What We Teach: An Assessment of Graduate-Level Digital Curation Syllabi

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ABSTRACT
This poster reports preliminary results from an intensive review of English-language syllabi for Master’s level courses in digital curation, undertaken as part of a larger study looking at the convergence and divergence of reading assignments between digital library and digital curation curriculum.

1. INTRODUCTION
The past decade has seen a rise in digital curation-specific and related curriculum offerings at graduate degree programs in information, library and archival science. Ray (2009) provides an early summary of digital and data curation curriculum development primarily in English-language programs, including funder support for such initiatives, with recent updates and considerations for further development presented by Tibbo (2015). This poster reports select findings specific to digital curation syllabi from a descriptive content analysis study of syllabi for digital curation and digital library courses offered at Master’s degree granting programs. The aim of this broader study is to identify the extent foundational courses in digital library and digital curation converge and diverge, as evidenced through stated course objectives, reading assignments and other syllabi characteristics. This study drew inspiration from the Digital Library (DL) Curriculum project’s research identifying the core literature offered in digital library courses from graduate programs accredited by the American Library Association (ALA) (Pomerantz et al, 2006). The source listings for this study were expanded to also include programs listed to the Society of American Archivists’ (SAA) Directory of Archival Education and the iSchools’ Directory.

2. METHOD
The objective for the study results reported in this poster is the extent to which a core of frequently assigned digital curation readings exists. Further, it examines the diversity of reading assignments by format and content type, with particular emphasis on assignments from academic and scholarly journals. This is in response to the questions of whom and where: which authors are frequently assigned, and in what journals are they publishing?

2.1 Population and Sampling
An aggregate listing of the ALA, SAA, and the iSchools’ respective directories was compiled, resulting in a list of 101 programs. These directory affiliations are not exclusive. A quarter of the programs (26%) are listed to two source listings; twelve (12%) are listed to all three sources. While syllabi are the data source for this study, the first step for gathering syllabi was a review of the 101 programs’ respective websites. Review was limited to programs with website content available in English. As a result, eight programs were excluded from further consideration. For the remaining 93 programs, their websites were examined to locate recent course schedules, characterized as a list of courses arranged by academic term and with sufficient course details, including instructor, course meeting time and course number, to complete a web search for the respective course syllabi. Though most of the 93 programs made course catalogs available on their websites (71, or 76%), only 35, or 38%, made recent course schedules available for one or more academic years.

For these 35 programs, course schedules were reviewed to identify any courses offered in digital curation. In addition to searching by the key words, “digital curation,” within the course title or description, other related key words were searched, including digital preservation, digital archiving and digital stewardship. Nearly half of the programs (16, or 46%) did not have course offerings with these or related key words.

For the remaining 19 programs that did, the courses identified were further assessed for eligibility to enhance homogeneity...
among the sampled syllabi. The focus was on foundational courses in digital curation, rather than courses in advanced digital curation topics. Courses that were deemed to provide more depth in a particular area, rather than breadth across digital curation as a whole, were excluded, such as digital forensic courses or courses dedicated to particular format or content type, such as moving images or research data. In regard to the latter, courses in data curation were excluded. Additionally, courses in data science were outside the scope of this study.

Additionally, as the course schedules reviewed represented two or more academic years, this contributed to duplicate course offerings. After removing for duplicates, 15 syllabi were identified and collected. While these sampling design decisions resulted in substantially fewer syllabi eligible for analysis, it did lend support in identifying unique syllabi rather than potentially similar or identical syllabi from the same programs.

### 2.2 Data Collection and Analysis

Two coding systems were created to capture syllabi attributes. The first collected information on the front matter contained within the syllabi, such as course delivery mode. The second collected information from the reading outlines of the syllabi, allowing for capture of each assigned reading whether indicated as required or optional. If no indication as to status, then it was assumed (and coded) to be required. A citation key was created to capture and manage each unique assigned reading as identified in the reading outlines and for coding all assigned readings for format and content type, authorship and publication channel. Once syllabi coding was complete, the data collected was reviewed and normalized. The citation key in particular demanded extensive cleanup due to the variation in how assigned readings are formatted in the syllabi and the degree of completeness of bibliographic data for citations provided. All citations were reviewed and normalized, with efforts made to complete missing essential bibliographic data. The syllabi front matter, reading outline and citation key data were preliminarily analyzed in Excel and then exported to SPSS for final analysis.

### 3. Select Results

Overall, the fifteen syllabi coded represented three academic periods: Fall 2012 (1); Winter or Spring 2014 (5); and Fall 2014 (9). Considering the source directories from which the program sampling frame was constructed (ALA, SAA and iSchools), seven syllabi (46%) were listed to all three directory sources.

#### 3.1 Syllabi Front Matter

The 15 syllabi were assessed for degree of completeness. Eleven (73%) are complete, containing a reading outline. Of these, nearly (10 out of 11) are arranged by topical theme. Front matter was also examined to identify presence of typical syllabus components, such as: course description (87%), course objectives (87%), course topics (13%), instructional method (80%), and assignments (80%). Front matter was also examined to identify presence of required and/or optional textbooks. A majority did not indicate required (67%) or optional (80%) textbooks.

#### 3.2 Syllabi Reading Outline

From the eleven digital curation syllabi containing reading outlines, all reading assignments were collected and coded. After extensive, iterative review to remove for duplicates, a total of 729 unique citations were identified. “Assignments” is preferred for referring to these “readings” to reflect that not all citations are text-based. Ultimately, 24 categories were derived, representing more formal and traditional sources, such as books and journals, to more informal as well as transformative sources, such as white papers and grey literature to blogs and web-based videos. Refereed journal articles are the largest grouping, accounting for 34% of all citations. Refereed, and to some degree non-refereed journal articles and trade articles, are typical indicators of impact in bibliometric studies. While, in combination, these three serial types account for 335 (43%) of all unique citations, non-serial publications are also well-represented, specifically organizational and research project publications. In combination, these account for 184 (25%) of all unique citations.

For the 247 unique refereed journal articles assigned, 72 refereed journals were represented among these 247 citations. A majority (53, or 74%) contributed only one article, with four journals publishing two articles each. The remaining 186 articles were published in 15 journals, with three (International Journal of Digital Curation, American Archivist and Archivaria) publishing a combined 155 articles, representing nearly half (47%) of all the unique articles assigned.

Authors of academic journals (refereed and non-refereed) were examined. For these combined 280 articles (247 refereed and 33 non-refereed), 171 were singularly authored, and 109 had two or more authors. An author index was compiled of all attributed authors, single or collaborative, resulting in a listing of 489 unique authors. For the 489 authors listed, 318 (65%) were listed once, contributing one article, either single-authored (n=99) or co-authored (n=219). For the 280 refereed and non-refereed articles, 26 are the work of just four authors. Hence, these four authors produced nearly one out of 10 (9%) of all articles. The most frequent authors, characterized as contributing four or more articles, are: Duranti, L.; MacNeil, H.; Bearman, D.; Conway, P.; Hedstrom, M.; Rosenthal; D.; and Ross, S.

Returning to the 729 unique assignments, a total of 927 required and optional assignments were made in the 11 reading outlines, for an average of 84 readings per syllabus. As the study is interested in frequency of assignments among syllabi, rather than within syllabi, assignments were reviewed to identify any duplicate assignments; that is, the same assignment being listed two or more times within the same reading outline. This reduced the number of assignments – with only one per syllabus considered – from 927 to 868 total assignments. For these, 647 (76%) were required and 221 (26%) optional. The number of syllabi to which these total assignments (required and optional) are made clearly shows a long tail distribution, with a near majority (846, or 98%) assigned only once among the 11 reading outlines. Considered separately by assignment status, 627 (97%) required assignments and 219 (99%) optional assignments were only assigned once.

### 4. REFERENCES

