

“Let Your Eyes Look Forward”

Developing a Digital Repository from the Ground Up

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Special collections exist to preserve and make accessible material of enduring historical value. A professional duty to look forward seemingly stands in tension with preserving history. At times, professionals understand preservation primarily as restricting access to material. Looking ahead, however, entails preparing for future threats to preservation, while also taking advantage of opportunities to make collections more accessible.

Developing a digital repository that properly supports both preservation and access is imperative for librarians and archivists considering the future. The issues surrounding digital records cause much excitement and consternation among professionals in special collections and archives. Approaching the challenges of preserving and making accessible digitized and born-digital material requires a consideration of context, cooperation, and commitment.

Contextual consideration allows special collections librarians to carefully study the unique nature of their collections and how best to serve the parent institution and users through a digital repository. Once staff decide on a course of action, cooperation between librarians, archivists, administrators, and information technology professionals is essential to the success of any digital repository project. All stakeholders must commit to the repository's long-term durability.

This chapter examines the development of the digital repository of Southeastern Baptist Theological Seminary's Archives and Special Collections (ASC). As the repository of a smaller theological school, the actions taken by the staff may apply to other repositories and libraries of similar size. An institution does not need to be the size of a leading research university or government entity to pursue digital preservation and access. This case study highlights the essential roles of contextual consideration, cooperation, and commitment in successfully developing a digital repository that preserves digital information and makes it freely accessible to users around the world.

Contextual Considerations

Institutional Context

Southeastern Baptist Theological Seminary (SEBTS) is an entity of the Southern Baptist Convention with the mission "to glorify the Lord Jesus Christ by equipping students to serve the church and fulfill the Great Commission (Matthew 28:18–20)" (Southeastern Baptist Theological Seminary n.d.). Founded in 1950, the Seminary shared the campus of Wake Forest College in Wake Forest, NC, until the college moved to Winston-Salem, NC, in 1956. That year, the seminary took possession of the campus and continued to grow in the number of students and program offerings. By 2020, the seminary offered over 4,700 students "40 different programs with degrees ranging from Associate of Divinity to Doctor of Philosophy, including [its] flagship degree, the Master of Divinity" (Southeastern Baptist Theological Seminary n.d.).

The Library at Southeastern serves the seminary community by offering extensive print and online resources, research assistance, and unique or rare material stored in ASC. Ten full-time and twenty-four part-time staff work to fulfill the mission of the library: "to

engage the Southeastern community with services and resources to equip them to serve the church and fulfill the Great Commission” (Library at Southeastern 2020). By 2019, the library offered access to:

200,803 books, 461,781 e-books, 38,032 bound journal volumes, and 963 linear feet of archival materials and manuscripts. The Library continues to add thousands of new items every year. Visits to the Library have annually exceeded 99,000. The Interlibrary Loan (ILL) department handled 3,874 requests. More than 575 items have been sent to distance students around the U.S. and the world. (Library at Southeastern 2020)

Since 2015, library leadership increasingly emphasized the need to serve patrons and the institution remotely.

The staff of ASC enthusiastically shared the library leadership’s vision to increase online offerings. This vision matched the broad concern of the archives profession to make material accessible to as many users as possible. The Universal Declaration on Archives states as one of its goals, “Archives are made accessible to everyone, while respecting the pertinent laws and the rights of individuals, creators, owners and users” (International Council on Archives 2010). ASC’s mission statement manifests a desire to increase access to archival material and special collections in its care. The department exists:

to procure, preserve, and promote access to rare books, personal papers, institutional records, Baptist materials and church records, and other unique sources of enduring historical value that can be used to better equip Southeastern Baptist Theological Seminary students, faculty, and the broader research community to serve the Church and fulfill the Great Commission. (Library at Southeastern n.d.)

The department’s mission statement not only conveys a concern for promoting access but also intentionally mirrors the parent institution’s mission.

ASC staff includes two full-time members (the archivist and digital collections manager, and the assistant archivist and digital collections specialist) and five part-time employees (two archives assistants and three digitization assistants). The archives assistants aid in processing collections and assisting researchers. Digitization assistants create digital versions of analog material to make collections available to users across the world.

These staff members preserve and provide access to the repository's approximately one thousand linear feet of material. Notable collections include the Francis A. Schaeffer papers, the John Warwick Montgomery papers, institutional records, and a sizable collection of Primitive Baptist records. ASC also emphasizes material documenting the history of global Christian missions.

In light of the close connection between developing a digital repository and serving the seminary's emphasis on Baptist and Evangelical Christian missions, ASC staff concluded that serving the missional emphasis of the school and its alumni required providing access to archival and special collections material in an online format. As a key component of the department's collecting scope, records documenting global missions would be made accessible via a digital repository for a practical impact on contemporary missions. Through a digital repository, ASC staff trusted that missionaries in the field, perhaps even alumni of the seminary, would learn from their predecessors and be more effective in their work.

To best foster engagement with archival and special collections material, ASC desired to offer global access to the various types of resources in its custodianship. The formats of material housed in ASC include papers, bound volumes, photographic prints, negatives, reel-to-reel tapes, cassette tapes, CDs, Betamax tapes, VHS tapes, DVDs, and various born-digital files. The acquisition of the Francis A. Schaeffer papers in 2010 came with an agreement to digitize the entirety of the collection. Through this project, the staff gained substantial experience in digitizing different types of material—an important factor in developing a digital repository with robust offerings. A significant amount of digitized material (about nine TB) was stored before considering digital repository possibilities. Some of these digitized materials were ready for dissemination and preservation via a proper repository.

A concentrated effort to develop a digital repository began in August 2018. ASC staff considered the resources available for a development project. Resources included finances, hardware (e.g., servers), and the skill sets of staff. This last consideration was perhaps the most important. A successful project required staff members with expertise in a variety of areas, including project management, digital archives, systems development, and website design. For this reason, the archivist hired a digitization assistant with the ability to do complex coding and development work. Fortunately, ASC staff could also call on the seminary's skilled IT staff for support.

The IT department devoted many hours to the project. A systems analyst worked with the digitization assistant to build the repository. The digitization assistant devoted her allotted twenty-nine hours per week to developing the repository. The archivist managed the project, which included setting deadlines and ensuring they were met, fostering efficient communication among staff, and providing feedback on aspects of development impacting archives and special collections best practices and standards.

Key Repository Features

The archivist and digitization assistant considered four primary factors in choosing a digital repository product: (1) the need to preserve and display various file formats, (2) requirements for persistence and fixity of data, (3) the ability to set different access permissions, and (4) an intuitive and functional user interface. In September 2018, a planning group including representatives from the library, ASC, and IT departments evaluated four options to meet the department's digital repository needs: Omeka, DSpace, Islandora CLAW, and Samvera Hyrax. The group focused on Islandora CLAW and Samvera Hyrax as the two most appropriate options. Analysis began with Islandora CLAW, since this was the planned direction of prior ASC leadership, and it was an attractive option for several reasons. It utilized Fedora 4 ("Flexible Extensible Digital Object Repository Architecture" [DuraSpace n.d.b])—the preferred storage and preservation system for ASC. Fedora is "a community-maintained, open-source repository system that supports durable access to digital objects" (DuraSpace n.d.b). The data persistence, fixity, and auditing capabilities of Fedora were critical in this decision. Another factor was Islandora CLAW's user base and sponsors. The community of support from the user base of any repository option was of vital importance. ASC rejected repository options that lacked suitable sponsors and user communities. Sponsors of Islandora CLAW included LYRASIS, McMaster University, York University, and others (Islandora 2020) and so satisfied this requirement.

While these aspects of Islandora CLAW were attractive, other factors led the department to choose Samvera Hyrax. As with Islandora CLAW, Hyrax also utilized Fedora 4 as the storage and preservation system, but the user and sponsor base of Hyrax tipped the scales in its favor. At the time, sponsors and users of Hyrax included Yale Univer-

sity, Columbia University, Digital Public Library of America (DPLA), University of Virginia, and others (Samvera n.d.b). Two other institutions in the local (Raleigh-Durham, NC) area already used or were developing Samvera Hyrax instances. These were Duke University, an established Samvera Partner, and the University of North Carolina at Chapel Hill, which was developing Hyrax and would later become a Samvera Adopter (Samvera n.d.b). Working through development with the aid of staff at these institutions presented the opportunity to strengthen existing ties and cultivate new relationships. The cooperative spirit evident in the strong community of support would be invaluable to ASC and IT staff as development progressed.

In addition, in September 2018, Islandora CLAW was still in development. ASC desired a reliable, production-ready repository to begin developing before December 2018. Related to this was the benefit of reviewing existing Hyrax instances (Samvera n.d.a). These instances revealed excellent speed and quality of audiovisual streaming—an important factor due to the amount of audiovisual material within ASC collections.

Undertaking the web development portion of the project forced ASC staff to consider the structure of the digital repository. Samvera Hyrax used Ruby on Rails as the server-side web application framework, while Islandora CLAW used PHP—a widely adopted programming language for web development and an industry staple. Ruby on Rails is a newer framework for web applications. It is both well-supported and open source, which the digitization assistant and IT staff found compelling. While both Ruby on Rails and PHP are widely used in web development, the team felt there were distinct advantages of the Ruby on Rails platform, including the wide Ruby on Rails community support and the MVC framework.

Both the digitization assistant and IT staff believed the learning curve would be about equal for Islandora CLAW and Samvera Hyrax. Considering staff knowledge as a resource was an important aspect of the early stages of the project. If a staff member possessed substantial knowledge and experience with either repository, the ability to capitalize on that knowledge could well have changed the direction of the project. In the final analysis, ASC staff chose Samvera Hyrax because it was built on Fedora 4 and Ruby on Rails, had significant sponsors and users, offered a responsive development community, and presented an attractive and customizable user interface. Staff recognized that no single repository option was perfect but believed that the project should move ahead with the best available option

and collaborate with one another and the broader Samvera Hyrax community for its success.

Cooperation

Repository Design

Once staff selected the platform for the digital repository, development could begin, and the IT department became heavily involved. The first task was to get a server up and running with the necessary components for the Hyrax stack. The IT department completed the initial design and used Nutanix to create a virtual server dedicated to the digital repository. This was a Linux server running Ubuntu 16.04.1. This choice was based on the documentation provided by Samvera on the ideal server environment for the web application. Most of the documentation at the time was geared toward installing Hyrax in a Linux environment (Samvera 2020).

After the server was set up, IT installed the prerequisites for Hyrax: Solr, Fedora, a SQL RDBMS (the IT department chose MySQL), Redis, ImageMagick, FITS, LibreOffice, and FFmpeg (Samvera 2020). Although IT was reasonably familiar with the Linux environment, the remaining prerequisites (including Ruby on Rails) were new to the team. Therefore, the early stages of development were often delayed due to lack of familiarity with the technologies being used. While the IT department worked through the details of installing the prerequisites on the server, the digitization assistant spent time learning the Ruby programming language. Through the utilization of free resources, the assistant became familiar with the Ruby language, which aided the team in the customization of the repository for the institution's needs.

Once the IT department installed the prerequisites, they created a Hyrax app on the server. Following the installation guide, the programmers were able to get the basic Hyrax app running on the server. From there, the task was to make customizations and design choices to fit ASC's specific needs and desires (figure 1). One of the most important choices was the metadata schema and hierarchy of the repository. This decision involved both IT input on the technical specifications as well as the archivist's input on proper archival standards. A video recording from Samvera 2018 entitled, "Architecting

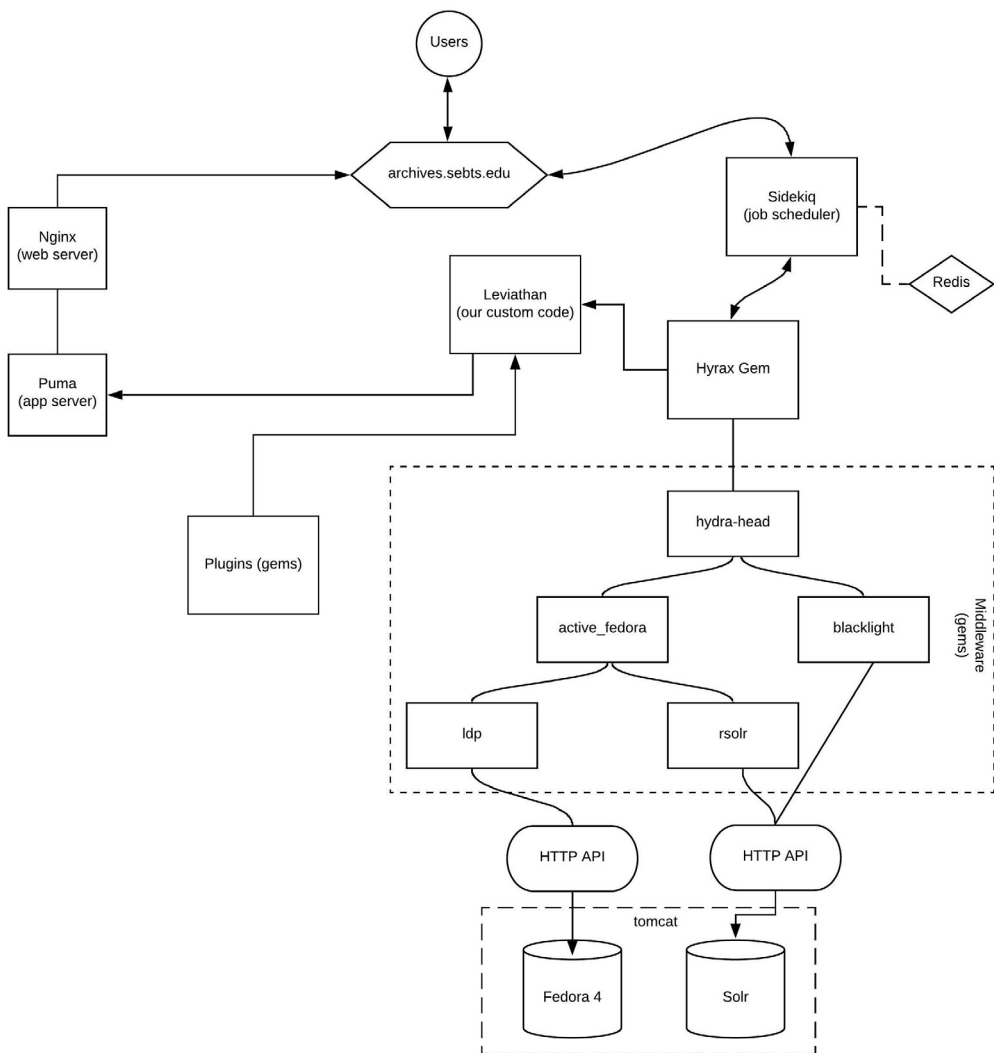


Figure 1: Illustration of Hyrax Stack customized for SEBTS.

Collections,” proved to be a helpful resource for the team in thinking through these decisions (Samvera 2018). The team decided to go with a simple structure: one default admin set (which controls general settings), one default collection type (public collection), and a collection hierarchy that matched the archives’ physical collection schema.

While matching the existing hierarchical structure was imperative to ASC staff, adhering to other standards and best practices in the fields of archives and special collections was also important. One requirement was well-structured and standards-compliant metadata-

ta. The archivist communicated the importance of this aspect of the repository to the digitization assistant, and the assistant worked towards implementing an appropriate method of entering quality metadata.

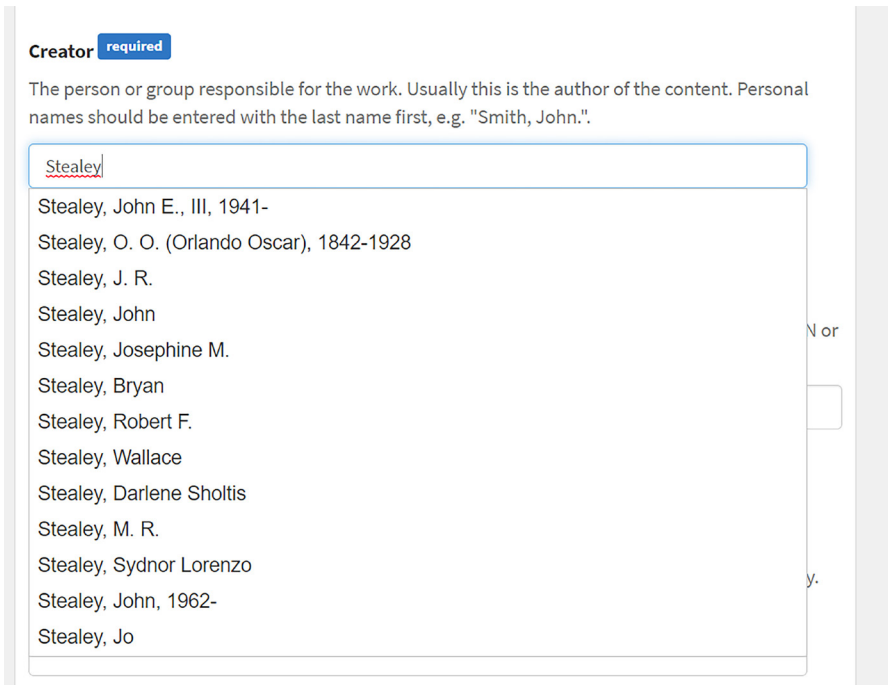


Figure 2: Screenshot of metadata field with autosuggestions from Library of Congress Controlled Vocabulary.

For the data model foundation of the repository, staff used the model native to Hyrax—the Portland Common Data Model (PCDM), “a flexible, extensible domain model that is intended to underlie a wide array of repository and DAMS applications” (DuraSpace 2018). ASC staff chose to adhere as closely to Dublin Core as possible for descriptive metadata. The assistant was able to link to Library of Congress authorities within most descriptive metadata fields. These fields auto-suggested appropriately formatted authorities when assistants began entering metadata (figure 2). This option helped ensure consistent and accurate descriptive metadata.

Repository Customization

The vast majority of development time was dedicated to customizing the Hyrax application. One of the most important customization features that needed to be developed was the ability to batch upload works to the site via comma-separated value (CSV) files. The archives already had considerable amounts of metadata information in Excel format, but individually uploading each of these assets with its corresponding metadata would take an enormous amount of time. Hyrax natively supports batch uploads but requires that the metadata be the same for each work being uploaded. Therefore, Hyrax required custom development, since ASC required the ability to batch upload works with metadata that reflected the unique nature of each work.

The first step in developing this feature was investigating other institutions' batch upload processes. The team decided to follow the approach of developers at Duke University. Since Duke's code is publicly available online, the digitization assistant was able to track how they developed the feature (Duke Libraries 2020). When the team encountered difficulty integrating Duke's code, the digitization assistant received direct help from one of Duke's developers. Such communication between members of a development community is particularly helpful when customizing a repository, and members of the Samvera community were happy to assist with issues that arose in development. This community was important throughout the development process, especially with the batch upload feature.

Communicating the concerns of archivists and special collections librarians to the development team was also an important aspect of the project. Each profession approaches digital repositories differently, and these differences must be negotiated when an institution conducts a development project. The area of properly citing works within the repository provides a useful example of communicating differences across professions.

The citation field is one of the default metadata fields in Hyrax. This is where the proper citation for a work can be provided. For analog collections, ASC provides citations at the collection level, not the folder or item level. The archivist wanted to be able to set the preferred citation at the collection level and have that applied to each work in order to provide users with a quickly discernable preferred citation format. This is not a feature of Hyrax. Initially, the digitization assistant explored the viability of customizing Hyrax to meet

the archivist's requests, but they ran into difficulties executing the idea. This was in large part due to their unfamiliarity with the Hyrax code, as well as difficulty finding an example. Instead, the digitization assistant proposed that they pursue setting automatic citations for each work. The Hyrax code already had examples that gave the assistant an idea of how to achieve this. Together, the team decided to pursue this option because of the decreased time commitment required to make that feature work.

Other existing features of Hyrax also required considerable customization. Natively, the Hyrax homepage has a space to display profiles on "Featured Researchers." Because ASC and IT customized Hyrax to exclude uploads from any users other than library staff members, "Featured Researcher" was an unnecessary offering of the repository. "Featured Collection," however, was important because individual collections are foundational to the arrangement schema of ASC holdings. Since Hyrax already had a "Featured Works" section, the assistant used the general pattern of how that feature was constructed in the code to create the "Featured Collection" segment. However, this took longer than anticipated because of the team's overall unfamiliarity with the Hyrax application and the Ruby on Rails framework. Ultimately, after many failures and dead ends, the team found a solution. Other customization tasks included changing some of the default metadata fields to reflect the schema used by the archives.

As illustrated by the "Featured Researcher" option, Hyrax was initially designed for external users to upload works. However, the nature of the archive's repository is to preserve and display works from its own collections. To that end, Hyrax needed to be customized to prevent non-authorized users from creating accounts or uploading their own content. The archivist also needed to be able to delete internal users. Thus, the next task in customization was to lock down user permissions and improve the existing user management interface. The team used the Devise gem (a packaged Ruby plugin) to implement these changes and created password reset functionality for users. The Devise gem provides a handy authentication module for Rails-based websites. During this phase, the team also added a new role in the system for the archives and the digitization assistants, giving them access to edit and upload works but not to delete works. This choice was made to further protect the assets within the site.

Safeguarding these assets helps fulfill one of the goals of ASC through the digital repository—to preserve the institution's history.



Figure 3: Screenshot of SEBTS History Timeline set as landing page.

Related to this goal is cultivating interest in this history, especially on the part of the students, faculty, and staff of the institution. To that end, the archivist imagined a timeline of SEBTS’s institutional history to attract and engage researchers with ASC material. The digitization assistant was initially concerned about the development time needed for such a large feature. However, after some research, the team discovered Timeline JS (Knight Lab n.d.), which served as a simple tool to build an engaging timeline of the institution’s history. This timeline was simple to add to the site’s homepage (figure 3) and allows the archivist to control the content without additional development time.

Following these major changes, the development team focused on the site’s design, branding, and interface and worked toward consensus. The archivist used the opportunity to convey to the seminary’s Communications Department the importance of branding for ASC. The Communications Department created a new logo for use on the site, which adhered to the seminary’s requirements for institutional branding and purposefully resembled the library’s existing logo. The team decided on several small changes, including updating the header, footer, colors, and fonts, as well as improving the contact page. This change would allow for efficient communication between digital repository users and ASC staff.

To better serve these users, a final—and one of the most difficult—customization tasks remained before publishing the repository. The archivist desired a way to filter works on the site by date. Other meta-

data fields were facet-able and searchable, but the date field was not. This feature proved to be difficult because date and time formats can be inherently complex and require application-language-specific conversion. The first step in improving the date field was to enforce a standardized format. ASC's material often includes a circa date or date range, which presented an additional hurdle. The digitization assistant struggled to work through this particular feature. She located examples from other institutions using Hyrax and sought advice from other users. The Samvera community was indispensable in the implementation and development of the site but, after many failures, the team successfully implemented the `blacklight_range_limit` gem to facet dates in the repository.

Repository Publication and Promotion

After eight months of development and three months of uploading works to the repository, ASC quietly published the repository in late August 2019. This launch provided additional time to edit the repository before publicizing the site widely. During this phase, the seminary's Communications Department vetted the material on the repository and so ensured that the publicly available material did not violate either legal statutes or internal seminary policy.

By early October 2019, ASC staff actively promoted the repository. The archivist wrote an article for the seminary's magazine, *Southeastern*, about the value of archival material in serving the church and fulfilling the Great Commission (the seminary's mission). He used the article as an opportunity to highlight the newly developed repository. The occasion to do so in this context reached a wide audience, including those most likely to use the repository: students, alumni, faculty, and staff of SEBTS. Communicating the value of the repository to these potential users was an important step in promoting use of ASC material. Promotion of the completed repository was possible due to strong staff partnerships and a collegial spirit between all involved. This collaborative atmosphere prepared staff for continuing development work.

Commitment

Commitment of IT Department

From the beginning of the project, ASC and IT agreed to provide an imperfect, simple site for researchers, rather than delay release until all desired features were implemented. While ASC and the IT department were able to devote significant time to the development of the repository in its early stages, after the site formally launched both departments had to reduce staff time for the project. As a result of the great partnership between ASC and IT during the repository's development, the digitization assistant transitioned into a programming position in the IT department. While ASC hopes to again dedicate staff members to ongoing development, they have been unable to do so since this transition. At the same time, the IT department needed to return to other development projects, and so work on additional features must await the availability of IT staff.

In addition to development leading to the public launch of the site, the IT department needed to commit to the ongoing maintenance of the entire system. This ongoing maintenance is essential to the life and longevity of the digital repository. The IT department considers two general areas when it comes to the ongoing maintenance of the digital repository: hardware and software.

ASC's digital repository necessitates a substantial amount of storage space, which in turn requires significant hardware investment. Initially, the IT department underestimated the amount of storage required and the hardware needed to house all current and future files that would be added to the repository. Most websites present digital media using low-resolution file types and/or screen-quality resolution. However, ASC's digital repository aims to both display and store the highest-available quality for its digitized and born-digital materials. Since meeting the goal of preservation requires that the digital repository securely store these files, the team decided to house the core Fedora object storage database on a Synology NAS (Network Access Storage) device. This NAS consists of eight hard drives, configured in RAID 5 format, providing 27.15 TB of storage. One of the benefits of this configuration is that the NAS has a spare drive that can instantly replace another drive in the NAS if it experiences a failure.

The IT department saw the effectiveness of this NAS system soon after site launch, when the system detected a faulty drive. The NAS

system sent a notice that one of the drives had failed, and the “hot spare” automatically replaced it within the array. The IT department swiftly replaced the drive without any further issues. This experience bolstered the confidence in the repository’s recovery contingencies for both IT and ASC.

In addition to the main Synology NAS that houses the Fedora database, the team purchased another Synology NAS to serve as a backup device for the system. The Fedora database is backed up every night to this second device. Solr and the MySQL database are also backed up each night. These backups allow the site and its digital works to be restored in case of catastrophic failure. These two devices are housed in separate buildings at the institution in the hopes that, in a major disaster, one of the two devices will survive. The IT department performs daily checks to ensure that these NAS devices are functioning properly and backing up the system. The IT department also employs a program that automatically checks the devices’ network availability every five minutes. If either device has problems, the IT department is ready to respond and investigate potential issues.

While maintaining the digital repository’s storage, the IT department also makes sure that the virtual server on which the site is running is backed up. This is accomplished by taking daily server snapshots. The IT department can restore the server to its previous state from one of these snapshots in the event of catastrophic system error.

The IT department also has ongoing responsibilities to maintain the software of the digital repository. The Samvera community is continuously developing and improving the Hyrax platform. When new versions or patches of Hyrax are released, the IT department takes time to test and upgrade the current version of Hyrax on the site. This process is facilitated by a secondary virtual server, which serves as a “sandbox” for development and testing. Since the repository launched in October 2019, the IT staff upgraded the site from Hyrax version 2.5.1 to 2.9.0. The staff are looking forward to upgrading the site to Hyrax 3.x, which is currently under development. This upgrade has the potential to bring even more improvements and features to the digital repository. Ongoing maintenance, along with further development needs, requires commitment from the IT department and ASC to the maintenance of the site and its resources.

Commitment of ASC

ASC is committed to promoting existing material and adding new offerings to the digital repository. This commitment entails exploring how the department may successfully meet future needs of researchers. Such proactivity can be daunting and easily swept aside when faced with the myriad day-to-day responsibilities of managing an archives and special collections department. However, this is necessary to continue ASC's record of serving its patrons.

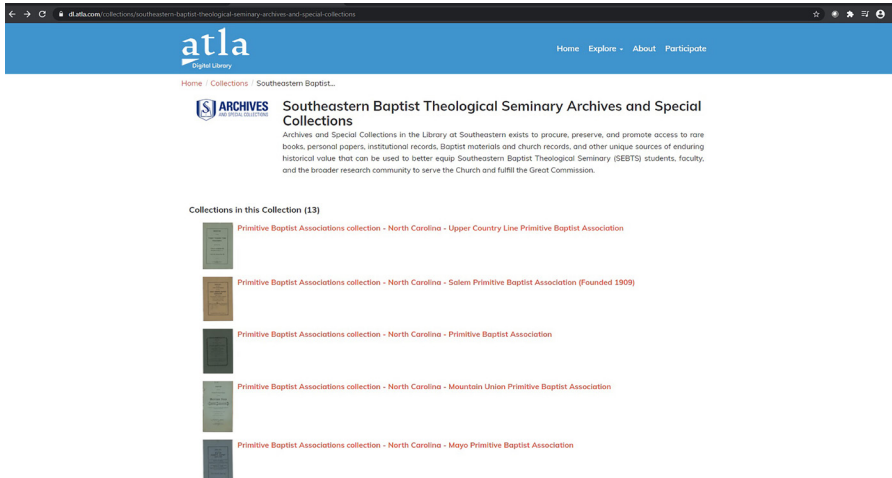


Figure 4: Screenshot of results of OAI-PMH partnership between ASC and Atla.

Beginning in January 2020, ASC and IT staff began the process of implementing the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH), which is supported by Hyrax. An existing relationship with Atla led to a partnership using OAI-PMH for harvesting metadata from the SEBTS Digital Repository for the Atla Digital Library. Staff limited the harvest to material relating to Primitive Baptists, which fit the collecting scope of the Atla Digital Library. Completed in October 2020, this project offered ASC staff the opportunity to reach a wider audience interested in the history of religion and theology and better connect users with ASC material (figure 4).

The advocacy and awareness benefits of such partnerships are clear. Roe writes that successful advocacy and awareness efforts include “[c]ollaboration with allied institutions in the library, historical and genealogical communities, and developing coalitions that cross disciplinary boundaries” (Roe 2019, 33). The utilization of OAI-

PMH to allow other organizations to harvest and make accessible ASC metadata is an example of collaborating in order to connect with other user communities.

A commitment to collaboration is an important aspect of promoting the digital repository's longevity. In the summer of 2020, ASC staff began work with OCLC on harvesting metadata for inclusion in their Digital Collections Gateway. This collaboration brings many of the same benefits as those arising from the Atla partnership, has significant reach, and includes all ASC collections.

Collaborating with outside institutions like Atla and OCLC also helps promote ASC's value to various stakeholders and resource allocators. Recognizing that the seminary, as the parent institution, is the primary stakeholder in the digital repository led ASC leadership to consider how to best serve its needs. One planned addition to the digital repository is adding access to electronic theses and dissertations produced by seminary students. As theses and dissertations are primarily, or exclusively, produced in electronic format, a convenient portal on the digital repository would allow for efficient use of these resources. Offering such material would provide the broader scholarly community access to the wealth of academic work produced by the seminary. Students, faculty, and staff would also clearly benefit from such an addition to the repository.

Serving the students, faculty, and staff of SEBTS also includes the planned creation of online displays that highlight the history of the school. For many years, ASC created static displays for the common area of the library. The prominent location of the two display cases meant that the displays received a fair amount of engagement. Static exhibits, however, are only on display for six months. An online exhibit could reach far more users and remain "live" for a much longer period. Thus, creating an online exhibit in conjunction with a static exhibit should increase interaction with archival and special collections material.

Online exhibits can also engage users with ASC material in new ways. Although using the search box may well be the easiest way to locate ASC material on the digital repository, online exhibits may expose users to material they would never have considered. Ranade (2018, 90) writes on digital reference services, "Alternatives to search and browse have emerged in the form of exhibition-style content, designed to help users understand what the archives might contain." Such exhibition-style content "can be highly engaging." ASC and IT personnel are looking for the most effective method to create engag-

ing online exhibits, and staff are considering both using the internal capabilities of Hyrax and linking to exhibits created with other software, such as Omeka.

One capability of Hyrax, which ASC staff prioritized for development, is its ability to incorporate Encoded Archival Description (EAD) finding aids, which should better serve users and maintain professional standards and best practices. ASC staff create EAD finding aids that adhere to the standard *Describing Archives: A Content Standard* (DACS). Rather than provide access only to individual items within the collection, these encoding and description standards give users more streamlined access to the larger context of ASC holdings. Hyperlinks to individual assets included within finding aids will serve all users, especially those who choose to research through browsing. While ASC and IT staff provided researchers a digital repository capable of enabling long-term access to digital material, the continued success of the repository will require ongoing improvements that reflect changes in standards and best practices.

Conclusion

Developing a digital repository was a daunting task for the Archives and Special Collections at Southeastern. Despite the many challenges encountered, ASC and IT staff successfully developed a robust repository through their devotion to contextual consideration, cooperation, and commitment. This experience should encourage the staff of other archival repositories and special collections libraries.

Any digital repository development project requires careful consideration of the options that will best fit institutional needs. No one-size-fits-all solution exists for digital repository development. However, once the most appropriate solution is selected, cooperation between various professionals and stakeholders is essential. As with all preservation and reference service relating to digital assets, work does not cease with the initial completion of a repository project.

Initial completion must be followed by attentive stewardship of the repository. ASC's commitment to its users requires continued development including adding content, continuing adherence to evolving best practices, and vigilance regarding hardware and software integrity. Archivists and special collections librarians have a duty to both preserve the material in their care and serve users by alert-

ness to future opportunities and threats and so realize the wisdom of Proverbs 4:25: “Let your eyes look forward” (CSB).

References

- Duke Libraries. 2020. “rdr.” Last modified September 1, 2020. <https://gitlab.oit.duke.edu/ddr/rdr>. Captured at <https://perma.cc/QBV6-9RC5>.
- DuraSpace. n.d.a “About Fedora.” Accessed August 27, 2020. <https://duraspace.org/fedora/about/>. Captured at <https://perma.cc/77EH-RMLY>.
- . n.d.b “Fedora and Digital Preservation.” Accessed August 27, 2020. <https://duraspace.org/fedora/resources/publications/fedora-digital-preservation>. Captured at <https://perma.cc/X299-TDEZ>.
- . 2018. “Portland Common Data Model.” Accessed October 8, 2020. <https://github.com/duraspace/pcdm/wiki>. Captured at <https://perma.cc/J9V4-EUDY>.
- International Council on Archives. 2010. “Universal Declaration on Archives.” Accessed August 31, 2020. https://www.ica.org/sites/default/files/20190510_ica_declarationuniverselle_en_0.pdf. Captured at <https://perma.cc/332Q-36UY>.
- Islandora. 2020. “Islandora 8 Documentation.” Accessed August 31, 2020. <https://github.com/Islandora/documentation>. Captured at <https://perma.cc/NG8H-EZGG>.
- Knight Lab. Northwestern University. n.d. “Timeline.” Accessed August 29, 2020. <https://timeline.knightlab.com>. Captured at <https://perma.cc/WS45-HALZ>.
- Library at Southeastern. 2020. “About.” Accessed October 8, 2020. <https://library.sebts.edu/About>. Captured at <https://perma.cc/F5KW-WMN8>.
- . n.d. “Archives and Special Collections at Southeastern.” Accessed August 27, 2020. <https://library.sebts.edu/Archives>. Captured at perma.cc/H3UD-QFCK.

- Ranade, Sonia. 2018. "Access Technologies for the Disruptive Digital Archive." In *Archival Futures*, edited by Caroline Brown, 79–97. London: Facet Publishing.
- Roe, Kathleen D. 2019. *Advocacy and Awareness for Archivists*. Archival Fundamentals Series III 3. Chicago, IL: Society of American Archivists.
- Samvera. n.d.a "Applications & Demos." Accessed August 31, 2020. <https://samvera.org/samvera-open-source-repository-framework/applications-demos>. Captured at <https://perma.cc/N3WD-553K>.
- . 2018. "Architecting Repository Infrastructure with Collection Types, Admin Sets, and Collections." YouTube. Video, 1:48:02. <https://www.youtube.com/watch?v=7pHN1om6n6w>. Captured at <https://perma.cc/BH3M-43BJ>.
- . 2020. "ReadMe." Last modified August 26, 2020. <https://github.com/samvera/hyrax#getting-started>. Captured at <https://perma.cc/N5DD-XD8N>.
- . n.d.b "Samvera Partners." Accessed August 31, 2020. <https://samvera.org/samvera-partners>. Captured at <https://perma.cc/96E5-6XJQ>.
- Southeastern Baptist Theological Seminary. n.d. "Main Webpage." Accessed October 8, 2020. <https://www.sebts.edu/about/default.aspx>. Captured at <https://perma.cc/GQ88-FMVW>.