Motivators and Demotivators of Chat Reference Service[*]
채팅을 통한 정보봉사 서비스의 이용자 동기화 및 비동기화 요인

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ABSTRACT

The purpose of this study was to discover the factors which motivate academic library users to use chat reference service and which demotivate academic library users to use chat reference service. To achieve the study purposes, this study conducted interview with the selected participants (Information Studies graduate students at Florida State University(FSU)) through email in April and May 2007. This study found that 1) convenience, 2) anonymity, and 3) inexpensiveness of the service served as incentives(motivators) for chat reference service consumers to use the service. On the other hand, chat reference service consumers mentioned the following factors as obstacles (demotivators) for using the service: 1) waiting time, 2) accessibility, 3) interface design, and 4) difficulties with expressing themselves in a virtual space.

초 록

이 연구의 목적은 대학도서관 이용자가 채팅을 통한 정보봉사 서비스를 이용하는데 있어서 어떠한 요소에 의해 동기화가 이루어지며 또한 어떠한 요소에 의해서 동기화가 방해되는지를 밝혀내고자 하는데 있다. 이러한 연구의 목적을 성취하기위해, 본 연구는 미국의 플로리다 주립대학에서 문헌정보학을 전공하는 대학원생들을 대상으로하여 2007년 4월과 5월에 인터뷰를 실시하였다. 인터뷰자료의 분석결과 채팅을 통한 정보봉사서비스를 대학도서관 이용자들이 이용하는데 있어서 다음과 같은 요소들이 동기화 요인으로 작용한다는 사실이 밝혀졌다: 이용의 편리성, 익명성, 서비스를 이용하는데 있어서 비용이 거의 들지 않는다는 점. 한편, 채팅을 통한 정보봉사서비스를 이용하는데 있어서 방해요인으로는 다음과 같은 요소들이 언급되었다: 서비스를 기다리는 시간, 접근성, 인터페이스 디자인, 가상공간에서 자신의 의사를 정확히 표현할 수없는 불편함.

Keywords: chat reference service, user motivation, user demotivators, academic libraries
채팅을 통한 정보봉사, 이용자 동기화요인, 이용자 비동기화요인, 대학도서관

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1. Issues of Chat Reference Service Studies

Since the late 1990s, there have been various chat reference service researches. Pomerantz(2005) states these chat reference service researches can be divided into three phases.[1] According to Pomerantz(2005), the purpose of the first phase of the chat reference service research was to introduce a new technology and the potential possibility of the chat reference service in the library field.[2] In the late 1990s, a range of literature related to chat reference service focused on potential advantages of real time and interactive chat reference services. Most articles focused on comparing various chat software packages. The second phase of chat reference service research was comprised of various case studies. As Coffman(2004) mentions, "dozens and dozens of case studies describe how libraries have done it 'good' or done it 'bad'"(paragraph 1).[3] Furthermore, Pomerantz(2005) states, "this phase describes most of literature currently being published on chat reference services"(p. 1288).[4] As a result of these first and second phases of chat reference service research, the third phase

of chat reference service research was emerged. Based on the results of the first and second phases of chat reference service research, the third phase of chat reference service research discussed the best standards and practices for providing chat reference services. In other words, as Westbrook (2007) states, "standards have been established, training tools initiated, and best practice models created"(p.638).[5]

Despite these various research efforts related to chat reference services over the past several years, as Pomerantz & Luo(2006) insist, "there have not been many studies that examine users' motivations for using library reference services"(p. 353).[6] Pomerantz & Luo(2006)'s study can be regarded as the first attempt to pay attention to chat reference service users' motivations from users' perspectives.

2. Issues of Academic Library User Studies

In the academic library field, there is considerable research which emphasizes the issues of

1) Jeffrey Pomerantz, "A Conceptual Framework and Open Research Questions for Chat-Based Reference Service," *Journal of the American Society for Information Science and Technology* 56, no.12(2005): 1288-1302.

2) *Ibid.,* 1.

3) Steve Coffman, "To Chat or Not to Chat-Taking Another Look at Virtual Reference," *Information Today* 12 no.7(2004).

4) Ibid., 1.

5) Lynn Westbrook, "Chat reference communication patterns and implications: applying politeness theory," *Journal of Documentation* 63, no.5(2007): 638-658.

6) Jeffrey Pomerantz and Lili Luo. "Motivations and uses: Evaluating virtual reference service from the users' perspective," *Library & Information Science Researc.* 28(2006): 350-373.

service quality and service quality evaluation(Cook & Thompson, 2000; Hernon, Nitecki, & Altman, 1999; Quinn, 1997; Nitecki, 1996; Martensen & Gronholdt, 2003). However, as Simmonds(2001) mentioned, "there has not been very much written about the factors that influence students actually to use libraries".[7] In other words, academic library user studies focused, for the most part, on what resources or services library users use, how library users assess library service quality, what relationship exists between library usage and library users' academic success, and so on. However, there is a lack of research which studies the fundamental motives underlying academic library user behavior to use library services and products. As Merchant (1991) states, linking library use to library user motivation may be one further step forward in library user studies.[8] Therefore, now it is time for academic library researchers to ask the question of "why do library users use library resources or services?" in addition to the question "what resources or services library users want?" From this point of view, we need to study academic library users in terms of their motivation to use library services and products. Academic library users are also consumers who demand and choose products and services in an information market place which is motive driven. Academic libraries reside in a competitive environment. If academic libraries can-

not successfully motivate consumers to use their products or services, they may lose the advantage to other information providers. Ultimately, academic libraries must satisfy and motivate consumers for the libraries' survival and prosperity in our society.

Based on these understandings, this study will try to understand academic library users' motivation to use chat reference service.

3. Study Purpose

The purpose of this study is to discover the factors which motivate academic library users to use chat reference service and which demotivate academic library users to use chat reference service through interviews with academic library chat reference service users. As mentioned above, one of the biggest problems with academic library user studies, including academic library chat reference service user studies, is that there was little research which put an emphasis on academic library user motivation. The aim of this motivation study is to understand the relationships between motives and specific behavior. Therefore, it is necessary to study the academic library user from a motivational point of view in order to understand the fundamentals of user behavior. Through academic

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7) Patience L. Simmonds. "Usage of Academic Libraries: The Role of Service Quality, Resources, and User Characteristics," *Library Trend* 49, no.4(2001): 626-634.

8) Maurice P. Marchant. "What Motivate Adult Use of Public Libraries?," *Library & Information Science Research*, 13(1991): 201-235.

library chat reference service user motivation study, we can better understand why academic library users do or do not use chat reference service. Based on these understandings, the purposes of this study can be summarized as follows:

- To discover the factors which motivate academic library users to use chat reference service; and
- To discover the factors which demotivate academic library users to use chat reference service.

The purpose of this study is not to evaluate chat reference services of specific academic libraries. The participants and academic libraries for this study were selected for the convenience of this research. Therefore, this study has limitations in generalizing the study results to general academic library chat reference service users.

4. Data Collection Methodology

4.1 Selected Academic Library Chat Reference Service Example

Generally, libraries provide chat reference services in cooperation with other libraries. It is because libraries can provide more efficient services, decrease their collections budgets, and take advantage of special collections provided by other libraries. As a result, even if academic library users access

to the chat reference service desk through their own library website, their questions could be answered by public librarians. However, FSU library provide their own chat reference service without cooperation with other libraries. In addition, Goldstein library provide chat reference service in cooperation with other libraries, but Goldstein library staffs answer to their users' questions during specific day and time. Therefore, the researcher had the selected participants use the chat reference services at Strozier library or Goldstein library during their operation hours to ask questions related to their research for assignments or current their information needs.

4.2 Participants of the Study

The population of this study is academic library chat reference service users and the study population of this study is Information Studies graduate students at Florida State University(FSU). To select participants of the study, the researcher employed nonprobability sampling technique, in particular judgmental sampling, was adapted. In judgmental sampling, the researcher uses his/her judgment in selecting the participants from the population for study. The selected participants of this study were Information Studies graduate students at Florida State University(FSU) who are registered in three Masters level online classes: LIS 5511(Management of Information Collection), LIS 5271(Research Methods in Information Studies) in the 2007 spring semester, LIS 5241(International & Comparative

Information) in the 2007 summer semester, and General Information Studies graduate students. The participants were asked to use the chat reference service at FSU libraries(Strozier Library chat reference service or Goldstein Library chat reference service) to ask questions related to their research for assignments or other information needs.

4.3 Interview Questions

After using the chat reference service, the participants were asked to answer to the following interview questions through email:

1. In the future, do you want to use the chat reference service? If yes, please explain why. If no, please explain why.

2. What do you think are the strong points of the chat reference service, compared with traditional reference service?

3. What do you think are the weak points of the chat reference service, compared with traditional reference service?

4. Could you make any suggestions to improve the chat reference service?

5. Data Analysis and Discussion

The first data collection was held in April 2007 and the second data collection was held in May 2007. Seventeen students participated in the study

during the first data collection period and eight students participated in the study during the second data collection period. A total of 25 students participated in the study.

It was possible for the researcher to group the interview data into 25 categories(see Table 1). Furthermore, the researcher found that the 25 categories could be further grouped into seven categories. This procedure is similar to the open coding process of grounded theorists. In open coding, the grounded theorists "form initial categories of information about the phenomenon being studied by segmenting information" based on the collected data through interview, observation and so on(Creswell, 2002, p. 441).[9] The grounded theorists identify categories and subcategories through the process of open coding. The researcher employed similar procedure as the grounded theorists. However, in the strictest sense, the method of this study is not a grounded theory approach. As a result, the researcher does not follow the step-by-step procedure of grounded theory.

It was found that the seven categories(convenience, anonymity, inexpensiveness, waiting time, service access points, accessibility, and difficulties of communication) could be grouped into two broad categories: motivators and demotivators. The categories of "convenience", "anonymity", and "inexpensiveness" can be regarded as motivators to use chat reference service. On the other hand, the categories of "waiting time", "service access points", "accessibility", and "difficulties of com-

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9) John C. Creswell, Educational Research(New Jersey: Upper Saddle River., 2003).

〈Table 1〉 Categories of Interview Data

Categories	Subcategories
Convenience	• Easy to use • Immediate answering • Fast response • Speedy to use(Fast connection) • Accessibility from anywhere with Internet connection
Anonymity	• Less intimidating than face-to-face reference service • Comfortable feeling(compared with face-to-face reference service • Worry about being judged or thought of as stupid
Inexpensiveness	• No long distance call • No extra cost
Waiting Time	• Waited with no response • Waiting time before starting the reference interview • Long pauses
Service Access Points	• Difficulties in accessing the interface • Difficulties in finding chat reference service desk • Bad interface program • Confusing login interface
Accessibility	• Difficulties of Initial setup • No librarians online • The chat software doesn't work • No compatibility with other browser than Internet Explorer
Difficulties of communication	• Difficulties in transferring non-explicit information • Difficulties in understanding reference librarians' instructions • Limitations in communicating and expressing oneself • No facial expressions

munication" can be grouped as demotivators to use chat reference services.

As mentioned above, through the analysis of the interview data, the researcher could find the factors which motivate users to use chat reference service and which demotivate users to use chat reference service. The researcher will present each of these factors.

Pomerantz & Luo(2006) found seven motivational factors for using chat reference service through NCknows user survey:

• "Convenience(47%)

• Other means of seeking information were not helpful(15%)

• Curiosity(13%)

• Serendipity(12%)

• Recommended by others(7%)

• Personal characteristics/habits(7%)

• Other means of seeking information were not helpful(15%)"

Horowitz, Flanagan, & Helman's(2005) study also found that "convenience" is the greatest reason why users used the service(as cited in Pomerantz

& Luo, 2006).[10]

The participants of this study also mentioned "convenience"(ease of use, fast response, fast connection, immediate answering, and accessibility from anywhere with Internet connection) as the most attractive factor of chat reference service:

"I can access chat reference service anywhere I have an internet connection"(Interviewee 2).

"The convenience of use and ability to access without being in the library. This service can be performed from anywhere whether in the library, at a dorm, or from hundred of miles away"(Interviewee 7).

"It's more efficient. You don't have to go all the way to the library"(Interviewee 15).

"As a distance ed student, the service could be invaluable. I cannot physically go to the library and ask a question-I was able to ask a question using the chat service from my own computer"(Interviewee 6).

"This service enables me to receive information without having the inconvenience of leaving home"(Interviewee 18).

"The ease with which one accesses the servic e···the fact that I can access it from home and get help in real time"(Interviewee 24).

"I think that the handiness and immediacy of the service makes it very helpful"(Interviewee 17).

"I would like to use Chat because I think it should be speedy and easy to use"(Interviewee 22).

"Waiting on the phone or waiting to get an e-mail response is no fun either"(Interviewee 8).

"Quickness of answering"(Interviewee 14).

Next, the participants considered "anonymity" as one of the advantages of chat reference service.

"It can be less intimidating than a face-to-face encounter with the reference librarian"(Interviewee 4).

"I am also rather shy, and I appreciate the relative "anonymity" of a chat service"(Interviewee 6).

"It is less intimidating than traditional face-to-face reference interactions. I felt more comfortable expressing my needs, perhaps because I was not able to see the reference personnel's confusion, frustration, or non-interest in my question(if any of those emotions existed)"(Interviewee 9).

"The librarian can't see you, so patrons(me

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10) *Ibid.,* 6.

in this case) feel safer and won't worry about being judged or thought of as stupid"(Interviewee 12).

Furthermore, the participants reckoned chat reference service less expensive.

"It's also less expensive than making what would be a long-distance call in my case" (Interviewee 15).

"I would not make long distance phone calls to the reference librarians to have my questions answered"(Interviewee 16).

"It doesn't cost me anything extra to use this service which is great"(Interview 24).

On the other hand, demotivators for using chat reference service can be summarized into four factors: 1) waiting time to receive the service, 2) service access points, 3) accessibility of the service, and 4) site design(simplicity of interface).

First, waiting time(before, after, and/or during communication with chat reference service provider) was an obstacle to chat reference service consumer's motivation to use the service.

"At first, I tried using ···.. library chat service and waited for 10 minutes with no response. I tried it again for another 2 minutes and got nothing. Then, I went to the main library site and went through the initial process to set up

an AOL account. Setting up the AOL account took a while and was a little annoying as my suggested screen names kept getting rejected. I wish they had the MSN Instant Messenger, which I already have an account with. So basically, the initial setup was a little annoying. I wouldn't have to deal with this if I just used a traditional reference service"(Interviewee 4).

"While I was asking questions, the librarian asked me to hold while she helped another patron that was there in person, this sort of made the communication feel like a phone call, and I thought it was odd. I was sort of under the impression that this service was separate from desk reference services and that I wouldn't be interrupted in my query"(Interviewee 8).

"I tried to chat on three different occasions and different times of the day. The first times I stayed connected and waited more than two hours before I gave up. The third time I was connected within 30 minutes. It was frustrating"(Interviewee 10).

"Well, one would not have to wait for 20 minutes just to start the reference interview at a traditional reference desk"(Interviewee 11).

"There are long pauses and since you can't see what the librarian is doing, you may be discouraged and give up because it seems like there is no response from the librarian"(Interviewee 16).

Second, accessibility of the service hindered users from using chat reference service.

"I had to download a special IM platform, install it, then figure out how to use it to talk to the reference desk. I repeatedly clicked on the link to try but either I would get an error page or the page would continually try to load but not go anywhere. After several attempts I finally figured out how to enter the chat address into the IM and felt I was able to contact someone by shear luck"(Interviewee 2).

"I do not want to use it again. The first two times I tried were on different weekdays during the hours a librarian was supposedly available. Both times, there were no librarians online. The third time I tried, there was one librarian online. The chat software doesn't work with Firefox browsers. So I tried with Internet Explorer. I have found the whole process very frustrating and disappointing"(Interviewee 5).

"Make sure it's compatible with browsers other than Internet Explorer. I didn't see anything about technical requirements to use the service, but it didn't work with Firefox at all.(I think Firefox comprises ~10% of browser usage these days?)"(Interviewee 5).

"Once I did, it said both screen names were offline. I thought this might be because I didn't have AIM launched on my computer, so I launched it, updated the software, and the screen names were still offline-despite the fact that according to the schedule, they should have been present. This was frustrating. If they're going to offer this service, they should keep to the hours posted and make it easier to find and use"(Interviewee 21).

Third, users pointed out the problems related to chat reference service interface design and/or service access points.

"One of the weakest points from my experience was just figuring out how to access the interface"(Interviewee 17).

"Not being able to figure out where to start, where is the correct access point?"(Interviewee 15).

"The biggest suggestion which I could make is to get a better interface program. Some universities have an accompanying pop up screen which allows the librarian and the inquirer to both be looking at a same screen controlled by the reference librarian. This allows the librarian to tell how there help is being performed why actually performing the search which can be followed by the inquirer by watching the screen. This allows the inquirer to get information and learn visually how the search was performed without having to do it in maybe an incorrect way"(Interviewee 17).

"The login interface is confusing in as much as the Login button is above the text fields rather than below them. It is not fully clear whether one should select the Login button after entering data in the text boxes rather than before-hand"(Interviewee 1).

Fourth, chat reference service is taken place in a virtual space. Therefore, it is not easy for chat reference service consumers to express themselves precisely. Furthermore, it is not possible for chat reference service consumers to understand service provider's responses accurately. This is a limit of all virtual communications, including chat reference service.

"Despite the immediacy of chat reference, there is still something significant being lost in the transfer of non-explicit information(e.g., body language) during a reference interview that can serve as cues for redirecting the information search or clarifying needs"(Interviewee 1).

"I think that when you use a face-to-face reference librarian you can go right to the shelves to get the books or they can pull the books for you so it is easier in that aspect. With chat you will have to check up on the books at a later time and trust that the librarian gave you good advice"(Interviewee 3).

"The chat reference is a little less human, without the intricacies of a nice and friendly personality that can add a really nice touch to the reference experience. Online chat also limits the ability to communicate and express one-self"(Interviewee 4).

"Trying to get across what I am searching for, it may have been easier to show the person what I had done for my paper and they could have had a better grasp on what I was looking for"(Interviewee 21).

"When you are telling an actual librarian what you want, you can see them and judge by their facial expressions whether they really understand what you are asking for. I am not as certain if the chat service person knew exactly what I meant even though she said she did"(Interviewee 13).

"To get to exactly what a searcher is looking for it will take a longer time and reading the inquirer's body language is not an available option. A librarian can also not show the person exactly the way they are searching and are just assuming the inquirer is performing the right steps and is not too embarrassed to say they are not following the help given"(Interviewee 7).

"Online you don't have the books or resources in front of you so you can't always see what the librarian is talking about. Even when they are giving you weblinks, it is always easier to look at them with the librarian standing

next to you as opposed to a couple of states away"(Interviewee 17).

"The librarian probably can't tell from my chat words how I feel about the information she's providing. I have to explain in words what may have been more easily conveyed through a facial expression"(Interviewee 15).

In conclusion, the characteristics of "convenience", "anonymity", and "inexpensiveness of the service" served as incentives for chat reference service consumers to use the service. On the other hand, chat reference service consumers mentioned the following factors as obstacles for using the service: 1) waiting time, 2) accessibility, 3) interface design, and 4) difficulties with expressing themselves in a virtual space.

6. Conclusion

This study started from the premise that previous chat reference service user studies did not succeed in revealing real users' voice. Furthermore, aca-

demic library user studies did not focus on users' fundamental motives underlying their specific behavior. We need to study academic library chat reference service users' motivation to answer why they use or do not use the service. Through these academic library chat reference user motivation studies, we can develop more sophisticated chat reference services. This study found that 1) convenience, 2) anonymity, and 3) inexpensiveness of the service served as incentives for chat reference service consumers to use the service. On the other hand, chat reference service consumers mentioned the following factors as obstacles for using the service: 1) waiting time, 2) accessibility, 3) interface design, and 4) difficulties with expressing themselves in a virtual space. Among these factors, it is true that previous researchers put more emphasis on motivators than demotivators. However, we should pay attention to not only motivatiors but also to demotivators. If we cannot improve the factors which demotivate academic library users to use chat reference service, users cannot be motivated to use the service. Therefore, academic library chat reference service user studies should focus on demotivators as well as motivators.

References

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