



GRL2020 Position Papers Summary/Synthesis

Lee Dirks

Director, Scholarly Communication
Microsoft Corporation
Redmond, WA





access agricultural applications areas available based being center cgiar challenge
change collaboration collections **community** content create curation current
data databases development different **digital** director disciplines domain
e-infrastructures earth education efforts enable engaged environment etc european field future
global grid **grl2020** important include **information**
infrastructure institutions integration international involved issues italy
knowledge librarians **libraries** management material
national needs net network number open organization outputs paper
position present preservation process **projects** provide publications
publishing related **repositories** **research** resources
results role scholarly **science** scientific scientists search **services**
sharing space standards support systems technologies tirrenia tools
university users vision ways web **work** world years



Your homework

*Write a short position paper that provides the other attendees **your vision for the key directions and next steps the library profession should be undertaking to enable a positive future for research libraries.** These position papers will be collected and made available prior to the event, and will also be utilized to help formulate core portions of the agenda.*

Overview

- Identification of challenges & issues
- Program reviews / project summaries
- Vision for the future of digital libraries

Question...

Is there any need for Research Libraries in the future?

—Johannes Keizer

“...Within the next 10 years paper material will be used only for archival purposes. Any work on retrieval, viewing or processing of information will be based on digital content, which is available on the global network. It might be available as a global public good or as a paid service, but everyone will be able (theoretically) to access this material from his/her own workplace.”

User-Focus¹

- ...Give access to the material held in the cultural heritage sector that will **meet user requirements**. (Stefan Gradmann & Jill Cousins)
- ...A combination of systems, discovery and access paths and user skills development; **be responsive to the changes to user behaviour that will follow**. Where in the past libraries have been caretakers, in the future they must be guides and teachers. (Catherine Harboe-Ree)
- ...The research library must become relevant to a **new generation of users** variously referred to as digital natives, millennials, etc. (Harry Bruce)

User-Focus²

- *...Information users are the fundamental driving force for prioritizing library investments, and determining the future direction and philosophy of libraries... Users are becoming creators of content as well, and they have embraced information deployment and sharing mechanisms that are interactive and free form. (Leigh Watson Healy)*
- *...being easy to reach use and possibly to host...is too often not taken into consideration by researchers and developers ... This has an enormous impact...where a number of everyday and also emergency applications involve the collaboration of scientists spread around the globe and coming from slightly different cultures **who need easiness of use**, fast access to information and accuracy of the software instruments at their disposal. (Luigi Fusco)*

Open Access¹

- ...[A] growing expertise in managing digital information and a commitment to **maximum public accessibility**...[L]ibraries have always understood this and have fought to **break down barriers** to access to information. (Catherine Harboe-Ree)
- ...Establishing **open and harvestable repositories**...merge current publications and library catalogs. It represents a move towards **publicly accessible information and content**. Educating and encouraging managers and scientists on ways to make their products open and accessible (and open access), mobilizing political buy-in and resources. (Enrica Maria Porcari)
- ...**All publicly-funded research should be made freely available to all interested readers**...[E]nsure that **all research data from publicly-funded research is publicly accessible**. The Intellectual Property Rights (IPR) regime surrounding research information should be reviewed. (David Prosser)

Open Access²

- ...To achieve this vision of a global network of repositories, supporting the emergence of value-added services, there are two main conditions: 1) **Research output must be openly accessible**...Consequently, research libraries must contribute and support current efforts to achieve these two objectives. Firstly, by **assuring the availability of repositories** on their organizations, **helping their researchers on using them, advocating Open Access to research literature**. Secondly, by supporting self-archiving mandates that are becoming more numerous and frequent, from different sources (research funders, universities and other research institutions). Libraries should also collaborate with the recently emerging **movement of Open Data**. (Eloy Rodrigues)
- ... We envisage an information scenario...where all scientific results, including both peer-reviewed data and publications, will be **available in Open Access**. The data and the publications will be **hosted in a community-operated infrastructure run by an international consortium** of librarians and computer scientists linked to the main laboratories in the field. (Jens Vigen)

Open Access³

- *...The traditional roles of selecting, collecting, and organizing materials now focus on special collections, which have become the primary means for research libraries to distinguish themselves from each other. These special collections and rare materials are being digitized, doubling the requirements for access and curation. **Thus the “access vs. assets” pendulum has swung heavily toward access. But access to what?** (Christine Borgman)*

Services¹

- ...As more of the literature is open access, libraries will no longer 'compete' on the size of their collections, but on the services they offer to researchers. Increasingly, two services will be offered simultaneously: **the traditional 'importing' of content from outside the institution to the local researchers, and perhaps even more importantly, the 'exporting' of local research results to the wider academic community and beyond.** (David Prosser)
- ...[L]ibraries should increasingly focus on **adding value to the information and data produced by the members of the community(ies) they serve.** Building, managing and maintaining repositories, with various forms and stages of the information produced in the research process (published research literature, preprints and gray literature, research data), promoting their visibility and accessibility, and guarantying their preservation and curation... (Eloy Rodrigues)

Services²

- *...This principle of each library focusing on a **specific service and sharing this service globally** enables a single library investing effectively and realistically in services for the novel user type. By re-using many services of other libraries and maintaining one specific service a global service network can emerge that can be customized to local needs. (Wolfram Horstmann)*
- *...The profile of a librarian has to change to **customizing information management services** to the needs of multiple user groups. (Wolfram Horstmann)*
- *...Widening the focus of Research Libraries from services to active participation and leadership, enabling the research curation function and facilitating cross-disciplinary knowledge development. (Natasa Milic-Frayling)*

Services³

- *...The creation of stable interoperable e-Infrastructures with similar services available in Europe and in other parts of the world, is of utmost importance. Dedicated projects that will explore the field and suggest possible ways of creating an adaptable architecture for **library based high-level services**.*
(Federico Ruggieri)
- *...**Digital content creation** must be a priority for all information and documentation structures (libraries, documentation centers) in a appropriate format. Then, the sharing of the digital resources must be the next step.*
(Nicoleta Cristina Albu)

Services⁴

- *...Annotate, bring together, break apart, refer to and interlink these materials as part of their scholarly or learning practice. The really advanced ones would like to use more sophisticated techniques, such as data and text mining, and tools to check hypotheses or to enhance their research.* (Kurt De Belder)
- *...Ranking capability to search results without the benefit of Google algorithm; Data weighting and results ranking; User influenced ranking using session cookies and log-file analysis; Scalable applications for multilingual searching; Scalable browsing that combines the vectors of space and time with who and what; persistent identifiers for cultural heritage digitized and born digital content.* (Stefan Gradmann & Jill Cousins)

Trust / Quality

- ...Digital materials should be **trustworthy**, searchable and brought together in meaningful ways, which could also entail selection. (Kurt De Belder)
- ...To facilitate use by the scientific community, the data needs to be turned into digital reference collections. **Assertions about completeness, consistency and authoritative source need to be proven for each collection to establish trust in the data.** (Reagan Moore)
- ... Finding **reliable information** in the face of such overabundance remains challenging. Search systems such as Google provide access to large volumes of information, commonly without consideration for the **trustworthiness of data**. Furthermore, the searches are biased by purchased priority listing and the preferences of other people, rather than **objective assessment of content and value**. (Lucy Nowell)

Interoperability

- ... *data needs to be truly interoperable regardless of its original format.* (Stefan Gradmann & Jill Cousins)
- ... *Key issues for the future are to make true the **complete interoperability** of all scientific data and propose a **universal register** to provide relevant information about location, description and content of all scientific data.* (Dany Vandromme)

Sustainability

(via partnership)

- ...*Non-profit/academic and commercial **collaborations***.
(Thomas Garnett)
- ...Needs a **sustainable funding source**. (Stefan Gradmann & Jill Cousins)
- ...Data management will require new technical skills and different **collaborative arrangements within and between institutions**. (Catherine Harboe-Ree)
- ...Can only lead to a global information infrastructure if **commercial service providers are integral part of this system**.
(Wolfram Horstmann)

Preservation

- *...the management of massive collections requires distribution and replication of the digital holdings to **minimize risk of data loss**...free digital holdings from their creation environment. We need the ability to characterize the structures and information content present within a digital record independently of the original creation application. (Reagan Moore)*
- *...Through existing close connections to their institutional communities, libraries could help investigators describe and deposit their data into open repositories in a timely manner. More importantly, libraries are often well situated to educate the current and next generation of scientists on **effective data management practices**. (Mark Parsons)*
- *...[E]nsure the **long-term preservation** of digital objects. (David Prosser)*
- *...**preservation and long term curation** of research data is a growing priority, and repositories can also be a natural platform for educational resources. (Malcolm Read)*

Physical Space

- ...The importance of **re-designing and including collaboration spaces in research libraries**....flexible physical spaces that can easily be transformed into research ‘collaboratories’. (Harry Bruce)
- ...Research libraries, librarians, academicians, university leaders, and library and information science educators all must address the changing infrastructure, human resources, and economic requirements of the digital age **if libraries are to remain at the intellectual center, whether or not the physical center, of the campus**. (Christine Borgman)

Unique Positioning¹

- ...As libraries are not linked to a specific research group or to a specific department, they are in a *key position to fulfill a general role in disseminating information from the institution and in **facilitating knowledge sharing** with other institutions.* (Johannes Keizer)
- ...Research Libraries as power houses comprising individuals with in-depth understanding of specific research areas and *capable of **establishing connections across disciplines***. Focused on the mission to build bridges, they can make concerted efforts to *develop cross disciplinary programmes and identify synergies*. They can drive scholarly engagements by organizing events and debates and facilitating the process of ***cross-pollenisation of ideas***. Research Libraries can be the ***catalysts for distilling, synthesizing and disseminating research knowledge***. (Natasa Milic-Frayling)
- ...The requirement of servicing a number of *increasingly differing and polarizing user communities*. (Wolfram Horstmann)

Unique Positioning²

- ...[V]ision of a data preservation and access “utility”— a core infrastructure of science that is simple, predictable, reliable, extensible, accessible, and durable. But just like with existing utilities, such as water, electricity, and communications, the **basic simplicity on the surface belies deep complexity**, structure, planning, and professionalism. Creating that level of infrastructure requires great **collaboration around standards**, maintenance, and professional development and certification. We must **bridge cultural barriers** between scientific disciplines, between data managers and researchers, between libraries and data centers. (Mark Parsons)
- ...Shifting the role of libraries from ‘catalogs’ and ‘subscription agents’ to meeting spaces and ‘mash ups’ that **support and connect scientists in their information and communication behavior, and help partners in their uptake of...information and knowledge**. (Enrica Maria Porcari)

Need for Training & Education

(technical & subject expertise)

- *...Library and information management schools and professional associations, working consultatively with research libraries, **must consider this new landscape and adapt their courses and training programs accordingly**, and libraries must find ways to **reward increased specialisation**. (Catherine Harboe-Ree)*
- *...The ideal librarian of the future will have two qualifications, **a subject qualification** and a qualification in knowledge organization/information science. She/he will work much more with humans in facilitating knowledge exchange in an organization. She/he will be **much more technology conscious** and will be able to use web technology. He/she will not only have an exquisite knowledge about existing information sources on the web, but also about the different tools and techniques to access them. (Johannes Keizer)*
- *...Few universities have sufficient staff with appropriate information management expertise, or the right structures, to fully develop and exploit their repositories. They will need to identify and acquire staff with **appropriate skill sets** and will naturally look to their existing personnel first. (Malcolm Read)*

Data & Scalability¹

- ...As long as humanity exists there will need for information more so with the ever increasing information and **we do require library and information professionals to handle vast quantities of information.** (A.R.D. Prasad)
- ... The role of research libraries is broadening as **“data” become first class objects to be retained and curated for reuse, long after research results have been published.** (Christine Borgman)
- ...The management of this data must take into account not only the **huge volumes of information, but also the different scenarios that can use and re-use such content together with the different categorization schemas possibly applicable to them.** (Luigi Fusco)

Data & Scalability²

- *...Interdisciplinary and international partnerships to effectively manage **large-scale research resources** for the long-term. (Thomas Garnett)*
- *...Managing data at this scale requires the automation of not only curation procedures, but also administrative tasks for data management and validation procedures for verifying assertions about the collection. (Reagan Moore)*
- *...Certainly in the UK we find research programmes (especially in the Grid or e-Science community), learning technologists, administration departments, and libraries all tackling the issues of data management and curation quite separate from each other. **University libraries and librarians should play a pivotal role in the management of repositories. But it cannot be assumed this will happen.** (Malcolm Read)*

Top Themes

- User-Focus
- Open Access
- Services
- Trust / Quality
- Interoperability
- Sustainability
- Preservation
- Unique Positioning
- Data & Scalability
- Need for Training & Education

Our Charge

- Reflect on these themes:
 - What are the biggest opportunities?
 - Where can we have the most impact?
 - What unique value can we provide?
- Prioritize and focus!



access agricultural applications areas available based being center cgiar challenge
change collaboration collections **community** content create curation current
data databases development different **digital** director disciplines domain
e-infrastructures earth education efforts enable engaged environment etc european field future
global grid **grl2020** important include **information**
infrastructure institutions integration international involved issues italy
knowledge **libraries** management material
national needs **network** number open organization outputs paper
position present preservation process **projects** provide publications
publishing related **repositories** **research** resources
results role scholarly **science** scientific scientists search **services**
sharing space standards support systems technologies tirrenia tools
university users vision ways web **work** world years

Thank you!

