IRLS671 Introduction to Digital Collections

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COURSE NAME, NUMBER AND PREREQUISITES:

IRLS 671 Introduction to Digital Collections

For SIRLS M.A. students taking this course as an elective, IRLS 504 is the sole prerequisite. For DigIn students, there is no prerequisite for this course. Otherwise, students can register with the permission of the instructor.

Instructor: Peter Botticelli

COURSE DESCRIPTION:

This three-credit course is one of six required for the Certificate in Digital Information Management (DigIn). 671 introduces the basic functions of digital curation, a term that refers to the full set of management processes needed to create, select, describe, preserve and facilitate access to all types of digital collections having long-term value as archives, research data, or cultural heritage.

As a SIRLS M.A. elective, 671 is listed under the “Evaluation of User Needs & Information Resources” distribution category. As such, digital curation requires a deep understanding of how the landscape of collections is changing in response to new technologies and management approaches in the digital environment.

On the whole, this course is designed to help new information professionals identify roles to play in managing digital collections, and at the same time to enhance their effectiveness in working across the organizational and technical boundaries that currently inhibit the development of new types of collections and services.

COURSE OBJECTIVES:

By the end of this course, students should have a broad understanding of, and be able to explain, in general terms:

—How research data and other primary source collections are created, organized, described, and used in the digital environment.

—Key technical and organizational problems faced by digital curators.

—Policy challenges faced by libraries, archives, and museums in the digital era.
—Emerging trends and current research priorities in the curation field.

REQUIRED COURSE MATERIALS:

All readings for this course will be available online. The majority can be accessed openly on the Web. Some will be available only through the UA Library’s e-journal databases. A small number of readings may be made available through D2L, for educational purposes as outlined by the fair use doctrine.

This course tends to have a substantial number of assigned readings, but please note that students are not expected to absorb and recall all of the contents of each reading. Instead, students will be expected to show mastery of the key ideas or main points of each reading, as presented in the lecture.

At the beginning of each unit I will give you detailed instructions that in many cases will limit the number of sections or pages you are required to read, and as noted above, I often make last-minute substitutions or deletions for that week’s readings. Finally, keep in mind that all readings labeled as “supplemental” are strictly optional.

COURSE REQUIREMENTS:

This course is taught entirely online through UA’s D2L platform, and yet it’s structured like a traditional university course, with a weekly schedule of readings and required class discussion. So while the course is taught asynchronously (so you will not be required to log in at any specific time), this is not a self-paced course, and students are expected to keep up with the weekly schedule and to log in to D2L—and to check your D2L email inbox—regularly.

The course content itself is divided into 12 weekly units. On Thursday of each week, I will post lecture notes, a podcast, a reading list, and sample discussion questions. As a guideline, the lecture and accompanying readings for each unit should be read within four days, giving you three days to complete the assignment each week.

For each unit, students will be required to contribute to a graded discussion forum that will be set up for each unit. Guidelines for discussion postings are given below. Besides the weekly discussion assignment, students will be required to complete a semester project during the course, based on guidelines that will be distributed early in the semester.

Finally, please note that because this course covers a rapidly evolving field, I will be revising the reading list and other course content on a week-by-week basis through the semester. Thus, the course outline posted at the beginning of the semester is the list for Fall 2009 and, as such, it should be taken as a preview of the topics we’ll be covering but not an exact list of required readings for each week. Naturally, you are welcome to read ahead if you wish, but note that I make every effort to come up with a manageable set of readings for each week.

671 Course Topics:

Unit 1. Introducing digital collections

As digital information professionals today, we are forced to consider some very fundamental questions about the uncertain nature of documents in the digital environment. Besides the technology itself, we have to pay close attention to the evolving social context in which digital information is created and used. Thus, in this unit we examine the essential building blocks of digital collections, both at the intellectual level (i.e., documents, records, works) and at the technical level (i.e., files, databases). We go on to discuss how digital collections are similar to and different from those in print and other media, and how digital collections are changing as a result of technological innovation.

Unit 2. Digital collections as infrastructure

In this unit we lay out a theoretical framework for managing digital collections as a form of infrastructure, and for understanding how information and technology are intertwined. We also introduce the concept of cyberinfrastructure as it is being used to drive research and development in both science and the humanities today.

Unit 3. Digital curation and cyberinfrastructure
In this unit we explore the concepts of digital curation and cyberinfrastructure, and discuss the ways in which these terms suggest a fundamental rethinking of how collections should be managed in the digital environment. We will examine the proposed functions of a digital curator in managing large scale digital collections, and we will see how the development of cyberinfrastructure may bring about fundamental changes in how digital collections are created and used.

Unit 4. Digital curation and the information professions

Here we examine the impact of digital technology on the information professions—focusing on libraries, archives, and records management. We compare the basic functions and responsibilities of the professions in the digital environment, and we consider how institutions are adapting to the problems and opportunities arising from the dramatic growth of digital collections over the past decade.

Unit 5. Valuing digital information: archival perspectives

Units 5-6 deal with the problem of how digital curators may go about choosing which digital documents to collect. We’ll begin with the theoretical perspective of archivists, who have long struggled to determine which records are most valuable out of the vast quantities of information modern society produces and regularly discards. We explore the archival concept of documentation strategies as a case example of how information professionals may or may not be able to use traditional theoretical concepts to guide the development of digital collections.

Unit 6. Valuing digital information: library perspectives

In this unit we will examine how traditional library functions, especially selection, may influence the development of new types of collections and services in the digital environment as technology opens up new ways to gather, process, and reuse data. We also consider the role librarians may seek to play in selecting resources for Web-based collections and in curating new sources of data for e-Science.

Unit 7. Building digital collections

Having decided what documents to collect, digital curators must decide how to acquire and take direct control of digital resources. As with the selection process, information professionals are addressing this problem from a range of perspectives that reflect the distinct roles played by institutions. Thus, we will see how libraries are increasingly creating resources through mass digitization programs, while archives are struggling to build recordkeeping systems able to accommodate the flood of records now being created in digital form.

Unit 8. Organizing digital collections

Having selected and obtained digital resources, digital curators next have to decide how to organize information to form searchable collections. In Units 8-9, we will discuss how information professionals are exploring new ways to classify and describe documents, and the tensions that have arisen between print conventions and emerging digital standards for handling item-level and collection-level description. As a case example, we will focus on the archival concept of provenance in relation to the problem of ordering digital records.

Unit 9. Describing digital collections

The problem of organizing and describing digital collections is greatly complicated by the need for standardized metadata at all stages of the information management lifecycle. In this unit, we will examine the role of metadata in the digital environment, and the need for curators to consider interoperability and user needs in their choice of descriptive standards and practices.

Unit 10. Metadata as infrastructure

The Web has revolutionized the way users search for information, with the result that information professionals are struggling to adapt traditional methods of bibliographical control to the Web environment. At the same time, advances in metadata infrastructure are opening up new possibilities for describing and presenting collections to users. In this unit we will examine how information professionals are addressing these challenges at a practical level. We will also discuss the implications of new descriptive practices for digital curation.
Unit 11. Repositories for digital collections

The building of digital repositories has been a hot topic in recent years, especially given the need for infrastructures we can use in curating digital collections. In this unit we will examine what digital repositories are, how they are being used by data curators, and what impact repository systems may have on data curation in the near future.

Unit 12: Strategic management for digital repositories

This week we will look at some key strategic issues behind the development of digital repositories. We will focus on ways digital curators are attempting to maximize the value of their repositories and some of the obstacles they are facing at present. We will also discuss how repositories may fit within the digital curation lifecycle.

COURSE, SCHOOL, AND UNIVERSITY POLICIES:

Academic Code of Integrity

Students are expected to abide by The University of Arizona Code of Academic Integrity. 'The guiding principle of academic integrity is that a student's submitted work must be the student's own.' If you have any questions regarding what is acceptable practice under this Code, please ask an Instructor.

Accommodating Disabilities

The University has a Disability Resource Center. If you anticipate the need for reasonable accommodations to meet the requirements of this course, you must register with the Disability Resource Center and request that the DRC send me, the Instructor, official notification of your accommodation needs as soon as possible. Please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate.

Assignment Instructions and Deadlines

The weekly discussion assignment will all have a specific due date; this means that each student's posting should be available in the appropriate discussion forum by the stated deadline, and the submission date recorded by D2L must be no later the deadline. This semester, each weekly unit will begin on Tuesday. Therefore, all assignments for the previous unit will be due on Monday.

Late assignments will carry a penalty of 1 point per day, with a maximum penalty of three points. Since D2L is subject to periodic outages, I will not count an assignment as late unless it is time stamped for later than 12 noon on Tuesday.

Exceptions to the deadline policy will be made if (a) a legitimate emergency arises—and which must be documented, or (b) if you email me before the deadline (that is, before the assignment is late) and ask for an extension. I consider these requests on a case-by-case basis, though I generally approve one or two extensions per student per semester.

Normally, I will not approve an extension if it is not requested in advance of the due date. This is because I regard planning to be an essential factor in online learning—including planning for those times when your schedule is likely to make it difficult to keep up with the syllabus. As we move forward through the semester I strongly urge you to contact me as soon as possible if you find yourself falling behind for any reason. I am very willing to consider adjustments to the weekly schedule to accommodate students’ individual needs, if I am informed of the need for such changes in a timely manner.

Communicating Online

Given the importance of text in online learning, all assignments for this course will be graded not only on intellectual content but also on writing style and presentation. Thus, norms of graduate level writing, including appropriate
organization, standard grammar and spelling, and citation of resources, are expected in this class. Problems will be indicated in returned assignments, but the instructor will not edit students’ work. For advice on improving writing style, students should make an appointment to consult the instructor.

Extra help in improving writing is available through the Writing Center [http://web.arizona.edu/~uawc/](http://web.arizona.edu/~uawc/). The following Web sites offer excellent advice as well: The OWL at Purdue University ([owl.english.purdue.edu](http://owl.english.purdue.edu)) and Paradigm Online Writing Assistant ([www.powa.org](http://www.powa.org)).

### Incompletes

The current Catalog reads

The grade of I may be awarded only at the end of a term, when all but a minor portion of the course work has been satisfactorily completed. The grade of I is not to be awarded in place of a failing grade or when the student is expected to repeat the course; in such a case, a grade other than I must be assigned. Students should make arrangements with the instructor to receive an incomplete grade before the end of the term ...

If the incomplete is not removed by the instructor within one year the I grade will revert to a failing grade.

### GRADING:

The final grade for the course will be based on the following elements:

- **Weekly class discussion:** 300 points
  (12 weeks, 25 points each)
- **Semester Project:** 100 points
- **Course Total:** 400 points

In grading the weekly class discussion forum, my main concern is that all postings make a substantive contribution to the discussion. This means that you need to do more than state an opinion, or respond to another’s position. You also need to provide a context for your argument, including supporting details and concrete examples. Postings should be written in complete sentences and with correct grammar. Keep in mind that the purpose of assignments like this is to help you learn to communicate effectively in professional settings. Thus, to fulfill the grade requirement you will need to contribute one or more posts with a cumulative total of at least 300-400 words.

For the semester project, a document with detailed guidelines and minimum requirements will be posted early in the semester; please refer carefully to the guidelines in carrying out your project and ask questions as soon as possible if you encounter any problems or if any aspect of the assignment is not clear.

### INSTRUCTOR NAME AND CONTACT ADDRESSES:

Teaching is more than presenting information. It includes guiding the learning process, and helping students acquire skills as well as knowledge. Students should never hesitate to contact the instructor whenever they have concerns about how well they are doing. Not only will this help the students get assistance they need, it will also provide valuable feedback as to how the course can be improved.

For questions that may be of general interest to the class, please use my instructor’s discussion forum in D2L. For more specific questions or to discuss matters that are personal in any way, please use my UA email account:

- **pkb@email.arizona.edu**

Also, if you are in Tucson, feel free to make an appointment for a face-to-face meeting.