

The Past is not Over: Special Collections in the Digital Age

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This paper began as part of a panel discussion entitled “It is all on the Web, so why bother? Special Collections in the Digital Age.” Why bother with what? The implied question is: Why bother with maintaining, expanding, supporting, and curating special collections? This question stems from what is becoming a widely held belief: now that almost everything is on the Internet, library collections—and even librarians—are no longer necessary.

But the opposite is true. Special collections—and librarians to curate them—are more important than ever before. To state the obvious, online digital collections with a historical focus are digital images derived from special collections of physical materials: printed books, manuscripts, sheet music, paintings, drawings, maps, costumes, and objects. Without libraries and special collections there would be no digital collections.

Special collections are much more than collections of items to be photographed, however. It is the trained professionals—librarians and scholars—who curate those collections that make the difference. These professionals choose what to collect: they assess importance and value, and they commit to maintaining cultural heritage. The great digital repositories such as Gallica, from the Bibliothèque nationale de France, or the digital collections of the Bayerische Staatsbibliothek (MDZ: Münchener Digitalisierungszentrum), are the product of careful choice and curation by librarians and scholars over many centuries.¹

And to state the obvious once more: the past is not over! It will never be over!² Non-digital historical documents and artworks still exist, and will continue to exist. We need to continue to collect physical materials in libraries and special collections—with highly trained specialist librarians to curate them.

The librarian’s work does not end with the acquisition of the item. Librarians categorize and catalogue the items, and store them so that they can be easily retrieved; they discover and record what the items are, where they came from, when they were created, and their path from creation to the special collection. They create metadata, which is

crucial to assessing the authority of the items in the collection, and to finding those items. Only if information is intelligently organized, only if we can figure out where things came from, are collection holdings useful for serious research. This is not just an academic issue. **People in positions of authority (politicians, policy analysts, government officials, sociologists, and scholars) make decisions every day on the basis of information stored in libraries and special collections.** Those decisions will only be as good as the information on which they are based.

Physical special collections are also required for some kinds of research. It is very hard to alter a physical document without leaving a trace; it is ridiculously easy to do so for digital documents (which is why original boarding passes and receipts are still required for the reimbursement of professional travel expenses, for example). For the ultimate measure of authenticity—is it the real item, or is it forged or doctored or changed?—**we must be able to go back to the original.** For many other kinds of research—the codicology or structure of the manuscript, composition and application of the pigments, the provenance and evidence of use—we still need the originals. We therefore have to keep maintaining collections and preserving the items.³

Digital repositories, therefore, cannot replace physical ones, but they **can add value**, and **enable new kinds of research**, as long as the digital collection is organized and curated as well as (or better than) the physical collection. Digitization of a physical special collection, when done well, can make it possible not only to learn *more, faster*, but also to learn things that were hidden before. Here are some examples.

- Digital photos (with ultraviolet light, for example) can **reveal things on a page** that are invisible to the naked eye; they can help us sort out bleed-through and palimpsests.⁴
- Optical character recognition (OCR) has made it possible to **search within** individual documents and across millions of documents, something that is revolutionizing research in many domains.
- Digitization also makes it possible to bring together into one digital space **information that is found in different places in the physical world.** This could be two parts of a single manuscript now found in different libraries; or it could be complete texts of two different sources of the same work.⁵

To illustrate the **interaction** between physical and digital collections and research, I will tell a story about how a chant manuscript in a

Canadian special collection became the centre of a pioneering digital project created by colleagues and students at McGill.

We start with a special collection: the University Archives of St. Mary's University, Halifax, Nova Scotia, which is housed in the Patrick Power Library. One of the prized items in this collection is a beautiful illuminated chant manuscript from the sixteenth century: the Salzinnes Antiphonal.⁶

Judy Dietz, Associate Curator of Historical European Art, Art Gallery of Nova Scotia, and a former graduate student at Saint Mary's, wrote her master's thesis on the manuscript in 2006.⁷ In the process she created an inventory—which in this context means a complete listing of the first words (or “incipit”) of each chant in the manuscript—of the Salzinnes Antiphonal for the CANTUS Database, an online database for Latin ecclesiastical chant and one of the first online tools in musicology. (CANTUS was conceived in the late 1980s by Ruth Steiner at the Catholic University of America, then taken over by Terence Bailey at the University of Western Ontario from 1997 to 2012, and is now housed at the University of Waterloo and managed by Debra Lacoste.)

Each inventory entry in CANTUS is supplemented with detailed metadata about the contents of the manuscript for chant scholars.⁸ But this metadata—which includes information about the musical mode of the chant, the feast it is to be used for, and the complete text of each item—is difficult to understand without a lot of training in the history of music and liturgy (in part because of the abbreviations used in the early days of limited character length for different fields). So Judy Dietz requested help on the index from medieval music specialist Jennifer Bain, a former MA student at McGill who now teaches at Dalhousie University. Following this collaboration, Jennifer Bain hosted a meeting of the Gregorian Institute of Canada at Dalhousie in 2011,⁹ at which the Salzinnes was featured on a local television program; she sent me the video clip for old times' sake, and that is how I found out about the Salzinnes Antiphonal.

At the same time, Ichiro Fujinaga (my colleague in the Music Technology Area at the Schulich School of Music) was working on Optical Music Recognition (OMR) for plainchant. He and his lab (DDMAL: Distributed Digital Music Archives and Libraries Lab) had just completed the first OMR of chant notation (square-note neumes on a four-line staff). They chose to start with the *Liber usualis*, a modern printed book including the most important chants from Mass and Office, used by all Catholic churches up until Vatican II

(1962).¹⁰ Fujinaga's lab taught the computer to read the notation, and made it freely available on line, so that it is now possible to search all 2,340 pages in the *Liber* for strings of pitches, intervals, text, or neume shapes.¹¹

Having done OMR on a printed chant book, Fujinaga wanted to do OMR on a chant *manuscript* that was clear and easy-to-read. I told him about Jennifer Bain and the Salzinnes Antiphonal; we contacted Jennifer Bain, Judy Dietz, and Debra Lacoste from CANTUS, and obtained digital copies of Judy Dietz's photographs of the manuscript, as well as the CANTUS data. Before starting the OMR, however, students in Fujinaga's lab had the idea of connecting the metadata from the CANTUS database with the digital images of the Salzinnes Antiphonal, and putting the combination online (figure 1).¹² In order to make it usable by anyone—not just chant specialists—they spelled out all the abbreviations in CANTUS, and made all the text searchable. It is now possible, for example, to search the manuscript for all the Vespers antiphons in Mode 3 that include the word "Maria."

The fact that the abbreviations are spelled out and that the index is tied to the image of the musical notation makes a lot of arcane musical and liturgical material immediately accessible to novices. Susan Boynton, a chant scholar at Columbia University, has reported that with the *Liber* and Salzinnes websites her undergraduate students can do research on chant right away, while before it took weeks or months of training.¹³

Fujinaga's lab has now almost completed the OMR for the Salzinnes, which will make it possible to search the music for melodies as well as text, as we already can in the *Liber*. This will make it possible to do more new kinds of music research.

Digital humanities research has many benefits for the humanities and for society at large. It requires collaboration between faculty and students, humanists and computer scientists, librarians and scholars, leading away from the single-author monograph model of scholarship dominant in the humanities toward the collaborative lab model as in the sciences. This is very beneficial to both students and senior researchers.

The commitment of many digital humanities projects to the creation of freely available tools and collections provides academic resources to people without access to a university library. All kinds of people—church musicians, aspiring composers, amateur historians,

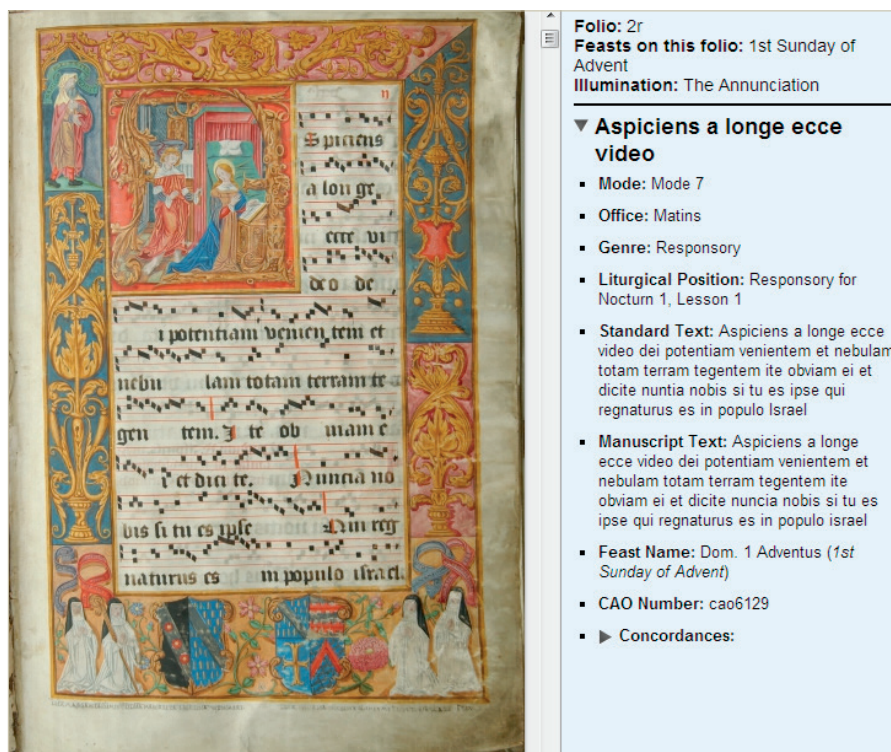


Figure 1. Screen capture of the Salzennes Antiphonal from the DDMAL Lab, McGill University (CDN-Hsmu M2149.L4).

independent scholars—now have access to searchable chant sources online, thanks to Fujinaga’s lab.

Open access also has the potential to mitigate the negative portrayal of the humanities as useless and elitist, as does **crowd-sourcing**. By inviting the public to use or even contribute to a research project, **digital humanities can provide a feeling of ownership of and participation in cultural property**. The Newspaper Digitisation Program of the National Library of Australia, for example, has become a cultural phenomenon.¹⁴ Thousands of Australians participate in crowd-sourced OCR correction, resulting in a community of people who are contributing to the documentation of their country’s heritage.¹⁵ Other digital humanities projects provide access to information about music, film, or literature—things that people love.

The Salzennes Antiphonal site exists because of Judy Dietz’s graduate research; digital photographs; metadata from the CANTUS database; the Internet; collaborations among scholars, librarians and computer specialists; and cutting-edge music technology research. But remember—it all began with a physical manuscript lovingly curated in a **Canadian special collection**.

NOTES

1. The Gallica database from the Bibliothèque nationale de France can be searched at <http://gallica.bnf.fr/>; the digital collections of the Bayerische Staatsbibliothek are at <http://www.digitale-sammlungen.de>.
2. My phrase unintentionally echoes William Faulkner's, "The past is never dead. It's not even past," found in his novel *Requiem for a Nun*, Act I, Scene III (New York: Random House, 1950).
3. On evidence of use, see Kathryn M. Rudy, "Dirty Books: Quantifying Patterns of Use in Medieval Manuscripts Using a Densitometer," *Journal of Historians of Netherlandish Art* 2 (2010), <http://www.jhna.org/index.php/past-issues/volume-2-issue-1-2/129-dirty-books>. Carla Zecher, Director of the Center for Renaissance Studies and Curator of Music at the Newberry Library, recently told me that since the Newberry began digitizing their collections they have received more visits from scholars who want to look at the original documents (personal communication, August 31, 2013).
4. DIAMM (Digital Images of Medieval Music), for example, specializes in special photographic techniques that can reveal aspects of a manuscript that are not always visible to the naked eye. See their page, "Imaging," accessed November 17, 2014, <http://www.diamm.ac.uk/services/imaging/>.
5. See, for example Karen Desmond's digital edition of a fourteenth-century music theory treatise, *Omni desideranti*, found in three different manuscripts: Karen Desmond, "Omni desideranti notitiam," a music theory text from the fourteenth century (Creative Commons, 2011), <http://www.arsmusicae.org/home.xml>; and her article, "Texts in Play: The Ars nova Textual Tradition and its Hypertextual Representation (Including a Digital Edition of the Music Treatise *Omni desiderati notitiam*)," *Musica disciplina* 57 (2012): 81–153.
6. A note on the Salzines Antiphonal and how it arrived at Saint Mary's University can be viewed at the webpage of Saint Mary's University Archives, accessed November 21, 2014 <http://www.smu.ca/academics/archives/the-salzines-antiphonal.html>
7. Judith E. Dietz, "Centuries of Silence: The Discovery of the Salzines Antiphonal" (master's thesis, Saint Mary's University, Halifax, 2006).
8. Judith E. Dietz, with Jennifer Bain and Meredith Evans, "CANTUS Manuscript Index for the Salzines Antiphonal (M2149.L4 1554)," Patrick Power Library, St. Mary's University, accessed November 21, 2014, <http://cantusdatabase.org/index?source=374146>. See also Jennifer Bain and Judith Dietz "Family Ties and the Salzines Antiphonal," *Studi Musicali, Nuova Serie* 1.1 (2010): 105–145.
9. Gregorian Institute of Canada, "Report on the Sixth Annual Colloquium of the Gregorian Institute of Canada, August 4–7, 2011, Dalhousie University, Halifax, Nova Scotia: Chant; Old and New [=Colloquium title]," accessed November 21, 2014, http://www.gregorian.ca/eng/news.php?DOC_INST=1.
10. The *Liber usualis*, with introduction and rubrics in English, ed. by the Benedictines of Solesmes (New York, NY, and Tournai, Belgium: Desclee Company, 1961), online version July 17, 2007, <http://musicasacra.com/2007/07/17/liber-usualis-online/>.
11. "Search the Liber Usualis," Distributed Digital Music Archives & Libraries Lab, McGill University, accessed November 21, 2014, <http://ddmal.music.mcgill.ca/liber/>.
12. "Salzines Antiphonal" (CDN-Hsmu M2149.L4) Distributed Digital Music Archives & Libraries Lab, McGill University, accessed November 21, 2014, <http://ddmal.music.mcgill.ca/salzines>.
13. Susan Boynton, comments at "New Digital Projects for the Study and Dissemination of Medieval and Renaissance Music," a panel discussion at the American Musicological Society Meeting, New Orleans, November 1, 2013.
14. "Newspaper Digitisation Program," National Library of Australia, accessed November 21, 2014, <http://www.nla.gov.au/content/newspaper-digitisation-program>.
15. "Trove" search service, [through which the public can contribute to the database], National Library of Australia, accessed November 21, 2014, <http://trove.nla.gov.au/>.

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