Visualizing and Communicating COVID-19 Data Effectively

(Technical Report)

The Struggle to Reduce the Digital Divide in the United States

(STS Research Paper)

An Undergraduate Thesis Portfolio
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by

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How can a greater share of Americans access the vital information they need? As the world grows increasingly digital, the ability to retrieve and utilize information online becomes more and more important.

How can digital technology be used to help U.S. citizens remain informed about and engaged with public health data? The COVID-19 pandemic has dramatically affected all Americans, and is front page news every day, but it can be difficult to stay up to date on accurate local information. Efficient public access to current data, especially in areas not typically covered by national media, will allow individuals to make informed decisions on a daily basis. The proposed COVID-19 information system promotes active engagement with public health data through an interactive map and timely notifications. Increased awareness of area-specific data will directly contribute to public safety as the pandemic continues.

How have advocates of universal Internet access in the United States strived to diminish the digital divide? As Internet usage proliferated in the United States, it did not do so equally. In the aggregate, minorities, low-income people, and residents of rural communities did not enjoy the same access to computers and the Internet that white, wealthy, and urban citizens did. To address this issue, the federal government directs funds towards the development of broadband infrastructure in underserved areas, often giving money to private telecommunications companies; where these entities have not yet enabled affordable Internet access, community organizations work to bridge the gap. While these approaches have varying degrees of success, broadband access as a whole has improved recently, and will continue to do so. This does not mean that the digital divide will be easily eliminated. Improving digital literacy and skills is also critical in order to truly eliminate the digital divide.

List of Contents

1. Technical Report: Visualizing and Communicating COVID-19 Data Effectively

2. Sociotechnical Research Paper: The Struggle to Reduce the Digital Divide in the United States

3. Prospectus