

EDITORIAL

Open research, open data, and your development organization: best practices in information and data management for development

Data and information management are key components of enabling a knowledge-sharing environment in the development sector. Improved physical and virtual availability, accessibility, and applicability of data and information increases the chances of it reaching intended audiences and providing them with new insights, evidence, or confirmation of assumptions. In this Special Issue of the KM4Dev Journal: *Open research, open data, and your development organization: Best practices in information and data management for development* we present six cases of open access and open data management approaches in diverse institutional settings around the world. Novel open data management tools and practices aim to support the discovery of solutions and answers to some of the world's most complicated problems; the data for which were previously hidden in numerous unpublished data sets with restricted access. There is increasing evidence that data quality increases as data collection is automated, and its analytical methods improved; therefore many organizations are currently addressing the technical and organizational challenges of open data management, trying to provide the components that will strengthen data curatorial and analytical capacity. From the digitization of documents for the Greek Parliament to the management of data and information for a large network of bean research organizations in Africa, we share how institutions of all types are working to make information openly available, accessible, and applicable for the purpose of global development.

About the articles in this issue

The increased implementation of open access policies and practices¹ has profoundly changed the way we think about and interact with intellectual property assets. Formalization of institutional agendas to promote open access and open data practices through strategic engagement and policy development processes may require substantial technical and financial support – particularly for implementing data quality assurance processes or covering article processing charges (APCs) associated with open access journal publication – but also depend upon changes in cultural behavior that is often deeply rooted in our organizations.

The first case by **Devare et al.**, “Open Access and Open Data at CGIAR: Challenges and Solutions”, provides insight into efforts of a global agricultural research partnership (CGIAR) to make data and other research outputs findable, accessible, interoperable, reusable, and interlinked, in order to accelerate innovation and tackle global challenges around food and

nutrition security. The paper outlines the organization's strategic approach in terms of working with its 15 global centers to implement the CGIAR Open Access and Data Management (OADM) Policy and strive for better cohesion in terms of curatorial workflows and localized center-specific policy development. Highlighting technical as well as community issues, the paper highlights some of the challenges around the level of capacity and infrastructure development required for implementation of the OADM policy.

Medium-sized and large development organizations are making rapid progress in having most of their information and data openly available and accessible online by creating or aggregating digital repositories that gather, store, and disseminate the content of datasets, books, articles, and conference proceedings, as well as presentations, web tools, videos, and photo collections. They increasingly follow internationally endorsed metadata standards, metadata and data harvesting protocols, and data and file retrieval protocols that allow content to be retrieved and used by a wider range of both academic and public-sector catalogues, search engines, and subject-specific information systems.

The second article by **Abenet Yabowork *et al.*** presents a repository launched by one CGIAR center, a concrete example of how centers of differing agendas and budgets might collaborate to achieve open access goals. The authors explain the origins, operation and uses of the CGSpace repository set up by the International Livestock Research Institute (ILRI) with several partners. Starting from a localized, institutional effort, it has evolved into a collaboration among dozens of programs and entities, pooling technical efforts and generating collective public goods for the wider agricultural world. This article covers the CGSpace and open access value proposition, technical developments and choices, content management and standards, metrics and reach, as well as lessons learnt and promising practices for wider use.

Rolf Kleef and Martine Koopman present a case study of organizations that implemented open data standards, and discuss how implementing those standards help audiences outside and inside an organization evaluate the process, output, and outcomes efficiently and differently, which may not have been possible otherwise. The authors took examples, insights, and experiences from Dutch nongovernmental organizations (NGOs) that implemented the International Aid Transparency Initiative Standards (IATI) for publishing their aid data. The authors discuss strategic, organizational, operational, technical, legal, and ethical challenges that organizations face when making their data open and how to overcome these challenges based on the Dutch NGOs' experiences. The case study also highlights the benefits of "open, unless" organizational policies, and showcases unexpected uses of open data related to international development and aid activities.

Leticia Paula Dobrecky's article (written in Spanish) provides a helpful introduction to the benefits of open data in the agricultural sector, and lays out the Argentinean open data policy and context specifically. Dobrecky describes a recently launched online agro-business platform, which the government uses to provide access to statistical information. The author also analyzes the opportunities that open data provides for libraries and information professionals working in the agricultural sector.

From Athens, Greece, we hear from **Fotios Fitsilis and Vasilis Bayiokos** about how the Scientific Service of the Hellenic Parliament managed the digitization of their collection of parliamentary documents. Using examples set by other legislative institutions, they were able to devise a strategy for scanning and indexing their legal reports on bills and law proposals. They have found that the data derived from this process has exciting potential to link with other systems, enabling new forms of quantitative political research.

Proactive information, data, and knowledge management are vital to enabling a knowledge-sharing environment in the development sector. The case study by **Muthoni et al.** discusses how the Southern African Bean Research Network developed a knowledge management approach (KM) for an agricultural innovation system in a five-step pilot exercise. The team applied a KM scan, comprising of a survey and a face-to-face participatory validation of the analysis, which resulted in the formulation of new KM work plans for the regional network.

Improved physical and virtual availability, accessibility, and applicability of data and information across the development sector intensifies research impact. Open and accessible data and information facilitates new links in the evidence, and enables new insights, providing exciting opportunities for knowledge sharing, researchers, and data and information management professionals. We hope you enjoy this issue of the KM4Dev Journal: *Open research, open data, and your development organization: best practices in information and data management for development*. Take a few ideas home to your organization and share your own experiences with us.

Our thanks

We thank all of the contributors who have written papers for this issue as well as the colleagues who reviewed papers and provided feedback to authors. We are very pleased with the quality of the contributions and would like to thank the authors for the efforts in they have made to present open data from the perspective of knowledge.

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About the Editorial Team

The Guest Editors for this issue are specialists in librarianship, knowledge management, open access, and data management. They are based in the USA, Colombia, Lithuania, and South Africa.

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¹ Pinfield, Stephen. "Open-Access Repositories Worldwide, 2005-2012: Past Growth, Current Characteristics, and Future Possibilities." *Journal of the Association for Information Science and Technology* 65(12): 2404-2421.

² Opinions expressed are those of the author, and do not necessarily reflect those of the United Nations.