

Infrastructure Checklist

This document is intended to serve as a starting point for discussions with potential vendors and service providers of scholarly communications infrastructure. It is not targeted at any specific type of vendor or product, but instead should be appropriate for a wide array of options. It also tries to make no assumptions about the organization doing the investigation. For these reasons, there are likely questions, or whole sections, that will not be appropriate for your specific case. Do not feel obligated to answer everything. Further, there will be some questions and sections that are critical to your processes. When this is the case, take the time to dig deeper into the discussions, both internally and with the vendors or service providers.

The checklist is divided into two parts:

- Questions for you to ask internally to help guide the discussion. If possible, these should be asked before interacting with the vendors or service providers. This may not be practical; however, it is critical not to skip this section, because knowing your organizational values and expectations is key in this process.
- Questions for you to ask vendors or service providers. These questions should be guided by the values and expectations exposed in the first section, and are intended to help in both selecting appropriate vendors and assuring the correct services and contracts are discussed.

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Bryant, Rebecca, Anna Clements, Carol Feltes, David Groenewegen, Simon Huggard, Holly Mercer, Roxanne Missingham, Maliaca Oxnam, Anne Rauh and John Wright. 2017. Research Information Management: Defining RIM and the Library's Role. Dublin, OH: OCLC Research. doi:10.25333/C3NK88

Molls, Emma. 2018. Of Vendors and Values. [Google doc accessed](#).

Wipperman, S., Martin, S., & Bowley, C. (2018). Balancing influence in a shifting scholarly communication landscape: Creating library-owned, community-aligned infrastructure through individual, local, and community action. *College & Research Libraries News*, 79(5), 244. doi:<https://doi.org/10.5860/crln.79.5.244>

Clement, G., Agate, N., Searle, S., Kingsley, D. and Vandegrift, M., 2018. JLSC Board Editorial 2018. *Journal of Librarianship and Scholarly Communication*, 6(1), p.eP2261. DOI: <http://doi.org/10.7710/2162-3309.2261>

Part 1: Internal institutional questions to answer

This section is intended to assist with a needs assessment that can be used by internal university stakeholders (e.g., the library, office of research, institutional assessment, distance education), when that group is contacted directly by a vendor about a product or is considering inviting a vendor to demo a product to serve a particular need. The objective is to align the values of an open and information-rich institution with the infrastructure it employs to manage information.

Why would the library provide this document? What is a library's role? As research information organizations, libraries play a vital role in this process:

- Libraries have expertise about research information management.
- Libraries have established vendor relationships and experience in licensing and negotiating and identifying contractual red flags.
- Libraries have the big picture view encompassing each institutional stakeholder's needs around research information and therefore, can make connections across stakeholder use and requirements, systems, inefficiencies, and opportunities.
- Libraries can identify products already purchased from a particular vendor, thereby potentially enabling discounts.
- At the negotiating table, librarians can facilitate among and between the different internal institutional stakeholders to work with vendors to find solutions for the scholarly communication ecosystem.

From a library perspective, participating in scholarly communications infrastructure solutions helps us align our activities with broader campus strategic plans and support institutional and reputational goals through discovery and preservation of locally produced knowledge. **For reference, consider the (OCLC Defining Research).**

In this section:

- **Basics**
- **Creating an Alternative**
- **Stakeholder Participation**
- **Support Model**
- **Consortia**

Basics

Determine exactly what you/stakeholders need from the product:

- What problems does the product(s) address?
 - Examples - creation of research profiles, research matching (finding collaborators), impact tracking, output of metadata to an institutional repository

(IR), grant tracking, citation harvesting, institutional benchmarking.. This is articulated further down the document.

- What problems might the product(s) create down the line?
 - Examples - secondary coding needed to have services interoperate; shared budget models are challenging; what older services might be superseded?
- Who are all the university stakeholders in the product, and how will they be involved in the decision making?
 - Is this library involved in these conversations? If no, why not?

Creating an Alternative

- In what circumstances should the university (or a consortium) consider creating an alternative to a commercial product? When is it feasible to do so?
- What would the process be for determining whether and how to commit resources to an initiative to explore creation of a competitor product? For an example, look at how universities partnered to form the Public Knowledge Project, which launched Open Journal Systems.
- Related to the former question, would you be able to participate without a proof of concept? Consider your institution's willingness and ability to be an innovator versus early adopter.

Stakeholder Participation

Does a formal campus group need to be convened to evaluate and offer guidance on the current need? In the event this is a long-term commitment, what roles might its members be willing to play (in terms of governance, code contributions, financial contributions, etc.) to ensure the long-term sustainability of platform development or purchase?

- Who needs to be a part of this group?
 - Library
 - Information technology
 - Faculty
 - University administration
 - Research office
 - Provost
 - Students

Which campus stakeholders should be involved in the evaluation of products addressing the need? We strongly encourage library representation for the reasons defined above.

- Researchers (faculty etc)
- Administrative Staff (those who manage research activities in different levels)
 - Office of Research/Sponsored Programs
 - Faculty Affairs
 - Decision Support (or internal data gathering entity)
- Strategists and Disseminators
 - Libraries

- Campus IT
- Human Resources
- Office of Communications (if creating researcher profiles from this information)

Support model

- What is required to make this platform a fully viable, functioning, and sustainable solution for our institution?
 - Which components will the vendor provide?
 - Which components will our institution need to provide?
 - Will our institution be able to provide the required support with our existing resources or will we need to add/develop additional internal resources to support this solution?
- How can the vendor's platform build on/extend/interact with our institution's existing platforms and services?
 - What are our institution's existing platforms and what needs do they fulfill? This may include an institutional repository, journal hosting service, integrations between these existing platforms with ORCID, preservation solution(s) like LOCKSS, Chronopolis, JSTOR/Portico, and so on.
 - Is there any overlap between our existing platforms and the proposed solution?
 - What connections between systems already exist?
 - What other platforms from the vendor exist and are integrated?
 - What custom connections have been developed at other institutions?
 - What services will the vendor contribute to building connections between platforms? Will there be additional costs and if so, what will these costs be?
 - Is the platform flexible enough to allow our institution to build connections and will we have the rights to do so?
 - Will we need to add/develop additional internal resources and staffing to support this use of this platform?

Consortia

- If your library or the greater institution is a member of a consortium (or several), does this need to be considered?
- Is economy of scale achieved by implementing consortially?
 - Is there central governance, funding, capacity, history of, or commitment to these kinds of initiatives?
 - Are there other value-adds that can be gained by working at a consortial level?
- What tensions are introduced by working with a consortia? Are they acceptable?

Part 2: Questions to ask potential solution providers

This section is intended to assist university stakeholders in evaluating the product(s) being marketed by potential solution providers. The intent is to select questions that best match the product and use case scenario(s) with relation to the entire scholarly communications

infrastructure ecosystem on campus. Questions and answers should align with the values of an open and information-rich institution so that it retains control of the data it produces and open access to its knowledge production. As the research information experts on campus, libraries could play a vital role in this process.

In this section:

- **Operational Questions**
- **Interoperability**
- **Support Model**
- **Business Practices**
- **Data Practices**
- **Transparency (Technical)**
- **Ethics and Accessibility**
- **Customer Service/Performance Obligations**
- **Exit Strategy**

Operational questions

- Does the system require each user to create a profile?
- Will you have the ability to use single sign-on (SSO)?
- Will you require single sign-on (SSO)?
- What other data is associated with validation and use around the user?
- Does it install cookies that could track through other websites?
- How do you reuse user information?
 - Do you share it with the library?
 - Do you share it with the user?
 - Do you share it with your business partners?
 - Do you retain user information even if the user deletes their account?
- If your product integrates with other products you provide, can we restrict what, where, and when our data is transferred?
- What sort of user research do you do?
- Who has control of the data and metadata?

Interoperability

Internal to the vendor

- What tools/platforms is this product(s) connected to already within the vendor's ecosystem?
 - Are your current products provided as separate offerings or as an integrated solution?
- How are these products connected/interoperable with other proprietary or open systems? (List library-specific products as well)

External to the vendor

- What tools/platforms are the product connected to external to the vendor's ecosystem?

- How does it interoperate with systems or standards like ORCID and CrossRef?
 - Related - can information be bi-directional? Can we use other products or systems to push information to the product as well as pull?
- How might we build on/extend existing products?

Support model

- What is required to make this platform a fully viable, functioning, and sustainable solution for our institution?
- Which components will the vendor provide?
- Which components will our institution need to provide?
- Will our institution be able to provide the required support with our existing resources or will we need to add/develop additional internal resources to support this solution?
- How can the vendor's platform build on/extend/interact with our institution's existing platforms and services?
- What services do our institution's existing platforms require and how will support for the new platform be incorporated into the current support model?
- What services will the vendor contribute to building connections between platforms? Will there be additional costs and if so, what will these costs be?
- Is the platform flexible enough to allow our institution to build connections and will we have the rights to do so?
- Will we need to add/develop additional internal resources and staffing to support this use of this platform?
- Is there an active user/developer community? How are you interacting with and contributing back to that community?

Business Practices

- Who is the parent company of the product(s)?
- Is the vendor for-profit or not-for-profit?
- If the vendor is for-profit, does it have a legally binding statement regarding what will happen if or when it is bought out by a larger company?
- What is the vendor's stance or position with regards to open access? In what ways does the vendor demonstrate commitment to open access?
- What is the vendor's 10-year plan for this product?
- How many years has the company been providing these services to users?
- Who does the vendor market its services and products to on a campus? Who has the vendor marketed to on our campus?
- Will the vendor provide access to the market analysis in preparation for a new product launch?
- What role does this product play in the vendor's long-term strategy for interacting with the research workflow of our researchers?
- What systems will our data feed into and what will the vendor charge for us to access our own data from these systems? (i.e., is the vendor trying to push data between its systems and sell it back to us?)

- What was the business model the vendor used to build this ecosystem and how was that achieved?
 - Question of for-profit/not-for-profit
 - Achieved through open data?

Data Ownership

- Who owns the data generated by use of this product? This could be institutional data, research data, usage data, or user-provided data. For example, do the authors and creators of the data retain ownership? Or does the vendor assert ownership?
- What legal documents does the vendor expecting us to sign with respect to data ownership?
- What will the vendor do with our data while we are subscribed to the vendor's product?
- Where is the code for the platform/product stored or shared?
- If we stop subscribing to your product, what data will the vendor keep?
- Our institution would like to define which data the vendor is allowed to retain a copy of. May we add that language to the license agreement?
- The library would like to be able to repurpose usage data for external use (e.g., # of times cited, altmetric scores)? May we add that language to the license agreement?

Transparency (Technical)

- What services does the vendor provide that are appropriate for an institution of our size/domain/financial resources/etc.?
- Will we need subscriptions to additional products from this vendor? What other systems do we need to buy from your company to make this product work (e.g., Scopus for Pure)? Were we to need to cancel a subscription, what would happen to the functionality of this product?

Ethics and Accessibility

- What happens if there is a breach of contract?
- Are non-disclosure clauses present in the vendor's contracts?
- What data does the vendor collect with this product and how is it using that data? Is it shared among its other services?
- Do you intend to monetize the data? Will it ever be sold back to us? What control do we retain over what can be done with the data generated by our use of this product?
- Does the product comply with regulations for accessibility?
- What is the vendor's process for ensuring against bias (race, gender, disability, etc.) in algorithms and content?

Customer Service/Performance Obligations

- What are the uptime guarantees and warranties of performance in accordance with advertised characteristics?

- Does the vendor provide the university current and detailed product documentation, as well as periodic updates?
- Will the vendor provide statistics on technical support response times and downtime for previous platform updates?
 - Do these conform with or exceed industry technical standards?
- Which of these support and consultation services are provided to users and who provides them? Are there others not listed here that serve either user or internal use?
 - Best practices consultation, including metadata
 - Copyright, reuse, and other policy consultation
 - Legacy content migration
 - Direct customer support
 - Infrastructure setup and maintenance
 - Submission to indexes, databases, and/or Internet search engines
 - Impact measurement and communication
 - Data management and publication
 - Harvesting publication, grant, and patent metadata and its ease of inclusion into other systems?
- What is the process to migrate data from our institution's existing systems into the vendor's platform? (e.g., importing faculty data into a research information management system?)

Exit Strategies

- If the product is discontinued, what customer and technical support will the vendor provide for us to migrate our content elsewhere?
- Should the product be discontinued or sold to a vendor/company with which the university chooses not to continue the service, what customer and technical support will the vendor provide?
- If we choose to migrate to a different provider in the future, what customer and technical support will the vendor provide?
- What is the vendor's data exit strategy? Please give specific technical details.
 - How long would it take?
 - How much effort would be required for our staff to extract the data?
 - What format(s) would this data be provided in?