

Make Syllabi Work For You!

Tools and Methods for Liaison Librarians

Andrea Berg, University of Washington MLIS Student, bergal@uw.edu
Sara Robertson, Portland Community College Faculty Librarian,
sara.robertson@pcc.edu

Why look at syllabi?

Portland Community College has diverse programs

- Sara's liaison [Pathway](#) = 18 departments & 80+ degrees/certificates
- New liaison structure after college reorganization
- Nature of the community college = constant change

Why now? Syllabi can include useful information

- Being collected within each college Pathway (areas of study)
- Useful information, such as assignments & course materials
- Often include support resources, like the library

Instructors do NOT need to do ANYTHING!

Syllabi Analysis in the Literature

What have librarians learned from syllabi analyses?

- Library mentions
- Opportunities for engagement
- Collection development
- Spectrum of information literacy

What methods have librarians used for syllabi analyses?

- Manual analysis since the 1980's
- First automated analysis method published in 2017
- Big picture vs. granular

Needs Assessment

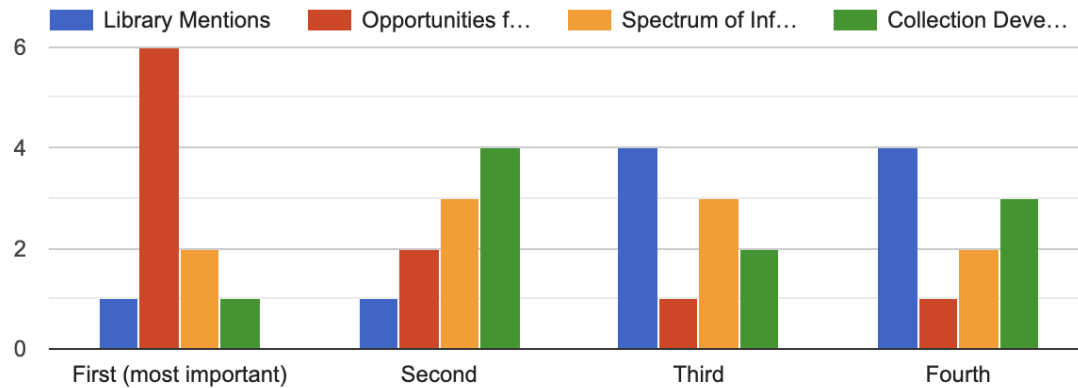
What do PCC librarians want to learn from their syllabi?

What are the constraints? What would prevent a syllabi analysis method from being helpful or viable?

[View our responses](#)



Rank the importance of these four syllabi analysis goals for your work at PCC



Constraints:

- **Inputs: Too much pre-processing of files**
- **Ease of use: Simple tool for use and training**
- **Licensing: No budget**
- **Outputs: Ability to dial down to granular level for instructor follow-up**

Finding the Right Tool

Identified tools from the literature on automated syllabi analyses

- QDA Miner
- Syllabi Literacy Information Miner (SILM)
- NVivo

Explored other text mining tools

- Monkeylearn
- Textable
- NLTK

Library tested tools

Tool	Pros	Cons	Overall
QDA miner	<ul style="list-style-type: none"> Free (lite version) Existing literature on use for syllabi analysis in libraries 	<ul style="list-style-type: none"> Full version licensed Windows only 	Strong option, depending on Windows or Mac OS
SILM	<ul style="list-style-type: none"> Free, open source, hosted online Developed by librarians for syllabi analysis Useful downloadable Excel report (class level) 	<ul style="list-style-type: none"> Not able to download data visualizations 	Best option: specifically developed for this purpose, low barrier to use, easy to customize
NVivo	<ul style="list-style-type: none"> Existing literature on use for syllabi analysis in libraries Advanced data analysis capabilities 	<ul style="list-style-type: none"> Licensed, no free version available 	Not a viable option unless PCC already has a license

Text mining tools

Tool	Pros	Cons	Overall
Monkeylearn	<ul style="list-style-type: none"> Existing keyword extraction features could be adapted for library uses 	<ul style="list-style-type: none"> Developed for businesses Relies on use knowledge of text mining logic 	Not a strong option, too focused on business analytics
Textable	<ul style="list-style-type: none"> Free, open source text mining software Strong data visualization capabilities Developed for academia 	<ul style="list-style-type: none"> No existing literature on using for library purposes Requires downloading Orange Canvas 	Possible option, but downloading Orange Canvas could be too much of a barrier
NLTK	<ul style="list-style-type: none"> Could use to build custom tool specific to PCC needs 	<ul style="list-style-type: none"> Requires too much individual proficiency in text mining and coding 	Not a realistic option given constraints

Syllabi Information Literacy Miner

Tool	Pros	Cons	Overall
SILM	<ul style="list-style-type: none">● Free, open source, hosted online● Developed by librarians for syllabi analysis● Useful downloadable Excel report (class level)	<ul style="list-style-type: none">● Not able to download data visualizations	Best option: specifically developed for this purpose, low barrier to use, easy to customize

Syllabi Information Literacy Miner

Developed by librarians at Baylor University

- Thank you Amy James, Joshua Been, and Beth Farwell!

Free, open source, hosted on Google Colab

- Easy to use

Customizable keyword searches, including a tiered analysis

- Able to adapt searches to answer different questions

Easy to read reports

- Data visualizations and downloadable excel sheet

Link to SILM

Customizing SILM

Clear, accessible documentation on using the SILM tool

- [Documentation](#)

SILM templates to answer custom questions

- [Opportunities for Engagement Template](#)
- [Collection Development Template](#)
- [Library Mentions Template](#)

Resources for librarians to develop their own custom searches

- [Advanced search documentation](#)
- [Keyword appendix](#)

Example

10 minutes to download and select a sample batch of syllabi.

5 minutes to run the tool, including time to upload files.

10 minutes organizing and sorting results.

65 syllabi from Fall term:

Building Construction

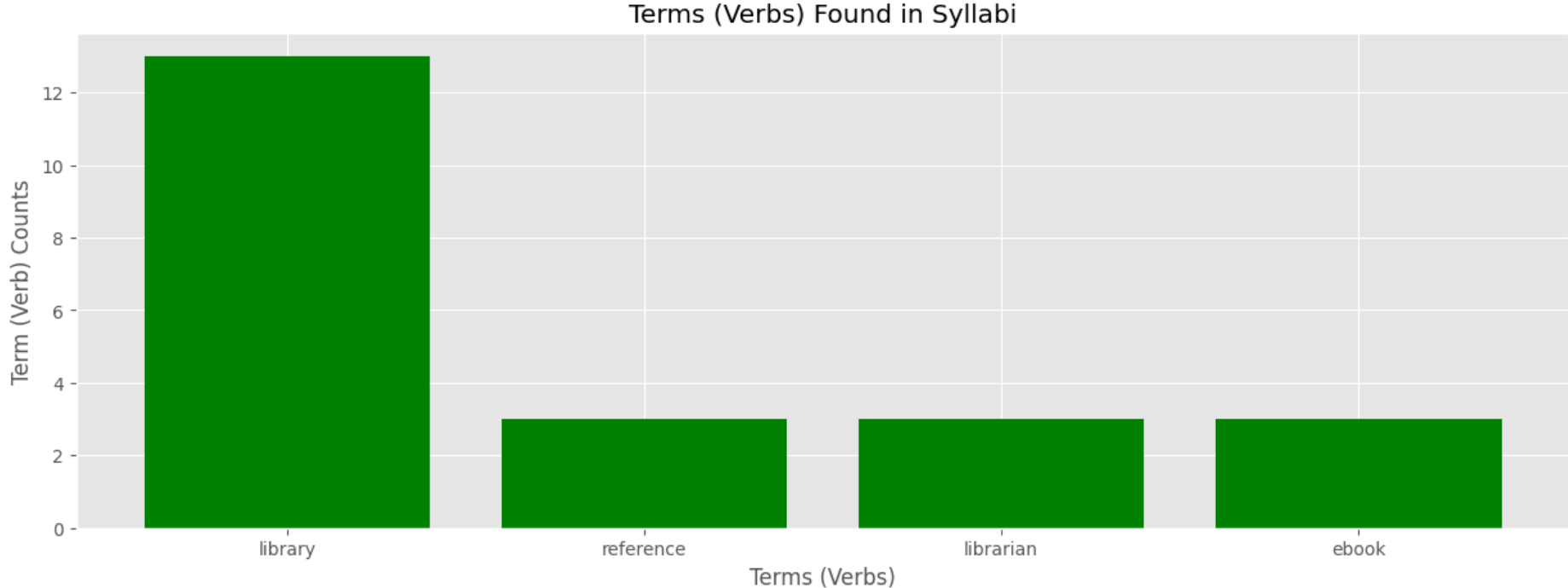
Landscape Technology

Civil and Construction Engineering

Facilities Maintenance

–Electrical Engineering

Library mentions



Make Syllabi
Work for You!

Right Now!

Sample Search

My objective is: Collection development

My keywords are:

Verbs: textbook, text, ebook, e-book, database, course reserve, article

Nouns: require, recommend, optional, read, assign, buy, rent, check out

My three tiers are:

Tier one

- Definition: Required textbooks
- Keywords: text, textbook, course reserve

Tier two

- Definition: Journal articles
- Keywords: database, article

Tier three

- Definition: E-books
- Keywords: ebook, e-book

Thank you!