



*Evidence Summary*

***Virtual Racism Rears its Head: Uncovering Librarian Bias in E-mail Reference Services***

**A review of:**

Shachaf, Pnina, and Sarah Horowitz. "Are Virtual Reference Services Color Blind?" Library & Information Science Research 28.4 (Sept. 2006): 501-20.

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**Abstract**

**Objective** – To examine whether librarians provide equitable virtual reference services to diverse user groups.

**Design** – Unobtrusive method of defined scenarios submitted via e-mail.

**Setting** – Twenty-three Association of Research Libraries (ARL) member libraries from across the United States. All ARL member libraries were invited to participate, with the 23 acceptances providing 19% participation.

**Subjects** – Anonymous librarians from the 23 participating libraries' virtual e-mail reference services. Up to 6 librarians from each library may have been involved.

Six fictitious personas were developed to represent particular ethnic or religious

groups, whereby the ethnic or religious affiliation was only indicated by the name chosen for each user and the corresponding e-mail address. Names were selected from lists of names or baby names available online: Latoya Johnson (African-American), Rosa Manuz (Hispanic), Chang Su (Asian - Chinese), Mary Anderson (Caucasian/Christian), Ahmed Ibrahim (Muslim), and Moshe Cohen (Caucasian/Jewish). These personas were used to submit reference queries via e-mail to the virtual reference services taking part in the study.

**Methods** – Five different types of reference queries were developed for use in this study. Three were based on prior published research as they were deemed to be answerable by the majority of libraries. They included a dissertation query, a sports team query, and a population query all designed to be tailored to the target institution. The

other 2 queries were developed with participating institutions' virtual reference guidelines in mind, and were thought to not be answered by the target institutions when submitted by unaffiliated users. They consisted of a subject query on a special collection topic that asked for copies of relevant articles to be sent out, and an article query requesting that a copy of a specific article be e-mailed to the patron.

The study was conducted over a 6 week period beginning the second week of September, 2005. Each week, 1 fictitious persona was used to e-mail a reference query to the virtual reference service of each of the 23 participating institutions. Five of each type of query were sent by each persona. During September and October 2005, a total of 138 queries were sent. Each institution received a different query for each of the first 5 weeks, and in the sixth week they received a repeat of a previous request with details of title or years altered. All other text in every request sent was kept consistent. Each institution only received 1 request from each persona during the study.

In order to eliminate any study bias caused by an informed decision regarding the order in which personas were used, they were randomly arranged (alphabetically by surname). Furthermore, to avoid suspicions from responding librarians, queries were e-mailed on different days of the week at different times. This created some limitations in interpreting response times as some queries were submitted on weekends.

All queries were analysed by Nvivo software in order to identify attributes and patterns to aid qualitative analysis. Each transaction (a single query and any related responses) was classified according to 12 attributes and 59 categories based on various associations' digital reference guidelines. Transactions were coded and

then 10% re-coded by a different coder. This led to the clarification and refinement of the coding scheme, resulting in the number of categories used being reduced to 23. Coding was then performed in 3 iterations until 90% agreement between the 2 coders was reached. The final inter-coder reliability was 92%. The study did not support cross tabulation among user groups on most content categories due to the small sample size.

**Main results** – Response times varied greatly between users. Moshe (Caucasian/Jewish) received an average turn-around of less than a day. At the other end of the spectrum, Ahmed's (Muslim) responses took an average of 3.5 days. Both Ahmed and Latoya (African-American) sent queries which took over 18 days to receive a response. The length (number of words) of replies also indicated a differing level of service with Mary (Caucasian/Christian) and Moshe receiving far lengthier responses than the other 4 personas. Number of replies (including automatic replies) was examined in comparison with the number of replies which answered the question, and again indicated Mary and Moshe were receiving a better level of service.

The way in which the user was addressed by the librarian was examined as another measure of service, i.e. first name, full name, honorific. This again mirrored the low level of service received by Ahmed. The professional endings used by librarians in their replies also reinforced the high quality of service received by Moshe across other categories.

Results for Rosa (Latino) and Chang (Asian - Chinese) were average for most categories presented.

**Conclusion** – In this study, a discriminatory pattern was clearly evident, with the African-American and Muslim users

receiving poor levels of service from virtual reference librarians across all dimensions of quality evaluated. The Caucasian (Christian and Jewish) users also noticeably received the best level of service. It is noted, however, that the sample size of the study is not large enough for generalisations to be drawn and that future, more statistically significant studies are warranted. Many other questions are raised by the study for possible future research into racism exhibited by library staff and services.

### **Commentary**

This study provides a relatively well planned and considered look into the discriminatory tendencies of reference librarians when operating in the virtual environment. The authors provide strong linkages to professional association guidelines from the International Federation of Library Associations (IFLA) and the Reference and User Services Association (RUSA) together with a large body of relevant research literature. The methodology was relatively sound, with most study aspects explained and limitations stated and discussed. The reference queries submitted to the target library services are cleverly designed and take advantage of prior reference service research. The process of selecting library services to be involved in the study drew on a large pool of potential participants with all ARL libraries invited to participate but reference librarians operating the service being unaware of queries relating to the study, enabling an unobtrusive approach. A thorough collection of tables and graphs are included in the article to outline the procedure and results, which greatly assist the reader in following the study.

While the study was generally well conducted and backed-up with references to prior literature, it is not without fault. Many of the limitations and possible pitfalls

apparent in this study are identified and discussed by the authors. The major limitation of the study is the small sample size, which the authors plainly state when describing their methodology and talk about further in the article's discussion. The discussion also suggests possible reasons for negative service results for some factors measured, including gender confusion of user names, difficulties in distinguishing first and last names of users, and variations of query reply signatures due to institutional policy. It is interesting to note that although these limitations were openly discussed, this is not reflected in the concluding statements which, if read on their own, indicate that virtual reference librarians discriminate against Muslims and African-Americans and favour Caucasians.

There are, however, several other factors to do with the design, methodology and reporting of the study results that are either not specified or unclear. When stating their research question at the conclusion of the introduction, the authors indicate that they are also examining possible gender bias; however, this is not mentioned or reported upon anywhere else in the paper. The authors do not state whether the analysis of e-mail responses was blind or not, a possible source of bias left unknown. The methodology is obtusely written, which, combined with a lack of specifics on ordering of e-mails and who sent what to whom, makes the study quite difficult to replicate. The selection and evaluation of the ethnical representation of user names for the study is also questionable, with no validation for this process presented. The authors delayed making linkages between some factors evaluated in the study and quality of service until the paper's discussion. Several limitations of factors measured are also not mentioned until the discussion, although quite strong inferences are drawn from them in the results section. Such relationships and limitations should

have been outlined earlier to enable a better reading of results.

The way in which some data are graphically presented and described in the results section of the paper is questionable, and raises concerns of possible author bias. For example, the measure of response time is quite well broken down in the second figure, with the messages for each persona displayed as percentages of messages within each given response time (i.e. 70% of Chang's messages were responded to on the same day). However, the first figure used to represent this data simply displays the average response times for all messages sent by each persona. Presenting the data in this way enabled possible response anomalies to greatly skew the average response times represented by the graph. Furthermore, the authors have omitted any comment on the response times for the Latino and Asian personas, which scored quite well. These two personas seem largely unaddressed, as are negative results for the Jewish persona and positive results for the Muslim persona. This results in a very strong impression of service bias to the reader if graphs are not closely examined.

Direct links to existing professional guidelines and research is extremely evident in this paper. Furthermore, the authors give substantial consideration to how this research can be utilised by the profession and expanded upon in future studies. Five points are clearly included towards the end of the discussion with direct ideas of what libraries and LIS schools can do to improve equality of physical and virtual services, including training, service evaluations, performance evaluations, emphasising the importance of equitable services and employing minorities. Further research ideas include using a more statistically significant sample, examining other library services, studying services in other library sectors, considering geographical location and its relation to bias, or comparing public and privately run higher education institutions.

Overall, this study certainly raises some questions about whether or not bias is evident in library services, and gives some practical ideas for how a library can evaluate and improve equality of services.