

The Library-Led Research Information Management System at Oklahoma State University: Collaborations and Challenges

Clarke Iakovakis and Megan Macken

Oklahoma State University Libraries

CNI: Coalition for Networked Information

March 28, 2022



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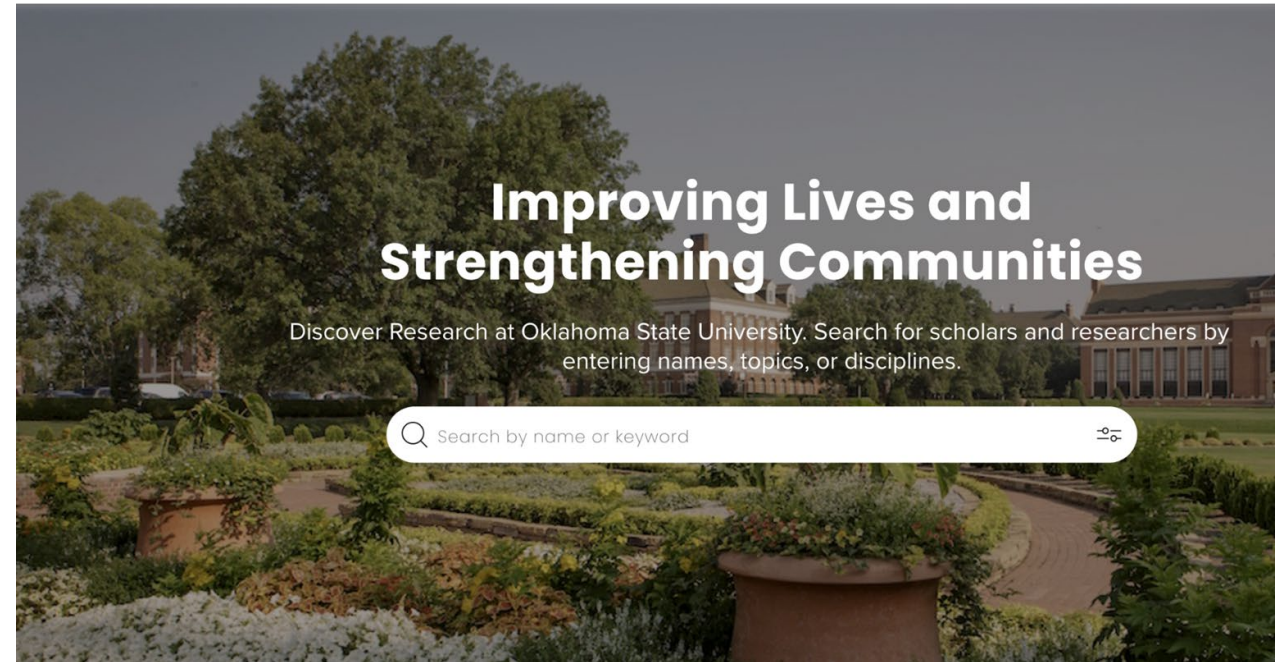


Research Information Management

- A Research Information Management System (RIM System) is a software platform for the collection, storage, and linking together of metadata related to faculty service, grants, teaching, and scholarly activities.
- A single point of access for data typically spread across multiple internal and external platforms
- Save time and increase the accuracy of university reporting
- Help researchers, funders, and members of the public identify expertise within the university, and enable faculty members to communicate their research focus and activities more effectively

RIM System implementation at Oklahoma State

- Symplectic Elements implementation led by OSU Library from 2019 in partnership with IT and other university staff
- Library managed publications data harvesting
- IT configured single sign-on and add web address to OSU domain
- Three other data feeds come from databases in the university's Enterprise Resource Planning system, Ellucian Banner
 - Personnel information (Human Resources)
 - Grants (Office of Grants & Contracts Financial Administration)
 - Courses taught (Registrar)



<https://experts.okstate.edu/>



Data security & privacy

- OSU IT asked a number of questions from the outset related to data storage, architecture, and security
 - Satisfied with the responses, OSU opted to contract the vendor to host the data
- The contract stipulates that the university retains ownership over all data, and the vendor will not provide the data to any third parties, and that our data would be destroyed upon termination of the agreement
- Faculty users can set any object linked to them to “private” or “internal,” and can also control the privacy level of their profiles
- Elements provides for a number of “roles” within the system with flexibility over who has access to what data
 - Access to the underlying reporting database is held by a small number of administrators, who can create custom SQL queries and make them available to select users
 - “Statisticians” can run these reports over the university as a whole, or different colleges or departments, based on their permissions



Collaboration: Library, IT, data owners



- Each member brings specialized skills and knowledge
- Librarians
 - Project management
 - Experience with data mapping, building data structures, creating crosswalks, managing metadata
 - Knowledge of the RIM System
 - Contacts with faculty, administration & users (and faculty members ourselves)
 - Translating information & clarifying goals between team members
- IT
 - Technical knowledge, writing specialized queries to extract data from Banner
 - Reshaping data into format required for import to Elements
 - Creating FTP process for placing data on Symplectic servers and retrieving log files
- Data owners
 - Knowledge of what data fields are available, it's completeness & accuracy, privacy considerations



HR Feed

- Elements is a private system by default; and only users who are on the HR feed will have profiles, and only people currently active at the university can log-in.
- The HR feed is generated by a query to Banner, adding individuals to the file based on their employee classification codes
- Referred to confidentiality flag in Banner to keep certain people off the feed
- Deposited nightly on Symplectic's servers to be picked up and run, updating data & reflecting changes

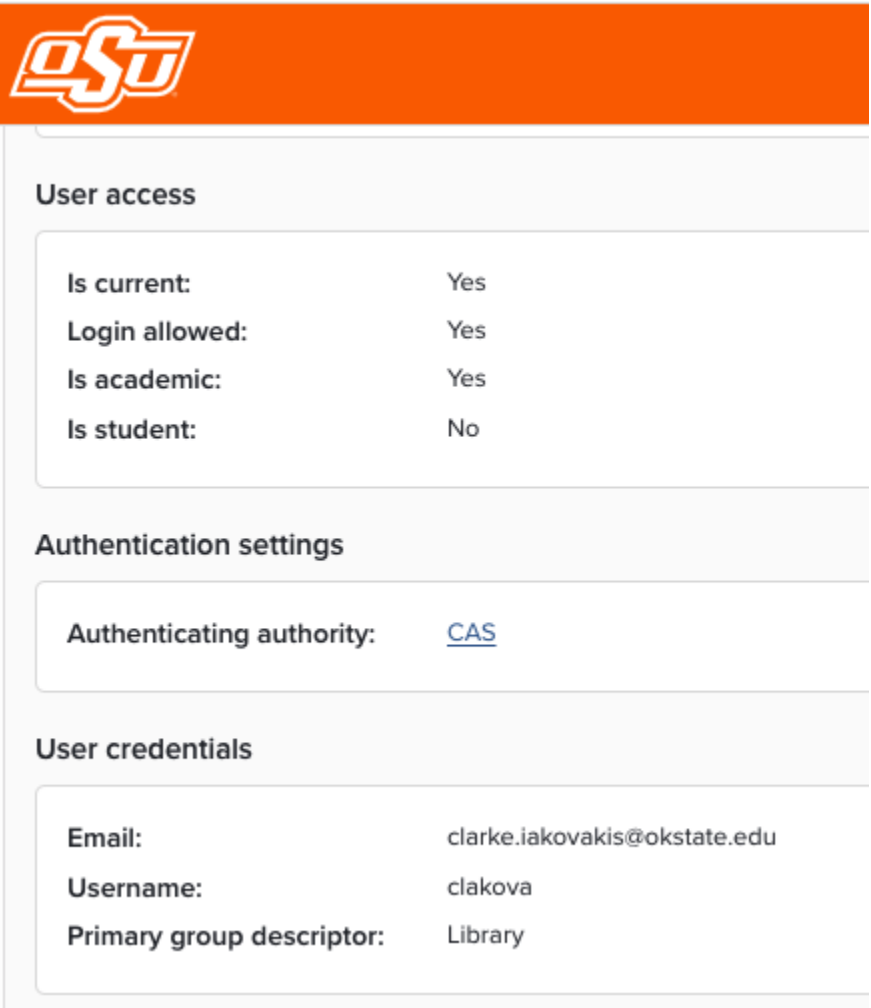


By group hierarchy

- ▼ [Oklahoma State University](#)
 - ▶ [College of Arts & Sciences](#)
 - ▶ [College of Education & Human Sciences \(EHS\)](#)
 - ▶ [College of Engineering, Architecture & Technology](#)
 - ▶ [College of Veterinary Medicine](#)
 - ▼ [Division of Agricultural Sciences & Natural Resources \(DASNR\)](#)
 - ▶ [Ag Research](#)
 - [Ferguson College of Agriculture](#)
 - [Agricultural Economics](#)
 - [Agricultural Education, Communication & Leadership](#)
 - [Animal & Food Sciences](#)
 - [Biochemistry & Molecular Biology](#)
 - [Biosystems & Agricultural Engineering](#)
 - [Entomology & Plant Pathology](#)
 - [Horticulture & Landscape Architecture](#)
 - [Natural Resource Ecology & Management](#)
 - [Plant & Soil Sciences](#)
 - [Oklahoma Cooperative Extension Service](#)
 - ▶ [Edmon Low Library](#)
 - [Information Technology](#)
 - [Office of the Provost & Senior Vice President](#)
 - [Office of the Vice President for Research](#)
 - [School of Global Studies & Partnerships](#)
 - ▶ [Spears School of Business](#)



Adding and modifying HR Feed data



The screenshot shows a user profile page with an orange header containing the OSU logo. The page is divided into three sections: 'User access', 'Authentication settings', and 'User credentials'. Each section contains a list of attributes and their values.

User access	
Is current:	Yes
Login allowed:	Yes
Is academic:	Yes
Is student:	No

Authentication settings	
Authenticating authority:	CAS

User credentials	
Email:	clarke.iakovakis@okstate.edu
Username:	clakova
Primary group descriptor:	Library

- Academic home department - not as straightforward as it would seem
 - Tenuring/administrative differences
- Exceptions: People who aren't on the HR feed by default
 - Created a custom file that is appended to the main HR file before sending to Symplectic
 - Allows us to overwrite certain values, such as active status

Link from Directory to Experts profile page

- IT built an application that queries the Experts Public profile page whenever a user lands on a person's directory page, and will add a URL to that page as well as their photo

CLARKE IAKOVAKIS

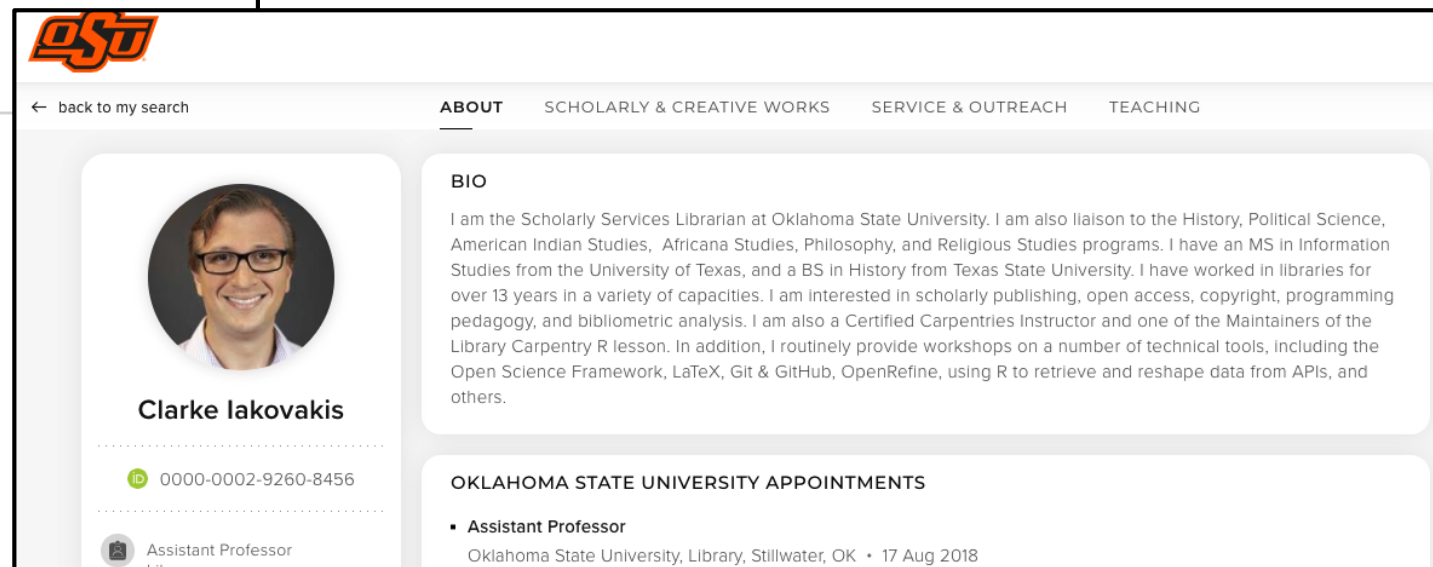
LIBRARY

Ast Prof

EDMON LOW LIBRARY
RESEARCH LIBRARY SERVICES
STILLWATER, OK 74075
Phone: [405-744-9743](tel:405-744-9743)

clarke.iakovakis@okstate.edu

For more details see their [Expertise Profile](#).



The screenshot shows a web profile for Clarke Iakovakis. At the top left is the OSU logo. Below it is a navigation bar with links: "back to my search", "ABOUT", "SCHOLARLY & CREATIVE WORKS", "SERVICE & OUTREACH", and "TEACHING". The profile features a circular headshot of Clarke Iakovakis, a woman with glasses. Below the photo is her name "Clarke Iakovakis" and an ORCID iD "0000-0002-9260-8456". A small icon and the text "Assistant Professor" are visible below the ORCID iD. To the right of the photo is a "BIO" section with a paragraph of text: "I am the Scholarly Services Librarian at Oklahoma State University. I am also liaison to the History, Political Science, American Indian Studies, Africana Studies, Philosophy, and Religious Studies programs. I have an MS in Information Studies from the University of Texas, and a BS in History from Texas State University. I have worked in libraries for over 13 years in a variety of capacities. I am interested in scholarly publishing, open access, copyright, programming pedagogy, and bibliometric analysis. I am also a Certified Carpentry Instructor and one of the Maintainers of the Library Carpentry R lesson. In addition, I routinely provide workshops on a number of technical tools, including the Open Science Framework, LaTeX, Git & GitHub, OpenRefine, using R to retrieve and reshape data from APIs, and others." Below the bio is a section titled "OKLAHOMA STATE UNIVERSITY APPOINTMENTS" with a bullet point: "Assistant Professor" followed by "Oklahoma State University, Library, Stillwater, OK • 17 Aug 2018".



Grants Feed

- Grants & Financial Contracts Administration (GCFA) accounting data
- Grants feed team: GCFA accountant, Campus IT software services manager, Clarke/Megan
- Only one data content expert
- Weekly feed

OKLAHOMA STATE UNIVERSITY

ADMINISTRATION AND FINANCE

FINANCIAL STATEMENTS INCENTIVE PLANS POLICIES AND PROCEDURES CONTACT US

Home / Grants & Contracts Financial Administration

GRANTS & CONTRACTS FINANCIAL ADMINISTRATION

Welcome,


Grants & Contracts Financial Administration (GCFA) serves the OSU research community by providing guidance, fund set-up, post-award services, audit and financial compliance support, and general assistance for externally-funded/sponsored agreements and contracts. See [OSU Policy & Procedures 3-0251](#) (Grants and Contracts Financial Administration) for more information.

How can we help you?

I AM HERE TO...


- Contact GCFA Staff
- Pay GCFA Invoice
- View Current and Historical Rates
- Request Transfer of Working Funds
- Complete Annual Subrecipient Questionnaire
- Complete Unrelated Business Income Questionnaire
- View Internal and External Reports

Resources




Compliance

Affirmative Action, Conflict of Interest, Fly America and more...



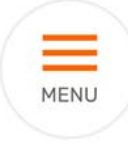
Institutional Data

Financial Statements, Disclosure Statements, IRS Information and more...




Reports


Research Reports, HERD Survey and more...



Sponsored Programs



Stores



Unrelated Business Income



Grants Feed

- Example: NIH Grant - Phase II CoBRE (Oklahoma Center for Respiratory and Infectious Diseases)
 - mentoring four Phase II project leaders to become NIH-funded independent investigators
 - recruiting and mentoring replacement project leaders after the current Phase II project leaders rotate out after the initial 2-3 years of support
 - Dozens of subaccounts or “funds”

Grants Feed

Project Funding Information for 2021

Total Funding **\$2,233,766** Direct Costs **\$1,953,840** Indirect Costs **\$672,193**

Year	Funding IC	FY Total Cost by IC
2021	NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES	\$2,233,766

Sub Projects

Export

Project Number	Sub	Principal Investigator(s)/ Project Leader(s)	Organization	Fiscal Year	Admin IC	FY Total Cost by IC
Animal Model Core						
5P20GM103648-09	6038	HINSDALE, MYRON E	OKLAHOMA STATE UNIVERSITY STILLWATER	2021	NIGMS	\$239,330
Molecular Biology Core						
5P20GM103648-09	6040	LIU, LIN	OKLAHOMA STATE UNIVERSITY STILLWATER	2021	NIGMS	\$323,288
Administrative Core						
5P20GM103648-09	6037	LIU, LIN	OKLAHOMA STATE UNIVERSITY STILLWATER	2021	NIGMS	\$1,193,379
Validation of a naturally-occurring animal model for SARS-CoV-2 infection						
5P20GM103648-09	9162	MILLER, CRAIG ANDREW	OKLAHOMA STATE UNIVERSITY STILLWATER	2021	NIGMS	\$240,655
Immunopathology Core						
5P20GM103648-09	6039	RITCHEY, JERRY W	OKLAHOMA STATE UNIVERSITY STILLWATER	2021	NIGMS	\$237,114

The screenshot shows the OSU Grants Feed interface. At the top, there is a navigation bar with the OSU logo and a user profile for Lin Liu. Below the navigation bar, there is a breadcrumb trail: < RETURN TO THE GRANTS PAGE > Phase II CoBRE (Oklahoma Center for Respiratory and Infectious Diseases). The main content area is divided into several sections:

- Grant:** A section with a "Labels" subsection that states "There are no labels on this grant. [Add labels](#)".
- Data sources:** A section with a yellow warning banner that reads: "This grant cannot be modified, as it has been fed from an external system. If you find any incorrect data, please use the Help button to contact Experts Directory Support." Below this, there is a "GCFA Grant" entry with a "Set as preferred record" button. The grant details include:
 - D: G50002180
 - Grant title: Phase II CoBRE (Oklahoma Center for Respiratory and Infectious Diseases)
 - Funder name: National Institutes of Health
 - Institution: OSU for Veterinary Health Sciences
 - Cumulative amount: USD 8,023,568.57
 - Start date: 16 Jul 2018
 - End date: 30 Jun 2022
 - Funder reference: P20GM103648
 - Funder code: A19015709
 - Funder type: Federal
 - Chart: 5
 - Status: Active
- GCFA Grant Fund:** A list of multiple "GCFA Grant Fund" entries, each with a plus sign icon to its right.



Grants Feed

- User ticketing system built Qualtrics that generates a request in the campus IT ticketing system
- Feed runs weekly – updates are not immediate

The screenshot shows the website header with the OSU logo and "EDMON LOW LIBRARY & Branch Libraries". Navigation links include "Research Tools & Collections", "Help & Services", "Study Spaces & Computers", "About The Library", and "Chat". A search bar is in the top right.

The main content area is titled "Experts Directory: Contact OSU Experts Directory Support". It includes a note: "If the form below does not load correctly, [click here or scan the QR code on the left.](#)"

The form is titled "Contact OSU Experts Directory Support" and contains the following fields:

- First Name *
- Last Name *
- OSU Email Address *

At the bottom of the form is a black button with a white right-pointing arrow.

On the left side of the page, there is a "Menu" section with links: Home, Getting Started, Contact OSU Experts Directory Support, FAQ, and Workshops. Below that is a "Quick Links" section with a list of links: Experts Directory Home, For Researchers, For Administrators, For Power Users, Contact Support, and FAQ. At the bottom of the left sidebar, there is a QR code with the text "Scan the QR code to contact support." below it.

At the bottom right of the page, it says "Powered by Qualtrics".

Teaching Feed

- Student Information System (SIS)
- Teaching feed team: Assistant registrar, two Campus IT application developers who all regularly work with the data, Clarke/Megan
- Dynamic data: instructors, semester length, enrollment
- Feed runs three times per year after semester has ended
- Local data not in SIS

The screenshot shows the elucian system interface. At the top, there are navigation links: Student, Registration, Select a Term, and Browse Classes. Below this is a search results table for the Spring 2019 term, filtered by instructor Gilliam, Lyndi. The table lists three classes: Master's Research, Special Problems, and Advanced Equine Medicine I. A modal window titled 'Class Details for Advanced Equine Medicine I Veterinary Medicine 7771 0' is open, showing details for Term 201920 and CRN 30716. The details include associated term, CRN, campus (OSU-Veterinary Medicine), schedule type (Lecture), instructional method (Traditional), section number (0), subject (Veterinary Medicine), course number (7771), title (Advanced Equine Medicine I), credit hours (1), and grade mode (No Section specified grade mode, please see Catalog link below for more information).

The screenshot shows the 'Links (2)' section of the system. It displays two user associations: 'Associated with BURBA, Daniel J.' and 'Associated with GILLIAM, Lyndi L.'. Below this is a section titled 'Link OSU Experts Directory users to this teaching activity' with instructions: 'Add a user by typing their name in the textbox below (type their surname first and then their first name). Then, select the relationship type and click on the add button to associate a user with this teaching activity.' There is an empty text input field below the instructions.



Conclusion

- Similar processes for configuring Human Resources, Grants, Teaching feeds, but complex, dynamic data with different stakeholders
- Library led the project and guided communication, workflows, and decision making
- Respond to faculty users and users in administration
- Nuances of data structure impact reporting, potentially influencing faculty careers and reputations of departments – essential to develop process for users to correct inaccuracies



Thank You

- Clarke Iakovakis, Scholarly Services Librarian, clarke.iakovakis@okstate.edu
- Megan Macken, Digital Resources & Discovery Services, megan.macken@okstate.edu
- OKState Experts Directory support site: <https://info.library.okstate.edu/experts>
- Experts Directory (public profiles): <https://experts.okstate.edu/>