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Infobrokering and Searching the Deep Web - the New Role of Employee of the Department of Medical Scientific Information

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INFOBROKERING AND SEARCHING THE DEEP WEB – THE NEW ROLE OF EMPLOYEE OF THE DEPARTMENT OF MEDICAL SCIENTIFIC INFORMATION

Abstract

Nowadays we live in the world of “information overload”. The problem in this situation is the difficulty in an access to the relevant information which a user needs. The area of information society, knowledge and information are products widely searched for on the market. It leads to applying new methods and management instruments which provide receivers an access to sources of information. It concerns also the medical sciences. The purpose of this article is to show new roles of employees of the Department of Medical Scientific Information. One of these is knowledge broker who acts between a receiver of information and their vast stores. In the paper authors present the world trends in information services, the ways of the effective searching of information taking into consideration tools for advanced searching the Internet (The Deep Web). It also deals with problems of the permanent evaluation of a profile of the Department of Medical Scientific Information. Its the attempt of response to questions if the scientific information employee is still a librarian or infobroker.

Until recently there have been problems with getting to the source of information. The development of information technology made it easy to access the information. A great number of documents appearing in the internet has scattered or even none value therefore during automatic searching program treated them parallelly with reliable and credible sources.

In this situation it is easy to get a worthless, uncoherent or dispersed information-it means “an overload information”. Possession of the information doesn't mean superiority on the world's market because the value of the searched information may be low, insignificant or even none. It should carry a definite value to fulfill the expectations of the users.

Information should be meaningful valuable, adequate, complete, update and reliable.

Searching is absorbing and time-consuming. It is demanded the professional searching sources and the necessity of applications of new management's methods and tools which provide users with information sources.

There is a need of exist somebody who would become a mediator between users of the information and its world's sources. In many studies it is believed that a go-between ought to fulfill it. He is to provide an access to the professional information.

It is reported that his important role in the information society and it is forecasted that is the future job according to ranking.

Information broker or speaking in other words - knowledge broker, cyberian, freelance librarian, independent researcher, data dealer) became known as a profession in the United States in the 1960s. Infobrokering might be defined as an interdisciplinary field of science. It includes theoretical and practical knowledge related to retrieving and accessing information in the environment of advanced online technology, particularly the "Internet".

An information broker has been treated as a representative of a profession connected with the information. Methods of compilation, applying of effective search strategies, accuracy of selection of information sources and ability of their evaluation are the basic aspects of an infobroker. He treats information from a manager's point of view as a product that which can be and even must be sold.

In other words the infobroker's responsibilities includes:

- Searching strategies,
- Evaluating and accuracy of results
- Using of information,
- Processing data,
- Assuring efficient information,
- Interpretation of results and introducing it to a client in an earlier established form.

We ought to consider what is a position for an employee of the scientific information and what his role in the information society. All the more so because the role of the employee of the scientific information as a mediator between information and user has been questioned in many studies recently. This role is attributed to an infobroker.

Problems of a permanent evaluation of the employee of the scientific information and librarianship is subject of many conferences devoted to their education and many papers, discussion and polemics. It's necessary to think that the employee of the scientific information differs from the information broker. We can ask if he is still a librarian or already an information broker.

The information role connected with the profession of the employee of the scientific information has been unchanged for a long time. According to "Librarian's and employee's of the scientific information code of ethics" librarians are experts who act as mediators between readers and users of information and the information sources.

The user of the library, always expects an expertise but in the past the librarian offered traditional sources, such as books, articles, which were in limited number. Catalogues and queries were basis of searching. That's why it wasn't necessary to evaluate them.

Nowadays when we have to deal with "overload information" it's necessary to select and estimate the sources to provide the access to the knowledge of certain value.

For this purpose we need to be able to manage certain tools to assure effective way of searching. The development of information technology makes the access to the sources of knowledge easier. It has changed the process of communication and the tasks in front of which stand the contemporary libraries. Electronic tools provide access to information sources regardless of distance.

The library, which is the non-profit organization, is at the same time treated as a service post, where the information is the merchandise and the user becomes the client.

The contemporary scientific information employees combine many professions, among others, a manager and a computer specialist because his priority is proficiency at the information management and use of the electronic information media.

There is no point to argue about definition if the employee of the scientific information is the librarian or infobroker. His role as the mediator between the information sources and users connected with searching, selection, transformation and evaluation is out of question.

The librarian always helps to find the source of information, the proper book, or article. Now he helps with navigation over World Wide Web.

Internet is a huge collection of information. Information unordered, divided between various web pages or Internet portals, created and developed by many different people. The information we are look for has been in most cases already published. We “only” have to find it.

The most of Internet users use simple, popular search engines like Google, Yahoo or MS Live Search. They are so popular, because the user gets the answer every time he asks a question. Not only one source, but also sometimes hundreds of thousands links to different pages. Among them there are some which the user would find usefull and answering to his expectations. That search engines are very simple, and easy to use, everyone can find something with Google or Yahoo. But very few would ask – Is that all what I could find? Maybe those results are not the best what can be found in the Internet.

With simple questions, the results from Google would be enough; the user would not need anything more. But what about searching the solution of more complex problem?

The first disadvantage of search engines is that they do not analyze the context of the question. They are only indexing the words from the pages, so we get the results from many different domains. With one question we get for example pages about electronic, shopping, medicine. That strategy of indexing is sufficient for simple questions and it is useful for the building the image of search engines – they can find everything, ask whatever you want – we give you an answer, any kind of answer.

But it is harder to get the proper answer with more complicated problem. You can try use “advanced search” options, build more complicated questions using Boolean

operators or specific keywords, but that helps only to select the more proper answer from that thousands given by Google with the first simple question. That strategy can help, but there is no guarantee that you will find the most valuable information in that way.

The source of this problem is that Google or other search engines covers only small part of Internet. Beyond their indexes there are still many more pages. They are called Deep Web. The Deep Web refers to World Wide Web content that is not part of the surface Web indexed by search engines. In Deep Web we can find pages created dynamically, pages using Flash or Java technology or with non-text content like multimedia files. Also pages created as an answer for database query are part of Deep Web.

Those pages are the most interesting part for academic users; in many cases we can find publications, electronic journals, references, patents or results of experiments.

The latest Deep Web examination shows that about 37% of Deep Web databases are indexed by the biggest search engines, but still about 2/3 of Deep Web are unreachable from standard Google or Yahoo queries.

So what can we do to find the proper answer? There is no simple algorithm; the searching strategy depends on the question, and the type of data we are looking for. Do we need an article, definition, experiment results, or people working on the specific subject?

We can use one or some of these methods.

- try to use abilities of search engines, use more complex questions with Boolean operators, keywords. Use advanced search option;
- try specialized services like Google Scholar, Google Books, MS Live Search Academic, Yahoo Search Subscriptions;
- if you are looking for specific file types, try dedicated search engines like Picsearch, or Yahoo Podcast Search;
- try metasearch engines like friskr.com, dogpile.com, clusty.com, mamma.com;
- use specialized web services and database search engines (PubMed, Medic8, WebMD, MammaHealth);
- use subject gateways – an online service that provides links to numerous other sites or documents on the Internet. (Infomine, Scout Archives, BUBL);
- try specialized search engines for specific subject – like Scirus, FindArticles, for scientific publications. Use open access catalogues DOAJ, OAIster;
- try to use multisearch engines like GoshMe, Turbo10, or try to find the specific database using CompletePlanet or Geniusfind.

Those tools are very little known by common Internet user, and even if they had heard about them they do not use them. In their opinions it takes too much time

and it is too complicated. Therefore the help of scientific information employee is necessary to find the proper answer.

Who knows, maybe with so big Google domination, presenting of other specialized tools would be more important than helping with searching. The new role of Scientific Information Department would not only be searching but also education and promoting different search tools.

So is the scientific information employee already an infobroker? Or maybe he is not only an infobroker but also a teacher?

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