Using Virtual Reference Services to Embed the Library in the Academic Workflow

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“The convenience is still better online than in person, you don’t have to make trips to the library.”

(UTI-24, MALE 15-18 YEARS OLD)
Then & Now

• **Then**: The user built workflow around the library

• **Now**: The library must build its services around user workflow

• **Then**: Resources scarce, attention abundant

• **Now**: Attention scarce, resources abundant

(Dempsey, 2008)
Getting information off the Internet is like taking a drink from a fire hydrant.

Mitchell Kapor
Virtual Reference Services

- Global reach
- Anytime/anywhere access
- Cooperative services may reduce costs
Seeking Synchronicity

The Study
Seeking Synchronicity: Evaluating Virtual Reference Services from User, Non-User & Librarian Perspectives

- Studied habits & needs of virtual reference service (VRS) librarians, users, & non-users to identify characteristics for informing library system & service development
- Generalizable through large sample sizes, multiple methods of data collection, & triangulation of results

(Connaway & Radford, 2011)
Seeking Synchronicity Phases

Phase I: Focus Group Interviews

Phase II: Transcript Analysis
- 850 QuestionPoint live chat transcripts

Phase III: Telephone Interviews
- 100 VRS Librarians
- 76 VRS Users
- 107 VRS Non-users

Phase IV: Online Surveys
- 173 VRS Librarians
- 137 VRS Users
- 134 VRS Non-users
Critical Incident Technique (CIT) for Telephone Interviews & Survey

- Flanagan (1954)
- Qualitative technique
- Focuses on **most memorable** event/experience
- Allows categories or themes to **emerge** rather than be **imposed**

(Flanagan, 1954)
Critical Incident Technique (CIT) for Telephone Interviews & Survey
VR Users’ & Librarians’ Questions

• Remember 1 specific *successful* VRS interaction
• Remember 1 specific *unsuccessful* VRS interaction
• Describe each interaction
• Identify factors that made interactions successful or unsuccessful
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Types of Questions
What politician supports gay rights and or is an activist for them?

What do you spell I miss you in Spanish?

How many books can I check out at one time?

The Mindful Child: How to Help Your Kid Manage Stress and Become Happier, Kinder, and More Compassionate

available?

What politician supports gay rights and or is an activist for them?

How do I get a job and what are the requirements?

I need some help with finding articles.

I need a good website all about the history of DESIGN of telephones with a timeline and good pictures with it.

Cannot log in, telling me authentication failed. Was able to log in yesterday.
Types of VR Questions

- Subject Search
- Ready Reference
- Procedural
- No Question
- Holdings
- Research
- Inappropriate
- Directional
- Reader’s Advisory

(Arnold & Kaske, 2002, 2005)
Subject Search or Specific Search

“Almost always takes the form of giving the user a document, for example, a list of citations, a book, or a report” (Arnold & Kaske, 2005).

- Can you help me find poems by Maya Angelou and criticism on them? (QP1–230)
- How was the labeling theory important in deinstitutionalization? (QW–023)
- Where can I find information about ADHD? (QP2–005)
“These are the typical ready-reference or data queries that require only a single, usually uncomplicated, straightforward answer...Who? What? When? Why? Where?” (Arnold & Kaske, 2005).

Who won the world cup game between South Africa and France? (QW–024)

Who was Bentonville, NC named after? (QP1–147)

How do I cite a political talk show in MLA format? (QP2–013)
“Questions pertaining to the policies or procedures within the library system” (Arnold & Kaske, 2005).

- Can I get summer long term renewals online? How? (QP1–004)
- What is the max for checkout on blu ray dvids? (QW–033)
- Need access logon info to lexis from scool library website (QP2–027)
“Questions about specific holdings of a library in print or digital form” (Arnold & Kaske, 2005).

I was wondering if you have textbooks to rent for an hour or 2? (QP2–172)

Do you have any books on Paris Hilton? (doing a project on her) (QP 1–195)

hi there; i was wondering if you guys have Moby Dick in stock? (QW–014)
“Research questions… involve trial-and-error searching or browsing… [and] are usually identified as coming from an adult specialist who is seeking detailed information to assist in specific work” (Arnold & Kaske, 2005).

Looking for information on national traffic survey and incident reports. (QP2–169)

Hi, I am trying to find out information on how the Learn Direct initiative was started, the criteria that was set and if local government had to be involved in the first stage. (QP 1–155)

Hi I’m looking for studies similar to one I’ve already found. How do I go about this? (QW–013)
“Questions which are not appropriate for a reference service including personal questions” (Radford, 2005).

How do I have sex? (QP1–159)

WAT DOES it mean when a guy said he like me more as a friend doesn’t it mean like a gf? (QP2–153)

Are You Typing War and Peace (QW–020)
“The general information or directional question is of the information booth variety…” (Arnold & Kaske, 2005).

- What is the URL for the summer reading program for teens? (QP2–032)
- I heard that you have adapted book kits for ESL speakers. Where can I find these online? (QW–008)
- Where is the 67th street library? Is it on the west or east side? (QP1–387)
Reader’s Advisory questions are “focused on helping readers find materials they want to read, listen to, or view for pleasure“ (Ross, Nilsen, & Radford, 2009).

Hello I am looking for recommendations for the author jonathan kellerman. (QP1–218)

I was wondering if u would happen to know any good fantasy books… (QP2 – 050)

Hi, my 7 year old son is looking for a copy of the Hobbit suitable for children, but we can’t seem to find anything in the library catalogue. Can you please offer any advice? Thanks. (QW– 120) (from Australia)
Query Type: 2004-2006

- **Subject Search**: 32% (n=293)
- **Ready Reference**: 27% (n=243)
- **Procedural**: 18% (n=162)
- **No Question**: 11% (n=104)
- **Holdings**: 8% (n=77)

Total (n=915)
Query Type: 2010

- Ready Reference: 31.1%, n=179
- Procedural: 31.1%, n=181
- Subject Search: 16.9%, n=97
- Holdings: 8.5%, n=49
- No Question: 4.3%, n=25

'10 (n=575)
Query Type: 2004-2006 vs. 2010

- **Subject Search**
  - 2004-2006 (n = 915): 32% (n = 293)
  - 2010 (n = 575): 17% (n = 97)

- **Ready Reference**
  - 2004-2006 (n = 915): 27% (n = 243)
  - 2010 (n = 575): 18% (n = 162)

- **Procedural**
  - 2004-2006 (n = 915): 31% (n = 179)
  - 2010 (n = 575): 31% (n = 181)

- **No Question**
  - 2004-2006 (n = 915): 18% (n = 104)
  - 2010 (n = 575): 4% (n = 25)

- **Holdings**
  - 2004-2006 (n = 915): 8% (n = 77)
  - 2010 (n = 575): 9% (n = 49)
Query Type 2010: Live Chat (QP2) vs. Qwidget (QW)

- **Ready Reference**
  - QP2: 22% (n=127)
  - QW: 9% (n=82)
  - Total: 17% (n=99)

- **Procedural**
  - QP2: 31% (n=179)
  - QW: 17% (n=82)
  - Total: 14% (n=74)

- **Subject Search**
  - QP2: 13% (n=74)
  - QW: 4% (n=23)
  - Total: 4% (n=23)

- **Holdings**
  - QP2: 4% (n=25)
  - QW: 4% (n=24)
  - Total: 8% (n=49)

- **No Question**
  - QP2: 2% (n=11)
  - QW: 2% (n=14)
  - Total: 4% (n=25)
Received by Type of Chat Service

- **Consortium**: 40% (n=68) in '04-'06, 28% (n=45) in '10
- **Academic & Law**: 39% (n=65) in '04-'06, 21% (n=34) in '10
- **Public**: 36% (n=59) in '04-'06, 20% (n=33) in '10
- **National**: 12% (n=20) in '04-'06, <1% (n=1) in '10
- **Other**: <1% (n=1) in '04-'06, 2% (n=4) in '10
Ready Reference Questions (QP2 vs. QW) Received by Type of Chat Service

<table>
<thead>
<tr>
<th>Type</th>
<th>Total (n = 168)</th>
<th>QP (n = 118)</th>
<th>QW (n = 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>20% (n=33)</td>
<td>19% (n=22)</td>
<td>22% (n=11)</td>
</tr>
<tr>
<td>Consortium</td>
<td>40% (n=68)</td>
<td>66% (n=33)</td>
<td>53% (n=63)</td>
</tr>
<tr>
<td>Academic &amp; Law</td>
<td>39% (n=65)</td>
<td>27% (n=32)</td>
<td>10% (n=5)</td>
</tr>
<tr>
<td>National</td>
<td>&lt;1% (n=1)</td>
<td>&lt;1% (n=1)</td>
<td>0% (n=0)</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;1% (n=1)</td>
<td>0% (n=0)</td>
<td>2% (n=1)</td>
</tr>
</tbody>
</table>
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Accuracy in Ready Reference

Types of questions
Accuracy in VR Ready Reference

• How accurate are VR librarians/staff in answering ready reference questions?

• Do we see the 55% rule in effect?
  (Hernon & McClure, 1987)
Ready Reference Accuracy: 2004-2006 vs. 2010

- '04 - '06 (n=180)
- '10 (n = 168)

Correct: 78% (n=141) vs. 90% (n=151)
Incorrect: 20% (n=36)
Other: 4% (n=7)

Accuracy improvement from 2004-2006 to 2010.
A Simple Way to Increase Accuracy

- For 2004 –2006, accuracy would rise from 78% to 90% if VR librarians only…
  - Answered specific question asked!

- Seeking Synchronicity urged VRS librarians
  - Before pushing a general info page make sure it has specific & exact answer to user’s question!

- 2010 sample included far fewer with this error: accuracy 90% (perhaps b/c of recommendation?)
VRS Librarians

- Critically evaluate sources
- Create metrics for evaluating new scholarly forms of authoring, publishing, & researching
- Assist new content creators
- Develop customized widgets
- Provide services in different formats
  - Be available to the users
    - Face-to-face
    - Online
      - Email
      - Text Messaging
      - IM
    - Mobile
    - Telephone
    - Social Media Services
Seeking Synchronicity

What We Learned

VRS Lessons
Why Not Virtual Reference?

- What we learned from non-users:
  - Preference for FtF service
  - Do not know service exists
  - Unknown or unfamiliar format
Convenience is King

• Convenience dictates choices
  • Is it readily accessible online?
  • Does it contain the needed information & is it easy to use?
  • How much time will it take to access and use the source?
  • Is it a familiar interface and easily navigable interface?
    • Google and Wikipedia

(Connaway, Dickey, & Radford, 2011)
Barriers to Convenience

- Difficulty of library systems
- Print articles
- Limited hours, distance to library
VR Non-users

Possible Reasons Non-users Might Try VRS
Online Survey

- Experiencing Bad Weather: 2%
- VRS Faster than E-mail: 4%
- Using the Service from Home: 4%
- Using the Service After Hours: 7%
- Unable to Get to the Library: 7%
- Needing Immediate Answers: 26%
- Convenience: 61%

107 NON-USERS
Percent in Free Responses
Recommendations to Boost Convenience

- Deliver resources 24/7
- Integrate library tools in popular sites
- Provide links & reminders
- Make interfaces more like web browsers
- Accommodate different & personalized discovery & access preferences
- Offer multiple service modes
- Provide opportunities for collaboration
- Offer help at time of need
  - Chat/IM on library
    - Web site
    - Online catalog
What Mobile Technology Undergraduate Students Own

(Dahlstrom, de Boor, Grunwald, & Vockley, 2011)
How Undergraduate Students Use Their Smartphones

- 59% use smartphones for Internet
- 24% use smartphones to access library resources

(Dahlstrom, de Boor, Grunwald, & Vockley, 2011)
What We Can Do
“I’ve never used this type of service and never knew it was available—that’s probably why I never tried it.”

MILLENNIAL
Market VRS

- Market & publicize services
  - Don’t know what is available
    - Text
    - Email
    - Chat
    - Phone
    - Face-to-face
    - Facebook
    - Skype

(Radford & Connaway, 2010)
Top Recommendation
Attract Potential Users

• Introduce & demonstrate online alternatives during in-person reference sessions, library use instruction classes & library programs
Two Views of What’s Effective in VR Experiences

Users:
• Convenience
• Comfort with service
• Accuracy
• Positive attitude
• Good communication skills
• Relationships with librarians

Librarians:
• Ability to leverage complex & specialized knowledge
• Positive attitudes, responses, & feedback
• VR tools & hybrid communication modes
• Relationships with users
Two Views of What’s Not Effective in VR Experiences

Users:
• Abrupt, dismissive answers
• Grumpy, ill-informed or uninterested librarians
• Poor wrap-up
• Limiting time of session
• Being sent to Google
• Failing or refusing to provide info

Librarians:
• Convoluted & confusing questions
• Rude, impatient &/or disappearing users
• Unrealistic expectations
• Unreceptive to suggestions
Recommendations from CIT Findings

- Ask open questions
- Portray positive attitude
- Provide specific & accurate answers
- Clarify questions
- Take your time
- Pay attention to “close”
- Always be pleasant & polite
Mode for Developing Best Relationship: VR Users & Librarians

“I Can Develop the Best Relationship with a Librarian/User In”
Online Survey

137 VRS USERS
175 VRS LIBRARIANS

FtF

Chat

VRS Users

VRS Librarians

70%

22%

86%

7%
Conclusions

- It’s all about the relationships
- Death of ready reference exaggerated
- To boost accuracy
  - Clarify question
  - Answer specific question
- Convenience is the hook
- Marketing matters
Cyber Synergy: Seeking Sustainability through Collaboration between Virtual Reference and Social Q&A Sites

• New grant - amount of $250,000 for ’11-’13
• Funded by IMLS, OCLC, & Rutgers University
• Co-PIs Marie Radford (RU), Lynn Silipigni Connaway (OCLC), & Chirag Shah (RU)

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The researchers would like to thank Alyssa Darden for her assistance in preparing this presentation.
Questions & Discussion
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