From information to knowledge: the role and value of special libraries in research institutes

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Introduction

Special libraries in research institutes are targeted to provide information needs of scientific communities, helping researchers, who act both as information users and creators of new knowledge . Understanding of information needs is integrated in every research process as a very important part of it. Information and communications technologies of the 21st century affect the information behaviour of researchers and their expectations in relation to library's services. It is exclusively necessary to demonstrate the value of a special library for the parent research organization and a new role of a subject librarian in its scientific community.

Information needs of scientists and researchers

Information need reflects need of knowledge, which may be satisfied by obtaining access to available information. The user needs any knowledge, and information only intermediates knowledge transfer from the author to the user.

Author's knowledge → Informational message → User's knowledge

Information needs of researchers are related to the corresponding discipline as well as the current development of science in a broader spectrum. It is clear that researchers are not a homogenous group. Their approaches to investigate, the width and depth of their interests differ. Professional information needs of researchers have dynamic character, depends on the discipline and type of research.

Information search of researchers is motivated by a variety of purposes:

✓Support of research work in progress;
✓Competences development;
✓Writing a paper or preparing a presentation;
✓Teaching;
✓Consultancy and expertise.

Information, required by researchers, can be divided into truly scientific (data, theories and conceptions, research methods) and information which allows them to navigate in a whole scientific information landscape., i.e. "information about information" (catalogues, annotations, bibliographic sources).

Researchers activities and information needs eventually change during the research "life cycle". At the beginning rather undefined needs may occur, that is why an intuitive, experience-based approach is necessary. In the work process the needs are supposed to be expressed more precisely, then formalized and adapted to the information search language.

The value of Library in research organization

❖Special libraries in research institutes maintain and develop collections of scientific reports, conference proceedings, theses, bibliographic sources and various unpublished materials. From researcher's point of view "grey literature" is an important source of scientific information. These materials reflect the long-term history of the corresponding branch of science. Library's collections are very important for young researchers to familiarize them with the background for their future work.

❖At present new digital libraries have emerged and developed, but printed books are still needed for scientific work. Information content of individual papers is very limited, however, books and monographs consist of scientific information and knowledge, which is centrally compiled. Scientific books in print format have not become a less important part of library's holdings. Besides, books undoubtedly have an aesthetic value and can expend imagination.

In order to survive and be successful in future, librarians need to re-consider the development and service strategy of special libraries as information providers and be aware of the current needs of researchers. The relationship between the librarian and the user is much closer in a special library. Libraries should compete to play a vital role on the way to formation and enhancing intellectual and knowledge assets in their own research institutes.

In the first decade of the 21st century a number of special libraries in the state research organizations were closed due to implementation of government programs on cost saving. In cases when institutes are merged or streamlined special libraries are usually centralized. Scientists are mostly worried about scientific and technical reports and other documents, which have not been published elsewhere and will likely never be put in digital collections and accessible online (5).

Case studies show that on researchers' opinion the closing of the library negatively affects their working conditions, substantially hamper their research and reduce the reading of books (6).

Information behaviour of researchers in digital world

Nowadays scientists have unbounded possibilities to use Internet and its digital content, addressing to different web-based resources (portals, websites , databases, e-journals, digital libraries and repositories). Studies show the considerable variances in practice for information use amongst different groups of researchers in relation to the discipline of science and the availability of electronic resources provided (1,2,3,4).

As a number of available scholarly resources continues to increase, literature data indicate that researchers consequently prefer metasearch tools with easy interfaces and the scientific search via Google dominates on an international scale.

Undoubtedly Google has important benefits. It

✓allows word-search capability;
✓ indexes not only web pages, but also takes "snapshots" of other file types including PDFs, Word documents and Excel spreadsheets;
✓has valuable applications (Google Scholar and others);
✓takes into account the users information-seeking behavior and provides results building on its recent search strategies;
✓improves its system and makes it oriented to scientific search.

However, problems and difficulties lie in the quality and amount of digital resources found. Some case studies show that researchers are relatively unconcerned about differences between selectivity and completeness of the sources retrieved from the Internet (2). In addition, when looking for new information on the web they tend to follow a number of stereotypes: do horizontal searching; spend their time mostly for seeking, but not for reading; try to save all the content which is potentially interesting for them, but do not systemize it.

"Information behavior influenced by the availability and seemingly easily obtaining information on the Internet , loses its **heuristic nature** and from the art of finding the information objects tends to simplicity and some primitivism" (4).

The library of the Fish Resources Research Department of the Institute "BIOR" serves a small community of researchers, involved in the studies of fish resources in the Baltic Sea and inland waters in Latvia. The library holds books and periodicals in aquatic ecology, oceanography, fish biology and aquaculture. This is the only collection of publications related to fisheries and fishery science in Latvia.

In the 21st century the collection of new scientific books is developing mainly via the Library's participation in the projects based on the financial support of the Fish Fund of Latvia. In 2015 the library realized the next project (acquisition of 16 new scientific books).

Subscriptions to ScienseDirect and Scopus databases (since 2012) and to the Web of Knowledge (since 2015) have been available in the institute.

The library has many tasks in the field of optimal organization of its printed and electronic information sources. The first step in implementing digital preservation of the library's materials is participation in the Central and Eastern European Marine Repository at http://ceemar.org , where two digital collections are placed by now. In spite of the lack of human resources It is planned to continue the creation of digital collections according to the priorities motivated by the scientific and historical value of printed materials and manuscripts as well as their physical state. The current collection (the reports of the Institute's earliest research cruises to the Baltic Sea) started being digitized in 2014.

In the latest years the Department's researchers have become more active users of the library in relation to new scientific monographs. A part of researchers constantly requests the older editions and various historical materials.

Librarian's participation in the research project "Fish migration and natural reproduction in the River Daugava" in 2013 resulted in the creation of a special collection of printed and electronic materials. We hope to continue these joint activities in future in order to enrich library's holdings with collections, which play a role of "knowledge assets" of the parent institute.

The library is an institutional member of EURASLIC/IAMSLIC since 2002.

The role of Subject Librarian in Web information seeking

Researchers require support and expert advice in effective information seeking in digital environment. The current tasks of Subject Librarian include:

✓to have detailed knowledge of web-based information resources;
✓ to develop necessary skills in order to find the relevant resources efficiently;
✓to organize collections of e-materials devoted to research subjects and projects;
✓to provide advice in scientific information seeking and discovering of new resources;
✓to provide advice in the use of specific tools and databases.

Participating in formal and informal meetings, discussions on researchers activities are essential in order to understand their changing workflows and identify their current information needs. In small scientific communities information service can be organized as more targeted and more personilized.

Subject Librarians have to increase their visibility as consultants and demonstrate that they can add value to researcher's efforts while seeking new information and knowledge.


Special libraries in Latvia diminished in number from 46 in 2008 to 34 in 2015 . Special Libraries network is heterogeneous (libraries of the state administration institutions, museums, archives, medicine centers and others). **At present there are six special libraries in the research institutes.** The libraries hold documents and publications under the relevant discipline of science, valuable historical materials and participate in the development of digital collections. 26 academic and special libraries are involved into the Association of Academic Libraries of Latvia (LATABA). The Latvian National Library functions as a service and development center for Latvian libraries, providing a consultative support and organizing courses for subject librarians.

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