Taking Instruction Virtual

Evaluating and Assessing Information Literacy in Chat Reference
Background: VRC

Virtual Reference Committee (VRC)

Mission:

Support the Berkeley Community by providing comprehensive and accessible virtual reference services
Background: LibChat

- LibChat
  - Available 90 hours a week
  - All hands on deck approach
Background: LibChat

Chats Answered

Dec-15  Feb-16  Apr-16  Jun-16  Aug-16  Oct-16  Dec-16  Feb-17  Apr-17  Jun-17  Aug-17  Oct-17  Dec-17
IL in Virtual Reference?

Questions:

- Is there room for IL instruction?
- Are we implementing Information Literacy Instruction in our virtual reference services?
The Virtual Reference Committee’s IL Alignment Task Force will research how information literacy can potentially be integrated into our FAQs and virtual reference services.

Based on this research, the Task Force will make recommendations to the VRC that tie in with the Library’s Operational Goals of “Educational Impact” and “Data Based Decision Making.” The Task Force will then lead the charge in implementing approved recommendations.
What we hope to achieve

- Discover best practices when implementing Information Literacy in Virtual Reference
- Determine what we are doing well
- Determine where we can improve
- Develop training
Literature Review
The Dawn of Virtual Reference!
Literature Review

...And Beyond!
Methodology
Authority is Constructed and Contextual

Information resources reflect their creators' expertise and credibility, and are evaluated based on the information need and the context in which the information will be used. Authority is constructed in that various communities may recognize different types of authority. It is contextual in that the information need may help to determine the level of authority required.

Learners:
- Define different types of authority
- Determine credibility of sources
- Understand and recognize authoritative voices (including their own)

Searching as Strategic Exploration

Searching for information is often nonlinear and iterative, requiring the evaluation of a range of information sources and the mental flexibility to pursue alternate avenues as new understanding develops.

Learners:
- Identify producers of information and then determine how to access that information
- Match information needs and search strategies to appropriate search tools
- Understand how information systems are organized

Information Has Value

Information possesses several dimensions of value, including as a commodity, as a means of education, as a means to influence, and as a means of negotiating and understanding the world. Legal and socioeconomic interests influence information production and dissemination.

Learners:
- Give credit to original ideas of others through proper attribution and citation
- Recognize issues of access to information
- Decide where and how their information is published, making informed choices about their information actions

Research as Inquiry

Research is iterative and depends upon asking increasingly complex or new questions whose answers in turn develop additional questions or lines of inquiry in any field.

Learners:
- Formulate questions for research based on gaps or reexamination of information
- Use varied research methods based on need, circumstance, and type of inquiry; organize information in meaningful ways
- Draw reasonable conclusions based on analysis and interpretation of information

Scholarship as Conversation

Communities of scholars, researchers, or professionals engage in sustained discourse with new insights and discoveries occurring over time as a result of varied perspectives and interpretations.

Learners:
- Cite contributing work of others in their own information production
- Contribute to scholarly conversation at an appropriate level
- Critically evaluate and recognize that given scholarly work may not represent the only or even the majority perspective

Information Creation as a Process

Information in any format is produced to convey a message and is shared via a selected delivery method. The iterative processes of researching, creating, revising, and disseminating information vary, and the resulting product reflects these differences.

Learners:
- Articulate the traditional and emerging processes of information creation and dissemination in a particular discipline
- Monitor the value that is placed upon different types of information products
- Accept that information creation begins initially through communication in a range of formats and modes
# Searching as Strategic Exploration

<table>
<thead>
<tr>
<th>Novices</th>
<th>Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believe that information searching is limited and simple and may overlook context and experiences that shape the searcher</td>
<td>Realize that information searching is a contextualized, complex experience that affects, and is affected by, the cognitive, affective, and social dimensions of the searcher</td>
</tr>
<tr>
<td>Search a limited set of resources.</td>
<td>Search more broadly and deeply to determine the most appropriate information within the project scope.</td>
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<tr>
<td>Use few search strategies.</td>
<td>Select from various search strategies, depending on the sources, scope, and context of the information need.</td>
</tr>
<tr>
<td>Code</td>
<td>Frame</td>
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<tr>
<td>------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>1A</td>
<td>Authority is Constructed &amp; Contextual</td>
</tr>
<tr>
<td>1B</td>
<td></td>
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<tr>
<td>1C</td>
<td></td>
</tr>
<tr>
<td>2A</td>
<td>Information Creation as a Process</td>
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<tr>
<td>2B</td>
<td></td>
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<tr>
<td>2C</td>
<td></td>
</tr>
<tr>
<td>3A</td>
<td>Information Has Value</td>
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<tr>
<td>3B</td>
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<td>3C</td>
<td></td>
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<tr>
<td>4A</td>
<td>Research as Inquiry</td>
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<td>4B</td>
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<td>4C</td>
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<tr>
<td>4D</td>
<td></td>
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<tr>
<td>5A</td>
<td>Searching as Strategic Exploration</td>
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<td>5B</td>
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<td>5C</td>
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<tr>
<td>5D</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>Scholarship as Conversation</td>
</tr>
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<td>--------------------------------------</td>
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</tr>
<tr>
<td>Research as Inquiry</td>
<td>Searching as Strategic Exploration</td>
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</tbody>
</table>
What we did

- 364 chats from January 1st to April 15th 2017
- Sorted the chats by type -- Writing/Citing and Research Help
Filtered them by 'Research Help' and 'Writing and Citing.'
<table>
<thead>
<tr>
<th>Code</th>
<th>Frame</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Authority is Constructed &amp; Contextual</td>
<td>Explain how to research who the author is and what their credentials are</td>
</tr>
<tr>
<td>1B</td>
<td></td>
<td>Teach the student to evaluate the source critically, is it authoritative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>for the purpose of their research?</td>
</tr>
<tr>
<td>1C</td>
<td></td>
<td>Librarian provided authoritative source and did not instruct</td>
</tr>
<tr>
<td>2A</td>
<td>Information Creation as a Process</td>
<td>Explain the difference between databases and the web</td>
</tr>
<tr>
<td>2B</td>
<td></td>
<td>Explain the evolution of information: it appears in the news first, then</td>
</tr>
<tr>
<td></td>
<td></td>
<td>journal articles, then books</td>
</tr>
<tr>
<td>2C</td>
<td></td>
<td>Librarian only points to resource without explanation</td>
</tr>
<tr>
<td>3A</td>
<td>Information Has Value</td>
<td>Define the purpose of embargos and other limitations on information</td>
</tr>
<tr>
<td>3B</td>
<td></td>
<td>Student is shown how/ why to properly cite sources OR pointed to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>instructional material on citing (libguide, CAS, etc.)</td>
</tr>
<tr>
<td>3C</td>
<td></td>
<td>Student is given citation</td>
</tr>
<tr>
<td>4A</td>
<td>Research as Inquiry</td>
<td>Librarian helps student develop research question/ narrow topic</td>
</tr>
<tr>
<td>4B</td>
<td></td>
<td>Librarian and student evaluate the search results and reassess search</td>
</tr>
<tr>
<td></td>
<td></td>
<td>strategy</td>
</tr>
<tr>
<td>4C</td>
<td></td>
<td>Librarian shares search tips (boolean, etc.)</td>
</tr>
<tr>
<td>4D</td>
<td></td>
<td>Librarian performs the search without providing guidance to student</td>
</tr>
<tr>
<td>5A</td>
<td>Searching as Strategic Exploration</td>
<td>Librarian helps student develop research question/ narrow topic</td>
</tr>
<tr>
<td>5B</td>
<td></td>
<td>Librarian helps student identify quality sources</td>
</tr>
<tr>
<td>5C</td>
<td></td>
<td>Librarian and student evaluate the search results and reassess search</td>
</tr>
<tr>
<td></td>
<td></td>
<td>strategy</td>
</tr>
<tr>
<td>5D</td>
<td></td>
<td>Librarian performs the search without providing guidance to student</td>
</tr>
<tr>
<td>N/A</td>
<td>Scholarship as Conversation</td>
<td>Not currently evaluating in chat</td>
</tr>
</tbody>
</table>
Results
Which frames are being taught?

Information Literacy Instruction in Chat

- Authority is Constructed & Contextual: 20%
- Information Creation as a Process: 4%
- Information Has Value: 5%
- Research as Inquiry: 28%
- Searching as Strategic Exploration: 42%
- No Instruction Given: 1%
Which KPs are being taught most?

Research as Inquiry

- formulate questions for research based on information gaps or on reexamination of existing, possibly conflicting, information
- determine an appropriate scope of investigation
- deal with complex research by breaking complex questions into simple ones, limiting the scope of investigations
- deal with complex research by breaking complex questions into simple ones, limiting the scope of investigations

Searching as Strategic Exploration

- determine the initial scope of the task required to meet their information needs
- identify interested parties, such as scholars, organizations, governments, and industries, who might produce information about a topic and then determine how to access that information;
- utilize divergent (e.g., brainstorming) and convergent (e.g., selecting the best source) thinking when searching;
- match information needs and search strategies to appropriate search tool
Which KPs are being taught least?

**Authority is Constructed & Contextual**
- define different types of authority
- use research tools and indicators of authority to determine the credibility of sources

**Information Creation as a Process**
- recognize that information may be perceived differently based on the format in which it is packaged

**Information Has Value**
- give credit to the original ideas of others through proper attribution and citation
Trends
Trend #1

Instruction and Customer Service
Librarian: Okay, have you considered which database may be best for your search?
Student: but i am not sure what you are suggesting
Student: No, that's why I am asking you.

Student: Unfortunately, I don't find this helpful
Student: Nor do I have the time to go through a couple of databases to see "what they offer, or don't offer"
Librarian: Okay, I don't mean to waste your time - I'm just making sure you have all of the information you need.
Librarian: I cannot guarantee that the information will be in the database

Student: I don't see how that helps me have the info I need
Librarian: we have to go in and check
Librarian: I assure you, I'm not withholding information - just showing you the steps to finding the answer - the research process.

Librarian: Among others. The question you should ask yourself is how to identify operations management when you see it - what traits are you looking for in these documents?
Student: nevermind, I will go to one of BC's campus library tomorrow
Student: OK THANK YOU IM USING THE RESOURCES YOU GAVE AND ITS WORKING SO FAR
Student: THANK YOU, YOU HAVE BEEN A GREAT HELP TO ME
Initial Question: Hi, I am new at using the library. I am trying to find articles, books, journals on the pros and cons of the United States capitalistic economic system. Can you please help me? Thanks.

Librarian: Great! So you should see a list of databases broken up by subject, and further down the page the list of databases listed alphabetically. Right now it sounds like you are looking for pros/cons on your subject, so you may want to start with the database called Opposing Viewpoints.

Librarian: It is a popular database which collects pro/con arguments on different topics.

Student: I clicked on it.

Librarian: Ok. So you should see a search box on the top of the page. What keywords do you want to start with for your search?

Student: Should I just write capitalistic economic system?

Librarian: Try that and see what results come up.

Student: It came up.

Librarian: Great! You may need to continue trying variations of those keywords to see what else you can come up with. For instance, searching "capitalism" on its own may come up with broader results if you need more variety of articles.

Librarian: You can also try searching the larger databases like ProQuest Central and Academic Search Premier.

Student: Thank you so much!

Librarian: As you search in each database you will just have to review results and revise your search terms as you go, so that you can find the information which works best for you.
Trend #2

Instructional Strategies
Techniques that work

- Step-by-Step
- Checking in frequently
- Asking for more time

Librarian: Notice that there are 8 subject areas in this database. The subject Capital Punishment could be in more than one. It could be in Law and Politics, National Debate, and/or Society and Culture. Let's click on National Debate and see if it's listed there.

Librarian: Click on View All to see a full list of subjects.
Librarian: Is this making sense so far?
Student: yes i clicked it
Librarian: Great. As it happens, I'm not seeing Capital Punishment listed there, so let's go back to that Opposing Viewpoints home page and click on Society and Culture.
Librarian: Notice the huge range of subjects listed!
Librarian: This is a great database - one of my favorites.
Student: yes
Librarian: I am seeing a link for Capital Punishment. Do you see it?
Student: yes i saw it
Librarian: Great. Click on that link please.
Student: i did
Librarian: Okay. Now notice on this page that there are different types of writing and resources listed by *type.* Academic Journals is the second one down on the left.
Librarian: The terms "academic" and "scholarly" are often used interchangeably.
Student: okay found it
Librarian: I want to show you a couple more ways to search for materials on your topic if you have time.
Student: sure
Trend #3

Dead End Techniques
Techniques that don’t work...

- What is the student’s assignment?
- Can the student find these databases?
- Does the student know how to search in a database?
- Why these resources?

Librarian: Hello! Welcome to LibChat. How may I help you?
Student: database for critical thinking
Librarian: is this for an assignment?
Student: philosophy
Student: i got it
Librarian: as general research
Librarian: i would suggest using ProQuest
Student: opposing view points
Librarian: or academic search premier
Librarian: that is also a good one
Librarian: as well as CQ research
Librarian: so opposing viewpoints and CQ researcher are both good
Librarian: is there anything else i can help you with?
Student: Thank you
Techniques that don’t work...

- Student cannot replicate search. What did librarian search for?

- Student asks for instruction (“IS this credible?”) & never receives answer

- Student receives citation

**Initial Question:** Hello, I am trying to find information on Whole Foods Market’s international endeavors. I looked at business insights global as well as Plunkett research but neither provided information re WFM's international business

**Librarian:** Hold on, I am searching Lexis-nexis


**Librarian:** This is whole food market SWOT but it is 2014

**Librarian:** [http://www.valueline.com/Stocks/Highlights/Whole_Foods_Market_A_Short_SWOT_Analysis.aspx#WLH3X_JUnEl](http://www.valueline.com/Stocks/Highlights/Whole_Foods_Market_A_Short_SWOT_Analysis.aspx#WLH3X_JUnEl)

**Student:** ok, I will take a look.

**Student:** This is from Value Line, is this a credible resource

**Student:** can you PDF me the article

**Student:** And is value line credible?

**Librarian:** Did you log into blackboard?

**Librarian:** If you give me your email, I can email to you

**Student:** I am not sure how I can sight the LN article you emailed me since it is now in PDF

**Librarian:** GlobalData - SWOT Analysis, 04/29/2014, Whole Foods Market, Inc.
Evaluation
Can we do better?

- Instruction was not given when possible 20% of the time

Information Literacy Instruction in Chat

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- Research as Inquiry: 42%
- Searching as Strategic Exploration: 20%
- No Instruction Given: 1%
Barriers to instruction

- Technology issues
- Student "ghosting"
- Instruction is not welcome
  - Student emotions
  - Students are rushing
Barriers to instruction

- Assignments require additional steps
- Librarians are multi-tasking
What we learned

- Instruction opportunities are easy to identify
- Define explicit instruction behaviors for coding
- Best practices help provide consistent, effective instruction
What we learned

- Difficult without non-verbal communication
- Students end chats prematurely before instruction can occur
Immediate Next Steps

- Re-evaluate rubric
- Perform another chat analysis
- Isolate best practices for virtual chat instruction
  - Use Oakleaf's best practices article to guide our behavior definitions
Goals for our findings

- Workshop during our Annual Librarian Training Week
- A tutorial for new librarians or a refresher course
- Statistics for stakeholders exhibit how we are meeting institutional goals of "Educational Impact" & "Data Driven Decision Making"
Bibliography


Questions?

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