Dissemination-of-information-model for reference services at the National Diet Library, Japan

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Abstract:

Although it is true that more people are getting information through Google and libraries are receiving fewer inquiries in recent years, Google presents us not just with challenges but also with opportunities. Google affords us the opportunity to expand reference services by creating useful research content that can be made available to the public on the Internet. The NDL provides Search Guides on the Internet which are created thanks to our librarians' experience and professional knowledge.

The Search Guides consist of content that provides outlines and information resources for specific topics. The NDL now provides Search Guides for about 1,700 topics, which are available on the Internet.

The Search Guides can be very effective when a topic which meets and anticipates the patron's needs is available. To identify these needs, we utilize two databases which accumulate past inquiries and answers; the first is the intranet system "REX," which is shared by reference librarians in the NDL, and the second is the Collaborative Reference Database, which records past inquiries and answers as well as other useful reference date obtained by Japanese libraries.

The Search Guides ware created to meet the need of potential users and receives a rather large volume of traffic. Compared with the Collaborative Reference Database, a Search Guide receives 90 times as many references per item of content. This is a clear indication that preparing a model answer in advance, as in the Search Guide, provides a much more pertinent response to patrons' questions.

One of our major challenges is the maintenance of each Search Guide. Moreover, when adding content, it is necessary to integrate each field and consider how this information might be best utilized in the future.

Keywords: Internet, Search Guides, Collaborative Reference Database, Reference Community Site

1. Introduction

Let's start with a question about libraries: Is Google our rival? In the 1970s, even before the appearance of search engines including Google, with the advent of the information society, the possibility of the Digital Library was raised. However, the amount of information on the Internet has been increasing and the functionality of each search engine

has been improving and libraries which had high expectations of the Digital Library are now filled with a sense of crisis. Some of us are even trying to redefine the role of libraries as a place where people actually meet face to face. When it comes to reference services, there has been a clear trend for some time that more people are getting information through Google, and libraries are receiving fewer inquiries.

Even the National Diet Library (NDL) has been receiving fewer questions in recent years. The NDL started accepting inquiries over the telephone when we first opened in 1948. In 2002, we also started to accept inquiries from libraries via a web form. Currently, however, we are receiving fewer and fewer inquiries by telephone or via the web form. In FY2006, we received 24,000 questions by telephone, but by FY2012, this number had fallen to 19,000. In FY2006 we received 3,300 questions via the web form, but by FY2012, this too had fallen to only 2,800 questions. Reviewing the types of questions we receive, it is clear that the number of questions about where to find a specific reference material or those checking simple facts have fallen dramatically.

Libraries have been tackling this situation by three methods. The first is to offer library patrons new means of accepting questions on the Internet, such as e-mail and chat, and many libraries now offer these services. The second is to carry on digitizing materials and making them available on the Internet instead of reducing reference services themselves. This approach offers patrons useful information via the Internet while leaving navigation to the information to search engines such as Google. The third way is to provide useful information about research on the Internet. In the virtual world, there is a lot of information available, but people unfamiliar with this information cannot determine for themselves which information is useful and reliable. The skill and knowledge of reference librarians are no less important than before. Rather they are becoming more important than ever. And this is the approach that the NDL is focusing on.

Reference services are mainly provided by answering questions from patrons. Actually, some of us think that it is not the role of reference librarians to give instruction for patrons to search for themselves. However, now the wide public including the users of Google can easily access the services offered by libraries, so if we limit ourselves to the service of "question answering" we would miss the chance to let people understand the importance of libraries. To make use of the chance, we have to acknowledge as important the role of the reference librarian in navigation to the information which each patron needs by creating search guides based on the professional skill of librarians and making them available via the Internet. Still, in order to differentiate the myriad information on the Internet and gain repeat visits, it is necessary not to rely on the knowledge of librarians but to deal with this information systematically.

In this presentation, I will talk about our search guides. Search guides have been common in libraries all over the world since 1970 with name of "pathfinder," but we are making an effort to create more effective search guides by choice of topics and the process of creating. I will show the characteristics and effectiveness of our search guides. It will be a good example of how there is a demand for information searches based on the expert knowledge of librarians and examined systematically. Finally I will show some necessary points in terms of technique and organization for starting search guides and share a bit about our future challenges and dreams.

2. Search Guides

Search guides are content that provides outlines and information resources for specific topics on which patrons often make inquiry to the NDL. We now offer around 1,700 search guides on topics such as science technology/medicine, economy/society/education, politics/law/government, humanities, information on Asia, and collections such as classic materials or books for children. Each guide is created by librarians with specialized knowledge who belong to one of the special rooms for a subject or collection such as Humanities Room, Business, Science and Technology Room or Map Room, etc. at the NDL.

Similar content is available at many libraries with names like Pathfinders or Subject Guides. Our search guides are unique in that the topics are very specific. For example, "How to get information about past Japanese weather," "How to identify literature using keywords," "How to search for medical devices and medical ingredients," "How to search for price and market of Ceremonial Occasions Industry, catering industry and pet industry," "How to search for names of merchants in the Edo period," "How to search for literacy rate," or "How to find photographs".

Each page lists not only our collections related to the topic but also information resources on the Internet. For example, in "How to get information about past Japanese weather," there is information on the Meteorological Agency, weather maps held by the NDL, and information about when newspapers started to forecast weather.

"How to find photographs" shows the way to find photographic collection in our OPAC and gives a list of databases of museums and newspaper companies. It also has a link to one of our Online Gallery, "The Meiji and Taisho Eras in Photographs".

We started to offer the know-how for searching on the Internet in 2002. At that time, we kept "information cards," on which the librarians wrote down questions they often receive and reference books by topic, with a rule that each card holds only one topic. When a reference librarian received a question, he or she consulted the cards and answered the question based on what was written on the card. In 1999, we put the cards in a database and made them searchable by keyword. Then in 2002, we chose some topics and made them available on the Internet. This meant that the know-how of research kept only between librarians became available to the public. In 2009, when we started "Research Navi", a platform of various reference information, the search guides became one of its contents.

As we have seen, the search guides have been made a corpus of past reference transactions but even now we keep adding new contents. To create a new search guide, we consult reference transactions over the telephone, at the library, and via a web form.   Now I will show how we create a search guide.

3. Creating search guides

As I mentioned before, we accept questions over the telephone, at the library, or via a web form.   While the transactions via a web form are registered to the Collaborative Reference Database, the ones over the telephone, at the library are registered to the REX.

3-1. Collaborative Reference Database(Accumulation of reference transactions via a web form)

We provide usernames and passwords for libraries, so that when they receive a question which they cannot answer, they can refer it to us via the web form. This reference transaction is registered to the Collaborative Reference Database after deleting personal information and made available on the Internet. As of May 2014, we have registered 9,495 transactions.

The Collaborative Reference Database records not only our reference transactions but also the past inquiries received and answers given by Japanese public libraries, university libraries, special libraries, and school libraries. As of May 2014, 620 libraries are participating and around 120,000 records are available via the Internet as a resource for research by either librarians or patrons. In Japan there are 3,234 public libraries. 376 public libraries are currently members of the Collaborative Reference Database, so it means that more than 10 percent of public libraries have joined.

The Collaborative Reference Database began in 2002 as an experimental project. At that time, we were considering the possibility of utilizing IT in reference services, and were examining the prospect of the Digital Library and its predecessors such as Question Point. In 2004, an interview survey was conducted of librarians and researchers of library information, and in 2005 this experimental project was upgraded to an official project.

Question Point was a predecessor of the Collaborative Reference Database. In contrast to Question Point, which has multiple functionalities, such as receiving, answering, referring, and archiving questions, the Collaborative Reference Database exists merely as a knowledgebase of questions and answers. This seeming weakness is, in fact, an advantage, because each library can participate in the Collaborative Reference Database without changing its existing system. Moreover, it is offered for free.

It is up to each library to decide which questions and answers are to be registered. At the NDL, almost all questions received via web forms are registered. The registered data can be made available in one of three levels: open to the public, open only to participating libraries, or open only to the library that registered the data. Moreover, functionality such as commenting on the data of other libraries or responding to unresolved reference transactions is available to all participants. In 2013, a new function, called Applause, was added, which is similar to the Like function on Facebook.

3-2. Reference Community, REX (Accumulation of reference transactions at Library, over the telephone)

The reference transactions via a web form are even at the first point made by script form so it is rather easy to keep a record of them. In contrast to this, reference transactions on site and over the telephone are mainly conducted by mouth, so it is difficult to record them. So in 2004 we started on trial an intranet system called "REX," which is shared by the reference librarians. When a librarian receives a question on site or by telephone, the librarian registers in the REX the question, the answer and the searching process used. Other librarians can also append additional information.

As I mentioned before, we have registered useful information on "information cards". The difference between REX and information cards, however, is that REX can carries wide information which is not examined and authorized, such as the personal experience of a librarian, an idea, etc.

For example, in REX, there is registered a question about a roll of the University of Tokyo. It says a patron wished to have a photocopy of a page of the roll which carries his grandfather's name. The librarian searched in the OPAC with the name of university and some keywords, but could not find the roll. Later on, based on this reference transaction, the librarian and his colleagues reexamined our collection and created an information card "How to search for information about graduates of the University of Tokyo".

Since we started "REX" on trial in 2004, it has occurred quite often that the librarians give some advice and useful information to the transaction registered. So from 2005, REX became involved in the reference flow. Sometime librarians who do not belong to one of reference sections also give information to the data in REX. As a result, the cooperation between the librarians, solutions of questions not solved, avoiding trouble, and finding the know-how of other sections have been realized. As of May 2014, around 32,000 comments are registered.

3-3. The process of creating search guides

The librarians of each special room regularly look back at the reference transactions registered in the Collaborative Reference Database and REX and discuss the topics in meetings. If they find a versatile topic, they examined it to decide whether a search guide can be created on the topic and they do a search once again in our collection and other information on the Internet. Finally they create a search guide along with the manual. The search guide is also checked by knowledge managers, who oversee the entire contents, and then made available on the Internet.

4. The effectiveness of the search guides

The search guides were created to appeal to the need of potential users and receive a rather large volume of traffic. Let me simply compare the number of accesses to an answer; when we make an answer on site or over the telephone, normally only one patron can get information from it. Next, the Collaborative Reference Database has 107,395 data and had 8,223,630 accesses in 2012 FY. So it could mean that 77 people got information from one data item. Finally, we have currently 1,691 search guides and they got 11,294,612 accesses in 2012 FY. So search guides receive 90 times as many references per item of content compared with the Collaborative Reference Database and 6,600 times compared with answers to an individual patron's question. This is a clear indication that preparing a model answer in advance, as in the search guides, provides a much more pertinent response to patrons' questions.

The process of examination by a reference librarian from past reference transactions and giving not a specific answer but general information make the number of accesses to the data large. So multiple processes raise the quality of each item of information offered.

5.　For starting search guides

As we have seen, the information examined and created based on the experience and knowledge of librarians meets the demand of more patrons. To start search guides, however, some preparations are needed in terms of technique and organization.

First, as for technique, a knowledgebase such as the Collaborative Reference Database or REX should be introduced. By using the knowledgebase, questions from patrons and research and answers for them which have been only remembered by a librarian as personal experience can be archived and shared between librarians.

Second, it is necessary to adopt a system with which each librarian easily makes and revises the guides on the Internet. In the NDL, we share a content management system among librarians, providing each reference room with an ID and password.

As for organisation, it is preferable to set meetings between librarians to discuss the addition of new contents and revision of the existing contents. Just by using a knowledgebase, the experiences and knowledge which used to belong only to individual librarians can be shared as the knowledge and experience of the library, but by discussing past reference transactions with other librarians, it could be possible to deepen the consciousness about the topics needed by patrons and find better research approaches and materials that had been overlooked.

Finally, guidelines to maintain the layout of each search guide and to make its accessibility easy should be prepared. Some of our old search guides were too long and difficult to read, so this year, we have compiled a manual for creating search guides.

6.　Challenges and prospects

Now we are creating search guides based on the reference transactions of our library but in the future we have the possibility of utilizing the data of other libraries registered in the Collaborative Reference Database to create search guides. Using the functionality of the Collaborative Reference Database such as "unsolved reference transaction," "Applause" and statistics, we can grasp the tendency of patron's demand. Based on this, we are planning to set new topics for search guides.

Moreover, it is necessary to integrate each field to consider how this information might be best utilized in the future. So far, librarians of each special room have been creating search guides based on the past reference transactions of each room. However from the perspective that we need a committee beyond the differences of field, we have organized a committee of knowledge managers, which controls the quality of existing content and the addition of new content.

According to the results of the access log in October 2013, around 40 percent of those who reach the Research Navi come from various search engines on the Internet. Actually, our search guides appear in a rather high rank in Google results so we get many inquiries over the telephone from those who have already consulted search guides by chance. For example, when you put words "Japanese painting, appraisal" in Google's search box, one of our search guides "How to search about the price of art objects" comes in the first. In the search guide,

our collection and some websites of auction companies which allow the search of art prices are listed with some explanation. So we could say that the value of our search guides is made higher even by Google.

Google gives us a window opened for information, but Google itself does not create information of value. The role of libraries in the age to come should be to offer useful and reliable information to patrons on the Internet by utilizing Google.

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