Virtual Reference at McGill Library

Report

Maryvon Côté, Svetlana Kochkina, Chris Lyons, Tara Mawhinney
4/20/2015
# Table of Contents

1. Executive Summary .................................................................................................................. 2  
2. Introduction ............................................................................................................................... 3  
3. Service Hours ............................................................................................................................ 5  
4. Question Analysis ...................................................................................................................... 7  
5. Referring and Triaging Questions ............................................................................................. 10  
6. Quality Control of Questions .................................................................................................... 11  
7. Virtual Reference Platforms and Their Features ....................................................................... 12  
8. Conclusion ................................................................................................................................. 15  

Appendix 1: Question Coding Scheme ....................................................................................... 16  
Appendix 2: Selected Bibliography ............................................................................................... 17
1. Executive Summary

This report provides an analysis of the McGill Library virtual reference service offered through QuestionPoint (QP), an OCLC product. This service consists of both live chat with a librarian during service hours and an email service.

The working group analyzed our current virtual reference service and looked at platforms of other service providers. The group analyzed:

- Usage of virtual reference at McGill
- Service hours
- Type and level of questions received
- Extent to which librarians on duty answered or referred questions
- Quality of responses
- QP compared to other virtual reference platforms

The main findings of our analysis of the current service are that: most questions are at the beginner or intermediate level with known-item searching being the largest category of question; the statistics for 2014 show the split between chat and email questions as almost equal; the number of referred questions is low (17%); and the current chat service hours respond to user needs. Our findings and recommendations for each factor are explained in detail in the report.

Main Recommendations – Short Term:

- Form a virtual reference committee that would report to the Associate Dean of User Services responsible for training, assessing quality control, creating policy documents, and keeping abreast of developments in the field
- Maintain a McGill-only virtual reference service
- Maintain current service hours
- Survey users about level of satisfaction of the service (e.g., LibQual), including software and interface
- Trial the Mosio text messaging within QP
Main Recommendations – Long Term:

- Have all staff members with an MLIS degree who are appointed to librarian positions regularly participate in providing virtual reference service
- Trial other virtual reference software listed in the report before deciding on implementation or change

2. Introduction

In April 2014, the Office of the Dean of Libraries recommended the creation of a Working Group to oversee various aspects of the virtual reference service at McGill Library. Chris Lyons and Maryvon Côté were named co-chairs by the Associate Dean of User Services and a team was created with Tara Mawhinney and Svetlana Kochkina. The working group was mandated to assess the chat reference service in terms of the nature and content of the questions asked and the quality of the answers given. Feedback from liaison librarians extended the mandate of the working group to include: an assessment of the QP software; the use of mobile apps; service hours; and involvement in a consortium. An analysis of virtual reference transactions was conducted to assess the service and its staffing model.

The analysis comes at an opportune time. It has been almost ten years since the virtual reference service was implemented at McGill with the adoption of QP. The primary goal of implementing virtual reference was to extend the services normally offered by phone or in person at a service desk. QP offers a highly visible access point to users in real time at their point of need. At the time it was implemented it was believed that students would find chat useful because they were already using this form of technology amongst themselves. The service evolved with the subsequent insertion of chat widgets (called Qwidgets) in selected library resources including WorldCat Local. Increased use attests to the success of these efforts (see figure 1).
Between 2009 and 2011, the Library also used the Meebo instant messaging software as an additional method of communication. This aspect of the virtual reference service was terminated because of low usage numbers and changes in the ownership of the software. There have been other aspects of the service that have been considered over the years but not implemented. These include:

- Sharing service hours with other academic libraries in Quebec or as part of the QuestionPoint 24/7 Reference Cooperative (consortium), which could extend service hours
- Using co-browsing, which would allow the user and librarian to see the same screen
- Analyzing chat interactions
- Surveying users

The report revisits various policies and procedures that have been implemented over the years, and makes recommendations on the basis of the findings. This report investigates the following: service hours, type and level questions received, referring and triaging questions, quality control, and software options.
3. Service Hours

Currently, the QP chat service is offered from Monday to Friday, 10 am to 5 pm during the academic year, and 11 am to 4 pm during the summer. This corresponds to when all branches offer service hours, and librarians are therefore on duty to provide the service. In addition to the live chat service, there is an email option which is accessible at all times, but has the greatest use outside of chat hours. Emailed questions received during service hours are answered as soon as possible by the librarian on duty at the time it was received. After-hour emails are answered when service resumes. As well, although there is no chat service on the weekends, email questions are answered. Users are also able to ask questions in the chat module after hours. These are logged and replied to via email when the service resumes. The emails and after-hour chats are thus usually answered within a day.

QP provides monthly reports of usage, with daily and hourly breakdowns of the number of questions received. These were analyzed to find out both:

- The total number of questions received via chat and email;
- The hourly breakdown of questions received, including after hours and on weekends.

The goal was to analyze our current service hours to see when the majority of questions were received, and also the amount of traffic received after hours and on weekends. We assumed that significant after-hour and/or weekend traffic would indicate the need to increase or change the service hours. Two typically busy months during the Winter and Fall term were sampled; February and October 2014. The hourly and daily results were studied in relation to the total hourly and daily traffic to see if there were any times in which there was high demand outside of our current chat service hours. A detailed breakdown of requests received is provided in Table 1.

Results:

- **February 2014 (20 days of operation)**


The largest block of requests outside service hours was the 9-9:59 am slot, which received 45 email and chat requests, or 7% of the total number of all requests received during the month. No emails and only 2 chat requests were received on weekends from 9 to 9:59 am, leaving 43 requests received Monday to Friday during this time slot. This translates into an average of 2.2 chat or email requests per 9-9:59 am shift. This is below the average of 3.12 chat or email requests received per hour during service hours.

- **October 2014 (22 days of operation – no service offered on Thanksgiving Monday)**

The largest block of requests outside service hours was again in the 9-9:59 am slot, which received 49 email and chat requests, or 6% of the total number of all requests received. There were 3 chat and 3 email requests received on weekends or Thanksgiving Monday from 9-9:59 am, which means that 43 requests were received during days when the service was offered. This translates into an average of 2 chat or email requests per 9-9:59 am shift. This is below the average of 3.6 chat or email requests received per hour during service hours.

### Table 1

<table>
<thead>
<tr>
<th></th>
<th>February</th>
<th>October</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total of requests received</strong></td>
<td>634</td>
<td>757</td>
</tr>
<tr>
<td><strong>Total number of emails</strong></td>
<td>234</td>
<td>248</td>
</tr>
<tr>
<td>Emails received during service hours</td>
<td>100</td>
<td>122</td>
</tr>
<tr>
<td>Emails received outside service hours</td>
<td>134</td>
<td>126</td>
</tr>
<tr>
<td><strong>Total number of chat</strong></td>
<td>400</td>
<td>509</td>
</tr>
<tr>
<td>Chats received during service hours</td>
<td>337</td>
<td>434</td>
</tr>
<tr>
<td>Chats received outside service hours</td>
<td>63</td>
<td>75</td>
</tr>
<tr>
<td><strong>Total requests from 9 am to 9:59 am</strong></td>
<td>45</td>
<td>49</td>
</tr>
<tr>
<td>E-mails received from 9 am to 9:59 am</td>
<td>31</td>
<td>29</td>
</tr>
<tr>
<td>Chat received from 9 am to 9:59 am</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total requests from 5 pm to 5:59 pm</strong></td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>Time</td>
<td>E-mails</td>
<td>Chat</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>5 pm to 5:59 pm</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Chat received</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>

**Total requests on four Saturdays including chat and email**

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>45</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail requests</td>
<td>23</td>
<td>45</td>
</tr>
<tr>
<td>Chat requests</td>
<td>4</td>
<td>14</td>
</tr>
</tbody>
</table>

**Total requests on four Sundays including chat and email**

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail requests</td>
<td>37</td>
<td>42</td>
</tr>
<tr>
<td>Chat requests</td>
<td>12</td>
<td>10</td>
</tr>
</tbody>
</table>

**Recommendations:**

- An analysis of the requests for the QP chat and email service provides little evidence that the service hours should be extended. Furthermore, given the difficulty in trying to schedule more hours given the number of librarians currently participating in virtual reference, we recommend that the service schedule be kept as is.

**4. Question Analysis**

In order to evaluate the current service, a four-month sampling of transactions from July to October 2014 was analyzed. The sample consisted of chat and email transactions from the second week of each month, of which there were 555 in total. After blank and duplicate questions were removed, the total number analyzed was 510.

The questions were analyzed according to:

- Means of communication (either chat or email)
- Means of reception (web form or Qwidget)
- Question answered directly by the librarian or referred
- Level of complexity (basic, intermediate, advanced)
- Question type (see Appendix 1 for full description of categories)
- User type (see Appendix 1)
- Subject area (see Appendix 1)

The majority of the analyzed transactions (335 questions, 66%) were conducted via chat. This was almost twice as many as the number of email transactions (175 questions, 34%). Most users’ questions were received via the web forms (398, 78%), with the remainder being asked using Qwidgets.

Questions were analyzed using the same definitions as provided in LibAnalytics for reference transactions (see Appendix 1 for definitions). The complexity of questions showed almost an equal distribution between basic (250, 49%) and intermediate (249, 49%) questions, with only 11 advanced queries (2%). The majority of questions were answered by the librarians who began the transactions, with only 17% of questions being recorded as referrals to another librarian, a support staff member, or a service email. This demonstrates that QP is primarily a means for library users to acquire basic reference assistance.

Predictably, McGill students constituted the majority of service users (334 questions, 65%) with non-McGill users being the second largest category. They were responsible for a significantly smaller share of questions (86 questions, 17%). Other members of the McGill community constituted the third largest category. This includes faculty (39 questions, 8%), staff (9 questions, 2%), and alumni (18 questions, 3%). 24 questions, or 5%, were of unknown origin.

With regard to the types of questions, the following chart demonstrates the variety of questions received. The greatest number of questions (112 or 22%) fell into the category of “known-item searching.”
The majority of the analyzed transactions (324 questions, 64%) can be classified according to a specific subject area. Figure 3 demonstrates the distribution of question by general subject areas:
Recommendations:

- Given the large percentage of questions categorized as known-item searching and issue with access to resources, as illustrated in Figure 2, these basic skills should be promoted more broadly in information skills workshops given by McGill liaison librarians, and in online research help materials.
- Considering that the majority of service users are members of the McGill community (79%) and that most questions are McGill-specific (69%), we do not recommend joining neither a Quebec-wide university libraries consortia-based service nor QP-based consortia at this time. There would be logistical and access issues, e.g. the need to provide bilingual services and the inability of many other potential partners to have access to the resources to which McGill subscribes.
- That a significant number of questions were received via chat and email both through web forms and Qwidgets demonstrates the necessity to offer both types of service using software that supports the use widgets in databases and catalogues.

5. Referring and Triaging Questions

The working group undertook an analysis to determine how many questions were referred as opposed to answered directly by the librarian on duty. The two methods used to refer questions within QP are by assigning a question to another librarian within QP (presumably for greater subject knowledge) or sending a question to an email partner outside of QP. In the 2014 sample set referred to above, there were 52 email and 37 chat questions that were referred (17% of the total number of questions). This, despite the fact that 64% of questions were identifiably subject-specific. The rationale behind looking into ‘loans-related’ questions specifically stemmed from concerns that librarians may not able to adequately respond to these types of questions. Even though there were many loans-related questions in our sample (90 questions or 18% of all questions studied), the majority (65 questions or 72% of loans-related questions) were answered by the librarian on duty.
Recommendations:

- The above suggests that librarians have sufficient expertise to answer the vast majority of questions they receive. The authors recommend that triaging continue to be done at the professional judgement of the librarian on duty.
- Given that librarians are also able to answer the majority of loans-related questions, we recommend maintaining the current practice of librarians answering this type of question when possible.
- Email service accounts should be used for questions that need to be referred to units such as loans desks, ILL, Collection Services and Digital Initiatives as it is easier to answer email questions through Outlook rather than from within the QP software.

6. Quality Control of Questions

The quality of answers provided by liaison librarians is a fundamental element of the virtual reference service offered by the library. Quality reference service is ensured through adequate training of librarians. When the service was implemented in 2006, training sessions for liaison librarians were conducted by an OCLC trainer and members of the Library implementation team. The implementation team also coordinated cross-disciplinary workshops on major subject databases for all librarians. These changes were essential to ensure that all librarians felt comfortable in providing assistance with questions across all disciplines. From 2006 to 2008, all virtual reference training of newly hired liaison librarians at McGill Library was done individually by members of the implementation team. Since 2008 when the virtual reference team was disbanded, all training has been done at the branch library level (usually by a local QP coordinator) with support from the library QP coordinator, whose job it is to create accounts, provide set-up instructions for new employees, and monitor the service.

In our analysis of 510 questions, we did not encounter any notable issues with the quality of the answers.
Recommendations:
To ensure high quality service, the working group recommends the following:

- Add questions regarding the virtual reference service and software/interface to LibQual.
- Maintain staffing by librarians.
- Create a virtual reference committee responsible for defining and maintaining the quality of service through such activities as:
  - Updating the policy document draft, which was created in 2006. The policy should include information on training, guidelines on quality and a description of QP coordinator roles at the library and local levels;
  - Investigating expanding service provision to include not only liaison librarians but all staff members with an MLIS degree who are appointed to librarian positions;
  - Using OCLC training materials (including tutorials and recorded training) to complement in-house training;
  - Modify the descriptive codes to better meet our needs and be aligned with the Library Service Desk public services activity tracking definitions. This will allow QP data to be better integrated with other reference statistics.
- After the descriptive codes have been modified, have librarians record them in QP at the same time as the reference sampling week.
- Have local and/or library QP coordinators monitor answers provided by newly hired librarians for the first two months.

7. Virtual Reference Platforms and Their Features
The working group analyzed five of the main software platforms: QuestionPoint, LibChat, Mosio, LivePerson, and LibraryH3lp. The table below shows a number of characteristics of each of these.
<table>
<thead>
<tr>
<th>Main Characteristics</th>
<th>Question Point (OCLC)</th>
<th>LibChat (Springshare)</th>
<th>Mosio</th>
<th>LivePerson (Nub Games)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration of chat, e-mail, and text messaging</td>
<td>Yes (texting only with Mosio)</td>
<td>Yes</td>
<td>Yes (but primarily for text messaging)</td>
<td>No (no text messaging)</td>
</tr>
<tr>
<td>Mobile app</td>
<td>No (but supported on mobile devices)</td>
<td>Yes</td>
<td>No (but supported on mobile devices)</td>
<td>Yes</td>
</tr>
<tr>
<td>Possibility to use institutional scripts</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Possibility to assign questions</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Shared queue by librarians</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Possibility to use widgets in databases and catalogue</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Transcripts send to a user after the chat</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Co-browsing</td>
<td>Yes (but has technical difficulties)</td>
<td>No</td>
<td>No</td>
<td>No (but has desktop sharing)</td>
</tr>
<tr>
<td>Built-in user survey capabilities</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Consortia use</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Need for users to download a plugin</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Transactions' transcripts saved</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Availability of technical support and troubleshooting</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hosting on the provider server</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Open source</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Possibility to generate statistical reports</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Possibility to assign levels of access</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Reputation on the market</td>
<td>Good</td>
<td>Good</td>
<td>Unclear</td>
<td>Good</td>
</tr>
<tr>
<td>Mostly used by public libraries/academic libraries/private sector</td>
<td>Public and Academic</td>
<td>Public and Academic</td>
<td>Primarily Private sector and medical institutions</td>
<td>Public, Academic and Private sector</td>
</tr>
</tbody>
</table>

Based on this analysis, we arrived at some conclusions about each one. LivePerson, for example, offers interesting features, but it does not offer any advantages over our existing system and would require considerable resources for implementation. LibraryH3lp has some significant drawbacks, such as the lack of an integrated email service and the need for some in-house configuration. Mosio has limited appeal as a stand-alone platform because it is primarily geared toward texting and does not have some basic features available in other systems. It can, however, be integrated for texting within QuestionPoint.

**Recommendations:**

- Trial the Mosio text messaging software within QP. Implementation of Mosio would not require a large amount of resources since it would be integrated within the existing service.
- As a long-term recommendation, the Working Group suggests having a trial of LibChat, which can be integrated with LibAnalytics used to gather reference statistics at McGill Library. LibChat also offers the possibility of text messaging.
However, the implementation of LibChat would require the complete overhaul of the virtual reference service at McGill Library.

- Have the proposed virtual reference committee monitor new software developments, recommending trials and adoption when deemed desirable.

### 8. Conclusion

The current report outlines the history of virtual reference service at McGill Library; provides an analysis of the current service with regard to service hours, staffing, and quality control; and points to possible options with regard to other virtual reference software and their features. The report’s recommendations including implementation of a standing Virtual Reference committee tasked with ongoing assessment of the service provide a path forward in an effort to continue offering high quality virtual reference now and in the future.
Appendix 1: Question Coding Scheme

- Chat/ E-mail
- Received via Qwidget Y/N
- Referred Y/N
- Level:
  - Basic (responds to a simple question using library information sources (catalogue, website, ready-reference)
  - Intermediate (assists users with intermediate questions or support)
  - Advanced (responds to a user's question using advanced expertise in the service area)
- Type:
  - availability of McGill services
  - issue with access to e-resources
  - reference/ research
  - loans/ renewals
  - known item searching
  - other
- User Type:
  - McGill student
  - McGill faculty
  - McGill alumni
  - McGill staff
  - non-McGill
  - don't know
- Subject Area:
  - Archives
  - Agriculture & environ. sciences
  - Education
  - Engineering & science
  - Health & biological sciences
  - Humanities & art
Appendix 2: Selected Bibliography


