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### How to Catch a Digital Speed Goat: A Web Archiving Case Study at the University of Wyoming

Sara Davis and Rachel Gattermeyer

#### Introduction

The fact that universities are increasingly utilizing online spaces to engage with their audiences is not new or revelatory. The shift to online communication began gradually, but now produces a deluge of digital content. The University of Wyoming (UW) is no exception to this, and its archives has to find new ways to address the changing and challenging record creation landscape.

In this online world, UW records are more abundant and widely available than ever before. At the same time, UW records are more fragile and ephemeral than ever before. The same publishing speed that provides access to the most current information shortens the response time for saving records. The text on a webpage can be quickly edited, older versions of policies can be deleted and replaced with new regulations, and links can become obsolete. Much like the speed goat—the fastest land animal in North America and found throughout Wyoming—websites are hard to capture before they disappear from sight. The rapid pace at which institutional records are published and taken down or damaged leads to the very real possibility of a university archives digital dark age.

To begin to confront the potential dearth of digital historic records at UW, a proactive and digital approach to records management is needed. The traditional records management practices that relied on physical donations from campus departments are clearly not equipped to handle a quickly shifting landscape of online university records. This article describes the web archiving project initiated by the authors, university archivist Sara Davis and digital archivist Rachel Gattermeyer, in 2018 at the University of Wyoming's American Heritage Center (AHC). The AHC collectively houses and coordinates the activities of the UW archives, Toppan Rare Book Library, and the extensive manuscript archives subunits. The authors used the project as an opportunity to capture UW's online records, promote discoverability and accessibility of the captured web records, strengthen university donor relations, and expand outreach and education efforts about the importance and definition of university records. Through theory and practical

application, the project pushes the conversation on best practices of records management for websites at a university.

#### **Literature Review**

Over the past decades, professional literature explored many aspects of web archiving. Articles discuss, among other areas, the importance of web archiving, principles of web archiving, surveys of initiatives, case studies, and more recently, the environmental impact that results from web archiving. A review of these topics in the literature will give context and add theory and insights from other experiences to the case study at the University of Wyoming.

Web archiving is the practice of selecting, capturing, describing, preserving, storing, and providing access to online webpages. Web pages document moments in history, convey official policies and decisions, and allow for dynamic representations of a community. As more and more content is distributed solely over the internet, the need to establish web capturing programs becomes increasingly essential.

Failure to capture these ephemeral records can lead to a digital dark age—a lack of historical information preserved and accessible in electronic formats.<sup>2</sup> This loss can occur both when electronic formats are not saved and when preservation activities that prevent bit rot and corruption of files are not performed. In addition, archivists must contend with the obsolescence of software, file formats or hardware. In archives with records management programs, the legacy of large gaps of missing online records creates a loss of history; generates legal liabilities, including a failure to uphold records retention mandates; and increases the likelihood of accountability issues. In the past, archives might rely on contacts within a department to set aside physical official records to be transferred to the repository. With the shift to online records,

<sup>&</sup>lt;sup>1</sup> Jinfang Niu, "An Overview of Web Archiving," *D-Lib Magazine* 18, no. 3/4 (2012), accessed July 29, 2020, https://doi.org/10.1045/march2012-niul.

<sup>&</sup>lt;sup>2</sup> Stuart Jeffrey, "A new Digital Dark Age? Collaborative web tools, social media and long-term preservation," *World Archaeology* 44, no. 4 (2012), 553-570, accessed July 29, 2020, https://doi.org/10.1080/00438243.2012.737579.

archivists and records managers must move away from this model and be more proactive <sup>3</sup>

The many moving parts of capturing web-based content involve the same principles as traditional archiving: selection, accessioning, description, preservation, and access. The tools to accomplish this work are different and are still being developed. How the principles are applied remains the same, though, and is best determined by the mission of the archival institution and the needs of its audience.

The selection of websites to preserve is one of the first areas to assess and should be based on a set of criteria determined by the archives. Factors often include whether a website is part of an existing collection, falls under the archival institution's domain, or is part of a subject-specific collection project. It is critical to develop a web collecting policy to ensure that all parties are on the same page and that the development of the web capture program is consistent.

Another area to consider when web archiving is the description of the material through metadata. Much has been written about the lack of consistent metadata standards.<sup>6</sup> The majority of

<sup>&</sup>lt;sup>3</sup> GladysAnn Wells and Richard Pearce-Moses, "From Bibliographer to Curator: archival strategies for capturing web publications," *IFLA Journal* 32, no. 1 (2006): 41-47, accessed July 27, 2020,

https://journals.sagepub.com/doi/pdf/10.1177/0340035206063890.

<sup>&</sup>lt;sup>4</sup> Jinfang Niu, "An Overview of Web Archiving," *D-Lib Magazine* 18, no. 3/4 (2012), accessed July 29, 2020, https://doi.org/10.1045/march2012-niul.

<sup>&</sup>lt;sup>5</sup> Miguel Costa, Daniel Gomes, and Mário J. Silva, "The evolution of web archiving," *International Journal on Digital Libraries* 18, no. 3 (2017): 191-205, accessed July 23, 2020, https://doi.org/10.1007/s00799-016-0171-9; Matthew Farrell, Edward McCain, Maria Praetzellis, Grace Thomas, and Paige Walker. "Web Archiving in the United States: A 2017 Survey," *National Digital Stewardship Alliance Report* (2018), accessed July 23, 2020, https://doi.org/10.17605/OSF.IO/3QH6N; Jinfang Niu, "An Overview of Web Archiving," *D-Lib Magazine* 18, no. 3/4 (2012), accessed July 29, 2020, https://doi.org/10.1045/march2012-niul.

<sup>&</sup>lt;sup>6</sup> Jackie M. Dooley, Karen Stoll Farrell, Tammi Kim, and Jessica Venlet, "Developing Web Archiving Metadata Best Practices to Meet User Needs," *Journal of Western Archives* 8, no. 2 (2017), accessed July 23, 2020, https://digitalcommons.usu.edu/westernarchives/vol8/iss2/5; Cliff Height, Ashely Todd-Diaz, Rebecca Schulte, and Michael Church, "Collaboration Made It Happen! The Kansas Archive-It Consortium," *Journal of Western Archives* 8, no. 2 (2017), accessed July 23, 2020,

https://digitalcommons.usu.edu/westernarchives/vol8/iss2/4; Jinfang Niu, "An

institutions use Archive-It to capture websites.<sup>7</sup> Archive-It utilizes fifteen Dublin Core metadata elements and allows users to create customized metadata fields.<sup>8</sup> Beyond Archive-It's metadata fields, many web archiving programs implement a mix of bibliographic metadata and archival description approaches at the collection or series level, rather than at the level of an individual website. Without clear standards on metadata best practices for websites, an assessment of user needs and internal practices will best determine how collections should be described and which schemas and structures are most appropriate.

Description also plays a critical role in the discovery and use of archived web records. A 2016 NDSA survey found that of 119 respondents, most felt that access, use, and reuse was the area in which archivists had made the least amount of progress in the past two years. The same survey revealed that only 18% of respondents were confident that their web archives were being used. A possible reason for this is that the respondents may not have a reliable way to track when archived websites are accessed or used. Another possibility is that users cannot find the resources they are looking for when searching through the existing descriptive metadata. Further development in full webpage text search capabilities could enhance discoverability and usability.

The environmental impact of web archiving has received growing attention in archival literature. Research shows that digital preservation is contributing to a negative impact on Earth's climate through its methods of ensuring authenticity, integrity, renderability,

Overview of Web Archiving," *D-Lib Magazine* 18, no. 3/4 (2012), accessed July 29, 2020, https://doi.org/10.1045/march2012-niul; Gail Truman, "Web Archiving Environmental Scan," *Harvard Library Report*, (2016), accessed July 27, 2020, http://nrs.harvard.edu/urn-3:HUL.InstRepos:25658314.

<sup>&</sup>lt;sup>7</sup> Matthew Farrell, Edward McCain, Maria Praetzellis, Grace Thomas, and Paige Walker. "Web Archiving in the United States: A 2017 Survey," *National Digital Stewardship Alliance Report* (2018), accessed July 23, 2020, https://doi.org/10.17605/OSF.IO/3QH6N.

<sup>&</sup>lt;sup>8</sup> Ibid.

<sup>&</sup>lt;sup>9</sup> Ibid.

<sup>&</sup>lt;sup>10</sup> Miguel Costa, Daniel Gomes, and Mário J. Silva, "The evolution of web archiving," *International Journal on Digital Libraries* 18, no. 3 (2017): 191-205, accessed July 23, 2020, https://doi.org/10.1007/s00799-016-0171-9.

and accessibility. 11 Considering and prioritizing sustainability does not mean a loss of standard of care for archival collections, but it does challenge the profession to examine the future implications for current actions and to think creatively for solutions. 12

Website preservation is a balance between following legal mandates, working with limited financial resources, adhering to archival best practices, and the reducing the negative environmental cost. Additional research into energy consumption and alternative strategies of preservation best practices could move this area further. Archival stewardship requires ensuring there is a future for the planet as well as the records.

### History of Using Archive-It at the University of Wyoming

The AHC's introduction to Archive-It was in 2008. Archive-It is a subscription-based web capturing tool created by the Internet Archive, which also offers the free Wayback Machine service. Archive-It lets archives select and capture individual websites to preserve, including settings to create regular capturing schedules and set limits on the size of captures, and offers a dedicated space for researchers to engage with the captured websites. The AHC used Archive-It for a one-off, time-limited collection of over seventy online blogs and news articles related to the tenth anniversary of the murder of Matthew Shepard, a student at the University of Wyoming whose death led to the passage of the Matthew Shepard and James Byrd, Jr. Hate Crimes Prevention Act. Due to various reasons, including a change in key staff members, the limited scope of the collection project, and shifting priorities, the AHC's subscription of Archive-It was abandoned.

In 2016, the UW Libraries adopted the Archive-It license purchased by the AHC to collect some online university publications. The AHC and the UW Libraries are two distinct units at the University with separate reporting lines and budgets under the purview of the Office of Academic Affairs. When the UW Libraries took over the license, the AHC consulted with them about using

<sup>&</sup>lt;sup>11</sup> Keith L. Pendergrass, Walker Sampson, Tim Walsh, and Laura Alagna. "Toward Environmentally Sustainable Digital Preservation," *The American Archivist* 82, no. 1 (2019): 165–206, https://doi.org/10.17723/0360-9081-82.1.165.

 $<sup>^{12}</sup>$  Carli V. Lowe, "Partnering Preservation with Sustainability,"  $\it The\ American\ Archivist\ 82$ , no. 1 (2020), 144-164, https://doi.org/10.17723/0360-9081-83.1.144.

Archive-It to capture online publications created by university departments, but no long-lasting partnership between the two entities ensued. The UW Libraries became the managers of the Archive-It license and its use for projects.

In 2018, the AHC resumed its interest in actively collecting online university records. It set a top priority to develop a more robust strategy for collecting university records, especially the ones that are slipping through the cracks. Records published online as opposed to printed were identified as a significant gap in the repository's collections. In order to contain the digital dark age and ensure that UW's history is available for the future, staff developed a plan to target official UW websites. During their planning, Davis and Gattermeyer discovered the history of the AHC's use of Archive-It and reached out to the libraries to form a partnership to jointly use the license. The end result was a mutually beneficial and collaborative partnership between the two campus units.

### **Description of Project**

The Web Archiving Project is a multi-phase initiative. Phase 1 was the test case that established procedures and policies and allowed for evaluation and modifications before expanding UW web capturing efforts. Phase 2 added new collections to Archive-It that included websites from already existing AHC UW collections. The long-term goal is to provide and maintain a comprehensive record of, access to, and discoverability of UW websites as a source of institutional memory. Being proactive stewards in collecting and preserving records mitigates the risk of gaps in the historical record. Some publications, general bulletins, regulations, policies, and other information are only available online and are altered frequently and inconsistently with little to no notification. Saving ephemeral websites now increases opportunities to engage with these records in the future.

#### Phase 1

Phase 1 of the project focused on the websites already being captured by the UW Libraries. This step involved obtaining internal buy-in for the project, assessing the impact this it would have on all units, and creating a project roadmap.

### AHC Unit Buy-In and Big Picture Planning

To garner internal buy-in, Davis and Gattermeyer led several meetings with the AHC workflow team to discuss the proposed project, its impact on each unit, and procedures for handling this new type of record. The workflow team consists of representatives from the Digital Scan Lab, Arrangement and Description, Collection Management, Born Digital, University Archives, and Reference units who work together to address cross-unit policy and procedural issues. The group determined that the website captures should be treated much like any other collection at the AHC. After the websites were captured by the Born Digital unit, they would be officially accessioned by the Collection Management unit and included in the AHC's collection management system (CMS) to establish an official record of the items that were collected. Each website capture was integrated into an associated AHC collection and given a unique accretion trailer. The website captures would be included by the Arrangement and Description unit in finding aids and donors, in this case UW departments, would be notified of the new service by the UW Archives. The Reference unit was kept informed about the progress of the project and was prepared to direct any researcher's inquiries about UW records to the Archive-It collections.

With all impacted units on the same page, the project avoided many potential misunderstandings, and staff were prepared to adapt the workflow if unexpected issues arose. The authors were able to promote a collaborative environment among the units and encourage constructive feedback, which would be used to improve the project moving forward

### Integrating Existing Archive-It Collections into the AHC

The first step for integrating existing Archive-It collections into the AHC was to gain intellectual control of the content. There was an assessment to review and identify the collections that the UW Libraries established. Davis and Gattermeyer compared the list of existing Archive-It collections set up by the library against the Wyoming State Records Retention Schedule as their method of selection and appraisal. Note that the University of Wyoming as a public state institution and the AHC as the archives and records officer for the University must ensure that these retention schedules are in compliance. An Excel worksheet was created that included a

listing of all the collections, the Archive-It URLs, the UW website URLs, and the contact information for each department. There were forty-four Archive-It collections listed, which were primarily UW focused. The few non-UW collections that the authors identified were determined to be outside of the scope of this project. By narrowing down the specific Archive-It collections that would be included in Phase 1, the authors could move forward with a clearer understanding of the overarching project.

### Metadata and Layout Cleanup

While assessing the collections, Davis and Gattermeyer identified that the Dublin Core metadata already describing the Archive-It collections required reworking to reflect the AHC's new partnership with the UW Libraries, meet archival best practices, enhance discoverability, and become standardized. First, the names of the collections were amended to include "UW" at the beginning of the collection title to make it clear that the collections relate specifically to the University of Wyoming. This also allowed for the collections to be sorted together alphabetically and separately from non-UW collections. Additionally, the logo was changed from the UW Libraries' image to the broader University of Wyoming logo. The change helped to bring the website into line with current Institutional Marketing standards.

To increase standardization, the AHC and UW Libraries created a template that defined the Dublin Core elements that are natively built into Archive-It and followed the archives' finding aid description practices in an effort to provide continuity across the platforms. The authors edited the existing metadata to make sure it followed the template, and added new content to increase discoverability as seen in the images below. The "Collector" names were updated to reflect the joint AHC and UW Libraries partnership. The "Source" field was improved by listing all websites being captured and included in the collection. The "Identifier" field streamlined the connection between the Archive-It collections and the associated archival collection by adding the AHC's unique collection numbers. The "Relation" field now included a direct link to the collection's finding aid, which improved access to the rest of the resources available through the UW Archives. The metadata was also updated to show capture range and rights of use. The overall

effect of the metadata cleanup was a cohesive and structured set of UW collections

#### Department of English

Archived since: Jun, 2016

Description: This collection contains archived versions of the University of Wyoming's Department of

English website.

**Subject:** Arts & Humanities, Universities & Libraries, English, University of Wyoming, College students' writings, American – Wyoming, Literature, University of Wyoming. Department of English

Creator: University of Wyoming Department of English
Publisher: University of Wyoming Digital Collections

Source: www.uwyo.edu/english/

Format: Website

**Rights:** This Item is protected by copyright and/or related rights. You are free to use this Item in any way that is permitted by the copyright and related rights legislation that applies to your use. In addition, no permission is required from the rights-holder(s) for educational uses. For other uses, you

need to obtain permission from the rights-holder(s).

Collector: University of Wyoming Digital Collections

Image of public-facing metadata for the Department of English Collection on Archive-It before the project.

#### **UW Department of English**

Archived since: Jun, 2016

**Description:** This collection contains archived versions of the University of Wyoming's Department of English website, the Nineth International Walter Scott Conference, the Owen Wister Review, and

Wyoming Writing Project blog.

**Subject:** Arts & Humanities, Universities & Libraries, English, University of Wyoming, College students' writings, American – Wyoming, Literature, University of Wyoming. Department of

English, Scott, Walter, 1771-1832

Creator: University of Wyoming Department of English

Publisher: University of Wyoming

Source: www.uwyo.edu/english/, https://owenwisterreview.wordpress.com/,

https://wyomingwritingproject.wordpress.com/, http://www.uwyo.edu/scottconf2011/index.html Rights: This Item is protected by copyright and/or related rights. You are free to use this Item in any way that is permitted by the copyright and related rights legislation that applies to your use. In addition, no permission is required from the rights-holder(s) for educational uses. For other uses, you need to obtain permission from the rights-holder(s).

Identifier: 545003

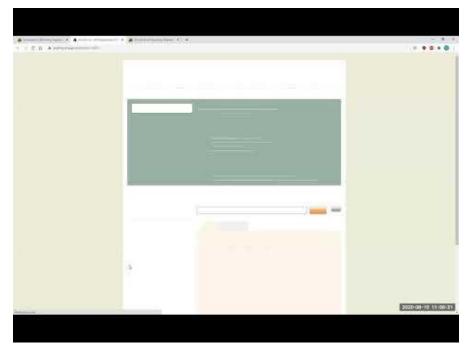
Relation: https://rmoa.unm.edu/docviewer.php?docId=wyu-ah545003.xml

Collector: University of Wyoming Libraries, University of Wyoming American Heritage Center

Image of public-facing metadata for the Department of English Collection on Archive-It after the project.

### Promoting the Web Records through Finding Aids

Once there was intellectual control over the Archive-It collections and the metadata fields were updated, it was time to increase accessibility and discoverability of the collections. As these websites are part of the records of the University, they were added to the UW Archives collections finding aids. The finding aids incorporated hyperlinks to each Archive-It collection and information about the websites. The top section of the finding aid now includes a separate line for date range capture for the websites. The scope and content note also incorporates information about how to access archived websites. The web content was placed in a different series due to its unique format. If there was more than one website associated with an Archive-It collection, the finding aid has a general link to the Archive-It collection page and individual links to the specific websites nested underneath. The below video shows how researchers discover archived websites by using the AHC's finding aid.



Play the video to watch how researchers discover Archive-It collections through AHC's finding aids.

These finding aids are available through several different access points to provide researchers with multiple methods for finding the archived websites. They are posted on the Rocky Mountain Online Archive (RMOA) website, which is a consortium of archives in the Rocky Mountain region. An OCLC record is also created and linked to an additional access point through the UW Libraries' OPAC.

#### **Donor Relations and Outreach Efforts**

Another component of the project was an effort to strengthen relationships with donors by communicating openly and transparently with them about the web archiving initiative. Unfortunately, donor relations with UW entities were limited before 2018. Many campus units did not realize there was a UW Archives or a records management program, or even where the departments were located on campus. This project offered an opportunity to rekindle relationships with campus entities and update them on the services available at the AHC.

Following the standard procedure when updating a collection finding aid, Davis wrote a letter to each donor (department) whose collection was impacted by the project. The beginning of the letter explained the department's relationship with the AHC, which was important to include because there has been a flux in personnel over the years and many units did not know that they have archived materials at the AHC. The letters went on to inform the donors of the project and its goal to capture the vital records of their department as well as how they could access this information. The language of the letter allowed for the donor to feel agency over their collection by offering them the opportunity to check for errors and submit any recommendations for changes. For example, they may have an additional website that should be captured to reflect the functions of their unit. Lastly, the letter provided an opening to solicit additional records from the department and promote the services of the AHC. The letter clarified the archive's capability and expertise to capture physical and electronic records and educated recipients on different formats and media. This was extremely important as many people do not make the connection that electronic records are vital records.

Once the donors were notified of the project and they had time to review and respond, it was time to expand communication campuswide. The correspondence that goes out to UW's faculty and staff email listservs explains collections that the AHC has recently made available. This allows the campus to learn more about the AHC's collections and

view more information when interested. Davis sent an email to the listservs announcing the new web capturing initiative and the newly archived UW web records.

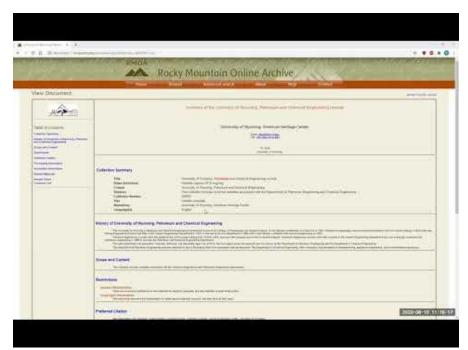
#### Phase 2

The goal of Phase 2 was to create new Archive-It collections for UW departments that already had collection material at the AHC but were not having their websites captured, as well as units identified as high priority. To do this, Davis ran a report in the AHC's CMS that identified over seventy UW departmental records collections to begin web capturing.

### **Expanding Archive-It Collections**

The AHC's identified top priority university units, along with existing UW archival collections without preserved websites, were integrated into the workflow procedures of accessioning, creating metadata and collections in Archive-It, adding access points through finding aids, and notifying donors. Identifying websites to be captured required an analysis of the University records retention schedules and intent of its mandate. The priority of the schedules is to capture the functions of units and preserve evidence of the decisions that are made and their purpose and value to the University and community as a whole. Understanding the impossibility of capturing the University's entire online footprint, the authors chose to preserve the websites from units that have the most impact on the historical record.

Unfortunately, some minor issues were discovered during the accessioning process. The UW Archives' collection structure adheres to a legacy hierarchy and naming system for departments, and the finding aids reflect this. The records of some departments might be integrated with a now distinct department, be separate from a now joint department, or have outdated names. It is not feasible to separate or merge existing collection materials, but continuing to use the outdated names and hierarchical structures might be misleading to researchers who are used to the current UW organization. Watch the video below to see how the old and current university hierarchies and names were used to describe web captures.



Play the video to watch how old UW hierarchies and names are addressed.

To help researchers discover the archived websites, the authors reflect the current structure and names of UW departments in Archive-It. They added brief notes in the description field to reference the history of the collection and how the researcher might see it described in the finding aid. To keep within the established structure of the AHC UW Archives collections' finding aids, website captures were designated to coexist with their physical records by including notes in the history field. The team defined how to resolve these edge cases and were able to move forward with the project, streamline the workflow, and increase accessibility and discoverability of these resources.

### Long-term Project

Based on the initial observations made while completing on Phase 1 and 2 of the project, ongoing work will include capturing more university department websites to create more accurate depictions of their purpose and history. The plan is also to expand the project to work with UW student organizations to help them capture their websites and collect social media specifically related to the University of Wyoming. This may lead to adopting the use of Webrecorder for one-off captures,

as the archival literature indicates that it yields positive results for this type of dynamic web content.<sup>13</sup>

As the project advances, the authors will continue to monitor the workflows and determine how to improve them. This may include refining some of their current captures, adjusting the metadata, pursuing outreach opportunities, and integrating a direct portal to Archive-It on the AHC webpage. Continuing conversations with departments about this service will be vital. Archive-It is also available to donors and potential donors not associated with UW; extending web capturing to external donors will require special language in the deed of gift paperwork outlining rights of use and copyright.

As economies are not always stable, the AHC will need to plan an exit strategy in case it is no longer able to afford the subscription service or the web archiving company goes out of business. As part of that work, the AHC plans to schedule a regular download of the WARC backups from Archive-It and store them with the master files to ensure permanent access to the content. The WARC, or Web ARChive, file format combines the many digital files used to create a website, such as scripts, images, and webpages, into an aggregate file to store web crawls. As websites are identified as records mandated by the State records retention schedules, open source alternatives to Archive-It will be considered to ensure legal compliance. To be more conscientious of the limits of the archives' resources, personnel, environmental impact, and budget, the scope of collecting and preserving will need to be purposeful in selecting records to represent the multifaceted history and culture of the University.

<sup>&</sup>lt;sup>13</sup> Gail Truman, "Web Archiving Environmental Scan," *Harvard Library Report*, (2016), accessed July 27, 2020, http://nrs.harvard.edu/urn-

<sup>3:</sup>HUL.InstRepos:25658314; Metropolitan New York Library Council, "Collecting Considerations and Statement Worksheet," *Getting Started with Web Archives*, (2018), accessed February 11, 2021, https://drive.google.com/file/d/1um-SZrmMKPss7MSRGlyg3wj\_aWU-BIS-/view; Natalie Pang and Joshua Ng, "Asian Film Archive's journey in preserving social media as cultural knowledge," (poster, 14<sup>th</sup> International Conference on Digital Preservation, Kyoto, Japan, September 2017), http://www.ipres-conference.org/ipres17/ipres2017.jp/wp-content/uploads/39Natalie-Pang.pdf.

#### **Outcomes and Conclusion**

The results of Phase 1 and 2 of UW Archives' web archiving project are encouraging. At the crux of this project is the desire for the AHC's UW Archives to capture the essential records of the University, establish positive relationships with donors, provide access to the collections, and develop a more prominent presence on campus. Through frequent communication and transparency, donors have become aware of the web archiving service and reached out to add materials to the archives. The project workflows ran smoothly due to constant check-ins and updates with internal archival partners.

Davis and Gattermeyer established ninety-six Archive-It collections for the UW Archives that are immediately accessible and discoverable with their related collection materials. It is unclear how often researchers use the web captured collections or their experience with the search capabilities of Archive-It. Further research and an assessment on use will be imperative to make the resource more intuitive and discoverable for researchers. The authors found that there are limited tools to track use statistics for UW's Archive-It collections apart from tracking the number and type of reference requests that use the website collections. It would be beneficial to conduct an official user experience analysis to determine the ease of navigating the archival resources available at the AHC. The user experience analysis can aid in enhancing access to the AHC web archived records.

Sustainability of the program relies on funding for storage space and software licenses, as well as employee time for the project. Downloading and maintaining WARC files on a schedule is considered a best practice for digital preservation and guarantees long-term access to those files. However, WARC files are robust and tend to be large in size. Expanding the collections to include more UW departments, UW history influencers, and non-UW websites will also increase the need for additional storage and raise associated costs with Archive-It. To ensure the AHC is a responsible steward of its web captured records, people need to devote time to the project. Currently, the AHC does not have full-time personnel dedicated to web archiving and the authors' future commitment to the project will depend on their workloads.

The success of the project also relies on enhancing outreach and education efforts to promote the AHC's web archiving service to donors and researchers. It is essential to continue to reach out to departments to build strong, long-lasting relationships that facilitate an open dialog about the archives' collecting strategy. Web capturing allows

archivists to collect ephemeral university records from a distance, establish a way to follow legal record retention mandates, and provide institutional transparency. It is also vital to find new ways to advertise the archived websites to researchers. The point of an archives is to have its records used. Web archiving and online tools for archives access make it possible to connect with a long-distance and diverse audience, and perhaps pique an interest in visiting the physical archives.

The consequences of a digital dark age are difficult to predict, but without intervention it will most likely leave a hole in the historical record and a loss of evidence of the decisions and actions of a university. However, being proactive in archiving ensures that at least some of these ephemeral records are available for future researchers to examine. This case study is one approach to capturing these digital speed goats—websites that change rapidly and are hard to capture before they dart away from sight. As more institutions embark on web archiving, a more informed consensus on best practices and standards should be established to guide archivists in their vital work.

**Sara Davis** is the university archivist for the University of Wyoming at the American Heritage Center. As university archivist, Davis supervises the university archives and records management program, which includes soliciting, identifying, and facilitating transfer of digital and analog records. Her prior professional archives experience includes working as a digital archivist/digital project manager for the National Association of Olmsted Parks in collaboration with the National Park Service's Frederick Law Olmsted National Historic Site, creating physical and digital exhibits for the University of Massachusetts Boston campus, and processing collections for the Appalachian Mountain Club. Davis earned the Society of American Archivist Digital Archives Specialist (DAS) certificate in August 2017 and currently serves as the vice-chair of

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