Statement of Competency G

G. Understand the system of standards and methods used to control and create information structures and apply basic principles involved in the organization and representation of knowledge

Perhaps the key features that make libraries unique and more than just “a place where books are kept” is that the information they hold is organized in ways that can be easily accessed by library users. Catalogs present data about this information presented in the form of records that can be understood by the user, allowing them to locate the information being sought. In order for these records to be accessible, they must be organized according to rules that allow for methods of standardization, both when creating records and presenting them.

The first step comes with creating the record. This done according to the current cataloging rules, the Anglo-American Cataloguing Rules, 2nd Edition (AACR2). These rules tell catalogers in both libraries and archives how to describe the items in their holdings, for all formats (e.g. books, serials and electronic resources). After the proper rules for identifying the item is determined, the record is created using Machine-Readable Cataloging (MARC21) coding, which provides a standardized framework for entering the pertinent aspects of the piece of information by which it can be described. The MARC21 structure is divided into different fields, with each field covering one aspect of the record (e.g. the main author, additional authors, title, edition, etc.). Whereas MARC21 encoding started out as a means to create the types of cards found in traditional card catalogs, it achieved its true potential through the use of online public access catalog (OPAC), as the information in a MARC21 record can be easily shared among several libraries through online networks, with the key online network for MARC21 records being the Online Computer Library Center (OCLC). A record created in

Jonathan Leff – Statement of Competency G
Page 1 of 6
MARC21 by one library can be used by any other library that has the same item in its collection, and which is a member of OCLC, meaning that catalogers do not always have to do the same work twice.

However, a record is of no use to an information seeker if it is not presented in a way that makes sense to the person using it. The average library or archive user does not know MARC21 coding, nor do they have the time or willingness to learn it. The record that appears in an OPAC is a representation of the information that is in encoded in MARC21, and is presented in such a way that the user can easily find the information for which they are looking. While many older OPACs give the user the option to see the record in its MARC21 form, many of the more current (“Nextgen”) OPAC interfaces do not, though they do give the user the option of accessing the MARC21 record through a link to the “classic” catalog.

The OPAC is the graphical user interface through which the user accesses the database that stores the library’s bibliographic records. The way in which a user accesses the information through the OPAC depends on the way in which the information is described in the database and which is done through either controlled or uncontrolled vocabulary. Controlled vocabulary (also known as pre-coordinated or preco) is a set of specific descriptive terms that are assigned by the indexer at the time the record is entered into the database. For a user to find a given record, he or she must search using the pre-assigned terms. If the precise terms are not used, the user will have greater difficulty finding the record. An example of a pre-coordinated vocabulary is the Library of Congress Subject Headings (LCSH) that includes not only categories of subjects, but also sub-categories. Uncontrolled vocabulary (also known as post-coordinated or postco) is the set of search terms that are provided by the user who is doing the search. The best-known form of this is the keyword search. The user types in the keyword and the OPAC returns all the records that have that keyword somewhere in the piece of
Jonathan Leff – Statement of Competency G

information that the record represents. The user does not have to guess what words to use for the search, and thus has more control over the search process. In other words, the user is not bound by a pre-defined vocabulary. Post-coordinate searching is the type of searching that most users are familiar with, especially through use of searchable websites such as Google and Amazon.

Today’ OPACs are web-based and are a user’s point of interface with the database. As many users are not knowledgeable about the way databases are constructed and the technical aspects of controlled versus uncontrolled vocabulary, it is important that the OPAC be designed in such a way as to maximize the efficiency with which a user can find desired information. It is important for the OPAC to make sense so that the user can understand how to use it and how to read the record. One way to do this is for the design of the interface to match a user’s expectation as to how it is supposed to work. One example is having the catalog search box available on the library’s home page for easy access. This mimics the kinds of search boxes that are available on most non-library web pages. The user enters a keyword in the search box and is provided with the results, with the option of doing a more advanced or precise search as needed.

Evidence and Criteria for Selection

1. LIBR 202 – Information Retrieval – Assignment 2

This was a three-part assignment. In Part A, I was asked to summarize a detailed paper on subject access. This involved being able to understand and describe the principles of controlled and uncontrolled vocabulary, the differences between each and to recognize how they worked to return results based on a query. Part B involved a search of YouTube videos on a particular subject of our choosing, and to create a record structure, which I chose to do using DBTextworks. We were also told to describe the records using both controlled (pre-coordinated) and uncontrolled (post-
coordinated) vocabulary. Part C involved a comparison between two databases, one that used pre-coordinated indexing and one that used post-coordinated indexing. This involved using the same twenty combinations of keyword searches for both and measuring both the precision and relevance of the results, as well as the number of false drops (the results that bear no relation to the subject matter of the information for which a query is being performed).

This evidence demonstrates my competency in describing the structure of bibliographic databases, creating record structures on my own, and in my ability to describe the behavior of different vocabulary structures and the impact they may have on users who need to interact with them in order to perform database queries with OPACs.

2. LIBR 251 – Web Usability – Paper Prototype

For this assignment I had to redesign the Library Online Tutorial for the School of Library and Information Science Students (LOTSS). This tutorial is required for all School of Library and Information Science (SLIS) students when they begin the SLIS program. The instructions for this assignment were to redesign the LOTSS site according to principles of web usability and heuristics described by Bruce Tognazzini and Jakob Nielsen, and then to use a mock-up, known as a paper prototype to gain input from potential users. After gaining input from the users, I redesigned the site two more times with different users. The goal was to design a site that was logical, intuitive and therefore easy for a first-time user to interact with.

This evidence shows my ability to create designs for websites that take the perspective of the user into account. While the site being studied in this assignment is not an OPAC, it is a library-based system, and is designed for first-time users, specifically, first-time library students. The same principles used in this assignment can be used in designing easy-to-use OPACs, online
databases, and other similar websites for users who may not be either not be savvy when it comes to doing online searches, or who may be using these systems for the first time.

*Note:* The test subjects in this assignment were my partner, a neighbor and a former neighbor, all of whom have given permission for me to identify them by name.

3. LIBR 256 – Archives and Manuscripts – MARC Assignment

This goal for this assignment was to analyze a handwritten letter and encode it using MARC21. There were many challenges inherent in this assignment, with one of the primary ones being that the letter was written on board a ship traveling through choppy seas, meaning that the handwriting was often hard to decipher. The class was provided with no information other than the letter itself, and therefore I had to do a lot of online research using a variety of web-based resources including the Library of Congress Authorities to determine the full name of the author of the letter, the name of the recipient, and the names of people and places mentioned within the letter. Before attempting to encode the letter, I first transcribed it, which made it easier for me to understand the content and conduct my research. The professor provided the MARC21 template and identified the fields for which we did not have to create an entry.

I feel that this evidence demonstrates my ability to work with standard bibliographic control tools that are used in both libraries and archives to create records that can be found in searchable databases.

*Note:* the letter from which the image of the first page is taken that is included in this evidence is the property of the University of California, Berkeley Bancroft Library Library and is used with the permission of David de Lorenzo, the Associate Director of the Bancroft Library. Mr. De Lorenzo was also the professor for this course.
Conclusions

The modern library that makes of the latest digital technologies in ways librarians of the past could never have anticipated. Online access has expanded the reach of catalogs into peoples’ homes, making library records more accessible. Due to these new technologies, librarians and archivists need to be aware of users’ expectations when it comes to how web-based catalogs operate, so that the records can remain accessible. However, even though the OPAC has replaced the traditional card catalog as the interface of choice for accessing library records, many of the older standards and methods for creating these records and indexes still apply. It is important for librarians to be aware of the ways in which records are described and pieces of information are indexed – and thus, how they are organized – so that they can assist users in finding the information for which they are searching.