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

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CNI: Coalition for Networked Information
March 28, 2022

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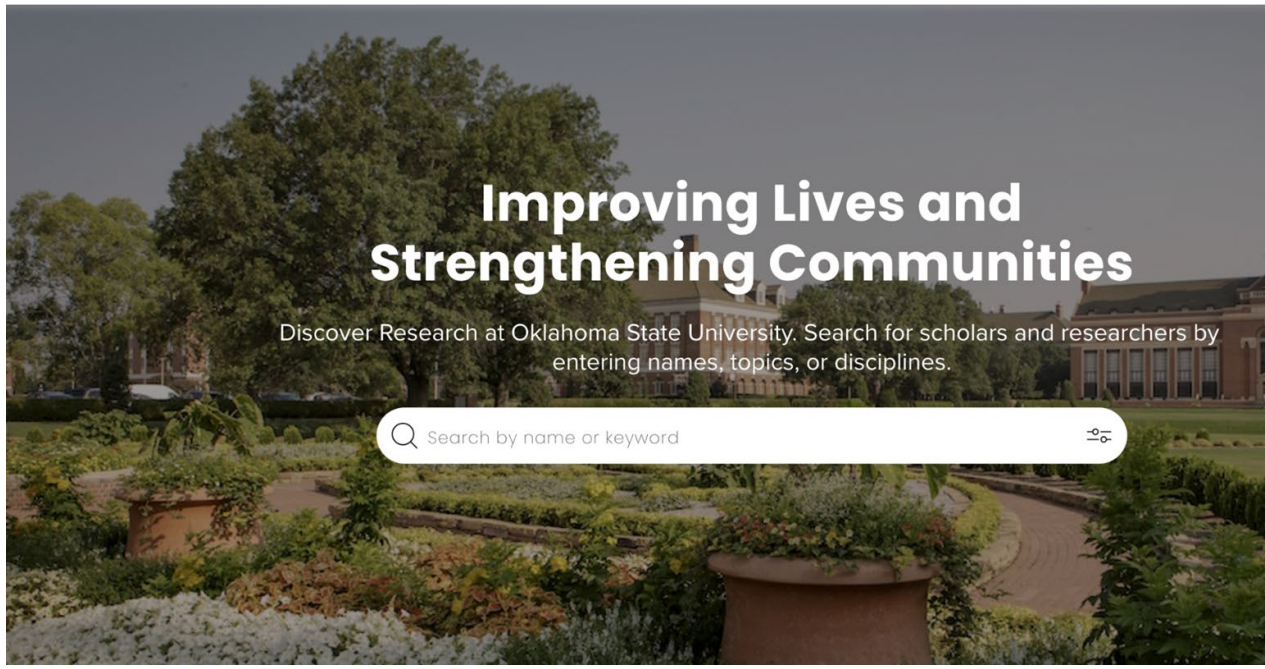
Research Information Management

- 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

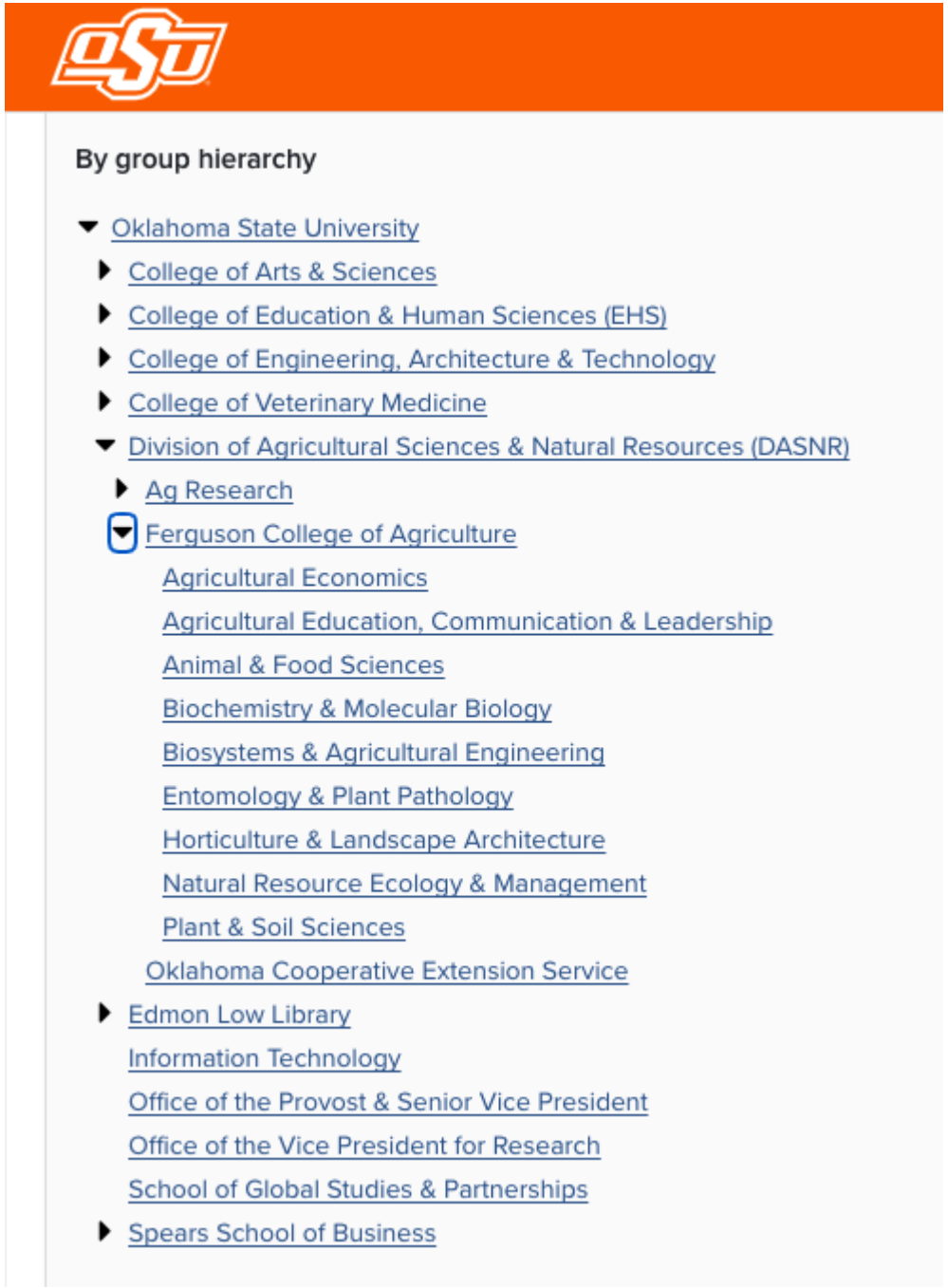
- OSU IT asked a number of questions from the outset related to data storage, architecture, and security
  - Satisfied with the responses, OSU opted to contract the vendor to host the data
- The contract stipulates that the university retains ownership over all data, and the vendor will not provide the 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 own

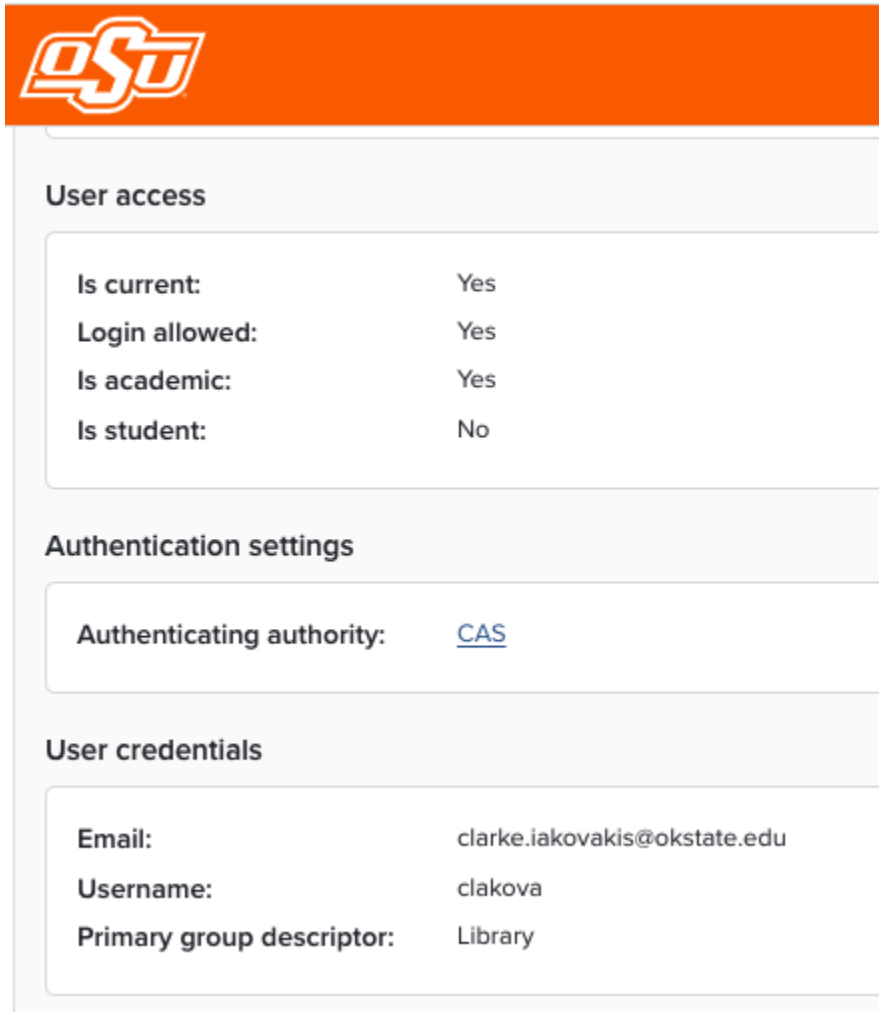
- Each member brings specialized skills and knowledge
- Librarians
  - Project management
  - Experience with data mapping, building data structures, creating crosswalks, managing metadata
  - Knowledge of the RIM System
  - Contacts with faculty, administration & users (and faculty members ourselves)
  - 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



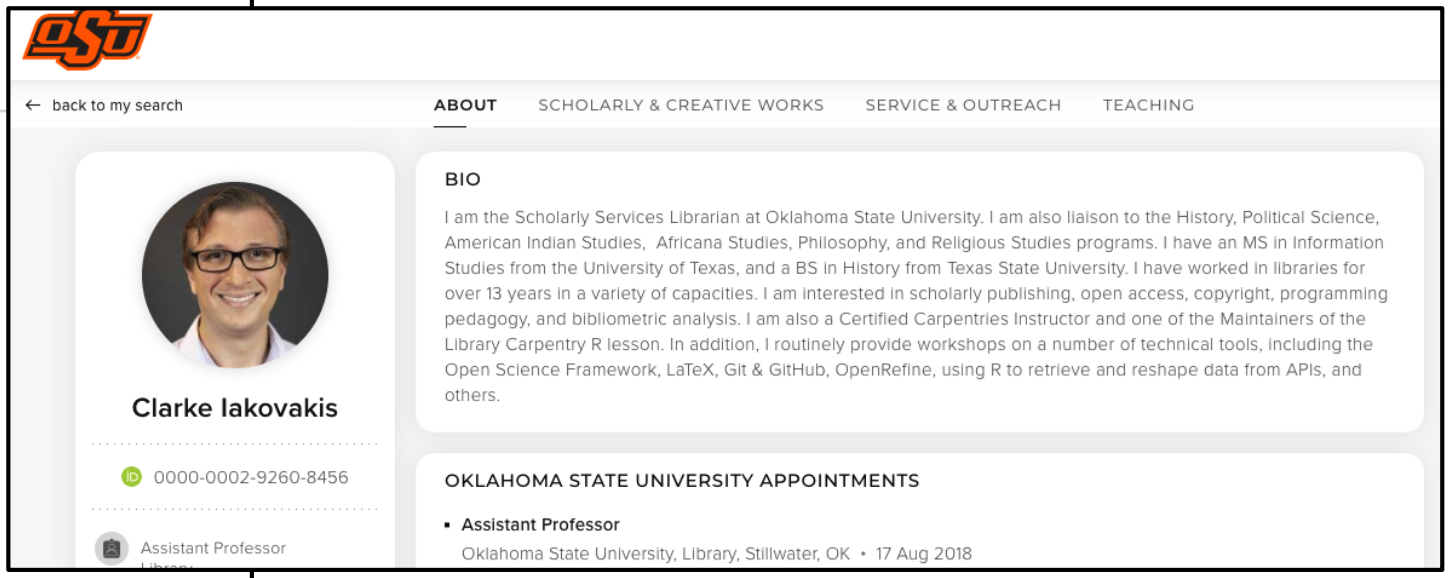
Adding and modifying HR Feed data



- 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

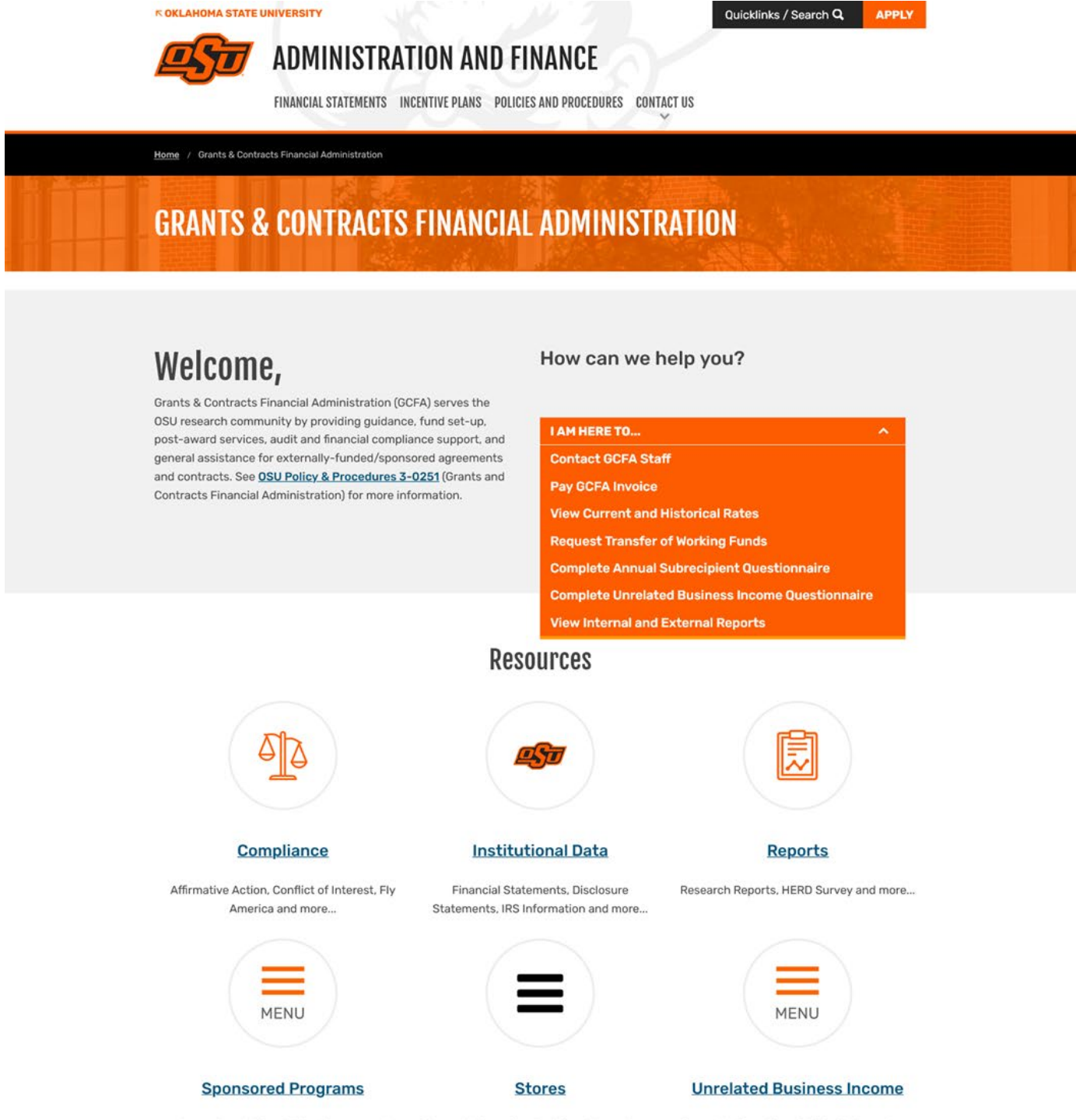
Link from Directory to Experts profile page

- 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



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



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

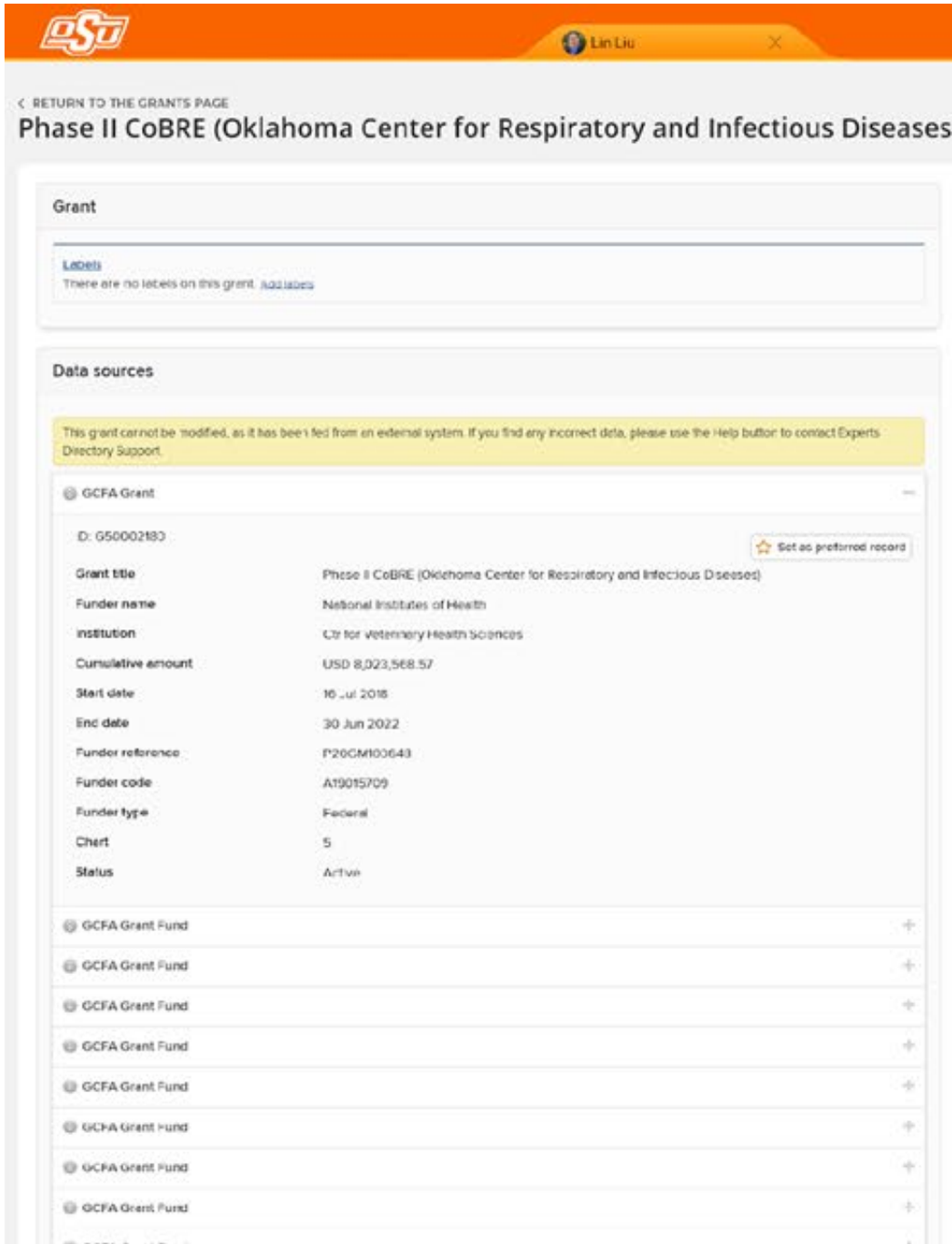
Total Funding	Direct Costs	Indirect Costs
$2,233,766	$1,953,840	$672,193

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

Sub Projects

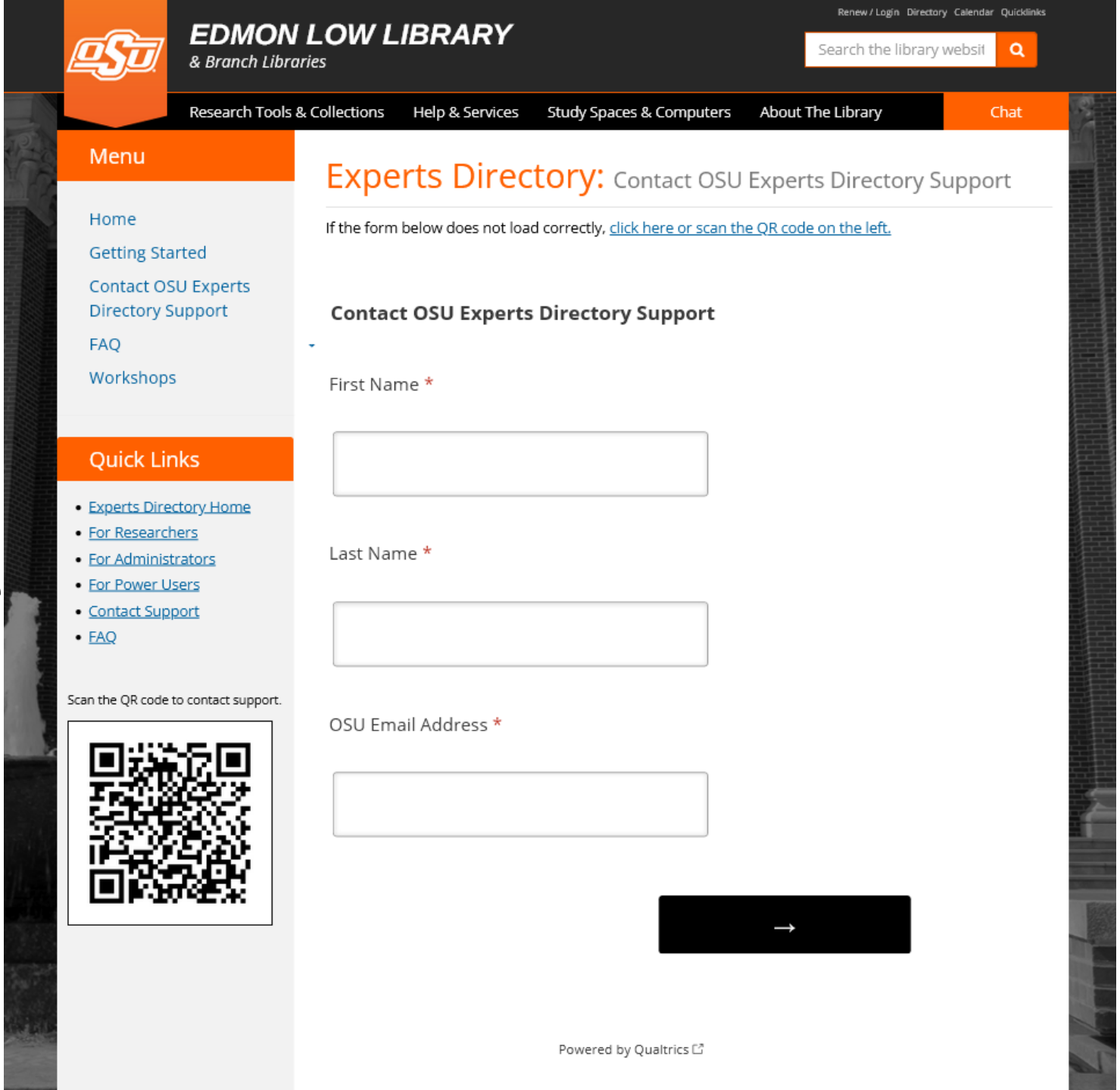
Export

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*



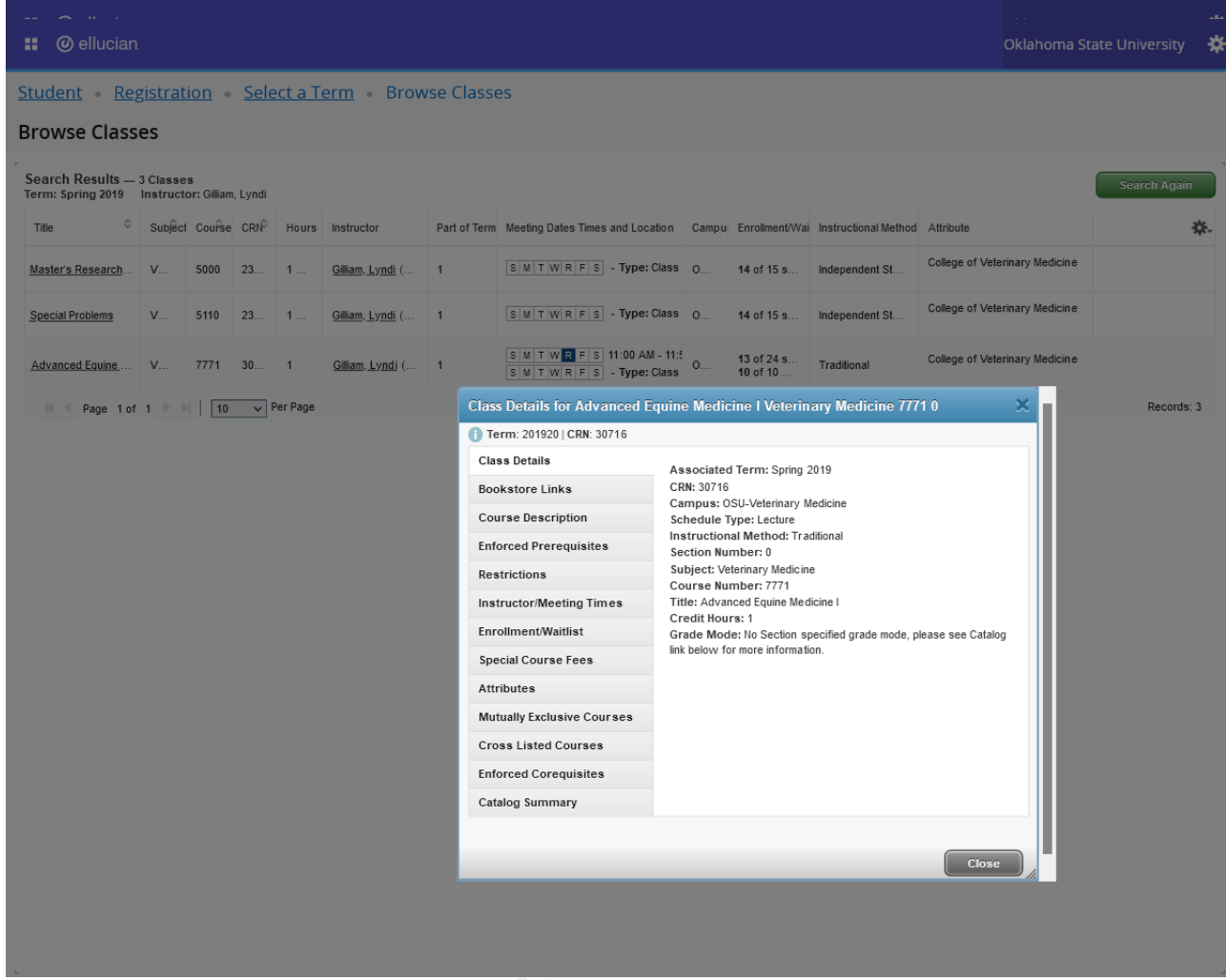
Grants Feed

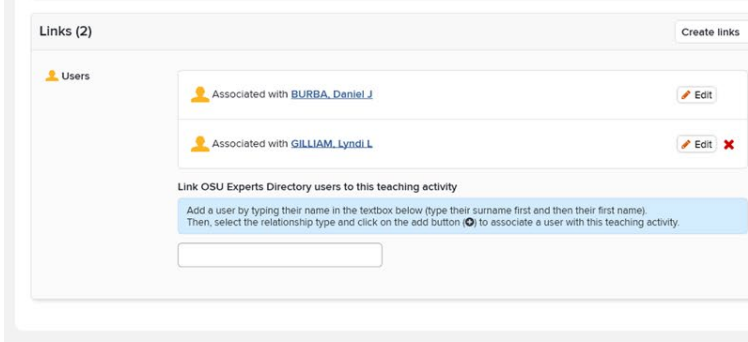
- User ticketing system built Qualtrics that generates a request in the campus IT ticketing system
- Feed runs weekly – update are not immediate



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





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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/