

Extended Abstract: Usage Data of an Open Access e-Journal in a Digital Repository

Teresa S. WELSH^a and Stacy CREEL^{b,1}

^a*The University of Southern Mississippi*

^b*The University of Southern Mississippi*

Introduction

Of fifty-eight library and information science programs currently accredited by the American Library Association (ALA) in the United States and Canada, the University of Southern Mississippi's School of Library and Information Science (SLIS) is one of only twenty offered completely online and is the only ALA-accredited program in the state. Part of the accreditation process includes maintaining contact and communication with students and alumni. This can be a difficult task to accomplish when faculty may never meet students in person and students are located all over the state, the United States, and the world. One idea to meet this accreditation requirement was to create an online newsletter; students and alumni would send in updates and would receive program updates. Fortunately, re-accreditation coincided with the university library's introduction of The Aquila Digital Community (<http://aquila.usm.edu/>) hosted through Digital Commons.

Once Aquila was in place and it became obvious that Digital Commons made it easy to do much more than newsletters, the focus moved to an open access journal called *SLIS Connecting* (Image 1). The new purpose became "to share news, information and research with future students, current students, alumni, faculty, and the general population through selected faculty publications, invited student publications, refereed publications, and through regular columns" [1]. The first issue was electronically published in February 2012 and the second in October 2012. The third issue was published in February 2013 and contains the first paper submitted from an author not affiliated with SLIS. *SLIS Connecting*, an electronic open-access journal hosted in a university depository, is currently indexed in Google Search and in Google Scholar.

1. Background Literature

"The transformation from print to digital media for scientific communication, driven in part by the growth of the Internet and the tremendous explosion in the amount of information now available to everybody, is creating fundamental changes in institutions

¹ Stacy L. Creel, Assistant Professor, 118 College Drive #5146, Hattiesburg, MS 39406
Stacy.Creel@usm.edu

such as publishers, libraries, and universities that primarily exist for the creation, management, and distribution of information and knowledge” [2]. This transformation has had an important impact on the academic library in that traditional duties are changing, including the loss and replacement of print journals with digital copies found in archiving services and entirely online journals. The library is seen as more than a physical location; it has become an “online gateway” [2]. The impact of electronic publishing has not been limited to the academic library, but has impacted academia as a whole especially in the case of open access publishing. In open access publishing, the emphasis is on “the value of free dissemination of scholarly knowledge” [3]. Open access embraces the idea of making scholarly and professional information and knowledge readily available for free and is a growing alternative to fee-based traditional journal subscriptions [4].

“Institutions have turned themselves into major publishers in their own right...” [5]. It is necessary to consider how the use of the Web has changed the way academics share, promote, and locate information [5]. In the use of electronic journals by academics, convenience, including free access, is important [6]. These same institutions have begun a new type of institutional repository in which the work of faculty is collected and disseminated. These digital repositories ingest, store, and provide some level of content management for the digital materials [7]. The following case is about one open access journal housed in an academic institutional repository. It is the “story”—the inception and success—of *SLIS Connecting*, an electronic journal created by SLIS at The University of Southern Mississippi and hosted through Digital Commons by bepress.

1.1. Features of Digital Commons by bepress

Bepress, originally Berkeley Electronic Press, was founded in 1999 because “academic journals were plagued by slow turnaround times, limited access, and unreasonable prices” [8]. One of the first projects of bepress was to develop a streamlined online editorial management system that supports the peer-review process. The system allows a quick turnaround time for submitting authors, access for reviewers, and commitment to lower prices for libraries [8]. The next major project was Digital Commons for institutional repositories. In addition to allowing access to scholarship and information, it supports “faculty in creating and editing sustainable scholarly journals, as well as a variety of other publishing initiatives like e-only press imprints, conference proceedings, student research, and more” [8]. A license with Digital Commons entitles the institution to setup, training, support—including unlimited technical support, documentation, upgrades, and hosting. Institutions are provided five free journals, which includes setup design. “Digital Commons comes uniquely equipped with EdiKit™, a professional-grade peer-review/editorial management system. EdiKit extends professional publishing services to faculty, students, and other scholars” [8]. Digital Commons also supports social networking features with sharing through Facebook, Twitter, LinkedIn, StumbleUpon, Pinterest, RSS, and much more.

2. *SLIS Connecting* Usage Data

The first issue contained the four regular columns, three articles from faculty, and three scholarly student papers. The second issue (Figure 1) contained the four regular columns and three scholarly student papers, and the third issue, four regular columns, a faculty article, two reports, and three scholarly student papers, one of which was from Iran. From the first issue of *SLIS Connecting* in February 2012 through March 2013, there were 7,012 page views. Most, 5852 (83%), were from U.S. Figure 2 shows the spatial pattern of page views in the United States.



Figure 1: Screen capture of *SLIS Connecting*



Figure 2: Map of United States page views

The U.S. spatial distribution pattern is similar to the pattern of SLIS alumni locations for academic and special libraries (Figure 3) as well as public and school libraries (Figure 4): greatest in the southeast, then northeast, southwest and northwest.

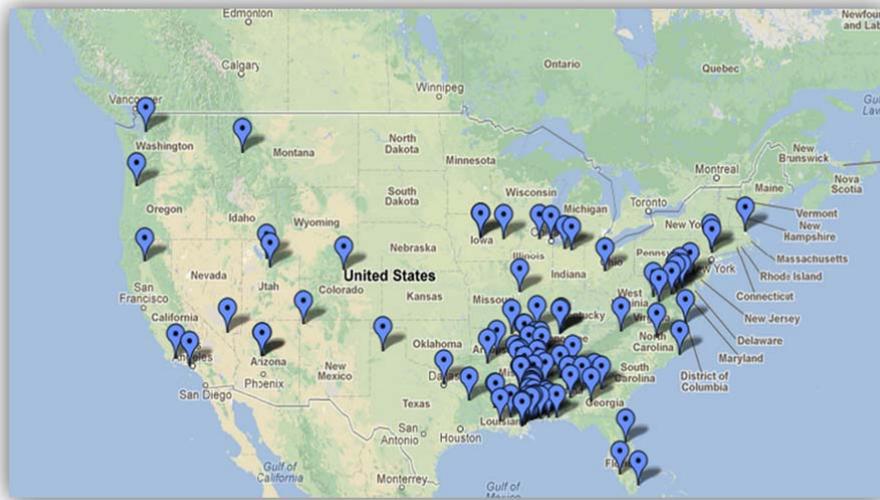


Figure 3: Distribution pattern of SLIS academic and special library alumni



Figure 4: Distribution pattern of SLIS public and school library alumni

The extent of international distribution was unexpected (Figure 5). Of the 1,160 page views from 107 international cities in 85 countries, Iran had the greatest number, 220 (19%); then Canada, 124 (11%); Nigeria 108 (09%), India 84 (07%), United Kingdom 56 (05%); Brazil, 43 (04%), and Australia 32 (03%). By region, the spatial distribution pattern of page views was greatest in Europe, followed by Asia, Africa, and South America. The variety of distribution indicates that the journal was viewed internationally by a much wider audience than SLIS students and alumni.



Figure 5: International distribution pattern of page views

While most page views were brief, an average of 1:15 minutes, the longest page views were in Mauritius (6:56), Japan (6:50), and Zimbabwe (6:14). Page views per month indicated a steady increase from the first issue in February (191) to April (262), then a steady decline in the number until the second issue in September (466), which peaked in October (830) then declined.

There were 6048 full-text downloads. Items most downloaded were Issue 1: content analysis article (1,939), entire issue (431), library history article (309), IMLS scholarship report (161), and from Issue 2: a collection analysis article (1,122), and entire issue (199). By far, the most popular downloads were “A Content Analysis of Cinderella Illustrated Storybooks Housed in the de Grummond Collection” (32%) by Kimberly Smith, published in Issue 1, followed by “An Analysis of Little Red Riding Hood Storybooks in the de Grummond Collection” (19%) by Cheryl Pittman in Issue 2.

Discussion and Conclusion

While the patterns in the United States align more closely to the student and alumni distribution as expected; the international pattern at first glance seem somewhat unexpected, but there are several possible reasons for the unexpected international reach. First, *SLIS Connecting* is indexed in Google and Google Scholar so a search of relevant terms often results in a journal item in the first 10 hits—for example, searching Mississippi Libraries Minorities returns a *SLIS Connecting* article as choice one and

two. Second when a new issue is published, it is advertised on multiple listservs including jESSE and IFLA, both of which have an international reach. “As of 10 February 2005, the jESSE listserv included over 1200 members, representing 100% of ALA-accredited schools of LIS and 24 countries. These countries include Australia, Brazil, Canada, Denmark, Egypt, Estonia, Germany, Great Britain, Greece, Hungary, Ireland, Israel, Japan, Malaysia, the Netherlands, New Zealand, Norway, Portugal, Singapore, South Africa, Spain, Taiwan, Thailand - and the US” [9]. The International Federation of Library Associations and Institutions (IFLA) is “the leading international body representing the interests of library and information services and their users. It is the global voice of the library and information profession” [10]. The IFLA listserv reaches almost 4000 subscribers worldwide. This advertisement on appropriate listservs along with the use of social media—the third potential factor—has potential to affect the international success of the journal.

In addition to posting announcements on the Facebook page for the School of Library and Information Science, both editors post updates about the journal through their personal social media accounts. One of the co-editors and contributors of the journal, is a frequent attendee of the International Conference on Qualitative and Quantitative Methods in Libraries and is linked to over 900 librarians, students, and academics via Facebook and to about 2000 librarians, LIS students, and academics as well as 47 LIS-related groups through LinkedIn. Many of these contacts are international. Since there is currently not a way to definitely attribute the international response to any of these factors, there are future plans to add a short survey on the journal homepage to investigate how people are finding the journal and articles. It is also important to note that while some of the articles published are specific to Mississippi, others have broad appeal. The two most highly viewed articles are about fairy tales, an important topic in multiple fields, cultures, and mediums.

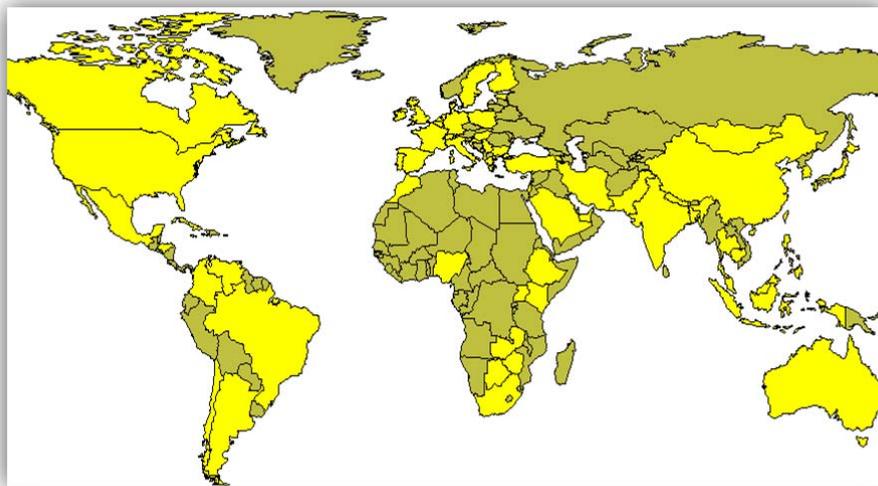


Figure 6: Page view geographic distribution by country in yellow

An idea that started as a way to contact and communicate with alumni has grown in a short time to a successful open access journal with the mission “to share news, information and research with future students, current students, alumni, faculty, and the general population through selected faculty publications, invited student publications, refereed publications, and through regular columns” [1]. While this information presents only the initial research, the reach of the journal (Figure 6) has been far more than expected. As it continues to grow—with more research, more indexing, and more exposure—great things are anticipated.

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