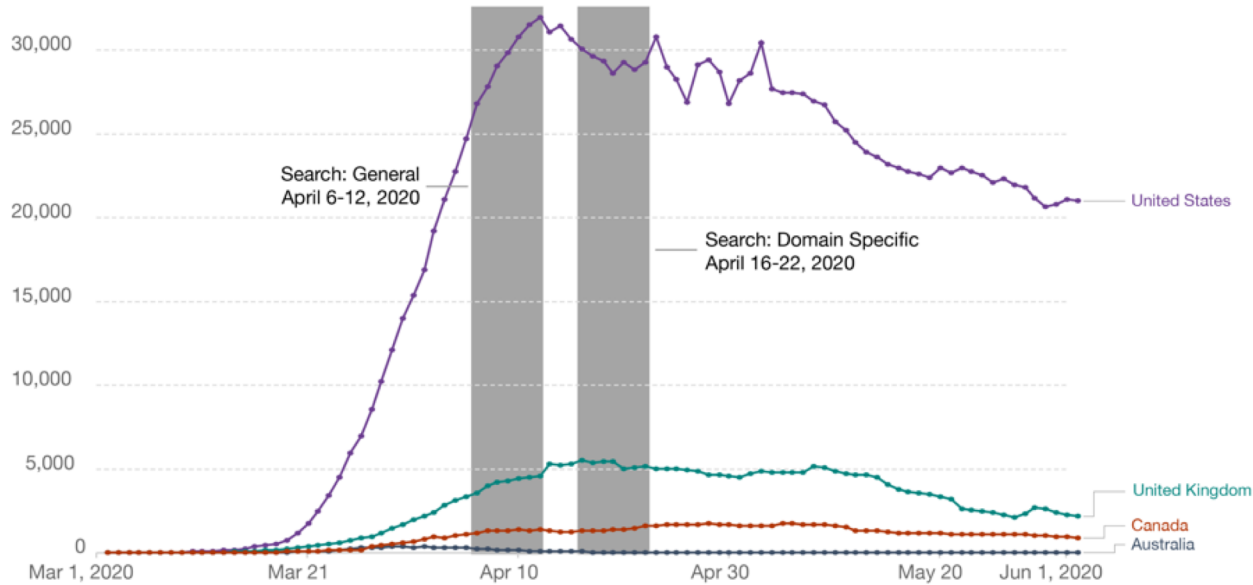
April 6 - 12: General Search
- Used 59 general terms
- 3,375 resulting tweets

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

Tactile Version
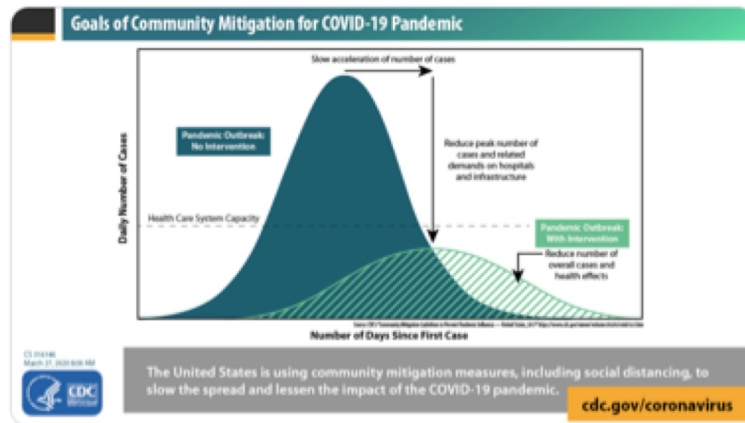
Existing problems
magnified by pandemic

- Lack of funds for basic needs
- Accessible content online

Existing solutions
no emergency plan

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

Emergency measures
not considering accessibility

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

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!

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

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