

DEVELOPING AN ACCESSIBLE ARCHIVAL WEBSITE

Drew Williams¹, Colleen Regan², Jack Skelton-Miller², Jessica McCall², Caitlin Dobson², Dennis Tomashek², Sheikh Iqbal Ahamed¹, Roger O. Smith²

¹Math, Stat. and Comp. Sci. Department, Marquette University, Milwaukee, WI

²R2D2 Center, University of Wisconsin-Milwaukee, Milwaukee, WI

ABSTRACT

The ubiquity of the web allows primary sources and stories of the past to reach a wider audience than ever before. Archival websites, such as those used by university and public libraries, play a large role in showcasing these primary sources – ensuring the accessibility of these websites and the media contained therein is of utmost importance. Unfortunately, a “best practices” example of an archive website is difficult to come by. To remedy this problem, we’ve developed an accessible archive website to house The Fred Sammons Archives, media donated to the University of Wisconsin-Milwaukee by Fred Sammons, PhD (Hon.), OT, FAOTA. By focusing on both accessibility of the site housing the media, and the Fred Sammons Archives media itself, we hope to offer a top-tier experience for reading about the life and work of Fred Sammons for users of all abilities.

INTRODUCTION

Problems can crop up when an individual wants to access material developed before the internet started to archive data in 1996 (Potter, 2012). The creation of web archives allows future generations to access this data in an efficient manner, and can preserve historical information that would otherwise be unobtainable. As an example, the University of Wisconsin-Milwaukee (UW-Milwaukee) recently created the Fred Sammons Archive Project to assure that future generations can obtain stories and information about Fred Sammons and his assistive technology (AT) empire. As one of the 100 most influential people within the occupational therapy field, (American Occupational Therapy Association, 2017) Sammons’ work has the potential to inspire and encourage future occupational therapists once hosted online.

However, when enabling such widespread access to archived material, developers need to ensure that the archival website is designed for universal access. No one template exists that combines best practices for website access and media access, especially in the context of creating an archive website. To solve this issue, we have created a template that follows general website accessibility specifications set by the Web Content Accessibility Guidelines (WCAG), in addition to ensuring media displayed on the website follows guidelines for universal access. In doing this, we hope to both create an accessible home for Fred Sammons’ and assist other web developers in creating accessible archival websites for storing historical information for future generations.

BACKGROUND

This project began as a direct result of the donation of the Fred Sammons Archive to the University of Wisconsin-Milwaukee – a collection of material representing the life and

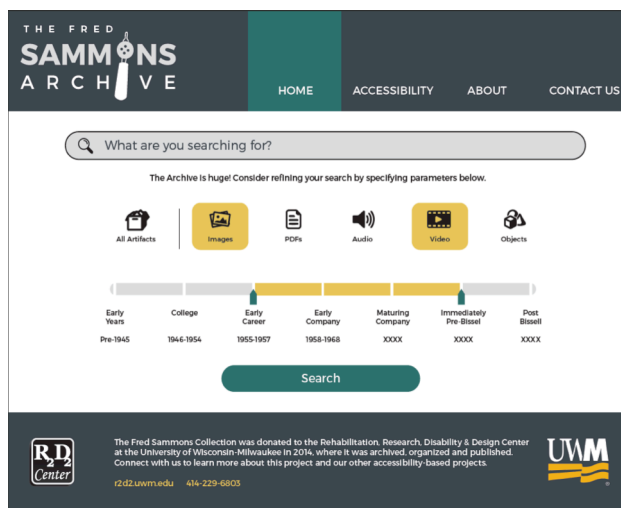


Figure 1: The Fred Sammons Archive website front page.

works of Fred Sammons. The American



Figure 2: Photograph of Fred Sammons holding a sign at an AOTA conference from archives.

Occupational Therapy Association (AOTA) recently named Fred Sammons one of the most influential 100 people within the occupational therapy (OT) field. Sammons started his career in 1955 as an occupational therapist and continued for the next 60 years as an innovator and entrepreneur. In 1958, Sammons started Sammons-Preston as a mail-order business that sold adaptive equipment such as button hooks and swivel spoons. Sammons-Preston grew into a multi-million dollar national company and sells rehabilitative and medical equipment to most healthcare professionals.

The Fred Sammons Archival Project contains digitized physical materials, 3D scans of artifacts created by Sammons, and video interviews between Sammons and Roger O. Smith, PhD, OT FAOTA, RESNA Fellow. The materials from the project are displayed on a fully accessible website and can be utilized as a reference for students, practitioners, and educators.

Accessibility of Archival and Library Websites

Investigating the literature for other accessible archive projects turns up work calling for improved accessibility of library websites. It is important that these sorts of websites prioritize accessibility to offer students and other information-seekers equal access to primary sources that may be necessary for

school. (Fulton, 2011) A variety of suggestions for proper development of accessible library websites can be found, including developing for mobile first (Riley-Huff, 2012) and ensuring links make sense sans context, media has proper transcripts, etc. (Association of Research Libraries, 2014) A single web application template for archive or library website access would be helpful for showcasing such suggestions.

WEBSITE DEVELOPMENT AND UNIVERSAL DESIGN

Our primary goal in developing the Fred Sammons website was to consider universal design – that is, design for all users of all abilities – first, and prioritize web accessibility. As an example of a gold standard of web accessibility, we turned to ACCESS-ed, a website that seeks to promote universal design in higher education. (R2D2 Center at the University of Wisconsin-Milwaukee., 2015) This website was also created with universal design in mind, evident by these site details:

- Equivalent Text Descriptions for non-text items (essential and detailed descriptions of non-text items for users with visual impairments.) (R2D2 Center of the University of Wisconsin-Milwaukee, 2015)

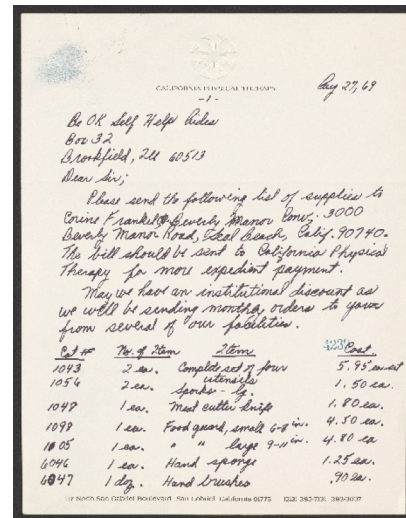


Figure 3: Photograph of handwritten document (handwritten purchase order) from archives.

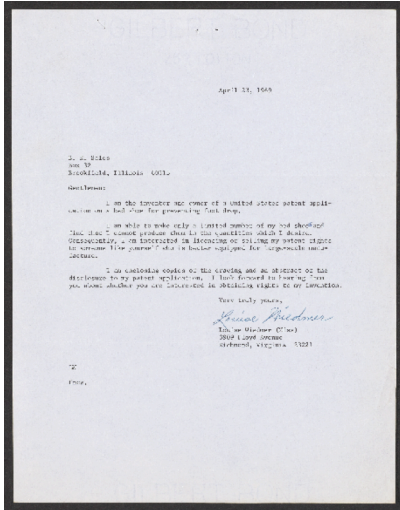


Figure 4: Photograph of typed document (letter to B.K. Sales re: new product idea) from archives.

- A website design that emphasizes proper contrast and text size for all pages.
- Built-in controls for page contrast, font size, and page simplification
- Continuous updates to ensure compliance with standards/guidelines.
- An accessibility statement naming these accessibility features and promising to listen to ongoing feedback to ensure a fully accessible website in the future.

When creating the Fred Sammons Archives, we made certain to consider implementation of each of these options to ensure maximum accessibility, in addition to new accessibility provisions due to accompanying media.

CASE STUDY: THE FRED SAMMONS ARCHIVES

The Fred Sammons Archive is comprised of multiple types of media: documents, videos, and photographs. The focus of the Fred Sammons Archive website is the proper display of these different types of media for an online audience. In developing the website, we worked to ensure both the accessibility of each of these types of media, and the website overall.

General Website Accessibility

The Fred Sammons Archive website was built using a JavaScript stack, ensuring cross-compatibility with all modern browsers for the Windows, Mac and Linux operating systems. Because of the amount of media the site dealt with, we opted to use a non-relational database for storing the data and links between media objects (videos and related images of objects mentioned in the videos, for example). We also opted to use React.JS, a JavaScript UX framework that generates new pages based on objects in a database and accompanying metadata for the objects. This framework allows for accessibility elements, such as EqTDs, to be generated automatically based on information available (or not available) in the database. Additionally, the React.JS project also allows for accessibility of UX elements to be tested with a library developed by its creators.

The website itself was designed with proper color and contrast, and text that is no more than 15 words across the screen at any point for readability. This mirrors the readability standards for PowerPoint slides. The website is also designed to be responsive, shrinking and expanding elements as the screen size the website seeks to fit changes. Additionally, the navigation bar has been styled for maximum usability; when a user hovers over a link, an underline appears – the current page is indicated via a background highlight. Search is highlighted in the left sidebar of the website, and made available on all pages.

We have three main types of media to apply accessibility guidelines to: documents (typed and handwritten), video, and images.



Figure 5: Screenshot of video interview with Fred using an artifact.

Documents

All documents are visible in a PDF format with appropriate tagging, for proper screen reader use. To supplement this format, we also provide all handwritten text in an audio format, read aloud by Fred Sammons himself.

Video

As we're using Youtube for hosting our video interviews, all video is uploaded in two individual files: a captioned video with the original audio work, and a video with audio descriptions added as appropriate, to provide context for actions occurring in the interview. Captions are displayed using Youtube's built in captioning display services.

Images

Images are all equipped with both essential and detailed equivalent text descriptions. The former provides basic information about the contents of an image, and the latter provides additional information about the image for users with visual impairments. (R2D2 Center of the University of Wisconsin-Milwaukee, 2015)

We hope that these provisions will ensure that all users can properly access the media contained in the Fred Sammons Archives.

CONCLUSIONS

In conclusion, developing the Fred Sammons archives with universal design in mind from the start benefits our goal of ensuring the widest possible audience can



Figure 6: Screenshot of video interview of Sammons and Smith with subtitles.

benefit from his work and stories. We do plan on releasing this template for public use, with

the hope that it can inspire other archive and library websites to ensure that their content meets accessibility standards. In doing this, we can ensure that users of all abilities can benefit from the information resources the internet and its archives can offer.

ACKNOWLEDGEMENTS

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