

# Digital Resources Plan

A strategic objective of Buswell Library for FY18 is to develop a digital resources plan with the rationale to benefit our faculty and students by providing services for digital resources that are as well developed as more traditional (e.g. print, physical) library resources. This plan articulates a shared vision for how best to create, manage, and provide ready access to digital resources; describes a high-level overview of existing systems and services; considers and incorporates best practices defined by ALA, SAA, and other sources cited within this document; and provides recommendations and an implementation timeline for future efforts.

In addition to Special Collections, Buswell Library, two other Wheaton College archival repositories are an integral part of this plan: the Billy Graham Center Archives (the BGC Archives), and the Marion E. Wade Center (the Wade Center). Their participation in creating this plan provides a crucial nexus for the shared vision mentioned above. Members of the plan working group include Katherine Graber, Jeffrey Mudge, Steve Oberg (chair), Laura Schmidt, Sarah Stanley, and Christa Strickler.

While a definition of digital resources is necessarily broad and incorporates subscription or purchased content from external sources such as publishers and content providers, this plan focuses on locally hosted and created digital content, including digitized materials and born digital resources.

The audience for digital resources will be nuanced by each repository, but the Wheaton College community (on or off campus) is fundamental, including students, staff, faculty, and alumni. Other key stakeholders include visiting researchers and the global church.

## 1. Vision Statement

The realm of scholarly digital resources is both exciting and challenging. Researchers of all types expect immediate access to a wealth of digital resources as a normal part of their work. Libraries and archives have adapted to this expectation in several ways, such as through one-time grant funding, or by implementing new or realigned staff positions, as well as new systems and workflows to support digital library development. At the same time, libraries and archives continue to build and maintain significant analog collections, mostly in print format. The scope of digital resources to collect and/or create is enormous, as are the inherent challenges and opportunities they represent in terms of long-term access and preservation. One challenge, for example, is in deciding which materials are suitable (and a priority) for digitization vs. those that are not. Digital resources also require significant changes in systems and staffing responsibilities to successfully accomplish long-term access and preservation.

Wheaton College's three archival repositories--the BGC Archives; Special Collections, Buswell Library; and the Wade Center--have long grappled with growing collections of digitized as well as born digital resources. These materials are managed in a variety of ways using a variety of

systems, tools, and processes, but collectively we are aware of the need to have a unified vision for workflow and resources in creating, preserving, and providing access to these materials. The following three principles articulate our collective vision for digital resources:

- 1.1. We will continue to collect and maintain digital resources as well as resources in more traditional analog formats.

A common assumption is that libraries and archives focus on analog or digital material, but not both. This is flawed and simplistic. Wheaton College is already deeply engaged in a hybrid analog and digital context and has been for years. In addition, this “both/and” view (instead of “either/or”) recognizes that we frequently digitize material that we also want to retain in its original analog form. The digital version needs as much or even more care and attention than its analog counterpart. Also, we increasingly collect and maintain born digital content that we want to make available more broadly, not just in-person. For those resources which are, for various reasons, unable to be shared publicly, digitization efforts will be mainly for long-term preservation purposes both improving on-site access to those materials, and ensuring perpetuation of them in the event the analog copy suffers some kind of loss. The items chosen for preservation digitization should be of a unique quality which would be valued for posterity, i.e. archival collections of materials unavailable anywhere else.

It is vital for us to continue to build digital collections along with and complementary to building our analog collections into the future.

- 1.2. We envision broadening the scope of what is available to researchers locally and worldwide.

Although great progress has been made in organizing and making the college’s rich archival and special collections material more findable via descriptive metadata, these efforts are not enough. Instead, our vision is to make as much of our rich content available digitally to any researcher anywhere in the world as we possibly can. This vision aligns well with the college’s strategic priorities, including “Globalizing a Wheaton Education”. Examples where we might make an immediate impact are making digital content from John Piper’s papers broadly available, as well as digitizing René Padilla’s papers to make them accessible to those in Latin America according to his wishes.

This vision is not simply a matter of making rich content more accessible via digital format, but also supporting and enabling research on topics of significant importance to the college and to the broader realm of evangelical Christianity. Increased focus on digital content creation via digitization, as well as collection of born digital content, also directly promotes liberal arts excellence, another strategic priority of the college.

- 1.3. We have significant contributions to make to the scholarly record through support of publications such as open access journals.

As a leading institution of higher education, the college not only has the

opportunity to better support research of its collections through improvements to and expansion of its digital resources, but also to contribute research output via its own publishing program through its library and archives. We are aware of significant interest in methods of highlighting our own student and faculty research in various disciplines and programs at the college. The Wade Center's peer-reviewed, scholarly journal, *VII*, is an existing example. Supporting our own publishing program through the library and archives will significantly enhance the reach of our own scholarship and lower the barrier for important research in areas of special interest to the college to become available within the scholarly record.

These three principles guide us toward a clear and achievable future of building an excellent and sustainable digital collections program for Wheaton College.

## 2. Existing Systems and Services

We have been working with digital resources for many years, using various systems and services with varying degrees of success. A brief description of those existing systems and services gives helpful context before moving on to an outline of key challenges.

### 2.1. Existing systems and services include the following:

#### Archon

Archon is used to house archival finding aids and digitized images from Special Collections, and is jointly used by the Wade Center and the BGC Archives. Managed by Digital Initiatives, which is part of Buswell, this system is tentatively slated for replacement by ArchivesSpace. Archon is no longer supported and has significant security, performance, and usability problems.

#### Blogs

Blogs are a key method of delivering digital collection content and information about collection materials. Special Collections publishes the "[ReCollections](#)" blog using the WordPress platform, highlighting individual collection items or stories from the history of Wheaton College or collection authors. The Wade Center also maintains a WordPress blog titled "[Off the Shelf](#)" to share institution news, publication announcements, closer looks at collection holdings, and stories surrounding the Wade authors' lives and works, and their impact in the world today. BGC Archives retired its former blog, The Bulletin Board, and is currently considering new blog platforms for its next iteration.

#### Box

As the standard for campus-wide cloud storage, Box plays a key role in the storage and delivery of digital content for the three repositories. The Wade Center uses Box for administrative records and for digitized versions of photo, microfilm, and audio-visual collection content. There is a public folder which

allows on-site patrons to view audio-visual content (MP3 and MP4 files) and is secured by a password (changed quarterly). Box was deemed more appropriate for this use than Ensemble as Ensemble is not as secure and cannot accommodate passwords or on-site use only. Wade also uses Box for delivery of large digital files to on and off campus users (such as photo loan images for publishers, video files from AIT, etc.). The BGC Archives uses Box to store MP3, MP4, and JPEG files for researcher copies (rather than master copies, which are stored on T3) since Box provides faster access. Box suffers significant buffering issues, however, particularly with video content and larger files.

#### Ensemble

Ensemble is a media management and publishing platform used to stream MP4 and MP3 files. Ensemble is used campus-wide to stream some A/V content accessed through Terminal Four, Wheaton's website content management system (CMS). It is used by both the BGC Archives and the Wade Center to deliver content through their respective websites.

#### files.library.wheaton.edu

This is a server containing space to deliver locally hosted electronic theses and dissertations (ETDs), PDFs of HNGR papers, and some locally hosted ebooks and ejournals. The server environment is managed by Digital Initiatives while the content is managed by Resource Description and Continuing Resources within Buswell.

#### Fileshares

This is a file system for storing various born digital and digitized resources maintained by Special Collections.

#### Hightail

Hightail is a file storage and sharing system used by the BGC Archives to deliver digital content to users. Limitations: subscription based (the BGC Archives pays \$50/year) and file-size limits of 25gb/file.

#### Omeka

Managed by Digital Initiatives, Omeka is a web-based system that provides infrastructure to present digital exhibits for the three campus archives.

#### Open Journal Systems (OJS)

OJS is an open source system that provides a platform for managing journal reviewing, editing, and publishing. It currently hosts the *Ellul Forum* and *Wheaton Writing* but can host additional journals if needed.

#### Portfolio

Portfolio is the campus digital asset management system managed by Academic and Institutional Technology (AIT) and is primarily used by Marketing & Communications (MarComm). Among other things, it houses collections of digital images that previously would have been used to publish college yearbooks. Its primary purpose is to provide image support for marketing purposes, so its ability to support the organization and delivery of other digital item types and formats is limited.

#### Wheaton History A-Z

This is a website devoted to notable aspects of the college's history, organized alphabetically, and managed by Special Collections in Buswell, and is provided as a service to the public to provide brief information on a variety of topics.

## 3. Key Challenges

There are many challenges to be addressed if we are to move forward effectively.

### 3.1. Legacy systems

As noted in 1.1 above, several legacy systems and services exist that have been added over time. Each of them was introduced to address a specific need and generally have served their purposes. It is important at this stage to reexamine each system's purpose and utility to assess whether they are the best fit for our needs, which have changed over time. Some of these existing solutions may also overlap in terms of what they do or can do. The question is whether they represent the best overall fit when looking at a comprehensive digital resources plan for the BGC Archives, Buswell, and the Wade Center.

### 3.2. Defining needs and identifying the best existing or new solutions

We must define what existing and planned digital objects and formats we need to create, support, and maintain locally; and what services might go along with those formats.

### 3.3. Discoverability and interoperability

Digital resources are notoriously difficult for users to discover, and are frequently siloed in systems that do not interact with each other. For example, Archon offers a searchable user interface, but its content is not integrated with our discovery layer, and neither is Omeka's. Whenever possible, we should strive to identify solutions that will help make our local digital resources more accessible to our users.

To ensure minimal loss of information and functionality when exchanging data between systems, we should anticipate future uses both when digitizing material and when creating and managing metadata about digital objects.<sup>1</sup>

### 3.4. Variety and mutability of digital formats

Digital formats are inherently changeable and unstable. There is need to codify

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<sup>1</sup> Jane D. Monson, *Getting Started with Digital Collections: Scaling to Fit Your Organization* (Chicago: ALA Editions, 2017), 173.

standards for long-term preservation of digital objects, and for us to be better prepared to handle new formats and types of digital content as they come along. A separate initiative to flesh out and document our digital preservation strategy is needed.

### 3.5. Funding for equipment and services to support digital library collections

In the past, funding tended to be ad hoc or opportunistic. If we are to develop a robust, workable digital library program, it will require an evaluation of equipment and services needed to create and maintain digital library collections over time. Funding may come from one-time funds, such as grants, but we need to consider how to establish long-term support for a digital library program.

### 3.6. Staffing, roles, and responsibilities

A key aspect to effective, long-term management of digital resources is to determine who will do the work necessary to create and maintain local digital collections over time, and to define roles and responsibilities between operational units within the library and archives. Experience at other institutions demonstrates the importance of having constant, dedicated staff time for this purpose. In addition, clear roles and responsibilities across functional units allow for good communication and smooth operation within and among digital resources projects.

### 3.7. Priorities

Of the various potential projects, and also existing digital collections, how do we determine what should be focused on first, or in what order? The variations and possibilities are significant and can be overwhelming. Figuring out and applying a process of prioritization is vital. Also, priorities may shift over time, which is natural.

### 3.8. Metadata

“Metadata is structured information that describes, explains, locates, or makes it easier to retrieve, use, or manage digital content...It ensures that the digital content will be accessible into the future.”<sup>2</sup>

Metadata comes in multiple categories<sup>3</sup>:

- *Administrative metadata*. Used in managing and administering collections and resources (e.g. acquisition info, rights, legal access, physical/electronic location).

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<sup>2</sup> Aaron D. Purcell, *Digital Library Programs for Libraries and Archives: Developing, Managing, and Sustaining Unique Digital Collections* (Chicago: Neal-Schuman, 2016), 116.

<sup>3</sup> Marcia Lei Zeng and Jian Qin, *Metadata*, 2nd edition. (Chicago: Neal-Schuman, 2016), 19; Jenn Riley, *Understanding Metadata: What Is Metadata, and What Is It For?* (Baltimore: National Information Standards Organization, 2017), 6, accessed April 11, 2018, [https://groups.niso.org/apps/group\\_public/download.php/17446/Understanding%20Metadata.pdf](https://groups.niso.org/apps/group_public/download.php/17446/Understanding%20Metadata.pdf).

- *Technical metadata*. Related to how a system functions or metadata behaves (e.g. software requirements, digital formats, compression ratios, authentication, encryption keys/passwords)
- *Preservation metadata*. Related to the preservation management of the resources (e.g. physical condition, preservations steps taken, changes occurring during digitization/preservation).
- *Rights metadata*. Used for managing copyright, legal access, etc.
- *Use metadata*. Circulation records, user tracking, use/searching statistics.
- *Descriptive metadata*. Used to identify and describe collections and related information resources (e.g. catalog records, finding aids).
- *Structural metadata*. Indicates how compound objects are put together, such as the order of sections in an electronic book.

Good metadata practice includes use of national standards to maintain interoperability between systems. For a list of commonly used standards, see Appendix A.

### 3.9. Usability and accessibility

Usability and accessibility considerations impact all areas of digital resource collections, from metadata that allows users to find what they need, to discovery and access systems that are compatible with accessibility tools for compliance with the Americans with Disabilities Act (ADA). These considerations can easily be overlooked when approaching digital resources in an ad hoc manner, but they are critical to making our resources useful to the broadest audience possible. Our existing digital resource tools are focused on making the digital resources available, but their usability and accessibility are often an afterthought.

### 3.10. Ethics

We should respect the wishes of those who donate material (e.g. according to donor/accession agreements) when considering it for digitization and long-term retention as digital objects. In many cases, although we may have physical ownership of material, we do not retain copyright. Digitization does not equate to a new copyright, so we should be careful to digitize material for public access for which we clearly have permission and rights to do so. Note that we may also legitimately digitize material for staff or on-site use only without requiring the same level of permission as for materials made publicly available.

Another ethical consideration involves decisions about how/whether digitization will impact original source material. Whenever possible, we should attempt to digitize collections in such a way as to minimize damage to the original material.

At times, we may choose to link to or include material from outside of the college, for example in an online exhibit of digital resources. We will be sure to only do this if we have obtained appropriate permissions; the material is clearly in the public domain; or if it has the appropriate license (e.g. Creative Commons Attribution (CC BY) or something like it).

Application and use of appropriate rights metadata is a key component to ethical practice (see also section 3.8).

3.11. Digital collections policy

We do not have a clear digital collections policy that drives our priorities for collecting born digital resources or digitization projects of physical materials. Without such a policy, the tendency to be opportunistic rather than strategic with our digital resources is reinforced.

## 4. Best Practices

4.1. Create a plan

This document is a first step to frame our ongoing work that should be reviewed and, if appropriate, updated at regular intervals.

4.2. Start small and focused, then expand

A practical approach is to work through a small digitization project or two and then expand from there as we build shared expertise over time. The ability to point to prior success and evidence of work is a critical step in being able to do more.

4.3. Provide dedicated staff time

Although digital resources require extensive collaboration among different groups of archival and library staff, it is clear that dedicating the time of specific staff people to the practical work of building and maintaining digital collections is extremely important and provides much-needed stability and continuity.

4.4. Collaboration

Our research of various library and archival approaches highlights the value of partnering with others. This includes collaboration among archival and library staff, as well as partnering with others on or off campus.

4.5. Adhere to widely accepted standards

In particular, we should pay careful attention to guidance provided by CARLI through the Illinois Digital Heritage Hub. See Appendix B: Resources for a link to more information.

4.6. Integrate and centralize access to digital collections with other library collections and services



When evaluating enhancement to or replacement of our discovery environments, such as WorldCat Discovery, we should determine how to integrate our local digital resources for searchability rather than force users to conduct separate, siloed searches for digital resources.

#### 4.7. Plan for long-term preservation

We should plan for preservation of digital objects from the start of any project, which includes considering the sustainability of chosen formats, standardizing and documenting processes (including metadata), implementing quality control procedures, and providing for adequate storage and access.

## 5. Recommendations

These address the key challenges described in section 3 and incorporate best practices in section 4. They are intended to provide practical next steps for administration to consider.

### 5.1. Select the appropriate systems or infrastructure to manage and deliver digital resources

As noted earlier, we have many existing systems in place, and we are already investigating possible new systems such as ContentDM and Preservica. Our aim should be to work with a smaller suite of systems and services that are interoperable, reduce functional overlap, and require less maintenance.

Specific recommendations:

- 5.1.1. Move to a robust system that is specifically designed for long-term storage, retrieval, and delivery of the digital resources we currently manage and anticipate needing to manage in the future, including email, images, video, documents, etc.
- 5.1.2. Select and implement an Institutional Repository (IR) solution that allows us to better manage existing digital resources (such as ETDs from files.library.wheaton.edu). This will also allow us to grow in scope to include more types of digital resources related to faculty research projects. We recommend a solution that also incorporates functionality to publish journals, ebooks, etc. to replace OJS as a separate, standalone system.
- 5.1.3. Migrate from Archon to ArchivesSpace and retire Archon as soon as possible.

- 5.1.4. Standardize on the use of Omeka for digital collections exhibits.
- 5.2. Create a preferred metadata framework for digital resources with the goal of maintaining metadata in one place and reusing it elsewhere, whenever possible.
- 5.3. Create policies for each repository to guide collection development of born digital materials as well as selection of materials for digitization, including guidelines for in-house vs. outsourced digitization. Also, honor the intellectual property rights of copyright holders of digital content and use RightsStatements.org as reference for assigning standardized rights metadata.
- 5.4. Create a digital preservation plan as a collaborative effort of all three repositories.
- 5.5. Dedicate budget support for ongoing, long-term digital resources management and delivery.
- 5.6. Build collections with general intent to share as widely as possible, including, for example, to the Digital Public Library of America (DPLA) via the Illinois Digital Heritage Hub (IDHH).
- 5.7. Define staff roles and responsibilities for long-term digital resources management and sustainability.
- 5.8. Implement a method of assessment and evaluation for our digital collections.

## 6. Timeline

The following table suggests a two year timeline, in quarter increments, for implementing recommendations.

<b>FY19 July-Sept.</b>	<b>FY19 Oct.-Dec.</b>	<b>FY19 Jan.-Mar.</b>	<b>FY19 Apr.-June</b>	<b>FY20 July-Sept.</b>	<b>FY20 Oct.-Dec.</b>	<b>FY20 Jan.-Mar.</b>	<b>FY20 Apr.-June</b>
Test ArchivesSpace Migration (5.1)	Migrate Archon to ArchivesSpace (5.1)						
Select preferred metadata framework (5.2)	Select preferred metadata framework (5.2)	Create metadata application profiles (5.2)	Create metadata application profiles (5.2)				
Select appropriate system for managing/delivering digital resources (5.1)	Select appropriate system for managing/delivering digital resources (5.1)	Plan for new system for managing/delivering digital resources (5.1)	Plan for new system for managing/delivering digital resources (5.1)	Implement new system for managing/delivering digital resources (5.1)	Implement new system for managing/delivering digital resources (5.1)		
		Create digital preservation plan (5.4)	Create digital preservation plan (5.4)				

FY19 July-Sept.	FY19 Oct.-Dec.	FY19 Jan.-Mar.	FY19 Apr.-June	FY20 July-Sept.	FY20 Oct.-Dec.	FY20 Jan.-Mar.	FY20 Apr.-June
<p>Define staff roles and responsibilities (5.7)</p> <p>Standardize on Omeka (5.1)</p>	<p>Define staff roles and responsibilities (5.7)</p> <p>Request dedicated budget support (5.5)</p>			<p>Create digital collections plans for each repository (5.3)</p>	<p>Create digital collections plans for each repository (5.3)</p>	<p>Assess digital resources efforts (5.8)</p> <p>Share digital collections with DPLA via IDHH (5.6)</p>	<p>Assess digital resources efforts (5.8)</p> <p>Share digital collections with DPLA via IDHH (5.6)</p>

## Appendix A: Metadata Standards

This list is not exhaustive but intends to include the most commonly used metadata standards.

### *Content Standards*

- CCO (Cataloging Cultural Objects)
- DACS (Describing Archives: A Content Standard)
- RDA (Resource Description & Access)

### *General Purpose*

- Dublin Core
- MODS (Metadata Object Description Schema)

### *Cultural Objects and Visual Resources*

- CCO (also a content standard)
- CDWA/CDWA Lite (Categories for the Description of Works of Art)
- LIDO (Lightweight Information Describing Objects)
- VRA Core (Visual Resources Association)

### *Research Data*

- Though research data is not a primary focus for this report, it is under consideration as a future possibility.

### *Archives*

- EAD (Encoded Archival Description)

### *Rights Management*

- copyrightMD
- ODRL (Open Digital Rights Language)

### *Publishing*

- ONIX (Online Information Exchange)
- EPUB

### *Multimedia Objects*

- MPEG Standards
- ID3v2
- PBCore (Public Broadcasting)

### *Preservation and Provenance*

- OAIS Reference Framework (Open Archival Information System)
- PREMIS (Preservation Metadata: Implementation Strategies)
- PROV (Provenance Working Group)
- DCMI metadata terms for provenance (Dublin Core Metadata Initiative)

### *Controlled Vocabularies*

- AAT (Art and Architecture Thesaurus)
- LCGFT (Library of Congress Genre and Form Terms)
- LCSH (Library of Congress Subject Headings)

- RBMS (Rare Books & Manuscripts)
- TGM (Thesaurus for Graphic Materials)

## Appendix B: Resources

“A Framework of Guidance for Building Good Digital Collections | Framework.Niso.Org.” Accessed March 26, 2018. <http://framework.niso.org/5.html>.

CARLI Created Content Committee. “Guidelines for the Promotion of Digital Collections: Best Practices for Promotion and Marketing,” 2018. Accessed May 31, 2018. [https://www.carli.illinois.edu/sites/files/digital\\_collections/documentation/guidelines\\_for\\_promotion.pdf](https://www.carli.illinois.edu/sites/files/digital_collections/documentation/guidelines_for_promotion.pdf).

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