

Anton Mangstl & Johannes Keizer



Food and Agriculture Organisation

Anton.Mangstl@fao.org

Anton Mangstl has a Ph.D. in Crop Science and has been Director of the Knowledge Exchange and Capacity Building Division for the Food and Agriculture Organization (FAO) of the UN since 1996 and has guided the transition of its information services into the internet age. Before joining FAO, he was Director of the Central German Center for Agricultural Documentation.

Johannes Keizer



Food and Agriculture Organisation

Johannes.Keizer@fao.org

Johannes Keizer has a PhD in Biology and is an Information Systems Officer in the Knowledge Exchange and Capacity Building Division at FAO. He is responsible for an international network of information centres in agricultural science and technology. Before joining FAO, he worked as a research fellow in ecotoxicology and scientific data management.

GRL2020 Position Paper

In the remote past, libraries were limited mostly to one type of knowledge objects: document-like objects made up of textual information. In recent years, this has already been widely extended to cover spatial information and also multimedia content. Also, libraries were used to processing catalogues with specific collections referring to paper or hardcopy material. Collections have now become much vaster, but also less defined. This means that a new type of research librarian will necessarily have subject knowledge. In the future, libraries will have to manage access to global

databases with statistical data, biological information or other scientific data as they are available on the network.

As management of knowledge assets will be a key issue for any research institution in the future, libraries are in a top position to catalyze and facilitate knowledge management and knowledge exchange in their institutions. Traditional publishing departments were mostly only prepared to issue a printed document, which was then delivered to shops, libraries, stocks or third-party publishers. Now, the web is a publishing medium for all scientific institutions and will be so in the future. The libraries in research institutes and universities should become the organizing point of knowledge dissemination activities. This has already started where libraries are responsible for the institutional repositories, but more change must come. 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. Librarians have specific knowledge in information science. This makes libraries the foci for semantically-meaningful publishing by scientific organizations. A future web of data, which should be machine processable, will never occur if specialists in research organizations do not take up this challenge.

On the other hand, the amount of produced scientific material is growing exponentially. Fifteen years ago, a scientist was not only able, but requested to have a global overview and knowledge about his/her entire subject area. New publications without a complete literature review of the research topic were unacceptable. Most probably this is no longer the case. The growth of scientific production, also with the massive entrance of new countries into the global science society, makes it always more difficult to remain current with the development in certain subject areas. In this sense, there will very well be a new function for Librarians as global experts on knowledge sharing and knowledge discovery, who know methodologies, techniques and technology keep track of developments on the World Wide Web. Research Libraries of the future should be able to set up personal information channels for Researchers, (SDI of the future). In doing so, Libraries in Universities and Research Institutes will change from mainly collection managing institutions into Knowledge Exchange centres that assist Scientists and Students in linking to global knowledge which is available on the network.

Is there any need for Research Libraries in the future? 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. This type of accessing of material is already now a requirement. Officers in our organization very seldom go to the library. Undoubtedly, the role of libraries/librarians in acquiring information in areas where researchers know peers, databases, repositories and journals very well will be reduced. Researchers, technologists and students will be able to handle many routine tasks of knowledge retrieval and processing using their PC and the internet without intermediaries. This is even truer as information providers organize their material in Digital Libraries and as general purpose search engines become more powerful.

In order to achieve this vision, it implies quite a change in the set of skills that is necessary. 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. Will the library remain a physical place? The answer is sometimes yes and sometimes no, depending on the institution. Libraries ideally would also physically transform into Knowledge Exchange Centres, a mixture of an exhibition place, internet café, meeting room and space for institutional parties.