

Information Technology and Libraries (ITAL) Editorial Board Report for ALA Annual 2017 (June)

Background:

Information Technology and Libraries (ITAL) is the refereed journal of the Library and Information Technology Association. It was started in 1968 as the Journal of Library Automation (JOLA). It became ITAL in 1982. It was published in print through 2011. During its print history, it was provided to LITA members as a benefit, and was sold on a subscription basis. Declining subscription and ad revenue led to a review of the publishing model in 2011, and a decision was made to move ITAL to an open-access, online-only model, which took effect at the beginning of 2012.

ITAL is hosted on the Open Journal Systems (OJS) platform, by Boston College (BC) Libraries. BC does not charge for this service: it is offered as part of their support for open-access publishing.

ITAL Editorial Board:

Charge: To serve in an advisory capacity to the editor on the contents of the journal issues; to form the core of referees, reviewing manuscripts submitted for possible publication.

Current Roster:

Mark Dehmlow (mdehmlow@nd.edu) (current term ends 30 June 2018)
Sharon Farnel (sharon.farnel@ualberta.ca) (30 June 2018)
Mark Cyzyk (mczyzyk@jhu.edu) (30 June 2018)
Tod Colegrove (pcolegrove@unr.edu) (30 June 2018)
Sandra Shores (sandra.shores@ualberta.ca) (30 June 2018)
Ken Varnum (varnum@umich.edu) (30 June 2018)
Emily Morton-Owens (emily.morton.owens@gmail.com) (30 June 2017)
Frank Cervone (fcervone@uic.edu) (30 June 2018)
Kelly Sattler (sattler9@mail.lib.msu.edu) (30 June 2018)
Joseph Deodato (jdeodato@rutgers.edu) (30 June 2018)
Bob Gerrity (r.gerrity@uq.edu.au) (ITAL Editor) (30 June 2017)
Michael Witt (mwitt@purdue.edu) (LITA Publications Chair) (30 June 2017)
Jenny Levine (jlevine@ala.org) (LITA Exec. Director)
Thomas P. Dowling (dowlintp@wfu.edu) (Board Liaison)
Mark Beatty (mbeatty@ala.org) (ALA liaison)
Marta Deyrup (Marta.Deyrup@shu.edu) (LITA Acquisitions Editor)

Editor's Report:

This will be my final report as Editor of ITAL, as my term is expiring at the end of the month. LITA will be recruiting shortly for a new Editor.

OJS Update

ITAL was unavailable for several days in April due to a security breach involving the Boston College server that runs the Open Journal Systems platform used by ITAL. No ITAL data was lost or compromised, but the inaccessibility of ITAL content during the outage was obviously a concern. The incident summary provided by Boston College after the event is provided at the end of this report, for information. As a result of the incident, the OJS software was updated to the latest production version, and a number of additional security measures were put in place.

2016 Submission Summary:

49 papers submitted for peer review.

16 accepted for publication (33%)

21 rejected (43%)

12 require revisions (still pending) (24%)

Usage stats:

2016 FT downloads: 83,335

Most-viewed articles 2016:

1. "Evaluation and Comparison of Discovery Tools: An Update," v33no2 (1561 downloads)
2. "A Library in the Palm of Your Hand: Mobile Services in Top 100 University Libraries," v34no2 (1387)
3. "Mobile Technologies & Academics: Do Students Use Mobile Technologies in Their Academic Lives and are Librarians Ready to Meet this Challenge?" v31no2 (1285)
4. "The Next Generation Integrated Library System: A Promise Fulfilled?" v31no3 (1275)
5. "The Next Generation Library Catalog: A Comparative Study of the OPACs of Koha, Evergreen, and Voyager," v29no3 (1227)
6. "Digital Native Academic Librarians, Technology Skills, and Their Relationship with Technology," v32no3 (1205)
7. "Content Management Systems: Trends in Academic Libraries," v32no2 (1078)
8. "Building Library Community Through Social Media," v34no1 (1067)
9. "Reference is Dead, Long Live Reference: Electronic Collections in the Digital Age," v26no2 (1049)
10. "Open Source Wifi Hotspot Implementation," v26no2 (1033)

Most-viewed articles published in 2016:

1. "Lessons Learned: A Primo Usability Study," v35no1 (830)
2. "Transitioning from XML to RDF: Considerations for an effective move towards Linked Data and the Semantic Web," v35no1 (694)

3. "Hitting the Road towards a Greater Digital Destination: Evaluating and Testing DAMS at the University of Houston Libraries," v35no2 (502)
4. "Fulfill Your Digital Preservation Goals with a Budget Studio," v35no1 (397)
5. "Critical Success Factors for Integrated Library System Implementation in Academic Libraries: A Qualitative Study," v35no3 (379)
6. "Editorial Board Thoughts: The Importance of Staff Change Management in the Face of the Growing 'Cloud'," v35no1 (335)
7. "Let's Get Virtual: An Examination of Best Practices to Provide Public Access to Digital Versions of Three-Dimensional Objects," v35no2 (313)
8. "Identifying Key Steps for Developing Mobile Applications & Mobile Websites for Libraries," v35no3 (274)
9. "In the Name of the Name: RDF literals, ER attributes and the potential to rethink the structures and visualizations of catalogs," v35no2 (269)
10. "Library Discovery Products: Discovering User Expectations through Failure Analysis," v35no3 (267)

OJS view counters (since January 2012)

	Abstract	PDF
TOTALS as of Jan. 2014	180,063	243,447
TOTALS as of Jan. 2015	341,169	489,020
TOTALS as of Nov. 2015*	503,990	674,059
TOTALS as of June 2016	526,742	714,433

*ITAL usage reporting changed significantly as of mid-November 2015, with OJS version upgrade introducing more COUNTER-compliant statistical reports and a change in the methodology for tracking downloads.

Directory of Open Access Journals (DOAJ) membership: ITAL's re-application for DOAJ membership was approved in mid-December 2016. Retrospective article-level metadata for ITAL articles was uploaded to DOAJ, and quarterly updated for new articles now happen automatically upon publication of each new issue (in addition to the normal CrossRef updates).

Retrospective scanning:

Journal of Library Automation (JOLA, predecessor title) backfile (v1-14, 1968-1981)

- scanning has been completed
- v1-7, 14 are online
- v8-13 (1975-1980) to be loaded

ITAL backfile (v1-23)

- v20-23 scanning completed, article PDFs created, to be loaded w/metadata (BG to complete by mid July)
- v1-v19 not yet started

Questions/Issues for Consideration by ITAL Editorial Board and/or LITA Publications Committee:

- how to retain ITAL's connection to LITA/LITA members
- quality of submissions (low barrier to submission results in high volume of submissions, including many of low quality, which creates review bottleneck)
- hosting services provided by BC, review and consider alternatives
- need for design refresh
- need to complete online archive

Communication from BC Libraries regarding OJS outage in April:

Dear Journal Manager,

I'm sure you have many questions about the recent OJS outage. This follow-up email provides more details on what happened, what was done to resolve the issue, and what steps we are taking going forward to prevent further outages.

What happened?

On Tuesday, April 18, we received a notification that the server that hosts our OJS application had a full disk. Further investigation found that a process called minergate-cli was using nearly all of the computer's power.

What happened—a more technical description

On April 18, at 2:11 pm, someone from outside the BC campus was able to access the server through the OJS system. They were able to upload a bit of code that created a web shell on the server and then installed a currency mining application. (Cryptocurrency mining is associated with Bitcoin and involves using computer power to verify and record transactions, which creates the Bitcoin currency. While one small server on its own does not produce substantial results, combining the computing power of many can.)

What was done?

When we realized that the server had been compromised, we contacted the university's IT Security department and the decision was made to take the server offline. Over the next several days Luke Gaudreau in the Libraries Systems Department, who manages our OJS installation, worked with IT to upgrade OJS and move it to a new server. He migrated OJS data to the new server and cleaned files that were part of the compromise. As part of this process changes were made on the new server, including:

- More restrictive firewall rules
- Secure web pages by default (using https instead of http)
- Security improvements to the server configuration
- Removing unused services

On Friday, once the new server was up and running, IT ran a security vulnerability scan to ensure that all was well. In total, the system was down for about 3 full days: from Tuesday, April 18, at 4:50 pm, to Friday, April 21, at 5:23 pm.

Was data at risk?

IT made a thorough analysis of the event and are able to confirm that the attacker did not access the root account nor the accounts of any users. Everything appears to have been contained to the web shell mining session. Similarly, they found no evidence that BC data/credentials were viewed, exfiltrated, or compromised.

What else happened?

On the evening of Sunday, April 23, users reported seeing a "Database connection error" message when attempting to access journals. This was reported to the Systems Department the following morning and they were able to fix the problem in about 10 minutes. We believe this outage was caused by crashed database tables, which sometimes occurs when a database has been migrated.

What's being done to prevent this from happening again?

- We've installed the latest current stable release of OJS 2.x.
- We've improved security on our new server as described above.
- We're following the security steps recommended by PKP, the developers of OJS.
- We've documented the process of safely migrating OJS to a new server.
- We've improved the monitoring of our system by using UptimeRobot, a monitoring application that checks the home page of our OJS site and will notify us immediately if the site goes down.

I want to thank you again for your understanding and your patience while we resolved this issue. If you have any questions about the recent outage or concerns about future issues, please don't hesitate to contact us.

Best regards,

Nancy

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