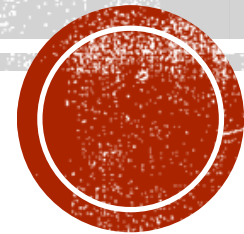


STUDENT SEARCH BEHAVIOR: AN ANALYSIS OF EBSCO AND GALE DATABASE QUERIES

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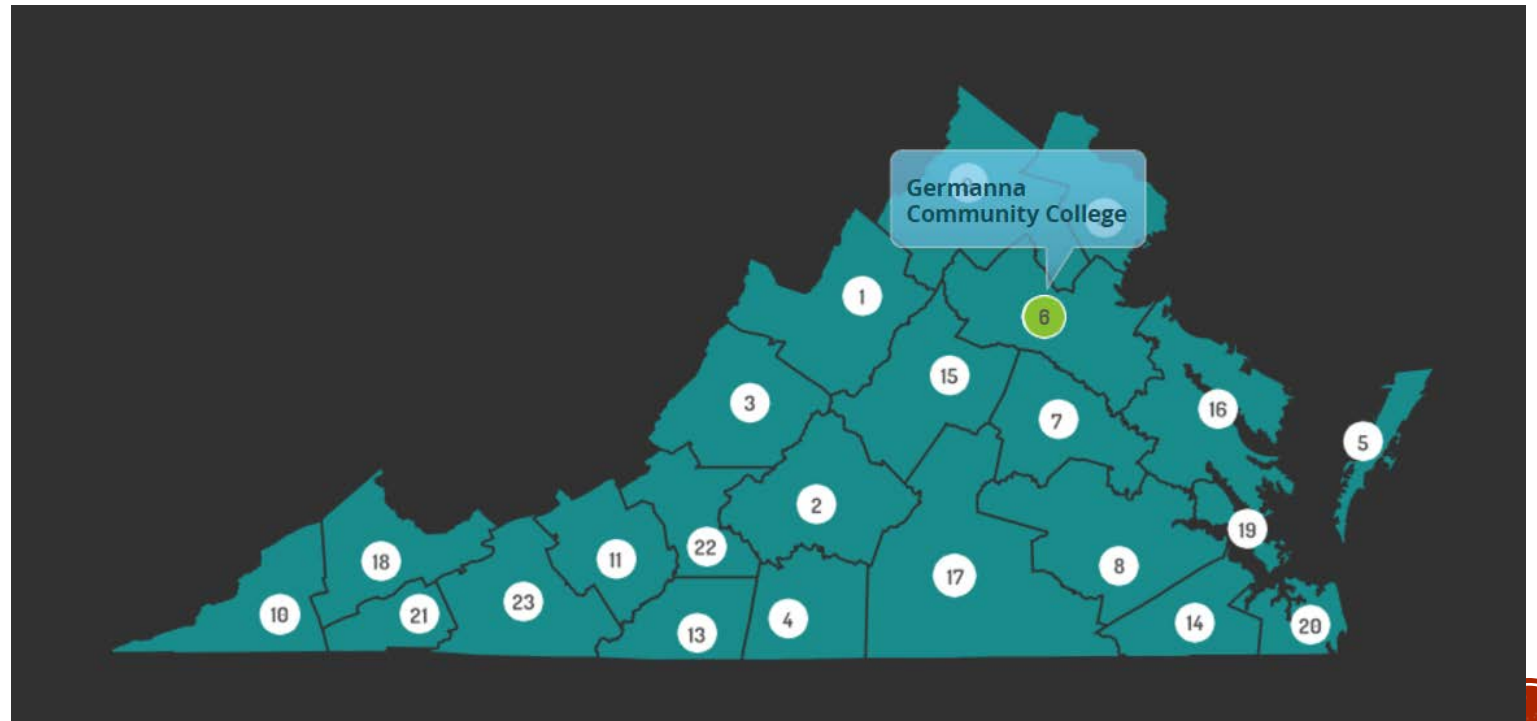
AGENDA

- Context
- The Study
- Results
- Recommendations
- What's Next



GERMANNA COMMUNITY COLLEGE

- Main campus in Fredericksburg, VA
- 4119 FTE
- 3 libraries



LIBRARY SETTING

- Home page lists Academic Search Complete and Opposing Viewpoints in Context primarily
- CINAHL Complete available for nursing students
- Discovery service Primo available, but focuses on books
- Instruction focused on ENG 111 and 112, taught primarily by one librarian



THE STUDY

- What topics are students researching?
- Can they successfully select appropriate keywords for searching library databases?
- What are the common errors that our students make?



LITERATURE REVIEW

- Minimal publications on the topic of keyword selection quality, some in computer science literature
- Studies on the type of resource searched for in a discovery service
- Studies on usability of discovery service searching and comparison of discovery services

- ACRL Search threshold concept, ACRL Information Literacy Standards



METHODS

- Collect top search activity from EBSCO and Gale for Fall 2016 and Spring 2017
- Remove searches used in instruction as much as possible
- Determine the following:
 - Word count
 - Presence of quotation marks
 - Presence of Boolean logic
 - Presence of stop words
 - Index use
 - Satisfactory specificity of terms
 - Effective use of Boolean terms
- On the basis of specificity, effective use of Boolean, and use of stop words, score search



RUBRIC

	Met	Not Met	Other
Specificity	1	0	N/A
Stop Words	1	0	N/A
Effective Boolean	2	0	1



LIMITATIONS

- Do not know the user's topic
- Top searches only, no long tail
- One assessor, not a team with normed results
- For EBSCO, search counted multiple times if facets are used. Not the case for Gale.
- For EBSCO, Boolean intention is unclear



EBSCO RESULTS

Fall 2016

- 306 unique searches
- 65% without Boolean, 10% with stop words
- 14% ineffective Boolean, if used
- 80% not specific enough or too specific
- Average words per search: 3.11
- 31% received a score of 3 or higher

Spring 2017

- 233 unique searches
- 67% without Boolean, 18% with stop words
- 16% ineffective Boolean, if used
- 75% not specific enough or too specific
- Average words per search: 2.87
- 31% received a score of 3 or higher



GOOD EXAMPLES

- children **and** parenting **and** obesity
- college athletes **and** pay
- "free trade" **and** manufacturing
- post traumatic stress disorder **and** combat **and** united states
- dan buettner **and** blue zones
- alexander the great **and** leadership
- "law enforcement" **and** "domestic violence"



BAD EXAMPLES

- how does free trade influence wages? and free trade and wages
- criminalization of americans with severe mental illnesses
- wall between mexico and united states
- what are the effects of social media on teenagers
- mental health
- government ethics
- money



GALE RESULTS

Fall 2016

- 8% used questions or phrases
- 17% too specific or not specific enough
- “black lives matter” and “police brutality” were the popular searches

Spring 2017

- 4% used questions or phrases
- 15% too specific or not specific enough
- “Electoral college” was the popular search



SEARCH TERM RESULTS

Fall 2016

Term	Term Frequency	Unique Searches
effects	348	12
war	228	5
gun	219	5
obesity	210	8
media	201	8
abortion	185	7
control	175	4
college	164	9
families	157	2
wage	149	6

Spring 2017

Term	Term Frequency	Unique Searches
blue	211	3
zones	211	3
technology	179	9
social	178	6
college	173	8
media	173	5
millennials	160	7
longevity	149	2
wages	107	5
united	100	6
states	100	6



DISCUSSION

- Users have trouble determining appropriate search terms at the level of specificity needed
- Users are including stop words, inappropriate phrases, and less helpful words such as “effects”
- Most users understand how to approach Opposing Viewpoints differently than EBSCO databases



RECOMMENDATIONS

- Emphasize instruction about keyword selection at the appropriate level of specificity
- Advise students not to use words such as “effects”
- Teach students the differences between searching Google and library databases, especially as it relates to the use of questions and phrases



FUTURE PLANS

- Now have Google Analytics set up on EBSCO and am gathering ALL searches
- Will somewhat replicate study in Journal of Web Librarianship conducted at University of Michigan Library

Search Term ?	Total Unique Searches ?	Results Pageviews / Search ?	% Search Exits ?	% Search Refinements ?	Time after Search ?	Avg. Search Depth ?
	27,994 % of Total: 100.00% (27,994)	2.13 Avg for View: 2.13 (0.00%)	13.22% Avg for View: 13.22% (0.00%)	37.01% Avg for View: 37.01% (0.00%)	00:04:32 Avg for View: 00:04:32 (0.00%)	1.44 Avg for View: 1.44 (0.00%)
10000. (when lilacs last "in" the dooryard bloom'd) AND (whitman)	1 (0.00%)	4.00	0.00%	25.00%	00:01:30	2.00
10001. (whiskey AND fermentation)	1 (0.00%)	2.00	0.00%	0.00%	00:10:53	2.00
10002. (white blood cell count) AND (urinary tract infection)	1 (0.00%)	3.00	0.00%	33.33%	00:01:24	1.00
10003. (White Rose Resistance) AND (Student)	1 (0.00%)	2.00	0.00%	100.00%	00:00:12	0.00
10004. (whitman) AND (analysis)	1 (0.00%)	2.00	0.00%	50.00%	00:03:02	0.00
10005. (whitman) AND (poem)	1 (0.00%)	1.00	0.00%	100.00%	00:03:14	0.00
10006. (whitman) AND (song "of" myself) AND (analysis)	1 (0.00%)	1.00	0.00%	0.00%	00:00:11	1.00
10007. (whole foods market inc.) AND (culture)	1 (0.00%)	3.00	0.00%	33.33%	00:12:54	2.00
10008. (whole foods market inc.) AND (management styles)	1 (0.00%)	2.00	0.00%	50.00%	00:10:13	11.00
10009. (whole foods market inc.) AND (organizational behavior)	1 (0.00%)	3.00	0.00%	33.33%	00:17:10	1.00



EVALUATION FORM

tinyurl.com/fri2017vla

