Journal Online Submission System (jOSS)

http://journal.international.ucla.edu

International Institute

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Project Title

jOSS - Journal Online Submission System

An online application to manage the academic paper submission and publishing process.

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Relevant Website Links

jOSS - Journal Online Submission System: http://journal.international.ucla.edu
Heritage Language Journal Homepage: http://hlj.ucla.edu
African Arts Journal Submission System: http://africa.international.ucla.edu
African Arts Homepage: http://www.international.ucla.edu/africa/africanarts/index.asp
Language Flagship Results 2012 Submission System: http://flagshipresults2012.international.ucla.edu
Description of Flagship Results 2012 Meeting: http://www.thelanguageflagship.org/business/special-events/aiea-2012
UCLA Center for World Languages: http://www.international.ucla.edu/languages
National Heritage Language Resource Center: http://www.nhlrc.ucla.edu

Summary

jOSS (journal online submission system) is a custom-designed portal for managing all stages of the online academic publication process, from initial paper submission through publication. jOSS is currently in use by three UCLA units: 1) the *Heritage Language Journal* , 2) African *Arts Journal*, and 3) The Language Flagship Results 2012 meeting.

Project Description

jOSS was created in 2010 to meet the needs of the *Heritage Language Journal* (HLJ), an online scholarly journal published by the UCLA Center for World Languages (CWL) and the National Heritage Language Resource Center (NHLRC). From 2003 – 2010, authors submitted papers to HLJ's managing editor via email. Over the years, the manual submission process had become complicated to organize due to the large number of papers submitted in various stages of review and revision, as well as the number of issues in progress simultaneously. The old publishing process was inefficient (Exhibit A).

Exhibit A: Limitations of Old Publishing Process

- Large volume of papers submitted to managing editor via email.
- Multiple issues in progress simultaneously, requiring management in six stages: new submission, internal review, external review, revision, editing, and publishing.
- Unable to track the latest updates and the change requests on the papers.
- Time-consuming process to provide feedback and notifying authors, editors, reviewers, admins, previewers of various stages.
- Difficult to collect statistical information on papers.
- Publishing a new journal issue required support from the information technology group.
- All papers submitted to a single email account.

The *Heritage Language Journal* editors wanted a system that gave personnel control over publishing, editing, and making corrections immediately. jOSS was designed according to the system development life cycle model from initiation to disposition. Requirements were gathered from consulting with the two journal editors and managing editor as well as Center for World Languages staff. Throughout its development, the editors, managing editor, and staff of the Center for World Languages and the International Institute's staff tested the

system; in addition, the Center for World Languages hired testers familiar with publishing but not connected with the journal in order to provide an outside perspective. jOSS's user interface was designed to be intuitive and flexible. The new system was beta tested for several months before going into production. When it was released, old journal issues were migrated into the back end of this new system.

jOSS was released into production in time for a call for papers following the February, 2010 First Conference on Heritage and Community Languages held by NHLRC; the call imposed a deadline of October 2010. Thirty-eight submissions were uploaded to jOSS, a number that would have been impossible to handle without the help of an automated system. Exhibit B lists jOSS's main features.

Exhibit B: jOSS Application System Features

- User Administrative Rights Management
- Paper Details View Management
- Authors Upload Submission Process
- Preview Process
- Review Process
- Editorial Process
- Author's Revision Process
- Status Change Notices
- Custom Email Templates for Authors, Previewers, Reviewers, Editors, Admins
- Notes (Private/Public)
- Track papers in all stages for statistical purposes
- Collect data on readership and preferences on site
- Publish Papers Directly to Online Journal

Submission Process

The submission process includes six stages (Exhibit C). The first stage begins with an author **uploading** his/her paper online to jOSS to be considered for publication. After determining that the paper meets the journal's parameters with regard to theme, length, and a basis in research, the administrator moves the paper to the second stage, the **preview process**, where an assigned editor conducts internal review of the submission. The previewer determines whether the paper should be sent for external review or rejected. If the paper is considered worthy of review it will proceed to the next stage, the **review process**. In this process the editor assigned to the paper finds external reviewers who are experts in the areas covered in the paper to provide feedback and comments to the author. These comments are filed on jOSS. These comments are not available to the author until the editors make a decision about the paper; at that point, the editors file their own comments and the admin pushes the paper to the next stage, the **revision process,** where the author will be able to log into the jOSS system, review the comments submitted, and revise the paper. The paper then enters

the **editorial review process**, where the paper is revised as many times as necessary. The paper is then formatted and, in the **publishing** stage, the final version is uploaded in the **publishing** stage and can be selected for inclusion in the appropriate issue.

Exhibit C: Submission Process
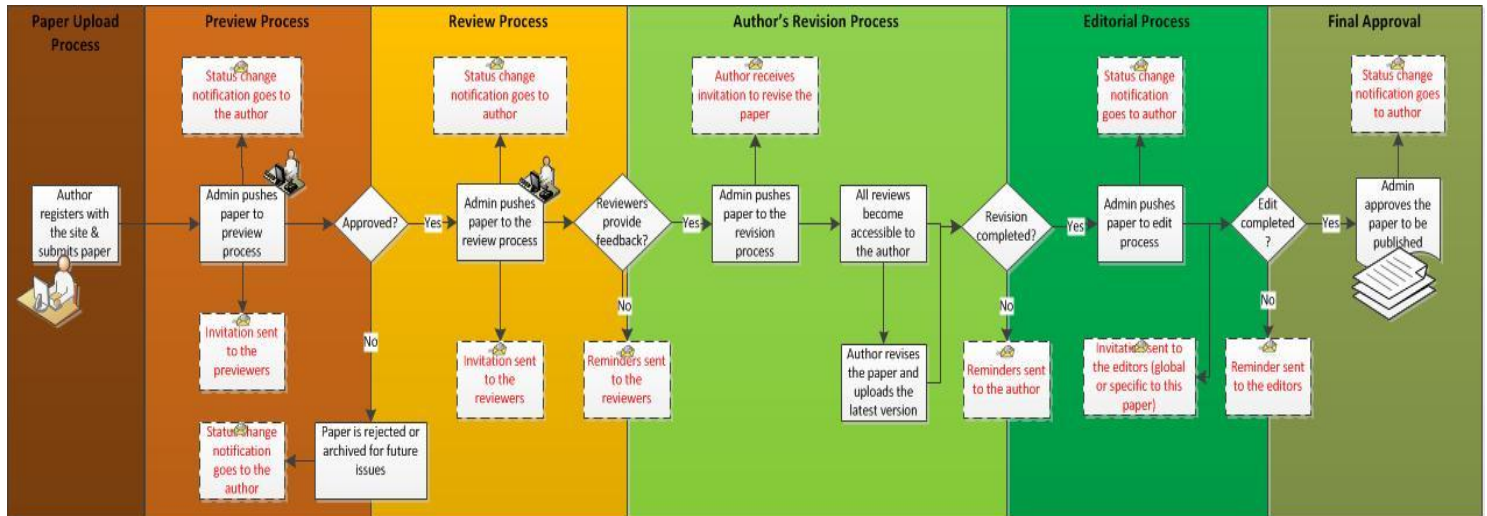
User Rights

Users are given access to jOSS according to their role in the publication. There are five role assignments: (1) Uploader/Reviser (e.g., author), (2) Previewer, (3) Reviewer, (4) Editor, and (5) Admin. The User rights diagram (Exhibit D) shows an example of three papers with various access rights granted. These roles can be assigned globally or via individual papers (Exhibit E).

Exhibit D: User Rights

Exhibit E: User Roles for Papers

Paper Details View

The "paper details" view displays information depending on a user's assigned role (Exhibit F). For example, a permanent editor can see all information about all papers, but a guest editor can only see information about the papers submitted for that editor's issue. Authors can initially see only what they have submitted; when the editors make decisions about the submission (e.g., to send a paper out for external review, to reject or to require revisions or a resubmission), the editors make available the external reviews and the editors' comments. At the same time, other aspects of submissions, such as internal correspondence among editors, is never visible to the authors. All documents, notes, and email messages are archived with a time stamp in the database system.

An especially useful feature that developed during jOSS's beta stage allows overwriting of an older version of a paper. The editors realized that this was necessary when many submissions included data that identified the

author in the "Properties" section of the document. Asking each author to resubmit anonymized papers would have been enormously labor-intensive; moreover, it has become clear that many authors do not know how to remove these data. The "replace file" feature allows substituting a file with a version that is free of identifying data. Allowing only admins to complete this step ensures that authors cannot submit revised papers before they are reviewed.

Exhibit F: Paper Details View

Embedded Email Correspondence

Auto-correspondence email templates have been incorporated (Exhibit G). The auto-generated emails are customizable and can be sent during all paper status changes between authors, previewers, reviewers, and/or editors where applicable.
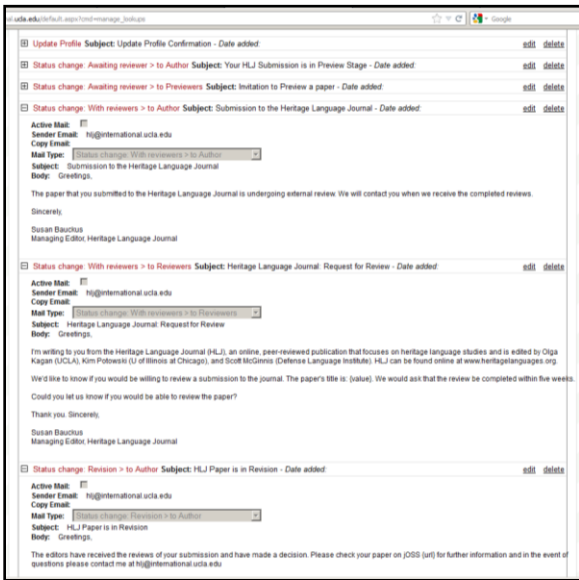
Publish New Issue in the Online Journal Process

jOSS is connected to the "back end" of the journal's website, making online publishing seamless. Exhibit H shows the steps involved in publishing a new journal issue using jOSS. In addition, contributors and their biographies are added and reviewers' names can appear as well. Exhibit I shows the home page of the journal, which displays the latest published issue's table of contents; other issues are available through a drop-down menu located on the green bar across the page. Papers are selected from jOSS and placed in the order called for, and then the issue is published to the online journal.

Exhibit H: Publish New Issue in the Online Journal
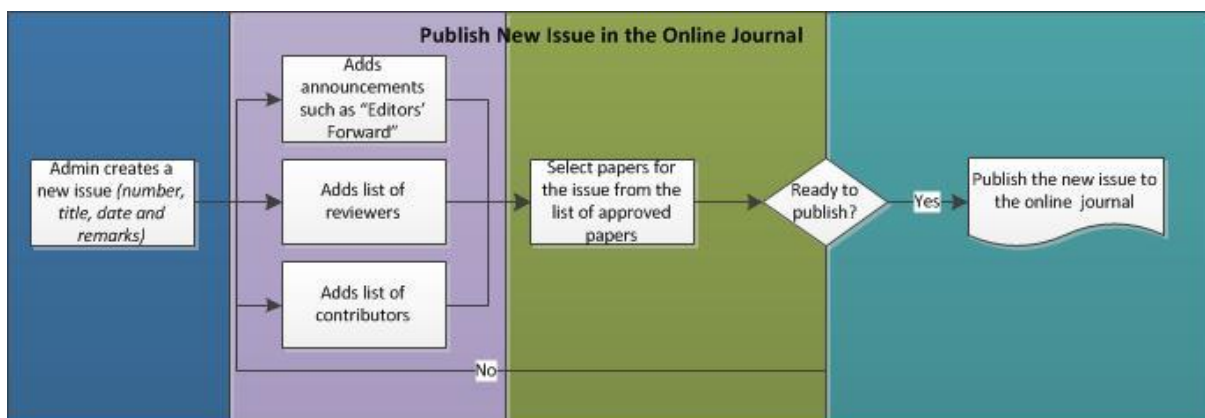
Exhibit I: New Spring 2012 Issue Published to Heritage Language Journal using jOSS

Financial Impact

By reducing the amount of time and resources required to manually review and publish papers for three units, UCLA International Institute's savings estimate is $121,500 annually.

The savings calculation is based on:

150 (author submissions per year for all units) * 6 (steps in approval process) * 3(hours saved per application per step by reducing manual sending of papers for review for all units)* $45 (cumulative average hourly rate for administrators/ department heads).

Key Areas of Benefits

Innovation

jOSS offers several dimensions of innovation:

1) The tools available to users before jOSS allowed for managing published content only; however, most of the work of publishing is done before an article is published. jOSS allows us to keep a record of all

stages of the process from submission onward and accommodates the collaborative nature of peer-reviewed publishing.

2) The system gives users full control over publishing on line, allowing them to make corrections after publication when necessary. This feature, implemented by the International Institute's Information Technology group, is not available in the online academic publishing mechanism available to the University of California.

3) In the past, publishing required assistance from the Information Technology group. Given the many demands on that group, the journal needed a way to publish independently. The publishing mechanism is simple; once all the papers and authors' biographies have been uploaded in the publishing state, an admin with permission need only check a box and then update the volume, after which it appears online.

4) jOSS has components that can be customized for use in other publications, allowing users to participate in designing the portal to suit their business requirements. Two examples where jOSS has been integrated and customized, *the UCLA Flagship Results 2012* (Exhibit J) and *African Arts Journal* (Exhibit K).

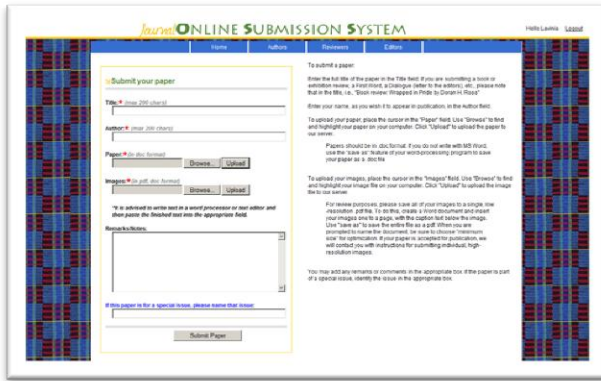**Exhibit J: UCLA Flagship Results 2012 integrated into jOSS**

Exhibit K: African Arts Journal integrated into jOSS

Improvement of Operational Efficiency

Since using jOSS, the *Heritage Language Journal* (HLJ) has become more effective in managing and streamlining the publication process. HLJ's publication rate has increased 150% since the release of jOSS from one issue[1] per year to two or three per year. As the journal has become better known and has published more often, it has received an increased number of submissions, and having a central location for all materials that jOSS provides has become increasingly essential. The system improves communication among journal authors, editors, and reviewers by tracking changes to papers and providing timely responses to requests by authors, previewers, reviewers, and editors.

jOSS also has improved the information available to the journal and its funders about readership. In the past we had a voluntary subscription to the journal. Our subscriber list never exceeded 250 users and we were confident that the journal had many more readers. Since launching jOSS, we have instituted a mandatory but free subscription, requiring readers to log in to read the journal. Our database statistics now shows a total of 1427 subscribers, and our numbers continue to grow with the publication of each additional issue (Exhibit L).

Exhibit L: Heritage Language Journal Subscribers
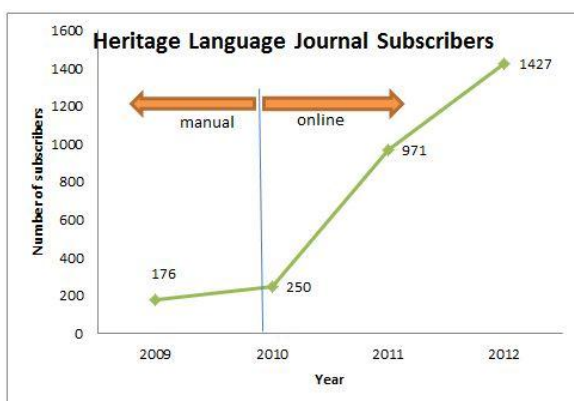
Collaboration

jOSS was developed through collaboration between the UCLA International Institute's Information Technology group, the Center for World Languages, and the National Heritage Language Resource Center. jOSS has successfully been customized twice to meet the need of *African Arts Journal*, UCLA publication, and a non-UCLA scholarly symposium held by The Language Flagship. These uses show jOSS's versatility; the *African Arts Journal* and Heritage *Language Journal* are academic publications, but the Flagship Results 2012 is a symposium and jOSS was used in this instance as a content management system for abstracts. Flagship Results 2012 hopes to publish a proceeding volume of papers based on conference presentations, and at that point we will be able to use jOSS as a publishing vehicle.

Timeline

It took ten months to initiate, develop a system concept, determine requirements, design, develop application system, integrate and test jOSS. The system is in production and currently used by three UCLA units.

Technology Used

On the client side:

JavaScript and jQuery (cross-browser JavaScript Library) are used to improve end user's interactions with the application. Cascading Style Sheets (CSS) has been used to customize the user interface and the navigation. Adobe Illustrator and Photoshop have been used to develop visual elements for the user interface.

On the server side:

.NET framework 3.5 has been used to take advantage of the current technology and scripting libraries offered by Microsoft.

On the backend:

Application is hosted on the Microsoft 2008 Server with IIS 7 web server. For the database, Microsoft's SQL Server 2008 has been utilized.

Quality Assurance:

The application has been tested thoroughly for browser compatibility on different operating systems such as Windows, Mac OS, and IOS and browsers such as Internet Explorer, Chrome, Firefox and Safari to ensure a pleasant user experience.

Customer Feedback

Customer feedback has been compiled from editors of the *Heritage Language Flagship Journal*, *African Arts Journal*, and Language Flagship Results 2012.

Heritage Language Journal Feedback

"jOSS has greatly simplified record keeping. We have been able to keep notes on each paper's submission page, visible only to us, which help us keep track of a paper's status. The ability to overwrite a paper after removing an author's identifying data, and then note that in the "notes" feature, has helped us tremendously. We have made a commitment to publish at least twice a year, and last year we managed to publish three times; this rate of publication would not be possible without jOSS's ability to allow all users access to papers according to their roles. The back end of jOSS also allows us to generate a database of users, giving us a much more accurate sense of our readership."

African Arts Journal Feedback

"As the executive editor of African Arts, in charge of managing the peer review process as well as producing the print journal, I find my job has been immensely simplified by jOSS. Just for starters, having all the information about submissions in a single site accessible from any computer has cut down on material falling through the cracks, and automated responses are a big time-saver.

I particularly like the fact that I can write and modify not only the auto-response emails but also the text on the site, so that as I receive questions from users I can update the instructions myself. Most of our authors and reviewers have found the system easy to use, but we have a substantial number who are simply technophobes and the system is flexible enough that we can create workarounds that enable us to accommodate them. Our editors are also very impressed by the technology group's quick and helpful responses when problems do arise."

Language Flagship Results 2012 Feedback

"Without jOSS, it would have been very difficult to organize the submission and review of abstracts of papers' for Results 2012. jOSS allowed for the collection, review, and communication to those who submitted abstracts of papers for results 2012 to be streamlined and efficient and enabled the results 2012 review committee, which comprised of multiple reviewers all over the country to work together to review and select presenters for Results 2012 remotely. Without jOSS the review process and communication to reviewers would have been much more labor intense and inefficient. We are also planning on using jOSS to compile and review finalized papers for Results 2012 and have no doubt that the jOSS will simplify the management of this process."

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[1] HLJ published more than one issue per year only in one year (2008) before jOSS. In 2011, the first year we published using jOSS, HLJ published three issues; one issue has been published in 2012 and two more are anticipated.