

Digital Resources in Instruction and Research: Assessing Faculty Discovery, Use and Needs

In 2008, the Digital Initiatives Coordinating Committee (DICC) requested a comprehensive assessment of the UW Digital Collections (UWDC). This activity was coordinated and conducted by UWDC Digital Services Librarian, Vicki Tobias with assistance from UW-Madison Assessment Librarian, Nola Walker and other UWDC staff. UW System teaching and research faculty from UW Madison, Milwaukee, Oshkosh, La Crosse and Baraboo campuses were selected to participate this assessment activity.

The goal of this assessment was to better understand faculty awareness of and expectations for digital library resources, services and tools; obtain faculty feedback on digital resource and service needs that support their specific teaching and research; more clearly identify faculty interaction with digital resources in teaching and research activities; and raise faculty awareness of UWDC in general and its services and resources. The results of this assessment will inform DICC and UWDC decisions related to UWDC goals and strategic planning, future project and digital collection development and inform development of resources, services, and tools that better meet faculty expectations and satisfy UWDC strategic goals.

The assessment included two activities: a Web-based survey to gather general information and identify trends, issues or obstacles related to faculty discovery and use of digital resources in teaching and research and, the second, focus groups and interviews to gather more detailed information and discover opportunities for UWDC to support faculty in their work.

The following definition of "digital resource" was provided at the beginning of each activity for context: *"Digital resource" is defined as an item digitized and/or made available via the Internet for instruction and research. Examples include text-based materials such as books, journal series, and manuscript collections; photographic images; slides; maps; charts; prints; posters; audio; and video. "Digital resources" may be from your own or other online collections.*

Assessment Summary

Expected Results

UW System faculty are very comfortable searching for and using digital resources. As expected, they frequently use Google tools. They use images from personal, not library or campus digital collections. Faculty are interested in integrating images into online learning environments. They find the UWDC Web site difficult to locate and navigate, and are frustrated by the search interface. Finally, they lack of awareness of UWDC services and resources.

Surprising Results

Faculty do not use digitized maps, historic texts, exhibits. They are frustrated by poor technology and/or Web support within their department or campus. They lack of awareness of library tools and online resources. They have very little time to casually surf or browse the Internet; they usually search for known items or sites. Faculty are more frequently using digitized audio and/or video in their teaching or research activities.

Faculty Needs

Faculty desire more assistance with copyright issues. They would welcome support gathering, organizing and managing their personal digital resources. They need help creating and/or using digital audio and video. They also need more general technology support for basic tasks such as updating their course Web page or digitizing materials for class.

Opportunities for UWDC

These common themes delineated in this report present opportunity for UWDC to improve existing and develop new services and tools to meet faculty needs and remain valuable. UWDC and the library, in

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general, should continue to develop expertise and provide support related to copyright issues. UWDCC should consider redesigning their Web site, including the search interface and other contextual information. They should render their digital resources more discoverable by Google. UWDCC should position themselves as campus “consultants” related to digital resource creation, management and preservation. UWDCC should revisit their collection development strategies and reach out to faculty who create their own digital resources for teaching or research. Staff should also continue to develop an expertise in audio and video digitization and management.

Web-based Survey Key Findings

The Web-based survey was launched in Fall 2008 using Zoomerang.com and ran for four weeks. A randomly-selected group of faculty, representing approximately 33% of the total faculty, from five UW System campuses was invited by email which provided a link to survey and explained the assessment activity. Approximately 1,500 faculty were invited and 179 completed the survey.

Questions focused on general demographic information, faculty comfort level searching for and using digital resources, frequency using specific resource types, preferred online resources, importance of search features, availability of campus technology assistance and their familiarity with UWDC and its resources and services. Complete survey results and associated documentation is available in *MINDS@UW (Web Survey on the Use of Digital Resources in Instruction and Research* - <http://digital.library.wisc.edu/1793/34857>).

Digital Resource Use and Discovery

Faculty are comfortable searching for and/or using digital resources in their teaching or research. A high percentage of faculty “never” use digital resources from commercial image databases, their own campus or department image databases, and/or online museum exhibits or galleries. This non-use might be due to lack of awareness, insufficient outreach and training by those who created the image databases or simply that existing image databases do not contain content deemed useful. It may also be attributed to uncertainty regarding intellectual property and reuse rights.

A high percentage of faculty “rarely” or “never” use library digital collections. It is critical to discover the specific reasons for this lack of use and adopt measures to improve this situation, whether through greater or more targeted outreach or working closely with faculty to create content that directly supports their teaching activities. They “often” use digital resources from their personal collection to support teaching activities. It is important to discover how they create, manage and preserve their personal digital resources and how the UWDCC or the libraries might play a role in facilitating this work (e.g. consulting on “best practices” related to digitization; providing equipment, hosting or infrastructure; preservation; etc.).

When asked to identify specific online resources they use in teaching activities, 39% named a Google tool (Google search, images, video and scholar). Faculty use of Google tools is anticipated but it also illustrates the importance of having UWDC resources discoverable through Google.

A high percentage of faculty “never” use digital facsimiles of ancient or historical manuscripts, government documents and/or maps. As these formats represent the type of materials frequently digitized by the UWDCC, it would be useful to discover the reason they are not used. They may be unaware that such materials exist online or do they not require such formats for their specific discipline. It would also be useful to discover if these results vary based on discipline or primary area of teaching and/or research.

When asked to assign importance to a variety of support or assistance activities related to using digital resources, they ranked “support with interpreting copyright laws and/or securing copyright permission” as very important. It is critical that all UW System staff, including UWDCC, is well-informed and up-to-date in the area. Faculty also indicated support gathering, organizing, and maintaining digital materials as important. It would be useful to better understand what their needs in this area are and whether or not an existing (or future) UWDCC

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repository (e.g. MINDS@UW, Open Journal System, UW digital collections) might fit their particular requirements.

When asked to assign importance to various features related to online searching, respondents ranked “quality of search results” as important. It would be useful to understand how they define a “quality search result” (e.g. speed of result, quality of content, authoritative result, etc.). They also indicated a search engine or Web site’s “ease of use” was important. These two points should encourage a more thorough evaluation of the UWDC search interface and faculty experience using the site. User testing should be part of any UWDC Web site assessment or redesign work.

UWDCC Information

Prior to taking the survey, only 33% of respondents were aware of the UWDCC. Clearly, UWDCC should increase outreach efforts to UW System campuses as faculty indicated they would like to receive information about new digital resources and services. Respondents overwhelmingly expressed a preference for direct email announcements (91%) to be received on a monthly basis (42%) or when new content is available (29%). A surprisingly low percentage expressed preference for receiving announcements via listservs or RSS feeds. As UWDCC already uses email to deliver a monthly update to interested parties, it would be useful to explore how to reach a larger or more focused (subject-specific) audience with this existing method.

Focus Groups and Interviews Key Findings

In Spring 2009, follow up focus groups and interviews were held to further explore some of the issues and trends revealed in the survey responses. Participants were selected from survey respondents or DICC member recommendation.

Three focus groups were held at UW Madison, UW Oshkosh and UW LaCrosse. Twelve interviews with faculty from UW Madison, UW Whitewater, UW Oshkosh, UW Milwaukee, Interviews were conducted in person or via conference call. Participants were teaching and/or research faculty representing a variety of departments and disciplines including English, History, Social Work, Pathology, Women’s Studies, Physics, Math, Business, Folklore, Botany, African Languages, German, and Psychology.

Key themes from these discussions are organized and presented in the following four categories: Searching for Digital Resources, Digital Resource Use, Support Issues and UW Digital Collections.

Searching for Digital Resources

Faculty search for digital resources using Google, Google Scholar, Google Images, Flickr and/or YouTube. They will occasionally use Wikipedia to start a search, to gather background information and/or key words to inform their search strategy. They search for “known items” using key words, citations or titles, or other bibliographic information. They have no time to browse or casually surf the Internet so finding good (or “good enough”) results as quickly as possible is essential. Faculty consider searching specific digital collections (e.g. campus or library collections) arbitrary and often inadequate, as these collections tend to be highly selective and usually reflect someone else’s specific purpose or need. They rely on “word of mouth” from department colleagues and peers to find digital resources of value. Digital resources used in their teaching and research *must be* authoritative and legitimate, therefore it is critical that a site indicate provenance and citation information.

Faculty indicated the “ideal search” interface should be clean, uncluttered with text and instantly comprehensible. A site should provide both basic and advanced search options. Faculty commented on the value of particular commercial search engines, in particular Amazon.com, which provides users with “referrals” for comparable items. They also indicated frustration not knowing which search terms would return quality results from different Web sites and recommended that a site provide suggestions for search terms.

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Faculty emphasized they have limited time to search for digital resources. They advised that the UWDC Web site be improved and simplified to provide a better user experience. All UWDC resources must be “discoverable” in Google. UWDC staff should increase outreach to faculty via department listservs, newsletters, presentations or other venues, to facilitate “word of mouth” endorsement among colleagues.

Digital Resources Use

As anticipated, faculty regularly use digitized journal articles, photographic images (usually to illustrate a PowerPoint lecture) and reference materials such as dictionaries and encyclopedias. They also use digital resources as part of their online course presentations in Learn@UW or other course Web sites. Faculty have seen an increase in student interest in and use of digitized audio and video. A surprising number of faculty are experimenting with digitized audio and video in their teaching. They “Pod cast,” record lectures and other audio for replay and create original audio (music). They also embed YouTube video clips into their course Web sites. Most faculty interviewed digitize their own materials but struggle with managing these resources. They lack the technical skill and, in many cases, infrastructure and information management knowledge to provide long-term access to these materials.

UWDC staff should continue to gain expertise in digital audio and video formats. An increasing number of faculty are using these resources and staff should be prepared to provide support as appropriate. There also exists an opportunity to reach out to faculty who have in the past or are currently creating digital resources. UWDC might provide consultation services to advise on best practices, software, hardware or other asset management options. UWDC might ultimately host these resources in UWDC or MINDS@UW.

Support Issues

Faculty expressed concern that their students are more savvy than they are when searching for and/or using digital resources for assignments. They expressed a desire to “stay current” but were at a loss as to how, specifically related to digital audio and video. Participants admitted to being mostly “self-taught” with respect to technology and expressed an interest in more in-depth instruction in creating audio, video, Pod casting, Power Point, Web sites for teaching, and/or digital image collections, etc. Faculty specifically expressed a desire for hands-on assistance creating and managing online databases of images for teaching, for both faculty and student use. Again, this situation presents an opportunity for UWDC to provide consultation services in a variety of pertinent areas including digital resource creation, media reformatting, metadata, digital asset management solutions and digital preservation.

Some faculty voiced frustration that their classrooms lack basic technology to support digital audio and/or video formats (e.g. updated sound cards, insufficient memory, etc.). Many participants indicated they have inadequate technology support (in general) for Web and/or digitization work, and that it isn’t always clear to them where they should turn for assistance, calling their current support “mysterious” or ineffective.

Faculty expressed a desire to share information (between departments and UW campuses) about useful digital resources. They would like this information available, and updated regularly, in an obvious online location. UWDC should increase marketing efforts to ensure faculty on all UW System campuses is well-informed about the collections and new resources as they are available.

Faculty expressed concern over colleagues who retire or, in some cases, pass away unexpectedly and leave behind a lifetime of work that may be online and inaccessible on their personal computers. UWDC staff should partner with librarians or archivists to connect with this faculty demographic and provide information about our services to digitize and/or host their collections.

UW Digital Collections Center

Participants found it difficult to locate the UWDC on the UW Madison or Libraries Web sites, stating it was not obvious where to search for the unit or collections. The name and branding confused faculty who thought UWDC was a UW Madison Library unit or associated with the Wisconsin Historical Society. Faculty found

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resources within the UW Digital Collections by searching directly from Google. They rarely used the UWDC Home page for searching within the collections.

Faculty were pleasantly surprised by breadth and depth of the UW Digital Collections. In particular, they appreciated the Aldo Leopold collection and would like to see more large archival collections or, in general, unique primary resources not already available online. Faculty suggested focusing on various UW System schools' teaching strengths to facilitate "collection development." Faculty also suggested opportunities to create collaborative image collections for departments or schools who already share resources for teaching (e.g. Medical School and Vet School).

Faculty suggested the UWDC should be linked from every UW System department Web site with related content in the collections. They also commented that UWDC staff should more aggressively promote their services and collections at each UW System campus. Increasing awareness would increase use and the potential for new projects with faculty. They also want to be alerted when their department colleagues have collaborated with UWDC to create a digital resource.

Conclusion

The UWDC Web site and search interface should be redesigned to facilitate a more positive user experience and better search results. Clearly, faculty users consider the current site to be confusing and cumbersome, and prefer searching for digital resources using Google.

There appears to be growing interest among faculty in creating and using digitized audio and video in teaching and research work. The UWDC should continue to develop expertise in this area, in order to develop projects and provide guidance as requested. The UWDC should strive to build partnerships with other entities on campus engaged in similar work.

Faculty expressed a desire for more assistance in creating and managing digital resources. As campus "experts" in this field, UWDC staff should be more visible and accessible to faculty who have questions related to digital resource discovery, creation, use and/or management. The UWDC has an opportunity to fill this information void by providing much needed assistance to faculty.

The UWDC should increase UW System faculty awareness of their digital collections. Faculty are interested in learning about and utilizing UWDC digital resources that relate to their particular field. Outreach efforts should be timely, focused and persistent, and make use of both online and personal communication methods.

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Focus Group / Interview Questions

The following questions were posed to focus group participants and interviewees:

1. Describe how you currently (and ideally would like to) *search* for and retrieve digital resources.
2. Is there a particular Web site (or sites) that meets your needs and, if so, why? What do you like about the site
3. Describe how you currently (and ideally would like to) *use* digital resources in your teaching or research.
4. Describe the most successful Internet search experience you've conducted.
5. What type of local assistance do you currently have available, to facilitate creating and managing digital resources?
6. What type of assistance do you *lack*?
7. When you see or hear the title "University of Wisconsin Digital Collections," what do you expect to discover from such a Web site?
8. Now that you've been introduced to the UWDCC and its work, how do you envision this group supporting your teaching or research?