Digital Reference Services: A Challenge for Reference Work and Philosophy

Literature review

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<u>1 The reference service goals</u>

All the library activities have been challenged by the Internet and by direct user's access to even more information sources with even more sophisticated searching tools and devices. In the US, reference activity has been the heart of the library since the 19ᵗʰ Century with the role of offering illiterate people a unique space and chance to learn, where "a spirit of free investigation led to more significant research and inquiry"

The evolution of the reference (Fritch and Mandernack, 2001) highlights different attitudes and approaches of the reference librarians defined *conservative*: as devoted to "instruct and guide the user" promoting self-reliance or *liberal* "providing direct answers to quick, factual, or ready reference questions". In the authors' view, the steps of this development have been:

- "the development and expansion of services in support of liberalizing reference work…
- creation of reference desks
- library cooperation systems
- online search services
- online public access catalogues
- the introduction of CD-ROMs and therefore the emerging teaching role
- the Internet era: in which at first the volume of published information increased dramatically but the creation, storage and distribution remained largely under the control of professional societies, publishers, libraries and bookstores and
- the past decade…with the shift from a more heavily controlled environment to one that is much more open and uncontrolled …and Internet has opened the floodgates of information creation, distribution and access."

Looking at the relevant transformations of the stream of library reference activities, it is now time to gain a thorough understanding of the real value of the services libraries have been providing. Moreover, from an historical perspective, librarians must focus on the foundation of the reference and its original goals.

This insight is the central point of a wide and controversial debate on reference in the digital era. This subject seems now crucial for the future, not just of reference services, but of libraries themselves. In fact, without a clear reconsideration of their role as information providers for all the community and for specific sectors: Public libraries, Academic libraries or R&D libraries in public or private Institutes, actually run the risk of disappearing.

There are plenty of studies on digital reference and the development in this direction seems obliged and no longer questionable. On the other hand, the changes are occurring so fast and are so radical and complete that we cannot figure out a simple solution, by just following the reassuring path we have always known..

There are many different and contrasting opinions on this subject: from the radical assumption of (Ewing and Hauptman 1995) who propose the abolition of the reference service to the greyer area of expressions of concern (Borgman, 1997; Butcher, 1999; Kautzman, 1999;Wilson, 2000; Frank, Calhoun, Henson et al., 1999). Anyway, the challenge for the reference services is still inevitable (Campbell, 2000; Ferguson and Bunge, 1997; Ferguson, 2000; Gray, 2000).

The main concern is related to the quality of the reference in a digital environment where face to face encounters are no longer possible. Human communication is a fundamental aspect of the reference transaction, usually restricted to "the interview". In fact, in real world communication is much richer and more complex, utilizing besides words, non-verbal, physical and behavioural information signals that enrich verbal exchange.(Francoeur, 2001).

<u>1.1. Will reference survive?</u>

Before analysing any relevant project, delivery choices or software features, the focus of the issue is the reference itself. This peculiar human activity of questioning and answering is now threatened by technology, intelligent agents, engines, or is it facing a new challenge for a future creative development?

Reference activity has gained a worthy and high reputation in specialized areas of research and studies and in the corporate environment. The concern that a tradition of knowledge and working practice, that has enhanced the level of librarians and institutions and provided patrons with intelligent expertise, may disappear, is a feeling that is worthy of respect. So the issue of reference transaction cannot be reduced to a software problem.

The alarm that reference librarians will be deprofessionalized seems like Cassandra's prophecy, not agreeable and not appealing at all, compared to the actual suggestion that there are products even more capable and intelligent. Dilevko (2001) warns that "from some recent proposals and models of digital reference service the role of the reference worker is to be a mere technological gatekeeper, a guide who makes minor intellectual contributions beyond the perfunctory act of steering the user to the best web sites or databases without knowing a great deal about the issues underlying the user's requests…" This strongly polemic approach seems to be the last defence of a privileged class that is loosing its power or of old-fashioned workers refusing to cope with the changing world. Nevertheless, one should give the author credit for having put a strong accent on the content of reference work, even though the author suggests simplistic solutions like that of reading.

This very consistent and articulate article poses many questions indeed. Strongly arguing that the digital reference is made equal to "call-center model". Harris(1992), as cited by Dilevko "has identified deskilling as an important issue in librarianship and presents evidence that certain library specializations, such as cataloguing and collection development are at various stages of risk. Citing the work of Nina Toren, Harris understands deskilling to involve 'the delegation of routine activities to less qualified personnel and leaving the complex and difficult problems to the trained professional. Sometimes, however, not much is left to warrant a distinct professional status and its correlates'. Harris and Marchall(1998) show that both budget constraints and rapid developments in computer technology have had the effect of 'pushing tasks down the organizational hierarchy'. Tasks previously performed by professional staff are 'now assigned to less expensive non-professional staff". Moreover, Dilevko, citing Harris and Marshall (1998), complains that "the roles of librarians will tend to become very broad – a circumstance that 'will eliminate the ability to specialize in the areas of expertise that have defined the core of the profession".

Nardi, at the Apple Research Laboratories and O'Day, at Xerox (1996, 1998), offer a completely different approach based on highly professional skills. They developed a very interesting research, comparing the reference librarian, as a human agent, with *intelligent agents* in the performance of reference services. Taking the analysis of reference librarian work as their starting point, they integrated this study with ethnographic studies.

Their direct experiences in Apple and HP have shown that "librarians can perform searches on any area that might be of interest to an employee. In general, the current philosophy is to maintain breadth so that requests can be filled flexibly. However, librarians often gain special expertise in areas in which they have worked intensively in the past." Differently from the kind of reference work a public library usually undertakes, searches categorized as *ready reference* are even less frequent. The detailed analysis (Nardi, O'Day 1996) is full of interesting clues that would be useful to study in-depth. The aim of the study was to identify librarian performances that could be imitated by intelligent agents and others that only the librarian can do. In the reference transaction, great importance was given to the customization of searches made for a client:

1. refining goals in collaboration with the client: clarify the search request (interpretation), adjust the focus of the search, characterize the expected results of the search, stretch the boundaries of the search space

2. creating a client profile to focus the search: the profile describes the process and product of gathering and using information, finding out about the client
3. staying on track via the client's evaluation of intermediate results
4. doing the right thing: sometimes librarians deliberately violate a client's goals.

The authors introduce the subject of intelligent software agents, criticizing the *watch-and-repeat* model, then they propose the tasks that software agents could perform and principles underpinning its performance in the view of employing IAs to integrate and improve librarians' reference work. This complex subject, not developed by the authors in the articles mentioned, is treated mostly in relation to the librarian's performance. Librarians are not at all in competition with software intelligent agents because they only have to do tasks that the IAs cannot do:

- "Speak and understand. …The role of the librarian in helping clients understand their own needs…The negotiations...[are] often subtle, nuanced, tactful and delicate...negotiating goals on full natural language.
- Read and understand content. …Reference librarians provide tremendous value to clients in returning useful, relevant information unencumbered with extraneous material… Irrelevant material can only be cast out…
- Make connections across diverse sources.
- Access paper sources.
- Acquire restricted material.
- Assess the quality of information sources, offering the human touch….Because we believe that access to information is a fundamental need in today's world, we advocate supporting it to the fullest, which for us means a living, breathing community of helpful humans at the ready. We expect the human touch to become more, not less important, as electronic access to information resources grows and tools for information access proliferate…" (Nardi, O'Day 1998).

Their analysis is framed in the concept of a *diverse information ecology*. To leverage reference activity, it has to be seen as a result of the collaboration of three actors : patron, librarian and IAs : " to move the dialogue up to higher, more powerful levels, addressing decision makers….providing quantifiable measures of values…" (Nardi, O'Day 1998).

This analysis and perspective of reference librarians in the corporate environment is far more advanced than others on public libraries, where all the attention is put on the software and on the everyday management of the service. Projects without visionary ideas have no future. Actually, software agents will replace reference librarians if they are unable to develop added-value services and provide strong human support in a society undergoing tremendous change. At the same time, the services need to be extremely customized so as to let users learn and use the information needed for planning, organising, constructing and making decisions concerning their own lives, but they should also be available to society as a whole including all the special groups it is comprised of. Libraries have always had a relevant social function, that is, of guaranteeing the value of democracy, freedom, equality and partnership. Their role in society must continue in a more effective way, considering that Internet "has contributed to a value system in which lifestyles are increasingly tailored to one's preference. Individualism, customization, convenience, self-reliance, and self-fulfillment .. [are] predominant attitudes in the general culture….The heavy reliance on technology, the use of which is typically a solitary activity, tends to alienate individuals from each other physically, psychologically and emotionally…[on the other hand] advanced information technology can unite people with common interests from all over the world, it also encourages, maintains, reinforces, and strengthens differences…(Frich, Mandernack, 2001).

"A promising thread of DL research is to find ways to bring people together to help each other, especially when individual information-seeking actions are unsuccessful. A *sharium* will provide facilities and tools to allow community members to share their time and expertise. …On the other

hand, it will solicit and welcome patron contributions of physical artefacts and/or their digital representations…DLs have new opportunities to provide authoring tools that integrate search and discovery, collaborative authoring, version control, documentation and publication activities…It can act as an open school where individual, self-directed learning that libraries have always facilitated can be extended to collaborative, self-directed learning unconstrained by distance and time" (Marchionini 1999).

2. The digital reference services: "Ask a"
2.1 e-mail, webform, chat and VRD reference transactions

It is not necessary to spend words to illustrate the popularity of the e-mail: flexible, asynchronous, unobstrusive. The Question and Answers in e-mail reference transactions have been studied since 1988 (Roysdon and Elliott) and there is a wide range of data regarding typology and frequency. Aileen Abels (1996) has studied the e-mail reference interview and has set up a taxonomy of the way of professional answering.

A recent study has been conducted on the e-mail questions received by the reference service at the libraries of the University of Chico, California, by W. Diamon and B. Pease (2001). Providing the study with a large review, they underline that "the articles describe e-mail reference services that were predominantly used by faculty members, graduate students, or other special audiences, or had an explicit policy of limiting users to short factual questions.. It is likely that a broader and more diverse client base would generate broader and more diverse questions".

To confirm their assumption, Garnsey and Powell (2000) made a "survey of 22 public libraries offering digital reference… 55 percent of the libraries intended the service for ready reference questions". Besides, they highlighted the different position of Straw (2000) asserting that "short, factual questions are most appropriate for e-mail reference", while Gray (2000) suggests that libraries need to expand virtual service beyond basic ready". There are examples of e-mail services not limited to short factual answers indeed, but also "providing search strategies for locating information on the web or in other electronic resources" at Santa Monica Public Library or helping in searching through "Ask a Librarian" at the University of North California Irvine's, digital reference form at North Carolina State University Libraries. (Diamon and Pease 2001).

University of Chico, California "Ask a librarian"
http://www.csuchico.edu/library/ask.htm
(The reference service uses very different communication means, from face to face encounters, chat, telephone…)
The study at Chico University libraries has analysed 450 reference e-mail transactions between August 1997-May 1999 stored in an archive folder. The questions have been analysed and put in the following categories:
- navigating the research station
- information literacy

Instead of creating a "ready reference" for easy verifiable facts they have generated for general questions (but not ready answers) a new category:
- question answered using Standard Reference Resources
- specific factual but not ready reference (for specific difficult factual questions)
- starting points for term papers and assignments

Categories ranked by frequency:
1. Question answered using Standard Reference Resources   97q
2. Starting points for term papers and assignments   76q
3. Specific factual but not ready reference   54q
4. Information literacy   26q

35% of the total

The interview was standardized according to Abel taxonomy (Abel, 1996), using the "systematic approach" with a detailed request form and an answer checklist was created. The authors conclude that "the users ask similar questions whether in person or via an e-mail reference service".

Internet Public Library
http://ww.ipl.org/

Ask a Librarian is a way of making a reference transaction through the web, usually through a form.
Internet Public Library was the first online reference service and has gained considerable experience in managing reference transactions using a very detailed form. The results, compared to other similar services, are more satisfying and the quality of the question messages is actually high. (Lagace and McClennen 1998). A recent analysis (Carter, Janes 2000) of more than 3,000 logs from IPL reference transactions from January to March 1999 has produced relevant data on:
- questions: subject area, means of submission, self-selected demographic information
- handling: professional determination of subject and question nature, question sent back to users for clarifications
- questions answered : time
- question rejected.

"Users are invited to ask their questions by completing one or two forms: either a general purpose form or a youth form. We also take questions that have been submitted by e-mail. All the questions "entered into QRC the web-based centralized software used for patron interaction in general and reference administration in particular… Questions to QRC become items, and each item can exist in one of several categories…Questions are first relegated to an *Incoming* category ..for performing the initial tasks on the question, chiefly accepting or rejecting the question (and notifying the patron) but also assigning a subject and a subject line, verifying the e-mail address, deciding if it is a *sources* of *factual* question…From there the question is transferred to one of two *To be Answered* categories, one each from factual and source questions. The questions are then available to be answered by the cadre of IPL reference librarians, who choose from among the available questions and CLAIM a question to indicate that they are working on it. During the process… the librarian my post messages to her self via FOLLOWUP or ASK_INFO functions so as to seek further clarifying information from the patron. Finally, a question is ANSWERED by sending an e-mail response via QRC back to the patron. A patron may decide to respond back to the question, usually to ask for more information or to offer a note of thanks. After the questions have been answered, an administrator checks the answer…and then removes the item from the category. The entirety of the reference interaction is then filed away into the QRC archives."

Queries data collected

The means used to ask questions: standard form, youth form or e-mail.
68% used standard form, 26% via e-mail. The queries via e-mail, of course, do not have any predefined structure therefore contain much less information than the preview form (even if the form fields shouldn't necessarily be filled). This relevant difference has obviously an impact on the results.

The subjet. A relevant data is that near one-third of the questioners were unable to match the subject area of their question, so they chose "Other/Misc". The subsequent assignation of a subject by the

IPL reference administrator showed a shift in subject meaning. This result has serious implications in the use of automated assistance of data processing, "i.e. any system that relies on users to self-identify their questions will end up with a significant number of questions in the wrong places within the system and thus the system will still require a substantial hands-on component from human beings".

User Identity. The option given by the system are: business person, teacher and/or Librarian results: business person 25%; teacher 11%; Librarian 7.5%
The authors are aware that these data need further interpretation, being sometimes wrong.

Source vs. Factual: this issue regards the way of answering: providing a brief factual answer or a list of sources, in any case it is up to the IPL administrators to evaluate and take the right decision. Results:
The user has chosen 'source' 33% : the ILP Administrator agreed 69%, reversed 7%, rejected 24%
The user has chosen 'factual answers' 33% : the ILP Administrator agreed 36%, reversed 40%, rejected 24%
The user has said nothing 34%: the ILP Administrator said sources 59%, said factual 20%, rejected 21%

Assignation of subject categories to each question via *codes* appended to the beginning of the description of each question.
FARQ and PF are not subjects but "indicate that the question was responded to by the administrator using a standard response, referring the patron to one of the IPL's Frequenctly Asked Reference Questions (FARQ) or Pathfinders(PF). Another remark regards "the number of health and Law/legal questions that will be artificially low ..because they are routinely rejected from being outside the scope and purview of the IPL service".

Aswering

Of the 2,322 questions answered, 669 28,9% were answered before being posted to a *To be Answered category*.
1,653 questions were answered. The options of answering questions are:
CLAIM a question that means "working on it"
UNCLAIM the opposite meaning
NEED_HELP means requesting assistance
ASK_INFO means asked the patron for further clarifying information.
FOLLOW_UP posting internal messages.

Aswering data

Data show that the majority of the questions are answered in the standard way:
CLAIM   1 time
UNCLAIM no
FOLLOW_UP no
A few groups used FOLLOW_UP and NEED_HELP or ASK_INFO.

Answering time
The evaluation is the result of the time to answer the questions, measured in days (automatically recorded) from the time the question was received to the time an answer was posted back.

Average time to answer 3 days

Questions answered directly by administrators 0.44 days
Average time to answer factual questions 2.10
Average time to answer source questions 2.31.

Thanks
 From 2,322 questions answered 458 19,7% received unsolicited thanks from users.
These data are also presented in relation to the categories taken into account for the survey.

"InfoPoint" at the University of Minnesota-Twin Cities
http://infopoint.lib.umn.edu/

A relevant work very articulate in all its aspects, deals with the implementation of a new digital
service "InfoPoint" at the University of Minnesota-Twin Cities libraries. (Stemper, Butler, 2001)
It is very interesting for suggesting a model of analysis and development of a project, taking into
account different perspectives and goals, presenting a wide review of digital reference services. "It
was developed to provide remote users with a single point of access to over 30 service units in the
library system. This system-wide service is responsible for question triage –receiving, screening,
referring and, in many cases, responding to reference queries submitted via remote user using:
- Web request form
- FAQ
- Live conferencing (LSSI's VRD software)

With regard to the management of reference transactions, the staff has created a taxonomy of the
different types of questions, following the model of Mardikian and Kesselman(1995). The model
seems very effective in classifying the questions depending on their complexity in two tiers,
connecting Infopoint server with the existing information service units. Every question was broken
down into:
- interpretation of need
- response time goal
- closing the loop
- valuation/quality control Introduction of a form for the interview, taking inspiration from the
  Internet Public Library form.
Its organization, that puts together 30 different units, dealing with diversity and avoiding
uniformity, although maintaining a centralized structure, making referrals also to services units, is
also interesting.

2.2 Chat, Videoconferencing, VRD software

Huge data on chat reference regarding : type of library, software used, hours of services,
membership of a consortium, policy about the service, are collected and commented in a very
stimulating article by Francoeur (2001). Of course the author couldn't be exhaustive, considering
the proliferation of services, so he limits his survey to the services "that were in operation as of
April 2001" The article presents three types of software: Chat, Web conferencing and Web Contact
Center.

The three types of Chat software are:

- *Free Chat* software, requiring both the library and the user to download software: AOL Instant Messenger, ICQ, Netscape Chat
- *Free, simple chat*, needs only to be installed on the library computers: Camdem, WebMaster conference Room, Docutek's Virtual Reference Librarian.
- Through these programs it is possible to exchange text-messages in real time.
- *Web conferencing software*: Miscrosoft's Net Meeting: besides chatting, it offers users the ability to see each other on screen if both have a webcam.
- *Web contact center* software(wide literature cited by Francoeur) eGain'Interact eGai'Live, LivePerson, HumanClick and so on…

These programs, developed to meet the needs of e-commerce, offering various features, allow:
- web pages to be pushed onto the user's screen, (in some softwares it works in both directions)
- escorting browsing or co-browsing
- the librarian or the user to fill out a form on a web page that they are both viewing (form sharing)
- the use of the whiteboarding feature for group collaboration, conferencing software
- canned responses to be created (pre-formatted responses)
- a cookie to be placed on the user computer that enables the data on the last costumer's visit of the service to be viewed
- archives of transcripts of prior chat sessions to be searched
- the transcript of a chat session, just completed, to be instantly mailed to the user
- file sharing
- call transferring.

Choosing a software for live reference is a difficult task. There are too many products with similar features, each with their pros and cons. Paul Constantine (2000) of the Cornell University's LiveHelp Service proposes the following guidelines:
1. Does not require special software or hardware for the user
2. Offers ability to push the patrons' browser to a desired page
3. Offers ability to send active embedded URLs
4. Offers ability to survey user
5. Supports multiple browsers
6. Logs transcripts for future reference
7. Provides searchable transcripts
8. Offers ability to create preformatted answers to frequently asked questions
9. Identifies patrons by IP address
10. Offers fast response time
11. Minimizes technical difficulties
12. Is reasonably priced.

These criteria have been used to evaluate three software selected by the Morris Library at Southern Illinois University-Carbondale that, in the end, decided to develop a specific product (not in-house) (Condit Fagan, Calloway 2001). The products analysed are Live Assistance, LivePerson Pro edition and Virtual Reference Desk(LSSI).
1. All three provided the ability to push.
2. Unlike the other two, VRD does not support sending active embedded URLs in the chat box, but at the end provides the user with a summary list of hyperlinks to the sites visited in the session.

3. Unlike the other Live Assistance and Corporate edition of LivePerson Pro edition, VRD does not allow any patron survey.
4. Both LivePerson Pro and Live Assistance work with all the standard browsers 3.x or higher. VRD's need at least Internet Explorer or Netscape 4.7.
5. Unlike the other two, Live Assistance does not make automatic transcripts available to patrons. LivePerson Pro logs transcripts and creates user's histories. VRD logs transcripts but they are not searchable.
6. Creation of Preformatted Answers for Frequently Asked Questions: all the products.
7. Identification of user by IP address. VRD does not track by IP address, The others use IP address and LivePerson also uses cookies.
8. Time response is a little slower in VRD for its more advanced tools, such as slide show and escort.
9. All three are not technically difficult to use.
10. Price. VRD is much more expensive.$6.000 per year, LivePerson Pro $89 per month, LivePerson $ 150 per month.

Through the evaluation of the three products made by the authors, Live Assistance appears to be more suitable, because of its features and it is reasonably priced. The sophisticated ability of VRD (LSSI) to escort the user and deliver images is not brought to the fore. Patterson (2001) has a completely different approach with regard to her evaluation of the VRS LSSI, implemented at the US Department of Energy(DOE) Library at Germantown, Maryland. She shows enthusiasm and no down sides of the product. The picture that she gives is more than positive, taking into consideration that she did the reference interview in real time

- bringing patrons to sites that have the requested information in two ways: getting the page (doing the action alone or with the patron) or sending a screen *shot*
- providing direct instructions by using the *escort* feature. " With the *escort* turned on, where the librarian goes, the patron goes and vice versa".
- sending the page to the patron, to save time.
- sending screen shots from other programs, such as MS Word or from other browsers
- searching databases and then sending the results to the patron
- showing slides
- collaborating together or referring a patron to another librarian
- sending, once the session is closed, a list of links and a transcript of the session.

The only drawback that she notices is "in retrieving answers from paper resources" that of course is a limitation of any program. Francoeur (2001) refers the worrying news about LSSI VRD providing "for a fee, its own reference librarians to staff a library's chat service during later hours or even to deal with an overflow of requests …"

A different software evaluation comes from the library of the University of Illinois at Urbana-Champaign. (Kibbee, Ward, Ma 2002) After evaluating chat and videoconferencing software, they chose HumanClick Pro version " since it offered the basic feature we wanted (canned responses, the ability to push page/HTML code, chat transcript and history) and fell within our limited budget. Users would not need to install any software on their computer, and the speed of response time between librarians and users was acceptable,. Training too was relatively easy." AOL Instant Messenger with HunanClick and LSSI's VRD are the more popular products in use in reference services: consortia or stand-alone services. (Francoeur, 2001). Referring to AOL instant Messeger, it is available in two versions , with different features: AIM with client software, and AIM Express without client downloading. Both versions have been installed for a pilot project, during the 2000-2001 academic year at the General Libraries of the University at Buffalo. Advantages and drawbacks of the software in implementing the project are highlighted by Foley (2002). Advantages: free, synchronic multiple users, allows librarians to overlap during shift transitions, easy sending images, emits audible signals.

Drawbacks: sometimes there are connection problems and there are no statistics or automated messages.

I do not want to deal with the informatics aspects, but it is interesting to see that in developing a customized product you have the chance to pick the best from what is on the market. Temple University Libraries have implemented an in-house software, a real-time reference service "TalkNow", developed by two students in Temple's Computer and Information Science Departement. (Stormont, 2000,2001). The software was tested and launched in 1999. It works in a simple way: when the librarian is logged on, the user clicks on the TalkNow link and then is connected to the TalkNow server, then the TalkNow screen appears, informing the user that the librarian is logged on. The user can then type his question which appears on both monitors. The conversation then goes on as usual in a chat line.

Problems met in transactions, where several minutes are needed to find the information requested seem to be easily solved with the "distributed staffing model, where librarians at multiple locations share the question load" The program, due to maintenance difficulties, has been available for everyone to download since April 2002.

General topics related to Digital Reference services

Planning, organizing and evaluating

Digital reference services are in an experimental phase and there are not any rules available yet on the best practice to follow in organizing and managing them. A more general approach to the subject is welcomed. An in-depth analysis of the rules related to the operations and issues of digital reference offers a comprehensive view that is pictured in a fragmentary way in many cited works. "Many are facets to digital reference work that are amenable to modelling …we will consider the roles that are played by the participants in the process. These roles define both the interaction between the various participants and their functions, with respect to the operation of the service. Thus, they provide a good basis for future discussion and for the modelling of other facets of the field. One productive way to use these roles is a basis for organizing the kinds of policy decisions that are necessary in order to develop a digital reference service" Just to mention one facet function: staff have to "develop an efficient staffing schedule, offering tiered versus non-tiered services." . (McClennen, Memmott 2001).

The staff issues appear in many projects: training, coordination, support. New aspects of reference work are now dealing with the stress caused by the pressure they are under and the unpredictable questions asked (Garnsey, B.A., Powell, 2000; Foley, 2002 R.R; Stormont 2000, 2001; Francoeur, 2001; Boyer, 2001; Foley, 2002).

Ask's service has provoked a great interest all over the world between remote users and also between librarians. On the other hand the service need to be view in a more critical way to afford the complexity of handling a service without access limits in a global environment.

"Ask services are popular, but without a clear plan of execution, the services have the potential to become a logistical nightmare…The problems of minimal information and anonymous patrons have appeared in literature…the *Aska* page and the request form should state the parameters concerning the types of requests that the site can accommodate…Failure to prioritise and declare your clientele however, will result in a bombardment of queries from all over the globe…(Tomaiuolo and Packer, 2000). It's urging to develop assessment and evaluation theories and plans. Very few data are available on the DL reference services evaluation, do to the limited work yet done on the subject, providing more anecdotes than results or outcomes of the services. (Janes, Carter and Memmott, 1999; Carter, Janes 2000). "At this moment in the overall development of reference services, a deliberate collaborative attempt at meta-assessment is warranted… A meta-assessment project attempts to evaluate and assess the very preconditions, limitations and assumptions upon which any online reference service relies." (Peter, 2000) This interesting approach also philosophical and

theoretical at the reference service assessment merits a deeper analysis and highlights aspects never explored before.

Links to "Ask a" services can be found in the webpage of AskA+Locator
http://www.vrd.org/locator/index.html

University of Chico, California "Ask a librarian"
http://www.csuchico.edu/library/ask.htm

University of California Irvine "Ask a librarian"
http://www.lib.uci.edu/serv/ask.html

 North Carolina State University Libraries "Ask a librarian"
http://www.lib.ncsu.edu/libref/

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