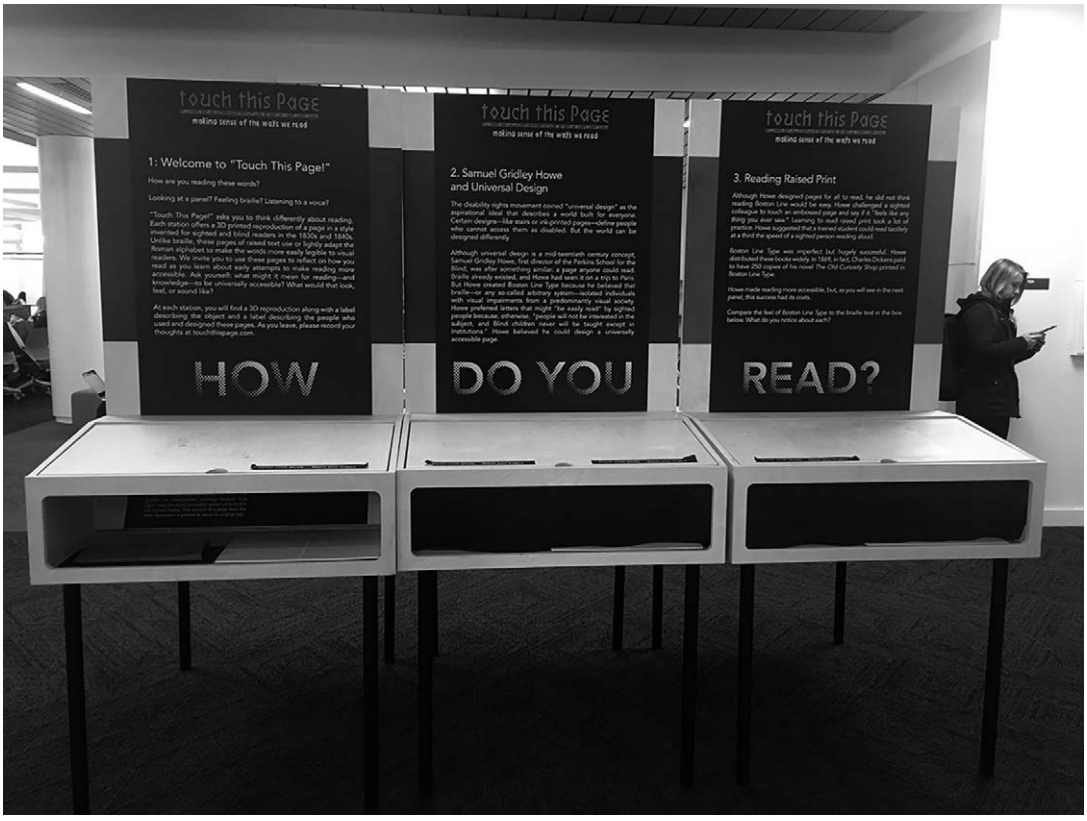
*Touch This Page!: Making Sense of the Ways We Read*. Snell Library, Northeastern University, Boston, MA, and other locations. *Sari Altschuler* and *David Wimer,* Co-Directors; *Dan Cohen, Waleed Meleis, Kim Charlson, Jennifer Arnott*, and *Jen Hale*, Collaborators. *Perkins School for the Blind, Northeastern University*, and *Harvard Library*, Sponsors. January–April, 2019. https://touchthispage.com.

*Touch This Page!: Making Sense of the Ways We Read* reminds visitors that some contemporary issues are rooted more deeply in the past than we may realize. *Touch This Page* calls itself "an exhibition about multisensory experiences of reading"; but, more specifically, it explores the history of a raised-print reading system called Boston Line Type and its relationship to ongoing debates about accessibility for people with disabilities and universal design. Universal design refers to design that is accessible to all people regardless of ability, eliminating the need for people with disabilities to rely on other systems or technologies to gain access. The exhibition's prominent use of braille and 3D-printed objects makes tactile interaction a key part of the visitor experience. *Touch This Page!* uses innovative technologies and strategies to present history that resonates with present-day conversations about disability rights and access. It showed briefly as a pop-up exhibition in early 2019 and reflects some of the limitations of this format. Nevertheless, with its emphasis on innovative forms of access and visitor feedback, *Touch This Page!* could foreseeably be further developed and serve as a model for other accessible projects in the future.

Because *Touch This Page!* focuses on multisensory interaction and provides resources for visitors with visual impairments in particular, the experiences of such visitors are an important indicator of the exhibition's success. Paul Harpur is a scholar of disability law at the University of Queensland's TC Beirne School of Law in Australia and is himself blind. Harpur graciously agreed to visit the exhibition with me and to contribute his observations to this review. We visited the exhibition at Northeastern University's Snell Library, one of four locations at which it showed between late January and mid-April 2019. *Touch This Page* also showed at Harvard University's Lamont Library, the Boston Public Library's Norman B. Leventhal Map and Education Center, and the Perkins School for the Blind. A digital version of the exhibition is online at touchthispage.com. *Touch This Page!* is a collaborative project between the Northeastern Library, Harvard




Front view of the *Touch This Page* pop-up exhibition at Northeastern University's Snell Library. (Photograph by author)

Library, and Perkins School for the Blind, and it mainly utilizes material from Perkins's collections.[1] It was co-directed by literary scholar Sari Altschuler from Northeastern University and David E. Weimer, a Harvard librarian, who also has a background in English.

The physical exhibition is compact, consisting of a six stations, the first three of which are pictured in the image above. Each station has a panel with printed text and a shelf with a braille transcription on its surface. The shelf props open at the top to reveal a 3D-printed object and more printed and braille text. These contents are also accessible through a small curtained slot at the bottom of the unit. On each side of the exhibition, the thematic question, "How do you read?" is prominently displayed across the panels. The exhibition's lack of images, limited color scheme, and raised-print objects underscores its focus on reading, especially in a tactile rather than visual sense. The text passages are lengthy as a result, although they follow a consistent pattern of organization. Each of the sections progresses through

1 "About Us," *Touch This Page*, Touch This Page Exhibition, 2019, https://touchthispage.com/about-us.

a history of Boston Line Type, which was developed in the 1830s, and conceptual issues related to universal design. The objects in the shelves are 3D-printed replicas of teaching materials used at Perkins in the nineteenth century; the accompanying text describes the objects as well as people who were associated with them.

The first panel prompts visitors to ask themselves "what it might mean for reading—and knowledge—to be universally accessible," thereby introducing one of the exhibition's main themes. *Touch This Page!* invites visitors to participate in an ongoing debate about universal design and disability rights. It tells us that Samuel Gridley Howe (1801–1876), the inventor of Boston Line Type, advocated for universalism and hoped the system would help people with visual impairments to integrate into society. However, the exhibition complicates Howe's stance and suggests that "sometimes . . . creating one design for all is at odds with maximizing accessibility for everyone." As an expert in disability law, Harpur found this discussion to be very interesting and relevant to his work.[2] As we explored the exhibition, Harpur remarked that he had not previously realized "how long these tensions have been going."[3] He explained that in the present day also, these tensions result from a desire to integrate people with sensory disabilities into mainstream communication systems, but also to preserve the benefits of specialized systems like braille, a raised-print system that was a contemporary of Boston Line Type and eventually surpassed it in popularity. *Touch This Page!* thus ties the history of Boston Line Type to contemporary issues clearly and effectively. That said, little of its content relates to sensory disabilities beyond the visual, or communication systems beyond raised-print text. The focus on "multisensory experiences" is achieved through guiding questions and plays a thematic role in the exhibition as opposed to one rooted in its historical content.

*Touch This Page!* also encourages visitors to reflect on an empathic level to history. It accomplishes this by connecting each object to a historical person who used it. The exhibition's most notable subject is Helen Keller, who came to Perkins in 1888. One part of the exhibition pairs Keller with a passage from a raised-print edition of *Hamlet* with which she would have been familiar. Keller's testimony about the positive impact of Boston Line Type on her life and education is powerful. Inspired by an account of Keller's emotional response to reading Shakespeare, Harpur observed how the passage from *Hamlet* would have reflected Keller's own feelings of isolation, "both physically or sensorily and historically—she being a woman and disabled in that era." This grounds the discussion about disability rights and access in human experience in a way that Harpur described as "thought-provoking."[4] The 3D-printed objects encouraged us to consider how

2 Paul Harpur is currently conducting research on universal design. He discusses the ramifications of universal design in his recent publication, *Discrimination, Copyright, and Equality: Opening the E-Book for the Print Disabled*, Cambridge Disability Law and Policy series (Cambridge: Cambridge University Press, 2017).

3 Paul Harpur, in conversation with the author, March 30, 2019, Boston, MA.

4 Ibid.

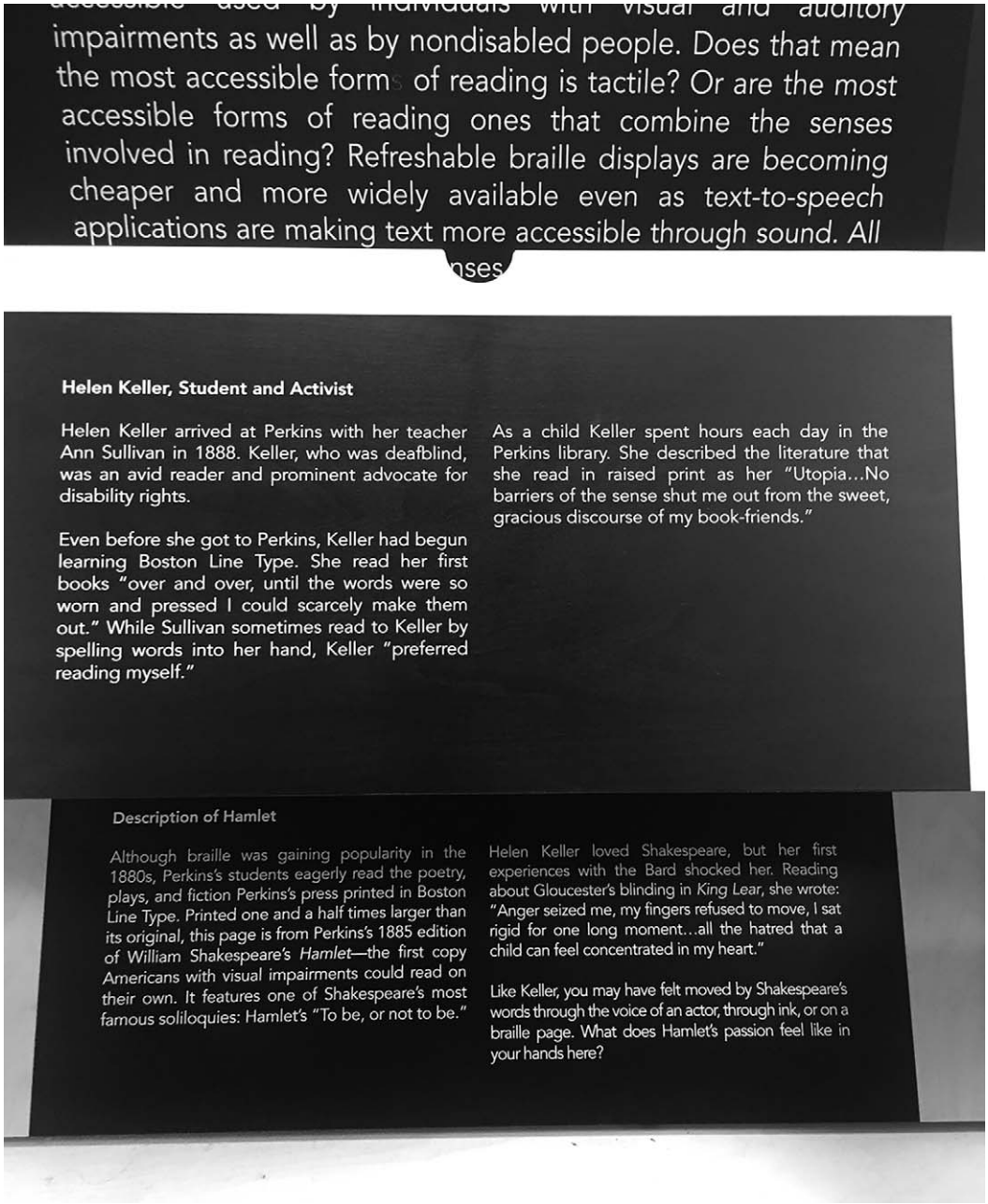
challenging it would have been for students to learn Boston Line Type, as it was difficult for us to parse what the objects represented without reading their descriptions. This seems to be characteristic of Boston Line Type itself, rather than due to a fault with the exhibition or its objects, as one panel describes the system as "much harder to read than braille." This experience allows visitors to reflect on the benefits and shortcomings of the system first-hand, and to relate to the students who would have used it. It also aids visitors' understanding of the debate between universal design, which was intended to be used by everybody irrespective of ability and background, and specialized systems that are designed to provide tailored access for people with disabilities.

The physical exhibition occupied little space on the floor of Snell Library, and each of its six sections followed a consistent pattern of construction. Because *Touch This Page!* was developed as a pop-up exhibition and reproduced to show in multiple locations, the simplicity of its design makes sense. Features like the open shelving units allow for a great deal of information to be included in a small space. Some people would likely find the act of opening the shelves or reaching through the curtained slots to be an engaging part of the visit. However, these features presented some difficulties for Harpur and me. According to Harpur, braille should be read with the hands flat; but due to the height and angle of the shelving units, he could not comfortably lay his hands flat on the braille transcriptions within. Harpur supposed that a more experienced reader of braille might be able to understand it without making full contact, but he found it easier to kneel on the ground and touch the braille through the curtain at the bottom of the unit. This would not be a feasible solution for visitors of different physical abilities, and is likely not the intended form of interaction. That visitors with visual impairments might have varying degrees of skill in reading braille, and that alternatives should be made available, is an important consideration for future projects.

The physical exhibition only showed for four months at its original location, but all of its content is preserved in the digital exhibition at touchthispage.com. This website does not merely serve as a record of the physical exhibition; it offers additional resources in the form of audio recordings, 3D printing files, and Sketchfab 3D models that can be manipulated on the computer.[5] These resources are free for visitors to share and download. The digital exhibition concludes with a form for visitors to submit an "exhibition response" in video file, audio file, or text format. This digital, file-sharing model makes *Touch This Page!* available to a wider audience and allows anyone with access to a 3D printer to obtain and touch replicas of the objects themselves.[6]

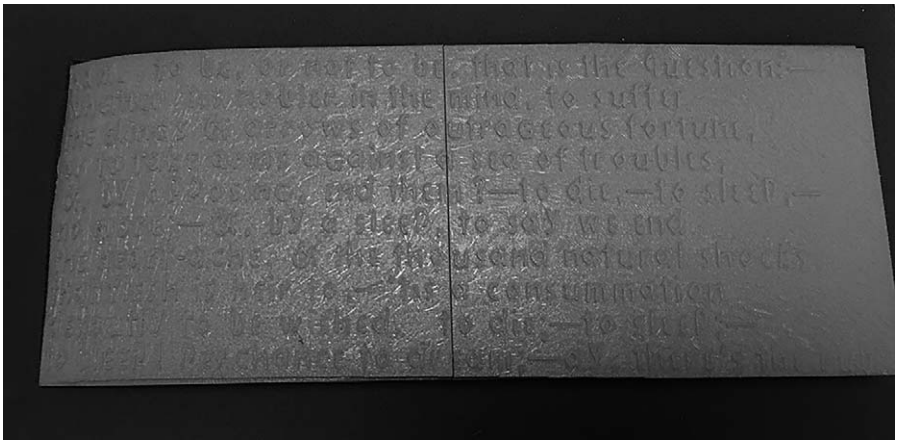
5 Sketchfab (sketchfab.com) is a platform for creating and publishing digital 3D models. Visitors to touchthispage.com can use their browsers to rotate and zoom in on these models, or even view them in virtual reality if they have access to a VR headset.

6 In 2016, the Library Company of Philadelphia's artist-in-residence Teresa Jaynes developed an exhibition called *Common Touch: The Art of the Senses in the History of the Blind* (commontouch.librarycompany.org). Similarly to *Touch This Page*, *Common Touch* provides label copy and audio




Panel on Helen Keller and description of Boston Line Type transcription from William Shakespeare's *Hamlet*. (Photograph by author)

tracks on its website. Unlike *Touch This Page*, it also includes an exhibition gallery with visuals. However, *Touch This Page* takes an innovative step in providing a tactile experience of the exhibition through its website as well.



3D-printed replica of Boston Line Type transcription from William Shakespeare's *Hamlet*. (Photograph by author)

These digital resources bolster *Touch This Page!*'s claim to be "multisensory." The physical exhibition refers back to the concept of the multisensory, but it only allows visitors to interact visually or tactilely via printed text, braille, and raised-text objects. The digital exhibition allows visitors to listen to the words as well, which is critical given its emphasis on the variety of ways in which people read. For example, Harpur prefers to have digital platforms read text aloud to him, rather than rely on braille; this likely would have been his preferred way of experiencing the physical exhibition as well. It is surprising that the physical exhibition does not encourage visitors to access these digital resources. It does direct them to the website in order to leave feedback, but not to listen to the audio recordings or to download files. This seems to be a missed opportunity, especially given that one of the exhibition's opening lines is, "How are you reading these words? . . . Listening to a voice?" In fact, I read most of the exhibition text aloud to Harpur during our visit, which would not have been necessary if an audio component had been incorporated into it. The pop-up format likely precluded the possibility of building audio into the physical structure, but the exhibition could have directed visitors to access the audio recordings via their mobile devices. Instead, a sighted visitor was required to supply the voice during our visit.

Even so, through its storytelling and innovative use of technology, *Touch This Page* provides a visitor experience that aligns with its message about accessibility. The exhibition's website describes its intended outcomes:

> We hope that, by experiencing these 3D-printed objects, you will reflect on how touch, sight, and sound contribute to experiences of reading—historically and today. Simultaneously, the story of these tactile pages guides you through a particular slice of disability history and current barriers to access understood through the principles of universal design.[7]

7 "About Us."

*Touch This Page* articulates these ideas in a clear and engaging manner. As a scholar of disability law, Dr. Harpur understood the project to ultimately be about "access to information," and he marveled at the relevance and longevity of historical debates about universal design and communication systems for people with sensory disabilities.[8] Its content is based in the nineteenth century, but *Touch This Page!* is forward-facing in its emphasis on using technology to re-think accessibility. The physical exhibition presents some interactive challenges, but these can largely be attributed to limitations with its pop-up format. The project's focus on visitor feedback and widespread access through file-sharing suggests that it was developed conscientiously and with a commitment to maximizing accessibility. At a time when many public historians are seeking both to invite audience participation and to explore topics related to diversity, *Touch This Page* serves as an exciting and instructive model of a new kind of exhibition.

Sara Dean, Northeastern University

8 Paul Harpur, in conversation with Sara Dean.