DIGITIZED COLLECTIONS AND DISABILITY HISTORIES: INSIGHTS FROM THE MEDICAL HERITAGE LIBRARY, INC.

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During the summer of 2021, I had the privilege of serving as the 'Jaipreet Virdi Fellow in Disability and Technology' at the Medical Heritage Library, Inc.[1] The Medical Heritage Library, founded in 2010 and incorporated in 2019, is a collaborative organization with a mission to provide open access resources relating to the history of medicine. Established by a consortium of health sciences archives and libraries,[2] the collection now comprises nearly 360,000 digitized copies of rare medical books, films, manuscripts, and journals.

The purpose of my fellowship was to work with these digital collections to produce three publicly accessible primary source data sets relating to the theme: 'disability technology'. This theme is so wide-ranging that my response to this subject could have taken various forms. I initially thought to focus on the history of technologies such as robotic arm prostheses or motorized wheelchairs. However, these devices often receive the most attention in both mainstream media and historical scholarship. Instead, I decided to develop resources that highlighted the more prevalent yet underrepresented disability technologies in society and constructed outputs about ocular aids, hearing aids, and dental technology.

OCULAR AIDS

My first source set focused on the history of visual aids. The World Health Organization reports that, today, approximately 2.2 billion people around the world have some form of visual impairment.[3] As such, it was unsurprising to find an abundance of material in the Medical Heritage Library's archives related to the production, prescription, and use of spectacles throughout history. However, the collection also revealed something unexpected - several documents related to the adoption of radio and gramophone records as a disability technology.

The history of radio broadcasting is well documented, but the potential of radio and gramophone records as a means of delivering information and entertainment to those with visual impairments is often overlooked. Throughout my research, I uncovered a 1929 *Town Crier* article, in which an interviewee states that when she listens to the radio, 'I forget my blindness, forget everything except that I am one of the many thousands enjoying the same great pleasure'.[4] I also found a 1922 *Literary Digest* article, in which a Miss Holterhoff says: 'I believe that the radiophone will be the greatest single force in history in ameliorating the condition of the blind.'[5] These kind of documents highlight the ways in which radio technologies were adapted to serve the needs of the visually impaired. You can access this source set here.

[1] Medical Heritage Library, 'About', *medicalheritage.org* <https://www.medicalheritage.org/about/> [accessed April 2023].
[2] The Augustus C. Long Health Sciences Library (Columbia University); The College of Physicians of Philadelphia; The Cushing/Whitney Medical Library (Yale University); The Francis A. Countway Library of Medicine (Harvard University); the U.S. National Library of Medicine; and the Wellcome Library.
[3] World Health Organisation, 'Blindness and Vision Impairment', *who.int* https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment [accessed April 2023].
[4] Anon, 'What Radio Means to the Blind', *Town Crier* (June 1929).
[5] Anon, 'Radio for the Blind', *Literary Digest*, 14:9 (August 1922).

HEARING AIDS

My second source set tracked the developments in the history of hearing technologies. When people discuss hearing aids today, it is likely that they are referring to the small electronic devices that sit either behind the ear or inside the opening of the ear. At the most basic level, these hearing aids work by receiving sound through a microphone, converting this sound into a digital signal, amplifying this digital signal, and then playing the amplified sound into the ear through a speaker. While I do talk about the origins of electrical hearing aids in my source set, I wanted to use this resource to encourage people to think about aural technology before the advent of electricity, such as hearing trumpets, dentaphones, audiphones and aurolese phones. You can read more about these devices by accessing the source set here.

DENTAL TECHNOLOGY

My final source set discussed dental technology. Most people today would not consider tooth-decay and tooth-loss to be 'disabling' conditions. Many people are fortunate enough to have access to preventative measures like toothpaste and toothbrushes, as well dental care when things go wrong. However, in a time before easy access to affordable dental care, persistent dental problems resulted in several physical and social disabilities. The loss of teeth could, for example, lead to difficulties chewing and eating, as well as speech impediments that resulted in social ostracization. Writing in 1797, Nicolas Dubois de Chémant, praised dentures on account of their 'utility for mastication, the use of speech, and the ornament of the mouth'.[6] As such, my final source set seeks to challenge the definition of 'disability technology' by asking readers to think more broadly about what constitutes a 'disability' and how people use/d technology to respond to this. You can access this source set here.

After I had constructed these primary source sets, I concluded my time as 'Japireet Virdi Fellow' by authoring a user-friendly guide to navigating the Medical Heritage Library's archives. As an academic tutor and lecturer, I have noticed that my students often struggle to search archival databases despite being proficient in general search engines. Consequently, I aimed to create a public guide that could assist users in navigating the Medical Heritage Library's collections, without requiring prior knowledge of library and archival systems.

The guide provides an overview of the benefits and challenges associated with different search types, such as using broad keywords to identify the archive's contents before moving on to more specific searches. It encourages readers to consider the ways in which language has evolved and how using potentially offensive or outdated terms can still generate relevant results. Furthermore, the guide presents various tips for searching digital databases, including the use of synonyms and abbreviations of keywords, the truncation method of searching, the exclusion of specific results by using the "NOT" search term, and the use of apostrophes in searches. While these suggestions may seem rudimentary to library professionals, the widespread use of AI in everyday search engines has rendered these skills less necessary for the general public.

My objective was not only to create three primary source data sets but also to serve as a launchpad for readers to initiate their research and provide examples of potential research avenues. You can find a copy of the search guide here.

Overall, my fellowship at the Medical Heritage Library was a valuable opportunity to explore the intersection of disability and technology in history. By creating primary source sets and a guide to

[6] Nicolas Dubois de Chémant, *A Dissertation On Artificial Teeth In General* (London: J. Barker, 1797), p. 6.

searching the archives, I hope to make these resources more accessible to a wider audience and inspire further research on this important topic.

Dr Rachael Gillibrand is currently employed as a Lecturer in the Schools of English and History at the University of Leeds. Her research is currently concerned with the relationship between dis/ability and technology in the fifteenth and sixteenth centuries—including the ways in which premodern people designed, constructed, and used various assistive and medical technologies to augment the body in response to physical impairment. If you would like to stay up to date with her work, you can find her on Twitter @r_gillibrand.