

The *USFSP Student Research Journal* and the Library's Role as Publisher and Champion

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Case study in the development of a graduate student research journal

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Online journal hosting and support

Resources

Discusses journals setup and launch, applying metadata, & outreach



Acknowledging and recognizing graduate student research has long been a routine part of academic life at colleges and universities, evidenced by the long-standing requirements for the creation and publication/archiving of master's and doctoral theses and dissertations. More recently, colleges and universities have become much more actively engaged in supporting undergraduate research to develop stronger mentoring relationships between students and faculty, to improve student retention, and to develop strong research and writing skills among undergraduates. Groups such as the Council on Undergraduate Research (CUR), whose mission "is to support and promote high-quality undergraduate student-faculty collaborative research and scholarship" (Council on Undergraduate Research, 2013), hold workshops and conferences to showcase work being



done nationally to enhance undergraduate research and to provide support and guidance for such efforts.

At the University of South Florida St. Petersburg (USFSP), a separately accredited master's-level institution within the University of South Florida system, interest in and support for undergraduate as well as graduate student research has been growing. Since 2003 the university has hosted an undergraduate research symposium whose purpose is "to showcase the innovative research and creative work that USF St. Petersburg undergraduate students have produced during the year under the tutelage and with the support of the university's faculty" (Undergraduate Research Symposium, 2013).

Within USFSP, the Nelson Poynter Memorial Library's mission is "to be an active partner in the teaching, research, and learning of the University of South Florida St. Petersburg's students, faculty, and staff" (*Gateway*, p. 4). Two of the strategic goals enumerated in the 2010–2014 library's strategic plan, *Gateway to the World's Information*, were to "support USFSP's undergraduate and master's level research and instruction" and to "increase effective use of technology to improve library services and support a collaborative learning environment, including the creation and preservation of digital collections" (*Gateway*, p. 4). The dean charged several work groups with implementing the strategic plan, including a Digital Collections Team consisting of the library's dean, the head of Public Services, the Special Collections librarian, and the head of Systems. The Digital Collections Team began planning for the establishment of an open-access digital archive for the campus in the spring of 2010. The group selected DSpace because it was open source, was the most widely adopted software in the world for institutional repositories, had a robust user community, was compliant with the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH), had the functionality desired by the library, and had been used twice before by the library dean at other institutions.

While the library was laying the groundwork for the digital archive, Dr. Alejandro Brice, a professor in the College of Education, approached the dean of the library in the fall of 2010 looking for support in establishing an online student research journal. During discussions, Dr. Brice and Dean Hixson determined that the planned digital archive met all of the functionality requirements of the proposed student research journal, including that:

- It would provide for articles to be published through online submissions.
- It would allow Dr. Brice, as editor of the journal, to add approved articles without intervention or mediation by the library.
- It would provide a platform that would index, retrieve, and track the usage of its articles.
- It would provide a consistent and unchanging form for citing articles.
- It would provide an open access platform that could be promoted from and linked to appropriate websites and other marketing outlets.

The digital archive would also provide some benefits that were not a requirement of the journal, such as full-text indexing of submissions and the ability to find archived materials by searching on the open Internet.

In early 2011, the library hired an experienced contractor to establish an instance of DSpace hosted by Poynter Library and also provide training to local staff in the system configuration and server backup protocols. The contractor also set up nightly full-text indexing and implemented some requested additions to the Dublin Core metadata element set to allow for tracking peer-reviewed items, along with author status relative to the university. In the spring of 2011, the library implemented the USFSP Digital Archive (<http://dspace.nelson.usf.edu/>). The mission of the archive is to:

- Promote the scholarship and intellectual activity of USFSP faculty and students.
- Collect and preserve the institutional history and official documents of the university.
- Showcase and provide access to digitized versions of unique scholarly resources.
- Build and strengthen partnerships between USFSP and the broader community.
- Provide a platform to support and utilize a wide range of open educational resources.

Because we are a small library, each member of the team, including the dean, serves as an administrator within DSpace and has the lead responsibility for acquiring different types of content. The dean of the library has the lead responsibility for acquiring student content.

In the first two years, the USFSP digital archive grew to include over 6,000 items of scholarship, community engagement, institutional history, and official documentation in six broad communities and dozens of focused collections. As the first unique content submitted to the archive, the newly formed *University of South Florida St. Petersburg Student Research Journal (SRJ)* launched the USFSP digital archive. The first article in the journal was published through the digital archive on March 29, 2011. In two years, 10 articles were published in the first two issues of the journal.

Technical How-To's and the Editorial Process

Using the DSpace software, the library dean first established a community for student research and within that community a collection for the *Student Research Journal*. In consultation with the journal editor, the dean established a submission and review process in DSpace for the acquisition of new articles. The dean then created a template (Appendix A) for the journal articles that contained all the recurring information for each article, along with prompts for article-specific information. The library dean established the metadata template in consultation with the journal editor, Dr. Brice, and refined it after the first few submissions. In order to facilitate a browse display that mimics a table of contents in an issue of a journal, all articles in a given issue begin with the full title of the journal, followed by issue and article number. The specific title of the individual article only appears as a subtitle (Appendix B). When the number of the issue changes the library dean modifies the template to reflect the new issue numbering.

Within the digital archive, the journal has a homepage (Appendix C), created by the library dean, which links back to a website that the journal editor maintains with information about the journal, the submission process for editorial review, and with a link to the published articles in the archive (Appendix D). Each article gets a separate item record listing all authors, as well as the title, the date of publication, and other descriptive information (Appendix E).

One or more faculty members who sponsor each student-authored article also perform the role that peer reviewers play in traditional academic journals by reviewing the content of the article and the writing.

The dean of the library serves on the *Student Research Journal's* editorial board, along with Dr. Brice and the members of the USFSP Research Council (one faculty member each from each college and the library). One or more faculty members who sponsor each student-authored article also perform the role that peer reviewers play in traditional academic journals by reviewing the content of the article and the writing. When the faculty sponsors are satisfied with the quality of the article, they pass the article on to the journal editor. The journal editor formats submissions according to the journal's style guidelines and then submits new articles using the template established in the digital archive. Within DSpace, a submission template consists of three fixed screens for collecting data about the item being submitted, with the data fields being mapped to modified Dublin Core metadata. The data fields collect information about the date, description, creators, titles, keywords, abstracts, standard numbers of URIs affiliated with the item, and more. It is possible to create a collection-specific template where some of the data has been already supplied. The person submitting a new item to the collection must decide whether it is necessary to modify some of the pre-supplied data or accept the values already there. In the case of the *Student Research Journal*, the title field will always need modification to reflect the correct volume, issue, and article number, as well as the title of the specific article being submitted because the template only provides generic prompts for the item-specific data (Appendix F). After the metadata has been supplied, the submission software prompts for one or more affiliated files to be uploaded and then takes the journal editor to a screen where he or she is able to review the metadata and files and make corrections. When the editor, Dr. Brice, is satisfied with the submission and the metadata, he accepts the embedded license, which adds the new article to the archive and automatically assigns a unique and unchanging Corporation for National Research Initiatives (CNRI) handle. The article is dynamically indexed and starts to collect statistics every time the item record describing the article or the file containing the article itself is viewed. Detailed screen shots of the generic

submission process can be seen in the step-by-step guide for submitting to the archive, available online (Hixson, 2011).

Next Steps

While the existing 10 articles received more than 5,700 hits from 29 countries in the first two years (see Appendix G for a sample statistics page), the journal faces an uphill battle in getting new submissions. Only three faculty members have sponsored the first 10 articles. Dean Hixson and Dr. Brice have undertaken a number of steps to increase submissions to the archive, including:

- Presenting at the USFSP Undergraduate Research Symposium about the *SRJ* and the power of publishing in it through the digital archive
- Working to establish a library-sponsored student research award with the top submissions receiving a cash prize and award winners being required to publish in the journal
- Proposing a process whereby library faculty could assist college faculty in the review of student papers to ensure proper research and citations have been employed

In April 2013, Dean Hixson and Dr. Brice prepared a joint presentation (Hixson & Brice, 2013) for the symposium outlining the benefits of publication in the journal and the archive, including enabling students to:

- Share the results of research widely
- Get credit for their work and protect their intellectual property
- Contribute new knowledge to a field
- Build a portfolio for work or graduate school
- Get connected with others interested in the same topic
- Secure grant funding for more research
- Highlight individual, group, and institutional achievement
- Improve access to and discoverability of materials

Dean Hixson made presentations to the Deans' Council and the University Research Council to establish an Undergraduate Library Research Award program, sponsored and administered by the Nelson Poynter Memorial Library, to recognize students who demonstrated skill and creativity in the use of library and information resources to original research and scholarship. Applicants would submit original research to be reviewed and judged by a panel of college and library faculty on how well they met established criteria for research and scholarship. Awards were proposed in two categories, one for upper-level course work completed in a single term and the other for theses or projects developed over more than a single term. Awards were proposed in the range of \$500–750, with the number of awards to vary from year to year depending on funds and successful applicants. Individuals or teams would need to be currently enrolled

USFSP undergraduates or recent graduates, eligible projects must have been completed for an upper division (3000–4000 level) USFSP credit course, projects would need to be nominated by the instructor responsible for the course, and individuals or teams would need to agree to contribute their projects to the permanent collections of the USFSP Libraries and the USFSP digital archive. Dr. Brice and Dean Hixson are now working to secure funding and to modify the proposal to include publication in the *Student Research Journal* as one of the requirements for award winners.

Applicants would submit original research to be reviewed and judged by a panel of college and library faculty on how well they met established criteria for research and scholarship.

Discussions to gauge interest in and support for the idea of having library faculty assist college faculty in reviewing student research papers for submission to the *SRJ* are in the very preliminary stages. While there are some challenges to overcome, the hope is that the common interest in advancing student research will make it possible to move forward.

Conclusions

The library at USFSP has been accepted readily as a partner in the publishing of student research. The *Student Research Journal* has readers from around the world, simply by virtue of being published in an OAI-PMH based archive that is registered with various indexers and harvesting services. With so many undergraduates and graduate students already actively engaged in scholarly research at the university, finding high-quality content is not a problem. The immediate challenge currently lies in enlisting the support of college and library faculty to serve as mentors and reviewers for the student submissions. The success of the *USFSP Student Research Journal* from the standpoint of ease of publication and finding an international audience has inspired the journal's editor to undertake the establishment of an open access journal for faculty authors in his discipline that will be published exclusively in the USFSP digital archive. The library's role as publisher and champion of scholarly research is assured.

References

- Council on Undergraduate Research. (2001). *Fact sheet*. Retrieved from http://www.cur.org/about_cur/fact_sheet/
- Hixson, C., & Brice, A. (2013). *Promote and publish your work: A presentation to the USFSP undergraduate research symposium, April 11, 2013*. Retrieved from <http://dspace.nelson.usf.edu/xmlui/handle/10806/6415>

Hixson, C. (2011). *1st steps for submitting to the USFSP digital archive: A step-by-step guide*. Retrieved from <http://dspace.nelson.usf.edu/xmlui/handle/10806/411>

Nelson Poynter Memorial Library. (2010). *Gateway to the world's information*. Retrieved from <http://dspace.nelson.usf.edu/xmlui/handle/10806/3302>

Undergraduate Research Symposium. (2013). Retrieved from <http://www.usfsp.edu/research/undergrad-research/undergraduate-research-symposium/>

Appendix A

Remove	Name	Value	Language
<input type="checkbox"/>	dc.description.authorstatus	student	
<input type="checkbox"/>	dc.description.pocreview	no	
<input type="checkbox"/>	dc.language.iso	en_US	
<input type="checkbox"/>	dc.publisher	University of South Florida St. Petersburg	
<input type="checkbox"/>	dc.title	University of South Florida St. Petersburg student research journal, Vol. 1, Issue 2, article 2 : Article title	
<input type="checkbox"/>	dc.title.alternative	Student research journal (USFSP)	
<input type="checkbox"/>	dc.type	Article	

Administrative

- Access Control
 - People
 - Groups
 - Authorizations
- Registries
 - Metadata
 - Format
- Items
 - Withdrawn Items
 - Control Panel
 - Statistics
 - Import Metadata

Update Refresh

Metadata Template for Student Research Journal

Appendix B

Home > SCHOLARLY WORKS > Student works > University of South Florida St. Petersburg Student Research Journal > Browsing University of South Florida St. Petersburg Student Research Journal by Title

Browsing University of South Florida St. Petersburg Student Research Journal by Title

0-9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Or enter first few letters:

Sort by: **Title** Order: ascending Results: 20

Now showing items 1-10 of 10

- University of South Florida St. Petersburg Student Research Journal, Vol. 1, Issue 1, article 1 : Building vocabulary for reading comprehension
DeCern, Katherine. (University of South Florida St. Petersburg, 2010)
- University of South Florida St. Petersburg Student Research Journal, Vol. 1, Issue 1, article 2 : Preliminary Effects of Light Attenuation on Thalassia Testudinum Sea Grass of Lassing Park, St. Petersburg, Florida
Sarrera, Kira; Hall, Allison; Schleser, Ann (University of South Florida St. Petersburg, 2011-09)
- University of South Florida St. Petersburg Student Research Journal, Vol. 1, Issue 1, article 3 : Modeling a Molecular Dynamic Simulation of the STAT3 Monomer
Ruekberg, Jessica; Kiripoulos, Demetrios; Moore, Kevin; Castill, Deby L.; Hardy, Leon (University of South Florida St. Petersburg, 2011-09)
- University of South Florida St. Petersburg Student Research Journal, Vol. 1, Issue 1, article 4 : Geometric Probability of Mating Success in Horses, Equus ferus caballus
King, Katrina; Hardy, Leon; Castill, Deby L. (University of South Florida St. Petersburg, 2012-01-08)
- University of South Florida St. Petersburg Student Research Journal, Vol. 1, Issue 1, article 5 : Geometric Probability of Mating Success for the Greater Short-nosed Fruit Bat, Cynopterus sphinx
Ford, Krista; Hardy, Leon; Castill, Deby L. (University of South Florida St. Petersburg, 2012-02-06)
- University of South Florida St. Petersburg Student Research Journal, Vol. 2, Issue 1, article 1 : Geometric Probability of Mating Success for the Bottlenose Dolphin, Tursiops truncatus

Search DSpace

Browse

- All of DSpace
 - Communities & Collections
 - By Issue Date
 - Authors
 - Title
 - Subjects
 - By Subject Date
- This Collection
 - By Issue Date
 - Authors
 - Title
 - Subjects
 - By Subject Date

My Account

- Logout
- Profile
- Submissions

Title Browse Listing for Student Research Journal

Appendix C



Home Page of the Student Research Journal in the USFSP Digital Archive

Appendix D



Web Site Promoting the Journal and Linking to the Published Articles in the Digital Archive

Appendix E

The screenshot shows a digital archive page for an article. The header includes the USFSP logo and the title 'Digital Archive'. The breadcrumb trail is: Home > SCHOLARLY WORKS > Student works > University of South Florida St. Petersburg Student Research Journal > View Item.

University of South Florida St. Petersburg Student Research Journal, Vol. 2, Issue 1, article 5 : The Testing and Design of an Arduino Microcontroller Board for the Study of Proxemics

Show full item record

Title: University of South Florida St. Petersburg Student Research Journal, Vol. 2, Issue 1, article 5 : The Testing and Design of an Arduino Microcontroller Board for the Study of Proxemics

Author: Huynh, Thien-Bach; Hardy, Leon; Pezzo, Mark; Wilder, Otis

Abstract: The accurate and anonymous measurement of proxemics in social research can prove to be problematic. The current paper proposes the design and use of an Arduino microcontroller board to record time and date incidents within a predefined spatial distance. Initial testing of the completed prototype proved successful and has implications for use in human factors, marketing, and other experiments requiring such data. The device also demonstrates the ability to be modified with additional sensors and lighting in future designs.

URI: <http://hdl.handle.net/10806/4865>

Date: 2012-10-01

Files in this item

Files	Size	Format	View	Description
Huynh 2012.pdf	1.369Mb	PDF	View/Open	Article

This item appears in the following Collection(s)

- University of South Florida St. Petersburg Student Research Journal

Search DSpace, Browse, and My Account options are visible on the right side of the page.

Listing of All Authors and Title on Article Record

Appendix F

The screenshot shows a metadata submission form. At the top, there is a 'PLEASE NOTE' section with instructions: 'These changes are not validated in any way. You are responsible for entering the data in the correct format. If you are not sure what the format is, please do NOT make changes.' Below this are 'Update' and 'Return' buttons.

Metadata

Element	Name	Value	Language
<input type="checkbox"/>	dc.description.author	author	
<input type="checkbox"/>	dc.description.publisher	SR	
<input type="checkbox"/>	dc.language.iso	en_US	
<input type="checkbox"/>	dc.publisher	University of South Florida St. Petersburg	
<input type="checkbox"/>	dc.title	UNIVERSITY OF SOUTH FLORIDA ST. PETERSBURG STUDENT RESEARCH JOURNAL: THE TESTING AND DESIGN OF AN ARDUINO MICROCONTROLLER BOARD FOR THE STUDY OF PROXEMICS	
<input type="checkbox"/>	dc.title.subtitle	Student Research Journal (SRJ)	
<input type="checkbox"/>	dc.type	ARTICLE	

Buttons for 'Update' and 'Return' are at the bottom of the form. A 'Linkage' button is visible next to the publisher and title fields.

Metadata Supplied for Student Research Journal in the Submission Template

Appendix G



Sample Statistics Page for One of the Journal Articles