Title:

In search of facilitating citizens' problem solving: public libraries' collaborative development of services with related organisations

Authors:

Dr. Nozomi Ikeya, Research Scientist
Palo Alto Research Center, 3333 Coyote Hill Road, Palo Alto, CA 94304 USA
Email: nozomi.ikeya@parc.com

Mr. Shunsaku Tamura, Professor
Keio University, 2-15-45 Mita, Minato-ku, Tokyo, Japan
Phone & Fax: +81-3-5427-1222
Email: tamaran@slis.keio.ac.jp

Dr. Makiko Miwa, Professor
The Open University of Japan, 2-11 Wakaba, Mihama-ku, Chiba-shi, Japan
Email: miwamaki@code.u-air.ac.jp

Ms. Mika Koshizuka, Professor
Gakushuin Women's College, 3-20-1 Toyama, Shinjuku-ku, Tokyo, Japan
Email: mika.koshizuka@gakushuin.ac.jp

Mr. Seiichi Saito, Associate Professor
Chiba Keizai University, 4-3-30 Todorokicho, Inage-ku, Chiba-shi, Japan
Email: sei01-s@jcom.home.ne.jp

Ms. Yumiko Kasai, Associate Professor
Tamagawa University, 6-1-1 Tamagawagakuen, Machida-shi, Japan
Email: ykasai@edu.tamagawa.ac.jp

Abstract

Introduction. The paper attempts to understand the business information service as actually organised by various stakeholders who were in pursuit of supporting people's problem solving, i.e. librarians, members of various institutions, and citizens.
Method. In-depth interviews were conducted not only with users and librarians, but also with members from other institutions who participated in organising the new service.
Results. Two approaches for designing the service were identified, and at the implementation level, three values were recognised differently by stakeholders according to an approach taken for organising the service.

Conclusion. Close examination of both the user's involvement with the service and service design and implementation has implications for relating user studies and library service evaluation.

Introduction

Some public libraries in Japan have recently begun providing services that facilitate both information seeking and use by setting their service goal as 'supporting business'. One unique feature of this service is that libraries have collaborated with institutions such as local government departments of business and industry and chambers of commerce and industry.

As a way of characterizing this service, this paper examines how libraries together with other institutions have managed to design and implement such services by paying attention to the logic actually used in organising and using the service. By doing so, this paper attempts to understand such services as organised activities carried out by various stakeholders, i.e. librarians, members of various institutions, and citizens. This approach is derived from two views. One is the idea of service as activity, presented by Normann and Ramirez (1994). They argue that values in service are produced by actual activities accomplished by stakeholders. Another is an ethnomethodological interest in practical actions, i.e. how activities are organised so that people can recognise certain phenomenon as such (Garfinkel 1967). Combining these two ideas, an attempt can be made to understand social phenomena as something actually organised by various stakeholder activities. This enables us to understand the new service not just as a product of such activities, but as something actually designed and implemented by different stakeholders. In other words, this helps us to understand the service at the practical level and allows us to reflect upon its characteristics, its further development, and its application in other libraries. The advantage of taking such an approach is that it enables to examine the practice of information seeking and use in relation to a service that enables and supports such practice. This allows us to consider the service from various stakeholders' perspectives at the level of each stakeholder's practice, which can inform each other.

Background

In the previous paper (Tamura et al 2008) we developed a value model that was based primarily upon Normann and Ramirez (1994). Normann and Ramirez argued that components of a system flexibly get combined with each other and form a 'value constellation' in which components (i.e. different stakeholders) work together to create joint value manifest in 'offerings', i.e. products or services which contain value. This is contrasted with a model Taylor (1986) proposed, where he supposed that the processing of information in an information system could be seen as a value-added process, that is, a process which incrementally adds values through the information processing. According to the model, a system forms a value chain that extends beyond it to its users, and it is somewhat fixed. On the other hand, from the value constellation perspective, "value is

co-produced by actors who interface with each other". The actors "allocate the tasks involved in value creation among themselves and to others, in time and space, explicitly or implicitly" (Normann and Ramirez 1994: p.54). This may explain a situation better where various stakeholders are involved in creating a service.

In fact, their theory of value constellation finds its application in information behaviour research in a series of studies which explored "strategic information management and recognised the dynamics of networked social and intellectual capital where information sharing occurs among trusted insiders". (Schultz-Jones, 2009; see also Huotari and Chatman, 2001; Huotari and Iivonen, 2005; Huotari and Wilson, 2001).

The model of value constellation seemed appropriate to explain value involved in business information service we were studying. We initially developed a model where value is co-produced as a result of interactions among librarians, between librarians and users, and among users in their community. As research progressed, it became increasingly clear that some libraries had attempted to reconfigure the allocation of roles, work, and values when they tried to design a business information service through collaboration with other organisations. Thus, it made more sense to take another actor into consideration: organisations specialising in the business area who were collaborating with the library. This seemed to allow us to understand the dynamics of designing a service to facilitate people's information behaviour, i.e. the 'value constellation' of the service. While the value constellation model provides a way of explaining how the innovation of service takes place through stakeholder collaboration in creating a new value, how this 'value constellation' is actually put into practice in actual cases remains to be further investigated. More specifically, as the co-production of values is emphasised for example, it is worthwhile to examine how each stakeholder came into the value constellation. For this interest, the ethnomethodological approach Garfinkel initiated is taken up to analyse various activities including information behaviour found to be meaningful, since the approach is concerned with understanding how activities are practically organised, i.e. how activities are carried out and what logics are being used. Thus, this approach is appropriate for examining the variety of practical reasoning held by each stakeholder organisation in their activities, i.e. in designing, implementing, and using the service.

The previous paper focused on users' perception of usefulness of this service by delineating their information search processes, and developed a users' value model by using Miwa's IBG model (2007) as a framework. However, the paper did not pay much attention to how each service was organized that enabled their service use as part of their information seeking and use. This paper will deal with a specific service being newly developed as an instance of services that take people's information search process into account.

Method

For the reasoning discussed above, it made sense to us to conduct interviews not only with librarians and users, but also with various organisation personnel with whom the libraries collaborated in organising the new services. Previously, we reported our research based on the analysis of interviews with librarians and users around the business information service at four different libraries in Japan (Tamura et al. 2007; 2008; Ikeya et al. 2008). The second round of interviews has so far been conducted at two of the four libraries. This time interviews were conducted not only with users and librarians, but also with members from other institutions who were part of the committees the libraries organised when they prepared and launched the new services to support business.

Table 1. Interviews

	Library A	Library B	Total
Users	5	5	10
Librarians	6	3	9
Members of other organisations	10	8	18

These interviews were conducted at two libraries that can be categorised within the consultation service group, which is characterised as providing a consultation service provided by business specialists. Thus, analysis in this paper will be focused primarily on libraries that are characterised as part of the consultation service group. We will discuss other categories in a later section.

Based on the interviews conducted thus far, descriptions will be provided as to how the new set of services were designed and implemented. The explanations will concentrate on the reasoning or understanding commonly held by different kinds of stakeholders concerning the reasoning individual stakeholders had when initially engaging with the new service; how they came to be involved; what they have come to realise about the service and collaboration with the library; and what they expect to see further.

Designing a service for facilitating problem solving

Organising a service around the problem-solving framework

The business information service is new to Japanese public libraries. Stimulated by the services of American public libraries, this service was initiated in the late 1990s. In 2000, a group of librarians, journalists and academics formed an association promoting the service called the Bijinesu Shien Toshokan Suishin Kyogikai [The Business Library Association (BLA)] (Saito, 2009). The goal established for this service is 'supporting business', and its literal translation is 'business support service'.

The service is defined by the BLA in the following manner:

> The business support library is a library with an additional function that is
> designed to support businesses including starting up businesses, both by using

accumulated information in the library and various digital information available on the Internet and databases, and by training libraries to manage the information (Takeuchi 2005: p.39)

The definition provided by the BLA specifies that this service will be provided by librarians who are trained to search and manage information resources the library makes available to public.

The objective of this service, defined as 'supporting business', implies a radical transformation in Japanese public libraries in the following two senses. Firstly, it implies adpoting the view for organising a service in which public libraries should support human problem solving activities. This view has often contrasted with the view that the book circulation service should be the core of the public library services.[1] Secondly, the service implies an openness to the ways in which the service is designed. It is important to note that the word 'information service' is not included in the literal translation of the service name. The terminology and the goal do not narrowly define the library role or means for providing the service. It does not define, for example, that the library's role is to provide information. Although how seriously this phrase was taken when it was created and introduced to stakeholders is something that needs further investigation, it is still true that different organisations, independent from the library, were brought into play some major roles in creating the service with the library, and the diversity of service has been noteworthy. In this sense, it is fair to say that business support is an example of 'open innovation' in Japanese public libraries.

Furthermore, it is interesting to note that the service movement itself was initiated by a mixture of people who were not necessarily direct stakeholders in the public library: journalists, academics and government officials. This is somewhat distinctive, as library services have typically been viewed and actually designed solely by librarians themselves. However, this does not imply that librarians were forced to provide such a service by 'external' forces. In fact, a few librarians shared the general view with individuals promoting the service that there is a necessity to reorganise services so that library users can see the public library not just as a place to find good books to read for their pleasure, but as a place to search for information to solve problems they face in life. In fact, some librarians were aware that the number of male users in their fifties to seventies had been on the rise, and some reference questions clearly had to do with solving work related problems (Oyamashiritsu Toshokan 2009; Tokoyoda 2003).

Additionally, public library budgets had been decreasing in most parts of Japan due to local government economic difficulties. Increasingly, librarians recognised the need for libraries to directly contribute to solutions to problems that people in the local community face in their everyday lives (Kobayashi 2008). They decided one way to reorganise library services so that they could be of help to people in everyday life would be to create services supporting local area businesses, and thus enable them to contribute to the local economy (Takeuchi 2005).

In addition to information resources and librarian information skills, the general image that a public library is a place that is open to all citizens is also considered valuable in

forming this service (Tokoyoda 2003: p.168). While this value has been taken for granted by librarians, it has been 'rediscovered' by various business information service stakeholders as a distinctive public library value. Among those we interviewed, notably people from different specialised organisations acknowledged that one attractive and important public library value is the perspective of providing services to all citizens who have the need.

Thus, the business information service is specifically designed to support problem solving in business or work-related contexts by utilising library information resources, librarians' research and information management skills, and by taking advantage of the library as a place open to all citizens. Organising a library service based on the problem-solving model is clearly distinctive in the context of Japanese public libraries where strong emphasis has long been put on the book circulation service. It is also generally agreed among advocates of this service that the mission of public libraries is to deliver this kind of support by facilitating information seeking and use (Tamura 2008: p.57). The issues of how to design and provide actual services still seem to remain; they are up to each library to decide. This is one of the reasons why our project has been closely examining how each library has been organising their service.

In our previous research three library typologies were presented (Tamura et al. 2007). *The minimal service group* includes libraries providing a special business-related collection and identifying it as such by setting off a couple of shelves or designating a corner with shelves for it. *The reference service group* includes libraries that provide reference service as well as a special collection. *The consultation service group* includes libraries that provide consultation on business-related topics in conjunction with specialist organisations in those areas, such as the local governmental department of business and industry and the chamber of commerce and industry. Research has identified that various programmes are offered in the library, often in conjunction with other specialist organisations. Most seminars and lectures on specific topics are a way of providing information that would facilitate problem solving in a business context.

Thus, there are a variety of service menus for business information services, and each is organised to facilitate information seeking and its use in support of problem solving. Our research has identified that not only are there different ways in which service menu items are actually organised to deliver as a service, but there are different assumptions about how the value of facilitating problem solving should be delivered to people. In the following, different 'value constellation' types will describe how values and stakeholders are organised to create each constellation that is also recognised as producing certain values by different stakeholders.

Designing the actual service for dealing with people's problem solving

We have so far identified two different patterns of organising the service at libraries that fall into either the *reference service group* or the *consultation service group.* The distinction is not so much as whether a library provides a specific service menu such as a

reference service or a consultation service, but rather, the difference is how a specific value is selected and is organised with particular resources to create the service value. Thus, the difference here is whether or not the reference service is located at the core of the new service.

The reference service-oriented approach

This approach is characterised by its concern with locating the reference service at the centre when the business information service is organised. An underlying assumption here is that in the context of book circulation service framework always having been dominant, reference service has not been properly directed towards citizens (Tokoyoda 2003; Kobayashi 2008). That is to say, while the problem-solving framework has been presupposed in the provision of reference service, it has never been clearly indicated to the public, and thus, the fact that people can go to the library to obtain information and be assisted by a librarian in the process of problem solving has not exactly become integrated within common sense. At the same time, in terms of staff allocation and an emphasis on values, it is acknowledged that not all libraries have organised themselves to be ready to provide a service supporting citizens' problem-solving, (Kobayashi 2008).

In taking this approach, the first thing libraries need to do is to transform the reference service so that it can deal with people's problem-solving not only in a business context, but also in a more general context. This itself implies a big step for most public libraries in Japan as exiting reference service policy simply calls for librarians to be concerned with locating the right information resource and leaving the user responsible for finding the relevant information. Under the existing policy a librarian consequently has no concern with the user's purpose in using any particular information, i.e. what kind of problem solving (i.e. purpose for information use) the user is engaged in should not matter to a librarian.[2] Thus, a reference service transformation also involves training librarians so that they can provide an appropriate service to the user primarily by furnishing relevant information from among their information resources; but this function may go beyond that, and it may involve communicating with a suitable specialist in the relevant area so that the user can directly confer with that person. Reorganisation of staffing for the reference service becomes another issue to be considered in making sure a skilled librarian will be ready to serve users. In addition to the above, selecting appropriate library information resources that provide pertinent information to users in the business related problem-solving context is another essential part of the transformation of reference service.

Taking this *reference service oriented approach* does not require a library to remain 'closed' to other possibilities in organising its business information service. In fact, some libraries collaborate with various business specialist organisations both formally and informally on regular basis. One library, for example, not only holds a regular meeting to exchange information with a neighbouring organisation that supports people who start up businesses, but they also refer their users to each other's service desk so that individuals can receive service appropriate to their needs. The library also collaborates with the organisation whenever they hold seminars and other events by advertising in the library

as well as by displaying books related to the event topic. Thus, the library together with the specialist organisation tries to facilitate information seeking and use for problem solving in a business context to deliver value to the users.

Another library also collaborates with other specialised organisations both formally and informally. The library initially hosted a regular committee meeting to discuss how to collaborate for organising business support. While this formal committee was dissolved, the librarians are now part of informal gatherings where people from specialised organisations in business meet. Thus, collaboration may take place on a daily basis: a librarian at the reference service desk may call a member of the department of the local governmental business and industry to ask for advice in handling a user inquiry. The librarian may obtain the name of a person in another organisation with whom the user should speak. The library may also circulate lists of reference books for potential purchase to solicit specific organisation suggestions regarding such purchase decisions. In this way, by providing feedback as to what books are good for the library to have in terms of 'communal information resource' in the local community, members of specialised organisations offer some input in building the library collection.

Further, specialist organisations often find the library an attractive place for holding different service programmes. The chamber of commerce and industry, for example, holds regular consultation service for people who want to start businesses. The library helps the organisation administer these services not only by making appointments, but also by preparing related books for people coming for advice. This is one way of facilitating user information seeking and use. The library also helps various specialised organisations organise seminars and other events by preparing related books in the conference room so that event participants are able to see and borrow them. Librarians also try to acquire a short time slot whenever they can to inform participants of library services, i.e. in solving their problems they can search for information, and ask for librarian assistance when needed. By doing so, librarians hope to inform lecturers as well as audiences about how they can use the library. They even try to do the same thing for business related seminars outside the library.

This particular library also treats local government staff as its 'users', holding seminars to facilitate problem solving in policymaking, and includes this programme in their business information service. From the stance that the business information service can be provided by properly addressing and exercising the reference service in collaboration with other specialised organisations this development probably comes naturally. This library did not create another new category of service for local government staff as other libraries have. In such manner, libraries adopting this *reference service oriented approach* attempt to take every opportunity to inform people of their service capabilities so that they become their users.

The specialised service programme oriented approach

Another way of organising business information service apart from the *reference service approach* discussed above is characterised by a library relying more on outside specialist teams or organisations in providing a business information service. This normally involves organising a new service menu in which specialist groups normally play a major part in service implementation. This is the very reason it is called the *specialised service programme oriented approach*.

This is not to say that this approach ignores existing library services. Libraries that select this approach surely appropriately enhance their information resources so that people with business-related problems are able to use them. Further, libraries encourage their reference librarians to develop skills and become equipped to help such users. For example, librarians take BLA-operated training courses. At the same time it is fair to say that significant emphasis is not put on making changes to the existing reference service.

More efforts are made on creating new specialised service menu items, such as consultation services, seminars and other related programmes. Through these efforts libraries are urged to collaborate with specialist organisations such as the local governmental department of business and industry, and the chamber of commerce and industry. While some libraries outsource such services to these outside organisations, others take a role in coordinating the service programmes and let outside organisations administer the service programmes. To what extent libraries participate in administering the programmes varies according to their resource constraints. On the whole, these service programmes tend to be administered by a specialised department or team more or less independently from the rest of the library services.

In this way, the difference between the two approaches in organising business information service for dealing with people's problem solving may to a certain extent be a matter of relativity, dependant upon how much emphasis is put either on the reference service or the new specialised service programmes. Potential consequences resulting from these two different approaches will be discussed later.

Using a business information service

As reported elsewhere, we identified three effects of public library business information service use: 1) getting relevant information, 2) making connections with relevant people and organisations, and 3) getting affective support (Tamura et al. 2008). Business information service users we interviewed seemed to benefit from all three effects, as we reported earlier, and this was confirmed again in the second set of interviews conducted this time.

Values recognised by users of a library adopting the *reference service oriented approach*

When we review the interviews we reported earlier (Tamura et al. 2008), we see how users of libraries adopting different approaches recognise values differently. Users of a library implementing the *reference service oriented approach* acknowledged in interviews the effect of relevant information as something derived from two values they recognise: library information resources and librarian expertise. It is not to be forgotten that we interviewed some users of the reference service, so this result may be completely natural. However, at the same time, we should note that often the local government officers mentioned the value of librarian skills and library information resources as users, for both professional and private use. Another effect, that of making connections with relevant people and organisations, was mentioned by users of this type of library in relation to the values they recognised in librarian expertise in finding not only the relevant information but also locating relevant persons the user might have otherwise found extremely difficult to track down and actually meet. In terms of the effect of getting affective support, some users of the library taking the *reference service oriented approach* mentioned receiving support from librarians, by users getting back to them during the process of solving problems, e.g., in preparing for starting up a new business.

Values recognised by users of a library adopting the *specialised service programme oriented approach*

Users of the library adopting the *specialised service programme oriented approach* primarily acknowledged the latter two effects: that of making connections with people and getting affective support from people. However, the effect of information provided by the library was not normally mentioned alongside these two effects. When we asked specifically about information they gained through the use of the business information service, it tended to be information that they obtained from lectures or through an exchange of information among attendees rather than information obtained through searching library information resources. The implication here may be that the attendees of such business seminars held at the library did not necessarily become the users of other services in the library, e.g. the reference service. If this is correct, then the value they recognised is that of the library as a place or forum where they could acquire these effects.

Considering what makes it possible for people to experience the effects of getting affective support and making connections with people in the first place is probably meaningful. People, including previously non-library users, would likely visit the library to participate in seminars because they find the public library as a place open to all citizens. One user told us:

> When it comes to business support, it has been usually associated with places such as the chamber of commerce and industry, hasn't it? So I felt more comfortable when I came to learn that it (the business seminar) would be held at the library not at the chamber of commerce and industry. This is what other people have also said. If it is held at the chamber of commerce and industry, it makes people feel like that you are told where you should borrow money, or you are asked to reassure them that you are starting a business. (omission) If it is held

at the library, it feels like you are still allowed to join while you may be just thinking that you may want to start up business at some point in future (UO).

It is important to note that some seminar attendees actually started their businesses. That is to say, seminars coordinated by the library, while taught by business specialists, certainly facilitated participant problem solving, not only by providing information in the form of a series of seminars but also by providing a forum where they could exchange information, and by offering psychological support and connections with other people during the process of individual problem solving.

Collaborating with a library to provide a service

Interviews conducted with members of specialist organisations that have been collaborating with libraries to deliver a business information service show that they generally highly value their collaboration. What follows is a list of values recognised by those organisations collaborating with a library in delivering a business information service.

The public library as a place open to all citizens

Regardless of the different approaches libraries take, every specialised organisation member we interviewed valued the public library as a place anybody can visit at any time with or without a specific purpose. They regarded this as a significant advantage because although they always wanted to encourage and help people who have problems in their business or start up a new business, they knew that people who are not familiar with these specialised organisations would not easily approach them. People have a much lower psychological barrier regarding the public library when compared to specialised organisations. Actual experience has taught them that holding events with a library can attract far more people, or a different kind of people from those drawn to their organisations.

> What is often said about general economic organisations such as us is that people do not find it very easy to visit us. They normally feel that they won't be able to get advice unless they have specific purposes. They do not find it comfortable visiting us with just rough initial ideas. So we ourselves need to go outside our office. Here is where libraries come in. If they can collaborate with us, that can turn out to be supporting business or starting up business (RO7).

That public libraries are open during weekends is seen to be another advantage for attracting more people.

The public library as a communal information resource

Members of organisations collaborating with public libraries implementing the *reference service oriented approach* regard the public library as a 'communal information resource'

not only for citizens, but also for local government staff members like themselves. They encourage people they advise to visit the library to find information. They themselves are often serious library users, and they volunteer to provide some suggestions as to what books the library should have on a specific topic area.

> I often intentionally tell businesspersons to visit the library themselves, saying 'if you borrow books and read them with your own eyes, then you will find more good things'.   Then they come back and tell me that 'yes, there are many good things there, aren't there'. If they go there, then they are likely to borrow other books. Even the advancement of technology starts from the soft level to the more difficult level. It does not go to the difficult level at the beginning. So you need some information at the soft level, and that is where the library can take charge, while what researchers at the industry and technology centre or professors at the university would really need should not be what the library should run. They need to have it with them. However, some information at the middle level should be kept in the public library, and the rest should be owned by the library (RT3).

That they value their library as a communal information resource means that they recognise the value of library information resources in the context of their own work.

The public library as an information searching capability

Librarian information searching capabilities are also valued by specialised organisation members collaborating with the library adopting the *reference service oriented approach*. Comprehensive and systematic search is recognised as a specialised librarian capability, and specialised organisation members seem to rely on librarians for this reason when they need to do a thorough search in their own work.

> When someone from a company comes to us, we may need to conduct a thorough investigation of a specific industry including how the business is organised, how the particular field is related to other industries. We also need to conduct marketing research as well. That is another area we owe so much to the library. There usually exist statistical data, articles written on the industry, and I may need to request a specific journal issue. So I go to the library desk and make all the requests, and the librarian deals with them nicely. In fact, they now often suggest some different information that may be of interest to me. I feel that they are becoming more alert with information. (RT5)

This remark seems to demonstrate that librarian expertise is recognised as a value by specialised organisation members.

Thus, the *public library as a place open to all citizens* value is recognised by collaborators with libraries adopting either approach. However, according to interviews we conducted so far, the two other values, that of the *public library as communal information resource* and the *public library as information searching capability* are

typically recognised by those who collaborate with the library that takes the *reference service oriented approach*.

Conclusion

We have so far described two different ways in which public library business information service is organised in Japan. One is the *specialised service oriented approach*, and the other is the *reference service oriented approach*. For these two approaches, our analysis was first made on the logic utilised when the goal of the service was defined by a group of librarians, academics and journalists comprising the BLA. Further analysis was made on the logic the service users, and also on that of the specialist organisations collaborating with libraries in delivering the service, by focusing on values recognised by these stakeholders. Thus, these two approaches can be regarded as 'value constellations' that are organised differently. They aim to achieve the same goal, that of delivering the value of facilitating problem solving in a business context. However when analysed at the level of service design, use and implementation, we are able to see how differently these value constellations are organised. Each stakeholder has goals that may be different or overlap with other stakeholder goals. Naturally, they may have different values to deliver to citizens, and assumptions they have about delivering the values may also differ. When various stakeholders try to collaboratively deliver the same value, the ways in which the collaboration actually comes to be organised may vary. It is the value constellation dynamics that we think are worth investigating.

As was examined earlier, two different approaches we identified for organising a business information service seem to involve different sets of values recognised by the stakeholders involved. On the one hand, the service implemented by a library taking the *reference service oriented approach* seems to be recognised by stakeholders as involving the values of library information resources, librarian expertise and the library as a place open to all citizens. On the other hand, among these three values, the service implemented by a library taking the *specialised service programme oriented approach* seems to be recognised by stakeholders as most involving the value of the library as a place open to all citizens. While it is still too early to make any conclusive statements, we can still consider how these recognised value sets are related to the goal initially set up for the business information service, i.e. supporting solving business-related problems by using library information resources and by fostering librarians. Some reconsideration may be necessary when the value of library as a place is the most recognised among the three values.

The service itself and our study, in many ways, seem to validate the new role of intermediaries i.e., a more interactive, collaborative role in the information search process at workplace, suggested by Kuhlthau (1996). In fact, the fact that this service has been successful seem to suggest that studies and models of information seeking and use can inform and contribute to design of new information services. This paper has shown that studying the organization of a service that supports and enables the users' information seeking and use itself can be illuminating, and even more so when it is examined in

relation to the users' practice in the context of a particular service. The kind of analysis undertaken in this paper can be taken as a mode connecting studies on information seeking with those on library service evaluation.

Note:
1.Whether these two views should be contrasted against each other as principles of the public library service is a matter of debate, which is not going to be dealt with in this paper.

2.In this regard, *the minimal service group*, providing only a special business-related collection under the name of business information service, can be said to be basing the book circulation service model under which dealing with the user's problem is not something the with which librarian should be primarily concerned.

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Biographical Note:

Dr. Ikeya is a Research Scientist at PARC. She is a member of the Japan Society of Library and Information Science and American Sociological Association. She aims to capture the "practical management of knowledge" -- how knowledge is shared, acquired, transferred, and used as a part of activities (participants' logic-in-use in conducting activities). She emphasizes the importance of informing practitioners of her findings, and based on findings has co-designed activities with them so that they can work more collaboratively to better manage knowledge. With these goals in mind, she studies "knowledge in action" in social settings from an ethnomethodological perspective. Ethnographic studies of work practice in various professional work settings she has conducted include emergency medical practice at hospitals and library services,

particularly service design practices and reference service interactions. Among her publications are "Doctors' practical management of knowledge in daily case conference." *Orders of Ordinary Action.* Ashgate, 2007 and "Why do we need to share information?" In J.Foster (Ed.), *Collaborative Information Behavior.* IGI Global, 2010.