Enhancing the Institutional Repository: Increasing Access to Academic Articles and Manuscripts through Integration of Publisher APIs
The University of Florida Libraries are engaged in two projects that demonstrate collaboration between academic libraries and publishers for interoperability between information systems that benefit for both.

- Elsevier Pilot Project
- CHORUS Pilot Project
Portfolio Analysis: UF Articles by Publisher 2016

Bubble size represents number of UF-authored articles published in 2016

- Elsevier
- Springer Nature
- Wiley
- Taylor & Francis
- Wolters Kluwer
- Sage
- Oxford University Press
- Public Library of Science
- American Chemical Society
- IEEE

Pilot participant and CHORUS member publisher

CHORUS member publisher (as of January 2016)
UF/Elsevier Project - Phase I: Implement the Elsevier API Infrastructure to Deliver Enhanced Repository Services

• Increase comprehensiveness of coverage of Elsevier-published content by UF authors through the IR@UF.

• Provide subscribers with access to the best available (published) version through the IR@UF.

• Integrate published articles with other IR@UF content.
Implementation Using the IR@UF on the SobekCM Platform
Elsevier APIs for Institutional Repositories

Content Identification API
- IR@UF retrieves article metadata

User Verification API
- Confirms eligibility for full-text on ScienceDirect

Article Retrieval API
- Central collection of impact metrics on ScienceDirect
- Eligible user linked to full-text ‘best (published) version’
- Article access status indicated on results page

Adapted from Spears, IFLA 2016
View of Results with Elsevier Articles from IR@UF
Prevention of Atrial Fibrillation by Bucindolol Is Dependent on the Beta1389 Arg/Gly Adrenergic Receptor Polymorphism

| Links:          | (external resource | internal citation) |
|-----------------|--------------------|
| Publication Date:| 2013-08-31         |
| Creator:        | O'Connor, Christopher M. (author) |
|                 | Fuzzat, Mona (author) |
|                 | Davis, Gordon (author) |
|                 | Abraham, William T. (author) |
|                 | Anand, Inder S. (author) |
|                 | Liggett, Stephen B. (author) |
|                 | Bristow, Michael R. (author) |
|                 | Section of Cardiac Electrophysiology, University of Colorado Denver, Denver, Colorado (host institution) |
|                 | Aleong, Ryan G. (author) |
|                 | Sauer, William H. (author) |
|                 | Murphy, Guinevere A. (author) |
|                 | Port, J. David (author) |

<table>
<thead>
<tr>
<th>Publisher:</th>
<th>American College of Cardiology Foundation. Published by Elsevier Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format:</td>
<td>Pages 338-344</td>
</tr>
<tr>
<td>Subjects:</td>
<td>Arrhythmia, genetics, Norepinephrine, Heart Failure, beta adrenergic receptors</td>
</tr>
</tbody>
</table>

Source Institution: American College of Cardiology Foundation. Published by Elsevier Inc.
UF/Elsevier Project - Goals and Discoveries

Phase I Goals:
• Metadata and links for ~32,000 articles by UF authors in IR@UF from 1949 - 2017
• Indexing based on metadata, including abstracts

Phase I Discoveries:
• More gold OA publishing than anticipated (601 articles by 1,443 unique UF authors between 2009 and early 2016)

Phase II Goals:
• Streaming final articles or accepted manuscripts (around 3,000) to IR@UF
• Indexing based on metadata and full-text
• Learning from usability testing
UF/Elsevier, Phase II: Refine the API Infrastructure and Expand Enhanced Repository Services:

- Provide an access option for users without a subscription: viewing of the post-embargo accepted manuscripts (2013 forward).
- Offer full text searching through the IR@UF, with links to the published article on ScienceDirect.
- Usability testing by Elsevier and UF.
- Research on open access publishing by UF authors and use of Elsevier metadata for other University purposes, including compliance.
- Notification of content to authors.
Diversity, abundance and community structure of ammonia-oxidizing archaea and bacteria in riparian sediment of Zhenjiang ancient canal

Accepted Manuscript
Diversity, abundance and community structure of ammonia-oxidizing archaea and bacteria in riparian sediment of Zhenjiang

The Authors: Xiaobong Zhou, Yuming Li, Jinping Zhang, Biao Liu, Mingyuan Wang, Yunde Zhou, Zhijun Liu, Zhenli He

* School of the Environment and Safety Engineering, Jiangsu University, Zhenjiang, Jiangsu, 212013, China
* Faculty of Environmental and Municipal Engineering, Hunan University of Urban Construction, Changsha, 410076, China
* University of Florida, IFAS, Indian River Research and Education Center, Fort Pierce, FL 34945, USA.

*The corresponding author: Xiaobong Zhou, PhD
 Telephone and fax numbers: Tel: +86-511-8878-0955, Fax: +86-511-8878-0955
 E-mail address: xzhou0014@ufl.edu (X. H. Zhou)
 Address correspondence: School of the Environment and Safety Engineering, Jiangsu University, 72, Xia Fu Road 801, Zhenjiang, Jiangsu, 212013, P.R. China
Benefits of Collaboration Through Linking

• Maximizing research impact for articles by UF authors
• Delivering the best available (published) version on ScienceDirect
• Displaying the search results with data sets and related content in the IR@UF and the published article with links to related content on ScienceDirect
• Assuring the reliability and trustworthiness of content
Other Benefits of Collaboration

• Collect information without burden on UF faculty publishing in Elsevier journals

• Facilitate University oversight of compliance with public access mandates

• Achieve cost savings and efficiencies for the Libraries and UF through automation

• Test and refine Elsevier APIs to provide smooth scalability of process with future academic collaborators

• Improve understanding of publisher and academic library perspectives and address constraints inherent in these roles
Challenges

• Identification of UF authors with existing metadata
  ➢ Need reliable identifiers like ORCID
  ➢ Funders and publishers should require use of standard identifiers

• Arriving at a common understanding of distinctive approaches and unique roles for content provision by publishers and academic libraries

• Adaptation of unique IR@UF platform (SobekCM) with Elsevier APIs
Contact

Todd Digby
University of Florida
digby@ufl.edu
@todddigby

Link to UF / Elsevier search
http://ufdc.ufl.edu/ielsevier