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### Digital Reference in Germany - an overview and experiences on the need for qualifications

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**Abstract:**

*Prior to digital reference the peculiarity about reference service in German libraries in general has to be explained. Only then can the delays of German libraries concerning Digital Reference in comparison with libraries in the US, Great Britain or Scandinavia be understood.*

*The different kinds of digital reference that have emerged so far will be described briefly then. Afterwards the actual status and possibilities for development of digital reference in German libraries will be focussed. The talk will finish with a few remarks on the specific communicative competences that digital reference librarians need.*

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To talk about “Digital Reference in Germany” seems to be a little presumptuous. The development of Digital Reference in this country is still in its early stages while abroad academic as well as public libraries have been practising Digital Reference for almost ten years. American Librarians maintain discussion lists and organize annual conferences on this topic. Hundreds of articles and more than a dozen books deal with digital reference and related questions.

During the last two, two and a half years the first German libraries started with digital Reference which I’m going to illustrate in the following.

Prior to this though I have to explain the peculiarity about reference service in German libraries in general . Only then can the delays of German libraries concerning Digital

Reference in comparison with libraries in the US, Great Britain or Scandinavia be understood.

The different kinds of digital reference that have emerged so far will be described briefly afterwards. Using some examples I will then focus on the actual status and possibilities for development of digital reference in German libraries. I will finish this talk with a few remarks on the specific communicative competences that digital reference librarians need.

### **1. Reference in German libraries**

Considering the evolution of libraries in an international comparison it is evident that Reference Services have played a substantially larger role in for example Anglo-American or Scandinavian countries than in Germany. Some background for that:

A considerable treatment of German libraries with reference services started in the late 1960s. It continued to be a purely theoretical discussion though, apart from a few praiseworthy exceptions, although the demand for a comprehensive development of reference services in academic and public libraries was even included in national planning papers. In practice little changed and even these theoretical discussions about reference services in libraries that had increased in the seventies decreased at the end of the decade. This situation only changed again at the end of the nineties. At least reference services have been part of the curricula of library schools ever since 1970.

Patrons who are used to the service quality of for example American libraries are often disappointed of German libraries. The German specialist and librarian Dale Askey had to do intensive bibliographic research in several German libraries during the late nineties. The quality of services in general and the reference services in particular he found quite unsatisfactory.<sup>1</sup>

He put down the superiority of American libraries to the following two facts:

- „The first of these is the lack, in Germany, of reference librarians of the type commonly found in the United States. (...) This combination of reference training and subject expertise, a common element of reference desks in the U.S., is what distinguishes library service from the German model.”<sup>2</sup>
- „...American libraries are service-oriented, while German libraries are collection-centered. (...) In general, American libraries, out of a concern for their continued funding from the state or sponsoring institution, have evolved into organizations constantly looking for novel ways to serve their user populations.”<sup>3</sup>

Thus Askey well described a situation that can still be found in some places today. There have been signs for a couple of years now though that German libraries have been trying to improve their service mentality and some even the quality of their reference services. This change was undoubtedly caused by the fact that in German society in general much more importance is attached to services than in the past. Additionally another cause is the Internet and the rising information society which have modified users' habits and expectations. Libraries will have to meet these expectations if they don't want to become marginalized.

### **2. Digital Reference**

The Internet provides new prospects for library reference services which are called virtual reference or more often digital reference. Due to the technical evolution different forms of digital reference have been developed in the course of the last almost two decades. All of them possess their own strengths and weaknesses but they all have the advantage that patrons

are able to use their libraries' reference services without physically having to enter the library buildings. They also don't have to keep to any opening hours. In turn the library has the chance to gain new patrons who would not have thought of using the library before. The different forms of digital reference have been developed gradually on the basis of technical possibilities. At the present time the following forms of digital reference exist:<sup>4</sup>

- E-Mail Reference
- Web Forms
- Chat Reference
- Web Contact Center
- VoIP
- Video Conferencing

a. E-Mail Reference: Digital reference developed in the eighties. Long before the rise of the WWW turned the Internet to a mass medium medical subject libraries in the US carried out first experiments with e-mail. Reference by e-mail improves the accessibility and scope of libraries. Inquiries and in particular answers can be stored easily and effortlessly in knowledge bases for future use. E-mail reference in principle is asynchronous though, i.e. the actually indispensable process of clarification via Reference interview, the so called question negotiation, is impaired and sometimes even impossible. Users ask their questions via email as, when and how they arise and often in an unstructured way. They also often forget to mention important aspects and phrase their questions unclearly.

b. Web Forms: Many libraries reacted to the problems of pure e-mail reference by offering web forms. These forms consist of several defined fields or categories which have to be filled in by the users. The disadvantages of unstructured queries should thus be avoided. Some libraries used simple forms which contained only approximately 5-7 categories. Patrons were forced to give more detailed and structured information than in an e-mail but reference librarians in fact still didn't receive enough context information. Other libraries offered elaborated forms in order to request all necessary context information which otherwise would have been ascertained via reference interviews. However, it turned out in practice that many users were not willing to fill in these comprehensive forms which they considered superfluous. All in all, reference via e-mail or web form generated a remarkable progress for reference services in libraries, but these asynchronous modes of digital reference implied some considerable disadvantages too.

c. Chat Reference, Real Time Reference or Live Reference: At the end of the nineties libraries in the US started to use chat software for reference purposes. For the first time a synchronous communication mode could be used in connection with digital reference. Some disadvantages of e-mail communication could thus be eradicated. Libraries moreover showed their presence in chat communication which is increasingly popular among younger people. Chat reference also includes specific pros and cons though and is not equally suitable for all types of reference questions. It is quite difficult for example to answer research questions by chat; it is also impossible to transmit documents like printed statistics, tables, illustrations etc.

d. Web Contact Center: Some libraries are now beginning to use web contact center software for digital reference purposes. Web contact centers have been developed for e-commerce applications. They offer the opportunity to choose e-mail, web form or chat depending on individual needs. Additionally, these communicative tools are supplemented by a multitude of collaborative tools thus providing a variety of interactive cooperation between reference librarians and patrons. In that context pagepushing, escorting, co-browsing and file transfer have to at least be mentioned briefly. Further functionalities like monitoring, cooperative answering and statistics appertain to that. Web contact center software incorporates the

variants of digital reference developed until now and complements these with interactive tools. In connection with digital reference another two developments have to be mentioned: Video conferencing and Voice over of Internet Protocol (VoIP).

Some American libraries started to test video conferencing as early as the middle of the nineties. Additional hardware requirements and lack of user acceptance seem to be the main reasons why video conferencing has not been able to gain importance as a means of digital reference.

Voice over Internet Protocol enables patrons to make a telephone call parallel to other Internet applications. Some web contact centres, e.g. LiveHelper (<http://www.livehelper.com/>), Click & Care (<http://www.clickandcare.com>) and LivePerson (<http://www.liveperson.com/>), already offer VoIP. This technique has the potential to take over from the comparably complicated synchronous chat communication on the Internet. VoIP requires additional hardware too. At the moment voice receivers, and microphones aren't part of the standard hardware equipment so that the market penetration of this technique still lies ahead. VoIP offers the chance to improve and to speed up Internet communication. Many users will appreciate to be liberated from having to type their questions.

All forms of digital reference mentioned have individual advantages and disadvantages. They cannot replace each other completely. They are just as complementary as digital reference and walk in reference in general are. Which variant of reference or digital reference is advisable depends on the library type, the dominating question types and the information habits of a library's specific patrons.

Besides these different kinds of digital reference which are characterized by their use of technology and channels of communication the so called reference consortia have to be mentioned. This way of cooperative reference is considerably facilitated by digital media and the Internet. More than 50 such reference consortia exist in the US already. In each of these, several libraries have joined together in order to provide reference services cooperatively.<sup>5</sup> The most important and probably best known project is QuestionPoint which is chiefly operated by the Library of Congress and OCLC.

### **3. Digital Reference in Germany**

In Germany digital reference and the developments involved were taken note of hesitatingly and with delay although libraries had incorporated the Internet into their services very early on.

This is to be put down to the insignificance German libraries traditionally attached to reference services as mentioned above. Even the state of the art paper and developmental program "Libraries '93" i.e. ("Bibliotheken '93"), which was published almost ten years ago by the Federal Union of German Library Associations (Bundesvereinigung Deutscher Bibliotheksverbände), only took reference services and related topics into account quite peripherally.<sup>6</sup> Where reference services are mentioned at all corresponding remarks are neither based on concise conceptions nor on experiences. A last example: While there exists a great number of textbooks on the reference topic and in the meantime even on the digital reference topic in the US, the first textbook on this subject was published in Germany in 1999 without in fact this having been much acknowledged.<sup>7</sup>

Due to the Internet, to political pressure via changes in the organisational structure and in financing and to the need to adapt to new societal requirements German libraries have begun

to increase the value of reference services. It was mainly the Internet and its technical potential which directed the attention of at least some German librarians to digital reference and reference in general. Admittedly there were and still are considerable differences between public and academic libraries. Since the 1970s reference services have been playing a more important role in public than for example in academic libraries.

Now, however, let's turn to digital reference in Germany at last. German librarians too discovered in the middle of the nineties that e-mail was useful not only for the communication between librarians but also to improve contact between librarians and patrons. Little by little public libraries in cities and university libraries created websites and, in addition to information concerning hours of business, stock profiles etc., they provided e-mail contact addresses soon. However, this can not be considered as an organized form of digital Reference yet. At that time e-mails were regarded as an additional way to communicate with users and was treated in the same way as letters or faxes. The e-mail address offered had the same status as for instance the technical facilities of a telephone connection. No precautions were taken to take into account the special features of the new medium and to fully exploit its specific potential. E-mails received were often answered sporadically depending on other workloads occupying the librarians. Libraries usually didn't inform users of the real addressee of the emails, i.e. whether it was the library management in general, the reference department or simply any employee who was available at the time.

Many public libraries in small and medium sized towns, provided they have their own home pages at all, to date still only offer such a simple e-mail connection if at all. This does not compare to organized reference services. Some public libraries, mainly of big cities, and some university libraries haven't stopped at this stage of development though; they offer organized and well planned digital reference services via e-mail. Users are not confronted with an unspecific e-mail address, the library instead provides an e-mail address which is dedicated to reference purposes only. The user learns what types of questions will be answered, who answers these questions, how much effort the library will invest to answer his questions and how long it will take to receive an answer.

A survey on the number of German libraries which offer these organized reference services via e-mail will be finished shortly.

Libraries which have already recognized the great significance of e-mail for reference purposes regularly / frequently offer web forms too. Thus users are invited to phrase their questions in a more structured way and to give additional information. To provide web forms obviously demands a certain degree of reflection and conceptional pre-considerations. Librarians often don't distinguish reference by e-mail and reference by web form. The Cologne public library for example uses the term e-mail reference but in fact offers web forms. The German Internet Library, a project which I will mention later in more detail, proceeds in the same way. Therefore, the Oldenburg University Library which alternatively offers both e-mail and web form has to be called exemplary in comparison.

The examples mentioned should not hide the fact though, that the majority of German libraries doesn't offer any form of digital reference. There are even some university libraries' homepages which do not link to reference services at all. All the more those libraries have to be highlighted which offer Chat reference, a fact which compared with German conditions can be regarded as avant-garde. In spring 2003 these are:

UB Dortmund<sup>8</sup>

UB der TU Hamburg-Harburg<sup>9</sup>  
 UB der Hochschule der Bundeswehr Hamburg<sup>10</sup>  
 BIS Oldenburg<sup>11</sup>  
 UB Trier<sup>12</sup>  
 UB Wuppertal<sup>13</sup>

The regional library centre HEBIS<sup>14</sup>, is worth mentioning too, but their chat reference only answers questions which deal with the use of HEBIS' own databases. Therefore HEBIS chat reference cannot be counted as a proper one. At the moment in Germany these university libraries mentioned are the only libraries providing chat reference. Until now, Würzburg public library is the only public library which has at least experimented with chat reference. However, the attempt had to be abandoned after a short time "because of system-specific problems within the internal computer net".<sup>15</sup> The library of the [German Federal Armed Forces university](#) in Hamburg admits only registered persons to use their chat reference. The other libraries mentioned answer all questions independently whether the customers belong to their institution or not. Project descriptions and state of the art reports have to date been published up by Trier<sup>16</sup>, Dortmund<sup>17</sup> and Oldenburg<sup>18</sup>. Christine Gläser's publication was the first in Germany to cover chat reference.<sup>19</sup>

The libraries mentioned all started their chat reference services at the end of 2001 or in the course of the year 2002. Extensive practical experiences are still missing. Trier University Library constitutes an exception, because their online reference was already introduced to the public at the end of 2000. In April 2003 Trier University Library informed its users laconically, however, that they had to stop their chat reference service temporarily due to the lack of funds to prolong the license agreement for the software HumanClick.

Till now this much is certain German library patrons only use chat reference services very little. One of the main reasons is of course that users don't expect extensive reference services let alone digital reference services. A corresponding reference culture has to develop first. In addition, digital reference and chat reference in particular are not well known enough. The link to digital reference should be placed on the library's homepage. Even the library catalogue's dynamic result pages should provide this button. Instead, the announcement of digital reference is hidden skilfully in many cases. It's up to the libraries themselves to publicize digital reference services by intelligent measures. With the best will in the world one will have to be patient: the real paradigm shift from collection-centered to service oriented policies will take a little more time. It is to be hoped that further German libraries won't be deterred from introducing chat reference or other ways of digital reference by the little response we actually have to note in this country.

There's no German library yet that works as web contact centre. Oldenburg University Library uses Click and Care software which includes the typical features of web contact centre software but most of these features are unused. It seems that the other libraries providing chat reference don't aim to evolve into a web contact centre.

Two further projects have to be mentioned if today's stage of development of digital reference in Germany is to be reported. These are the discussion list RABE and the above mentioned German Internet Library.

RABE<sup>20</sup> is an acronym and stands for "Search and Reference in Libraries". In a broader sense it is a preliminary stage of digital reference. Only reference librarians have access to this discussion list. If they are stumped answering a certain reference question they can look for

support from their colleagues.<sup>21</sup> The list was founded in summer 1998. The American Stumpers-List, in existence since 1992, was used as a model. RABE is used quite actively and plays an important role in improving the quality of reference services in German Libraries. It would be interesting to see RABE develop a second forum to which library users would have access and librarians could answer their questions directly. The existing discussion list RABE could then be considered to be a basic form of a cooperative reference consortium.

A vitally important project for the popularisation of digital reference in Germany was initiated by the Bertelsmann Foundation in cooperation with the German Library Association (Deutscher Bibliotheksverband, DBV) and has been in operation since the beginning of 2002. It is the aforementioned German Internet Library.<sup>22</sup> In a few years time the Bertelsmann Foundation will retire from the project which will then be continued by the German Library Association on its own. The project is aimed exclusively at public libraries and pursues two purposes. Firstly, the libraries involved will cooperatively create and maintain a web catalogue which is tailored to the specific information needs of public library users. The libraries will also select and evaluate web sources collaboratively, which will then be presented to their users via a web catalogue with 20 main subject headings and many subcategories.

The second aim of this project is to complement the web catalogue by providing a cooperative e-mail reference consortium. More than 70 public libraries from all states except Hamburg are involved in it. Project standards and quality criteria for all work routines and areas of activity have been developed, including the cooperative e-mail reference service. The special value of the "German Internet Library" in the context of digital reference is that many libraries are thus forced to have a good look at digital reference and to even provide reference via e-mail although they had in fact only intended to participate in a prestigious project of cataloguing Internet sources. The German Internet Library hereby offers an excellent chance at least for the public library sector to enhance the status of digital reference in particular and reference in general by establishing an e-mail reference consortium. With regard to academic libraries it is to be hoped that those libraries which already use digital reference find numerous imitators soon.

If librarians show sufficient farsightedness, users demand these services and politicians cause enough corresponding pressure, German libraries also can become part of a modified information culture adequate for the technical and communicative possibilities of the Internet. For this process it will be important to intensively study theory and practise of digital reference in Anglo-American and Scandinavian countries which is well advanced in comparison. Perhaps this Reference Work Section of IFLA in Berlin is a further step in the right direction

Finally some remarks on the question which specific demands digital reference makes on reference librarians. The main qualifications of reference librarians can roughly be identified as follows:

- Resource competence
- Methodological competence
- Communicative competence/social competence
- Language competence
- Application oriented computer competence
- Management competence

### Broad general knowledge

I don't want to deal with the entire complex, but I want to outline roughly which additional qualifications digital reference requires with regard to communicative competence.<sup>23</sup>

- E-mail and web forms aggravate the reference interview; only certain questions factual ones in particular can actually be answered by this complex method.
- To conduct a reference interview by chat the typical jargon and chat behaviour must be mastered.
- People using chat are impatient; to avoid the phenomenon of disappearing questioners reference librarians have to keep their chat patrons active and interested.
- Reference librarians must be able to prepare themselves for new **user groups** with little or no **library experience** at all.
- Reference librarians must be flexible and able to decide when the communication channel chosen by the user is overtaxed and a change is to be recommended e.g. from chat to face-to-face or from e-mail to chat or phone.
- Reference librarians have to know which communication channels are particularly suitable for which question types.
- Reference librarians must recognize whether the first question asked by a patron is a so-called probe query. Users often ask an initial simple, vague query at first, and upon receiving a response then proceed to ask much more detailed questions.

In order to gain more precise knowledge **and to improve the learning** progress, it would be useful to organize the exchange of experience of those who already provide reference by e-mail, web form or chat. Perhaps the German Internet Library and its associated libraries could organize a conference after at a later stage which revolves around the experiences of digital reference librarians involved in the project. A thorough statistical evaluation of all reference sessions taken place to date could then constitute the basis for the debate. Academic libraries should also explore the prospects and dangers of digital reference though. One of the main topics in that context should be the specific qualifications which digital reference librarians need to have. One doesn't have to reinvent the wheel. Much would already be gained if the German library community would take note of the experiences made abroad. Finally those librarians in Germany already practising different forms of digital reference or occupied with this topic could create a discussion list as a first means of exchanging information. I am quite sure that digital reference can have a future in German libraries too. It bears a great chance for libraries to improve their reputation considerably. We should not hesitate any longer to adapt the model of Anglo-American or Scandinavian libraries with regard to reference and digital reference services in particular.

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<sup>1</sup> Cf. Dale Askey: Academics Abroad: Conducting Scholarly Research in German Libraries. In: Portal. Libraries and the Academy. 2, 2001, 4, p. 445-453. Askey excludes special libraries explicitly from his criticism.

<sup>2</sup> Ibid., S. 445f.

<sup>3</sup> Ibid., S. 448.

<sup>4</sup> Cf. Hermann Rösch: Digital Reference. Bibliothekarische Auskunft und Informationsvermittlung im Web. In: BIT-online. 6, 2003, 2, and cf. Hermann Rösch: Digital Reference. Vom Auskunftsschalter zum Web Contact Center. In: Password. 2002, 11, S. 22-29.

<sup>5</sup> Cf. the thesis for diploma written at the Institut für Information Science at Cologne University of Applied Sciences by Sonja Härkönen: Bibliothekarischer Auskunftsdienst im Informationsverbund – Digital Reference Konsortien in den USA. Köln 2003. (Kölner Arbeitspapiere zur Bibliotheks- und Informationswissenschaft ; 36).

<sup>6</sup> Cf. Bibliotheken '93. Strukturen, Aufgaben, Positionen. Hrsg. Bundesvereinigung Deutscher Bibliotheksverbände. Berlin, Göttingen: BDB 1994.

<sup>7</sup> Cf. Brunhilde Lewé: Informationsdienst in Öffentlichen Bibliotheken. Grundlagen für Planung und Praxis. Köln 1999. (Kölner Arbeiten zum Bibliotheks- und Dokumentationswesen ; H. 25).

<sup>8</sup> <http://www.ub.uni-dortmund.de/literatursuche/auskunftonline.html>.



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<sup>9</sup> [http://134.28.50.10/rakim-de/patron/login.php?entry\\_page=http://www.tub.tu-harburg.de/1.html](http://134.28.50.10/rakim-de/patron/login.php?entry_page=http://www.tub.tu-harburg.de/1.html).

<sup>10</sup> <http://bibwww.unibw-hamburg.de/rakim/patron/>.

<sup>11</sup> [http://www.bis.uni-oldenburg.de/chat/liveinfo\\_chat.html](http://www.bis.uni-oldenburg.de/chat/liveinfo_chat.html).

<sup>12</sup> <http://www.ub.uni-trier.de/home/abisz/h/humanclick.htm>.

<sup>13</sup> <http://www.bib.uni-wuppertal.de/homepage/index.html>.

<sup>14</sup> <http://www.hebis.de/online-hilfe.html>.

<sup>15</sup> Cf. Hannelore Vogt: Tankstelle in der Informationsgesellschaft. Neue Dienste der Stadtbücherei Würzburg. In: Buch und Bibliothek. 55, 2003, 4, S. 249-251.

<sup>16</sup> Cf. Stefan Müllenbruck: „Sind Sie ein Mensch?“ Auskunft per Chat an der UB Trier. In: BuB. 53, 2001, 4, S. 216-218; and cf. Stefan Müllenbruck: Online-Auskunft mittels Chat. Erfahrungen und Perspektiven. In: Medizin, Bibliothek, Information. 2, 2002, 1, S. 13-14. . Online: [http://www.akh-wien.ac.at/agmb/mbi/2002\\_1/mbi2002\\_1.pdf](http://www.akh-wien.ac.at/agmb/mbi/2002_1/mbi2002_1.pdf).

<sup>17</sup> Cf. Monika Pushilal, Jessica Buschmann: Ein Jahr Auskunft online an der UB Dortmund. In: Pro Libris. 7, 2002, 4, S. 221.

<sup>18</sup> Cf. Christine Gläser: Elektronischer Auskunftsdienst im Echtzeitbetrieb. Chatangebote in anglo-amerikanischen Bibliotheken – Möglichkeiten der Übertragbarkeit auf deutsche Bibliotheken. Berlin 2001. (Berliner Handreichungen zur Bibliothekswissenschaft; 99). Online: <http://www.ib.hu-berlin.de/~kumlau/handreichungen/h99/>.

<sup>19</sup> Besides those publications already cited above the following article has to be mentioned: Helga Lütke: Taking the reference desk to cyberspace: Internet-Bibliotheken und Online-Auskunftsdienste, im Mittelpunkt die Internet Public Library (USA). In: BuB. 53, 2001, 9, S. 544 – 552. The weblog „netbib“ (<http://www.netbib.de/>), maintained by Edlef Stabenau and the discussion list „inetbib“ (<http://www.inetbib.de/>) offer news and statements regarding digital reference occasionally.

<sup>20</sup> The acronym RABE in German means „Recherche und Auskunft in bibliothekarischen Einrichtungen“ [http://www.hbz-nrw.de/produkte\\_dienstl/fortbildung/rabe/set\\_rabe.html](http://www.hbz-nrw.de/produkte_dienstl/fortbildung/rabe/set_rabe.html).

<sup>21</sup> Vgl. Rainer Hoffmann: Mailinglisten für den bibliothekarischen Informationsdienst am Beispiel von RABE. Köln: FH Köln, FB BuI, 2000. (Kölner Arbeitspapiere zur Bibliotheks- und Informationswissenschaft; 22)

<sup>22</sup> <http://www.internetbibliothek.de/>.

<sup>23</sup> Vgl. Joseph Janes, Joanne Silverstein: Question Negotiation and the Technological Environment. In: D-Lib Magazine. Vol. 9, February 2003, 2. Online: <http://www.dlib.org/dlib/february03/janes/02janes.html>.