Connecting the dots:
Concept maps for aligning information literacy instruction and course outcomes

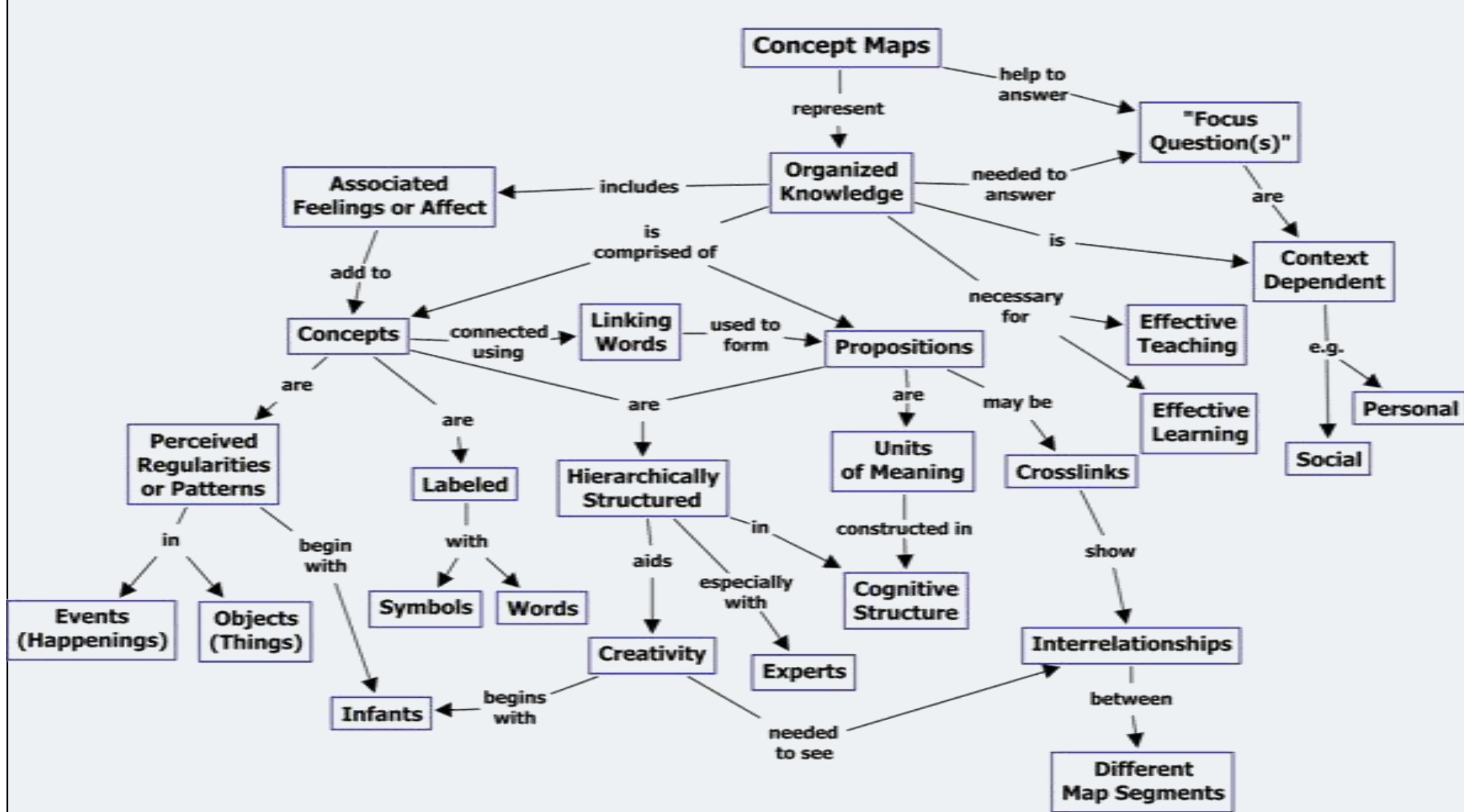Megan Fitzgibbons, McGill University

Problem and Purpose

The following premises led to the development of this project:

• Faculty and librarians alike recognize that students often lack research skills

• Students seek for information on a task-oriented level

• Isolated, *ad hoc* design of information literacy tools is not effective

• There is often a disconnect between librarians and instructors perceptions of what library-related instruction can and should be

Why Concept Maps?

Concept maps are **graphical representations of relationships among concepts**. Research supports the efficacy of knowledge visualization for learning and creating new knowledge.
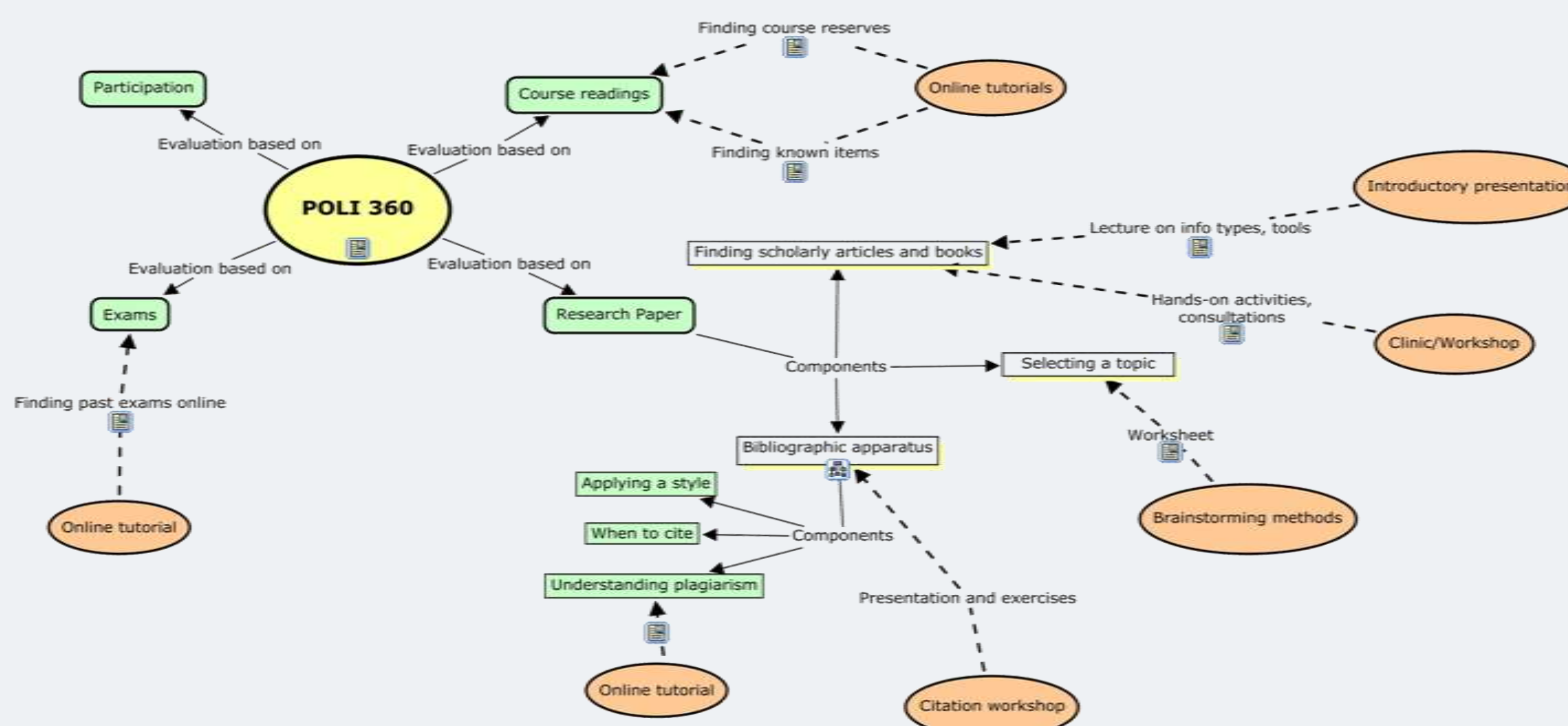

*Source: http://cmap.ihmc.us/Publications/ResearchPapers/TheoryCmaps/Fig1CmapAboutCmaps-large.png*

In this project, concept maps are employed to:

• **Identify** learning objectives in course syllabi

• **Connect** meaningful units of information

• **Create** framework for collaboration

Sample Concept Maps

Based on analysis of syllabi and course assignments in Political Science, concept mapping software is used to **connect** learning outcomes to librarians' teaching tools. Professors' expectations for student **achievement** are used to **operationalize** the library and information literacy skills required to meet these outcomes.
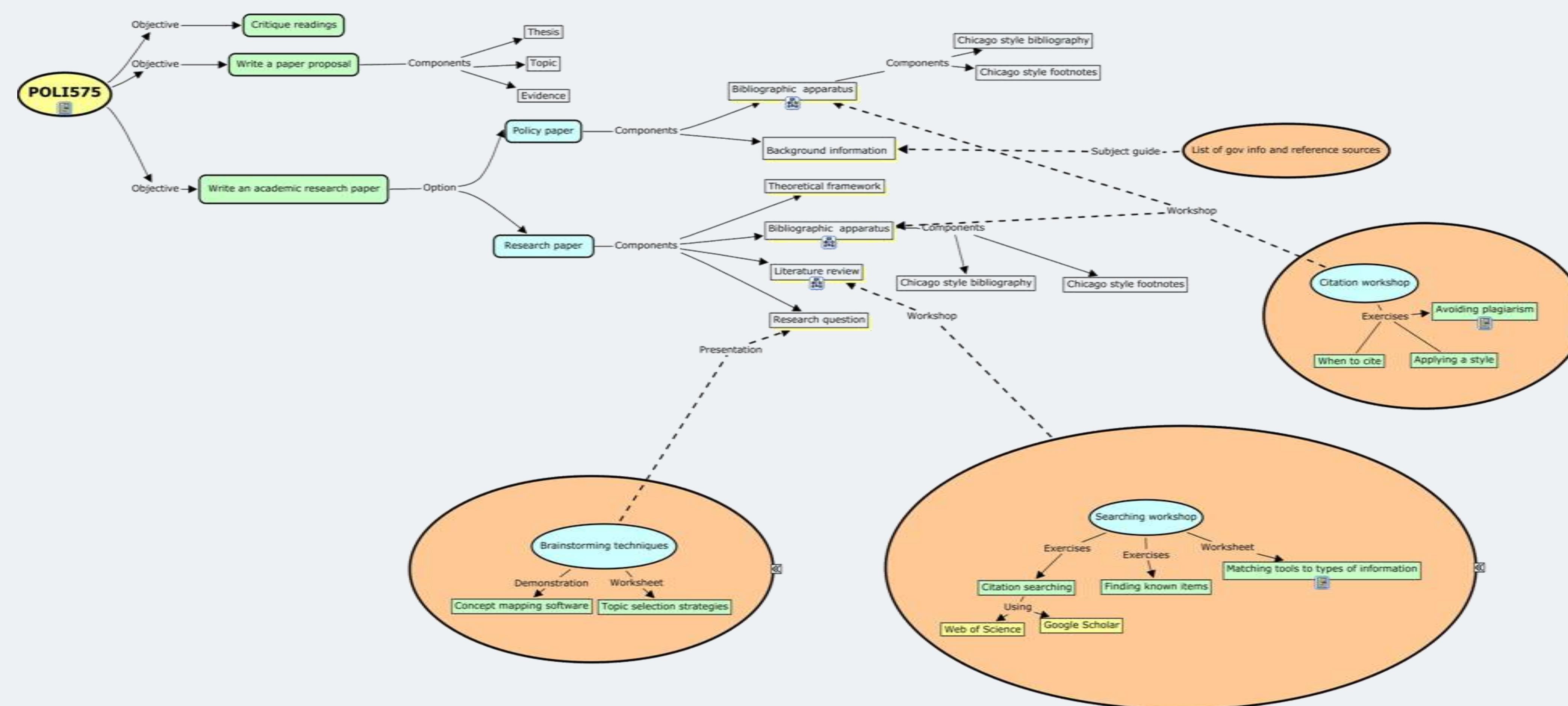
Selected Literature

Cañas, A. J., Carff, R., Hill, G., Carvalho, M. M., Arguedas, M., Eskridge, T. C., Lott, J., & Carvajal, R. (2005). Concept maps: Integrating knowledge and information visualization. In *Knowledge and information visualization* (pp. 205-219). Berlin: Springer.

Novak, J.D. (1998). Learning, creating, and using knowledge: Concept maps as facilitative tools in schools and corporations. Mahwah, NJ: Lawrence Erlbaum.

Novak, J. D., & Cañas, A. J. (2006). The origins of the concept mapping tool and the continuing evolution of the tool. *Information Visualization, 5, 175-184*.

Plotnick, E. (1997). Concept mapping: A graphical system for understanding the relationship between concepts. (*ERIC Digest* ED407938). Syracuse, NY: ERIC Clearinghouse on Information and Technology.

Radcliff, C. J., Jensen, M. L., Salem, Jr., J. A., Burhanna, K. J. , & Gedeon, J. A. Concept maps. In *A practical guide to information literacy assessment for academic librarians* (pp. 106-114). Westport, CT: Libraries Unlimited.

Trochim, W.M. K., & Kane, M. (2007). Concept mapping for planning and evaluation. Thousand Oaks, CA: Sage Publications.

Selecting the Software

There are many concept mapping and mind mapping tools available. **CmapTools** was selected for its powerful linking capabilities, flexibility for collaboration, and well-documented methodology.
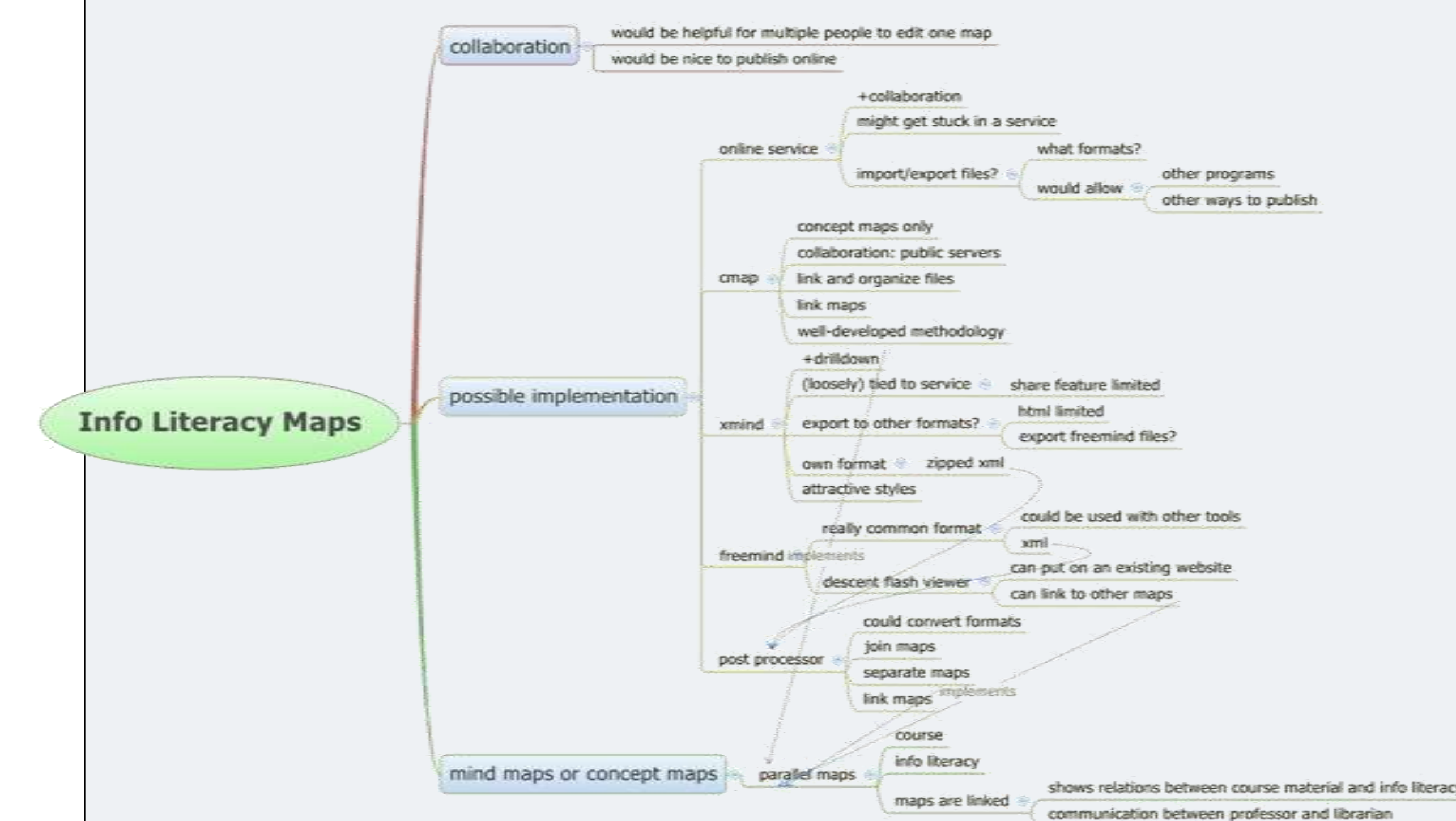
For more information, see: http://cmap.ihmc.us/conceptmap.html

Outcomes

Still under development, this project promises to:

• Improve library instruction for student learning via **alignment** with course content

• Enable **collaboration** between professors and librarians by providing a mechanism and common tool (topic, language, space)

• Raise **awareness** of possible application of information literacy instruction

• **Organize** and facilitate sharing of information literacy learning objects

Contact Information

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