

Making Space: Archival Transcribathons and Practice-Based Learning in Undergraduate Medical History

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ALTHOUGH ANATHEMA to domain experts, it is unfortunately the case that students of history can graduate with an honors degree without ever handling or analyzing archival materials. Archives are unique resources—ranging from official state documents to personal papers—that have the potential to enrich historical research immeasurably. Access to repositories by large groups of people can be difficult—for example, both the National Archives of Ireland and the National Library of Ireland Manuscripts division, for conservation and preservation reasons, cannot meaningfully cater for groups larger than fifteen at a time. Difficulties associated with busy undergraduate timetables also contribute to why archival visits to off-campus locations can be a rarity for several programs. To address this problem at our institution, we used digital surrogates of archival materials to give students a practice-based learning (PBL) experience, allowing them to transcribe and interact with the records in a classroom setting. We also wanted to create awareness of digital humanities tools and the legacy created by digitized research data. Having the domain expertise of both an archivist and a digital librarian was of critical importance to the work plan. The module

had been running since 2008, but a recent change in department policy permitting the removal of an examination requirement (worth 66.6%) allowed “a shift from transmissional/didactic instructional approaches to constructive/collaborative activities.”¹ While the removal of the examination requirement was not a prerequisite for a more active approach to teaching and learning, it certainly created space for more imaginative ways of assessing student work.

To enable the practice-based learning segment, we adopted flipped classroom principles, defined by Morris Siu-Yung Jong as “an educational strategy about inverting the traditional use of in-class time for conducting lower-level learning activities and out-of-class time for conducting higher-level learning activities.”² Flipping the classroom can also encourage a more student-centered approach to learning—in this instance, through group work and peer-learning. For our particular case, skills in the historical sciences were taught and assessed online using the virtual learning environment (VLE)³ to permit space during class contact time for an archival experience using a set of manuscript coronial court records dating from 1900 in Dublin City. PBL is more commonly used in the medical sciences, and according to Jill E. Thistlethwaite, there is no agreed definition, but it can encompass “the transfer of theory into the workplace through situated and experiential learning.”⁴ In the historical sciences, it is conceptually similar. A modular approach was used to equip students with the necessary research skills and tools to write an independently researched essay on one of the topics covered in class. We used the flipped classroom to maximum effect by carefully planning “e-tivities” and continuous assessment to build student knowledge incrementally, teaching and testing practical skills on a weekly basis outside class time.

Among the technical terms for community/academia partnerships are “engaged research” and “service learning,” whereby cultural institutions like archives, libraries, museums and galleries, or community groups identify pressing needs and partner with local universities to address them.⁵ Collaborations can include unpaid internships or placements, but volunteer work is often unfairly weighted against students from lower socio-economic backgrounds. Here, we created equal opportunities by rewarding effort with an assessment mechanism, which we discuss later. We adapted what Europeana and Oxford University call “transcribathons” to meet our

pedagogical needs and learning outcomes. While the suffix “-athon” makes the process sound like an endurance race, transcribathons are far from competitive; in fact, our aim was to focus on the quality of close reading and transcription rather than the quantity of output. Irrespective of size and pace, the outputs of most transcribathons are the same: they are community events undertaking the task of transcribing and encoding manuscript materials. They can take many forms, from large-scale online projects like Europeana’s endeavours to transcribe stories from the Great War in Europe 1914-1918,⁶ to the Folger Shakespeare Library’s Early Modern Manuscripts Online,⁷ to our more small-scale endeavours in a classroom PBL context. Our format was sustained over a number of weeks in the module, versus the “sprint” of a set number of hours by large volumes of transcribers as practiced by the Folger Library.

In this article, we discuss the challenges associated with applying PBL in archives to “Health, Gender, State, and Irish Medical Care, 1837-1948,” an elective module offered to fourth-year students at the University of Limerick in Autumn 2018.⁸ With an emphasis on a scaffolded approach to teaching and learning, the module outline we discuss in the following “Aims and Methods” section shows how we catered for the spectrum of proficiencies in the historical sciences that we were presented with. Conducted over twelve weeks in a weekly three-hour seminar context, the module was available to history majors and study abroad students from other disciplines, with numbers capped at twenty-five. Next, the “Integrating Archival and Digital Library Principles” section shows how, by taking full advantage of advances in technology—especially in the functionality of VLEs—flipped classroom methods can free up face-to-face contact time for PBL to provide a good introduction to archivistics and digital library studies. The “Workshops” section of the article provides a step-by-step guide to the practice-based learning workshops in the module. Finally, we offer a discussion of assessment and grading criteria and a summary of our findings.

Aims and Methods

The general aims of the PBL segment were to enhance skills in the historical sciences, promote deep and critical thinking about the subject, and create an awareness about the full life course of

research data, from the provenance of archives to the importance of good metadata. The desired specific outcomes for this portion of the module was to produce a set of fully transcribed archival records, increase student awareness of the value of archives for research, and raise awareness of the ethical underpinnings and technical skills associated with transforming a manuscript into a digital environment. Over the summer period of June to August 2018, the authors worked together to embed “archival transcriptions” of coronial court records as a form of PBL into the “Health, Gender, State, and Irish Medical Care” module. Drawing on skills from complementary domains, revisions were made to the module outline to ensure that all disciplines—history, archivistics, and library sciences—were proportionately represented. With these fundamental principles in mind, our module aims also included:

- providing an overview of Irish social, political, economic, and cultural history as context for the study of social history of medicine
- critically assessing Irish class relations from a medico-legal perspective
- encouraging students to pursue post-graduate research
- introducing students to digital humanities methods
- promoting PBL

In order to achieve these aims, we adopted a scaffolded approach to pedagogically underpin the module; in turn, this permitted us to introduce students to the fundamental principles of archivistics and digital librarianship once the broad historiographical context was established. The scaffolded approach has its origins in Lev Vygotsky’s theories about early childhood education.⁹ He isolated three primary levels of development: first, the zone of understanding that students already possess when they come to the learning process; second, the zone of proximal development (ZPD), which he defined as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers”; and, third, the zone representing what learners cannot yet achieve.¹⁰ His theories surrounding the ZPD, or the optimal level at which learning can occur, have been refined by several scholars and, since the 1970s, the concept of scaffolded learning emerged.¹¹

The scaffolded approach has gained momentum in higher education over the past few decades as a framework to develop critical thinking skills and as a “theoretical framework for PBL.”¹² It operates, according to Tony Harland, on the premise that “the task set should be within the range of the majority of students’ ZCD [zone of current development].”¹³ This module is offered to Level 4 students, who have three years of prior instruction in history, and to study abroad students, who may not have any grounding in the humanities, yet were seniors at their home institutions. The scaffolded approach is not well described in the existing historical sciences literature, but here, it is conceptualized as a process whereby requisite information and skills are broken down into basic components; student knowledge and skills are built incrementally in lectures, workshops, and PBL; and students move from supported to group and autonomous modes of learning where attributes of the flipped classroom principles also come into fruition. This draws on the fundamental principles of Vygotsky’s contention that students can learn with assistance not only from tutors, but also from more knowledgeable peers. Introducing group work and PBL offers the opportunity to maximize the potential of optimal problem solving in the zone of proximal development.¹⁴ Learning was reinforced through the alignment of assessments with readings and other multimedia content available on the VLE. By flipping the classroom, the semester’s primary aim of gradually equipping students with the necessary research skills and tools to write an in-depth essay on one of the topics covered in class could be achieved. The student experience was enhanced by the PBL segment, which also served to help students meet their assessment and learning outcomes. Through a combination of lectures, assignments, PBL, and feedback workshops, students enhanced their abilities to engage in discursive scholarly debate and were enabled to develop critical thinking skills and their own unique methodologies and research questions for the final essay. **Figure 1** provides a template of how the scaffolded approach was grafted to a twelve-week undergraduate module of “Health, Gender, State, and Irish Medical Care, 1837-1948.”

In Week 1, the students were introduced to the precepts of data transcription and how this was a requirement for undertaking the module. As this was coursework conducted in a practical setting,

Topic	Assignment	Flipped (Y/N)	Grade
1. Intro. – Public healthcare Essay topic 1	Source identification - practical	No - No assessment	-
2. Coroners	Source discussion	Yes - Mentimeter	-
3. Workshop 1 Essay topics 1, 3, 6	Intro. to archives	Yes - Group work	10
4. Workshop 2 Essay topics 1, 3, 6	Group assignment transcription	Yes - Group work	10
5. Essay topic 4	Précis	No - Close reading	5
6. Reading week	Reading	N/A	-
7. Essay writing workshop	Watch documentary- 300 words	Yes - Review	5
8. Workshop 3 Essay topics 1, 3, 6	Reflection on data transcription work	Yes - Group work	10
9. Essay topic 5	Précis - 500 words	No - Close reading	5
10. Essay topics 1 & 5	Précis - 500 words	No - Close reading	5
11. Essay topics 1 & 2	Précis - 500 words	No - Close reading	5
12. Concluding session	Précis - 500 words	No	5
** Final Essay	Essay - 4000 words	N/A	40

Figure 1: Module Outline for the Autumn 2018 offering of HI4187: Health, Gender, State, and Irish Medical Care, 1837-1948.

the exercise was exempt from requiring Research Ethics Committee approval, but using students to transcribe historical resources that will endure beyond the lifetime of the module can present ethical problems. In line with best practices and General Data Protection Regulation 2016/679, participating students were offered a form to complete if they consented to the use of their group work in future research and exhibitions, and their right to anonymity or to withdraw

their consent at any stage was fully explained. Attrition rates were negligible and were primarily caused by scheduling conflicts and the requirement for some study abroad students to undertake additional English-language modules. Students were divided into five teams of four members, and this aided with creating an inclusive student-centered environment where they actively participated in and took responsibility for their learning. The module leader was responsible for providing an outline of the history of the evolution of healthcare in Ireland. Weeks 1 and 2 provided an introduction to the history of the structure of public and private healthcare provisions in Ireland, along with where the coronial courts operated in the medico-legal system. The program was punctuated with PBL workshops in Weeks 3, 4, and 8 to provide a broad overview of sources and archives in history of medicine, of text analysis and encoding, and of data linkage, with a follow-up workshop, “Problematizing the Coroners’ Records.”

Integrating Archival and Digital Library Principles

To prepare students for the PBL requirements, an introduction to archival theory and the principles of research data management were requisite. The inclusion of archival studies in undergraduate programs is a relatively recent innovation, as is the trend of “archivist as educator,” which was introduced to archival literature in 2001 by Marcus Robyns, University Archivist at Northern Michigan University. Robyns defined this as a movement whereby “more and more archivists...are developing and implementing instructional workshops and courses designed to increase students’ awareness of archives and improve their use and understanding of archival materials.”¹⁵ In order to respond effectively to their increasing role in teaching and learning in higher education over the past twenty years, archivists have become more innovative in their design of archives literacy programs.¹⁶ Research and education in the field of information management must be grounded in practice, as “[t]heory provides the underlying concepts and methods for diagnosing and solving problems; practice supplies the problems and tests the utility of results.”¹⁷ According to Nancy A. Van House, “innovation consists of bringing these two areas together.”¹⁸ With this in mind, our aim in including PBL in this module was to combine archival theory with digital humanities technology to develop an innovative yet simple

teaching template that can be replicated by others to enhance a range of history programs in higher education.

In order to enhance the students' depth of engagement with the source material, it was important that the hands-on element of transcription was firmly rooted in archival as well as pedagogical theories as outlined earlier. The method of transcription needed to adequately represent both the form and content of the coroners' records, as well as to encourage the students to think critically about the provenance of the record, its different layers of meaning, and how the state and patient are represented differently within them. "Archival ethnology" was considered to be the most appropriate methodological approach for this purpose. Adapted from the broader field of ethnography, archival ethnology has been developed for the study of "cultures of documentation, the forms of records and archives, the recordkeeping and archiving processes that shape them, the worldviews made manifest in their systems of classification, the power configurations they reflect, and associated memory and evidence paradigms."¹⁹

In her work on colonial archives, Ann Laura Stoler argued that archival ethnography allows the study of records in the context of a "living history" within a shift where "we are no longer studying things, but the making of them."²⁰ Ethnography offers an opportunity to examine the "scaffolding" of institutional and state records, and to trace their inherent systems of power and knowledge production. In an example that is equally applicable to both colonial and medical archives, Stoler argued that state commissions and other commissions of inquiry are key events in "history-making" and state-building. These commissions and their reports have an "extraordinary ethnographic content," as they offer much insight into governmental knowledge, systems of classification, and, above all, attitudes towards a particular group of people, whether distinct by race or mental health.²¹

With this in mind, the students were asked to consider the inherent subjectivity of historical research, from records creation, to archival intervention, to researcher interpretation. While they were required to conduct close readings of their records in order to produce their transcriptions, it was important that they were made aware of the broader context of the records' creation, or the "relationship between material parts and imaginary wholes."²² Students were asked to

critically evaluate the records as they worked, asking how the creator's biases and agendas may manifest themselves; what the original function of the record was, and how this may have shaped the type and tone of information recorded; if this information could be considered an "accurate" representation of the data subject; what ethical questions arise in using such sensitive data in historical research; and whether the format of the records offer any additional clues regarding their provenance (for instance, how underlined text illustrates the creators' emphasis, or which text has been struck-through or erased). Drawing their attention to the work of archival theorists such as Joan M. Schwartz and Terry Cook, the students were reminded to challenge the "[t]raditional belief [that] states that archives as institutions are guardians of truth; archives as records contain the pristine evidence of past acts and historical fact."²³ Ultimately, the students were warned against the dangers of the presumed "accuracy" of archives—that is, "the degree of precision to which something is correct, truthful, and free of error or distortion, whether by omission or commission"²⁴—and were reminded of the equal responsibility they had to ensure that their transcriptions were, to the best of their ability, an exact representation of the original source.

Our transcription methodology was designed to evolve in line with the students' growing experience levels in the study of Irish social history of medicine. While a key outcome of the module was to produce high-quality transcriptions of the records, careful consideration was given to how involved this task should be. There are many transcription software programs available to download or use online, such as Transkribus or FromThePage.²⁵ These purpose-built solutions guide an individual through the transcription process and can provide multiple output formats, which would be a useful aid to demonstrate reusable transcription data. However, we were limited in what we could choose for several reasons: the campus Information Technology Department restrictions prohibited us from downloading software on to classroom computers, and the sensitivity and the matter of record ownership limited the use of external cloud servers. The functionality of the transcription software also posed difficulties. By their nature, coroners' inquest documents can contain a minimum of thirteen different handwriting samples, and some software requires a substantial representation of the data before the system can learn handwriting characteristics, so we would

County of the City of [REDACTED] } An Inquest taken and held before
to wit. me, [REDACTED] Coroner for County of the
City of [REDACTED] on view of the Body of [REDACTED]
now lying dead in [REDACTED] in said City,
this 30th day of April 1900
on the Oaths of the following persons, good and lawful Men of the County of the
said City:—

1	[REDACTED]	[REDACTED]
2	[REDACTED]	[REDACTED]
3	[REDACTED]	[REDACTED]
4	[REDACTED]	[REDACTED]
5	[REDACTED]	[REDACTED]
6	[REDACTED]	[REDACTED]

GENTLEMEN,
You and each of you shall well and diligently inquire and true presentment
make, on behalf of our Sovereign Lady the Queen, how and in what manner the said
[REDACTED]
now here lying dead, and of whose body you shall have view, came by *his* death;
and such other matters relative to the same as shall be lawfully required of you,
and true verdict give, without fear, favour, affection, or ill-will, according to the
Evidence laid before you.

We find that the said [REDACTED]
*that he died by the accidental scalding
 received in the bath - the shock
 causing Heart failure - -
 It is the wish of the jury that in future
 a second attendant should be present
 when the patients are being bathed*

[REDACTED]

Figure 2: Page 2 from the coroners' inquest record regarding the death of "AM," NAI/CP/DN/10/1/1/10 inquest dated 30 April 1900. Note: The blank lower portion of the page has been cropped and certain information has been concealed.

have needed a much greater sample size than was necessary for the exercise. Added to this would be the extra demand placed on the students to learn a new software program. The authors agreed that time would be better spent performing the task itself and, as a result, decided to use the more familiar Microsoft Word and Excel.

Integral to the whole process was the establishment of the importance of metadata and context in relation to the individual record. Coronial court records are recognized as important indicators of medico-legal knowledge, yet the records have been subjected to limited scholarly attention.²⁶ They are held at the National Archives of Ireland, whose function is to preserve, conserve, and make accessible the records of government departments in addition to holding historic archives of the state. The function of the court was to establish cause of death in cases of sudden death where the deceased was not under medical care, or in cases of death occurring in suspicious circumstances where, for example, there might have been the possibility of criminality or violence. Death occurring in asylums and prisons were investigated as a matter of course by respective coroners. The coroners' courts were purely inquisitorial; they issued a verdict, and the jury of no fewer than twelve and up to twenty-four local men was permitted to add a "rider," or an opinion. Cases that involved foul play were pursued by the police into the criminal courts. In one example examined by the students, a jury of twelve men found that a woman's death was as a result of "accidental scalding received in her bath – the shock causing Heart failure" (see **Figure 2** for an image of the coroners' record). The accident occurred when a lone medical attendant was bathing the woman; as the attendant turned to get the patient's clothes, the woman turned on the hot tap, which led to the fatal injuries. The coronial court jury added a rider to state that proper care and attention was not exercised during the bathing of the patient and that a second attendant should have been present.

We sought to balance learning about the subject matter itself with the "bigger picture" of using archives as a research resource along with the digital humanities techniques available to interact with them. As undergraduates, the students were familiar with using research published by others to write their essays, but we wanted them to evolve from being data consumers to research data creators. We wanted to develop understandings of the importance of how good management of research data—using metadata standards—facilitates future data

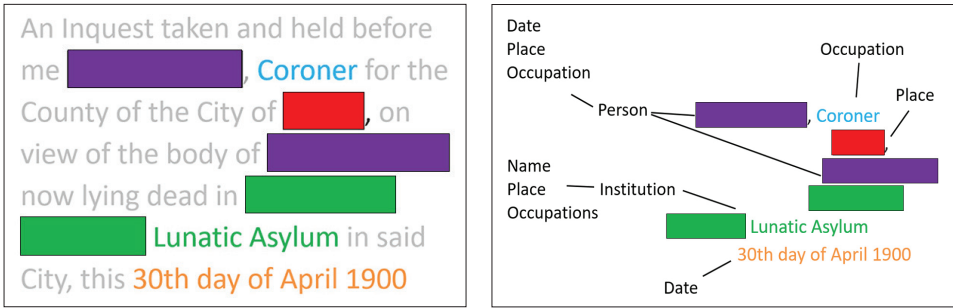


Figure 3: Instructor-generated slides from Workshop 2 representing data linkage possibilities from the coroners' inquest record regarding the death of "AM," NAI/CP/DN/10/1/1/10 inquest dated 30 April 1900.

analysis and linkage. The students were shown different examples of digital humanities projects to demonstrate the potential of tools such as text mining, 3D imaging, geographic mapping, and data linkage. We looked at the building blocks required to create these projects and thought about what we could achieve with our transcription data.

Even simple descriptive metadata can greatly enhance a resource and make it more accessible to researchers. However, given the characteristics of the coroners' records, it was decided that the transcriptions would be greatly enhanced by encoding both content and structure. Initially, the team agreed that using an international metadata schema like the Text Encoding Initiative (TEI) offered huge potential as a way of visualizing and representing the transcription data. TEI is an organization offering a standard to "specify encoding methods for machine-readable texts, chiefly in the humanities, social sciences and linguistics."²⁷ TEI guidelines provide a set of XML tags and rules to allow researchers to describe and analyze every aspect of a text (or collection of texts) to various degrees of granularity. According to Julianne Nyhan, "TEI specifies metadata that can be used to make information *in* and *about* digital objects machine readable."²⁸ TEI tags allow for the description of a huge range of materials, but its modular format also allows for a simplified version. For this work, a subset of TEI elements was identified to best match the content and provide an introduction to the concept of encoding while also producing valid TEI outputs. In addition to providing metadata about the provenance and content of the document, the students were required to analyze the text to extract certain data elements. This

was done to feed further research by linking data such as names and addresses of the deceased and jury; verdicts (which in some cases include a jury rider); identities of the court officers, medical witnesses, and Dublin Metropolitan Police Officers; and location of the death and of the inquest (see **Figure 3** for sample data linkage).

Since the full life cycle of the archival transcription process (from contextualization to data management) and the students' output formed only a portion of the module, we needed to be mindful of other demands on students' time. Our goals had to be achieved within the nine hours of in-class time. Owing to these time constraints and the steep learning curve for the students to become familiar enough with TEI to encode their transcriptions, we decided that the process should be pared back to what Mackenzie Brooks termed as opting for a "solid but not necessarily sophisticated" initial encoding exercise.²⁹ Students were asked to identify certain element types within the text and to use simple Microsoft Word document features to distinguish them (e.g., using color coding and formatting effects). For the purpose of this article, we have included the examples generated by instructors for use as teaching aids in the workshops.³⁰

Workshops

To prepare undergraduate students with little or no knowledge about the archival process, the flipped classroom principles were used to gauge existing knowledge. In Week 2, the archivist used the VLE to ask the students to enter three words they associated with archives. Using presentation tools by Mentimeter, the archivist transformed the students' answers into a word cloud (**Figure 4**). The words "history" and "research" were entered most, but the inclusion of the words "accurate" and "books" showed common misconceptions about archives, prompting the archivist to tailor succeeding sessions accordingly, to challenge the assumed accuracy or neutrality of archival records. The following week, students were introduced to the archival "principle of provenance" and how hierarchical descriptions in the archival catalog differ from general library catalog entries.³¹ They were then introduced to the archival medical record itself as concept, highlighting the difficulties presented by the records' widely varying format between institutions, as well as their sensitive nature.³²



Figure 4: Mentimeter word cloud of responses generated by the request for students to give three words they associated with archives.

The physical inquest files comprise heavily creased handwritten documents contained in a legal-sized envelope with some pro forma data printed on the top of some pages (see **Figure 2** for example), running between five and twenty-five pages. We received fully flattened high-resolution scans from the National Archives and a random sample of records was placed on the VLE. Students were shown digital scans of coronial records and advised that they formed part of a larger collection of archival records; that the information they contained was replicated and referred to within a broader system of recordkeeping in early twentieth-century Ireland; and that each listed archival record undergoes various stages in the archival process before it can be accessed by budding historians such as themselves. A sample document from the coroners' records was then used to familiarize students with the format, and allow them to practice deciphering the handwriting before beginning the transcription exercise proper.

The students were divided into groups based on experience; for example, in Week 1, study abroad students were placed in groups with Irish history majors. The transcription work began in Week 4 when each group was allocated a record. The workshop was co-taught by the archivist and the digital librarian, and introduced students to the basics of metadata, and how digital humanities tools like TEI can help

researchers to repurpose datasets in a myriad of ways. The students were asked to produce a transcription of the record in a Microsoft Word document, that is, an accurate transcription of the contents and a reproduction of the format by replicating spaces, underlined text, etc. (see **Figure 5**).³³

Prior to transcription, the students were given a list of possible abbreviations and contemporary medico-legal terminology, as well as a summary of the most common format of records within each coroner's file (e.g., how a jury's verdict looks compared to a witness statement). To promote standardization (and to ensure that the concept of treating different types of data differently was followed), a "cheat sheet" was created to guide the students through the "encoding." The sheet outlined how students should mirror the format of the record through the use of capitalization or strikethroughs, etc. (see **Appendix A**). Students were taught how to number the lines to help break down content, and how to do letter-by-letter parsing of a word to decipher difficult handwriting. They were also reminded that the project was concerned more with quality than quantity, and to be mindful of both the form and content of the record as they progressed. The sheet also allocated different colors to each data type, such as names or dates, to distinguish between the different data types. The standardization of color values had the added benefit of allowing us to do some post-processing on the Word documents to convert the files to XHTML and TEI, using a method we will describe shortly.

Although the students were given the "cheat sheet" with instructions for the types of information to encode (along with tags and rules for the actual encoding), they were required to make judgments on what they considered relevant and important. Students were also required to keep a metadata spreadsheet (see **Appendix B**) where they could record the occupations, addresses, census entries, and map coordinates associated with individuals, which would allow for better data linkage at the end of the project. The level of student engagement could be determined from the degree of encoding and data extraction that was performed by the groups in the assignments.

The session in Week 8 revisited the nuances of archiving sensitive "human" records and challenged the students to think more critically about their contents. In this way, transcription, along with the study both of the records' content and of the context of their creation, succeeded in engaging the students in an ethnographic approach to the record rather than just an extractive one—signifying a "move from

<spans two lines>

County of the City of [REDACTED] } The Examination of [REDACTED]
 to wit [REDACTED] } Medical <abbreviation = Superintendent>Sup.
 of
 [REDACTED]
 City of [REDACTED], taken before me,
 [REDACTED], Coroner for the County of the City of [REDACTED], this
 day of 30th of April 1900
 Who, being duly sworn upon Oath, said I am Medical <abbreviation = Superintendent>Sup.
 [REDACTED]

Figure 5: Section of the “diplomatic” transcription of the coroners’ inquest record regarding the death of “AM,” NAI/CP/DN/10/1/1/10 inquest dated 30 April 1900, in Microsoft Word with color-coded metadata elements.

archive-as-source to archive-as-subject” and “view[ing] archives not as sites of knowledge retrieval, but of knowledge production.”³⁴ Using the records of the Richmond Asylum as a case study, the students were further encouraged to reflect on who created medical records and why; how the records might reflect power structures in early twentieth-century Ireland; how a narrative was constructed through the language and attitude of the record; how the deceased was represented in the record; and if they could identify either contrived or unintentional “silences” in the record.³⁵ Apart from copyright issues (arising from the transcription copy), a further ethical conundrum we had to consider was the naming of individuals at the core of sensitive coroners’ cases. Although the records are fully available to researchers and are public records with no legal restrictions, some files were particularly sensitive in nature, which is why we have redacted and codified the case of “AM,” who died as a result of scalding at the Richmond Asylum. This provides an example of how ethical considerations arise with respect to best practices and whether or not the codification, redaction, and anonymization of sensitive personal data of living persons should be applied to historical data and persons long dead.


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<p>County of the <name type="place">City of ██████</name>, } The Examination of <name
  type="person" role="medical superintendent">██████████</name><lb/>
<hi rend="underline">to wit</hi> }
<hi xml:space="preserve">Medical <choice><expan>Superintendent</expan><abbr>Sup.</abbr></choice></hi><lb/>
of</><name type="organisation">██████████</name><lb/>
<name type="place">City of ██████</name>, taken before me, <lb/>
<hi rend="strikethrough"><name type="person">██████████</name></hi>
<name type="person" role="coroner">██████████</name>, Coroner for the
<name type="place">County of the City of ██████</name>, this <lb/>
day of <date>30<hi rend="superscript">th</hi> of April <hi rend="strikethrough">18</hi>1900</date></p>
<p>Who, being duly sworn upon Oath, said I am Medical
<choice><expan>Superintendent</expan><abbr>Sup.</abbr></choice><lb/>
<name type="organisation">██████████</name><lb/>I knew the deceased

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Figure 6: Section of TEI from the coroners’ inquest record regarding the death of “AM,” NAI/CP/DN/10/1/1/10 inquest dated 30 April 1900, in “encoded” Microsoft Word file showing data types and formatting metadata.

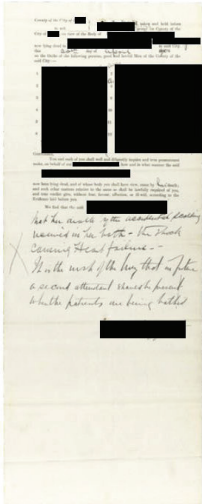
To demonstrate the digital humanities dimension of the work, an online exhibition was created to show the students the output of their work. Using a method outlined by Dot Porter, the digital librarian used the students’ “diplomatic” transcriptions in Microsoft Word (**Figure 5**) to create TEI files (**Figure 6**).³⁶ This job was made less onerous due to the use of standard Word features and colors, allowing the online OxGarage tool to convert the “encoded” Word documents to XHTML and simple TEI files, which were further processed using the Oxygen XML Editor.³⁷ The digital scans of the original records were displayed beside both the encoded transcription documents and the corresponding TEI files on an Omeka exhibition site (**Figure 7** and **Figure 8**).³⁸

Although not made publicly available, the students were given login details to the site to see the fruits of their labor so they could visualize the journey the data had taken from archive to digital file. By working on different stages of the research data life cycle, students gained a better understanding of how the research data they use in their studies is created and managed. For the authors, it proved an interesting exercise in measuring the feasibility of converting encoded Microsoft Word documents to useful TEI records, factoring in automated versus manual conversion and clean-up.

Assessment

Continuous assessment was designed to encourage, gauge, and increase student engagement by building student knowledge incrementally in Weeks 1 through 3, using a “formative assessment”

CORONER'S INQUEST NO. 10: JURY'S VERDICT (PAGE 2)



TEI_Coroner's_Inquest_no.10_002.xml

<spans two lines>

County of the City of [REDACTED] An Inquest taken and held before

to wit } me [REDACTED] Coroner for the County of the

City of [REDACTED] on view of the body of [REDACTED]

now lying dead in [REDACTED] in said City,

this 30th day of April 1899 1900

on the Oaths of the following persons, good lawful Men of the County of the

said City: -

1. [REDACTED] Foreman 7. <abbreviation = [REDACTED]> [REDACTED]

[REDACTED]

2. <abbreviation = [REDACTED]> [REDACTED] 8. [REDACTED]

3. [REDACTED] 9. [REDACTED]

4. <abbreviation = [REDACTED]> [REDACTED] 10. <abbreviation = [REDACTED]> [REDACTED]

5. [REDACTED] 11. <abbreviation = [REDACTED]> [REDACTED]

6. <abbreviation = [REDACTED]> [REDACTED] 12. [REDACTED]

[REDACTED] [REDACTED]

GENTLEMEN,

You and each of you shall well and diligently inquire and true presentment

make, on behalf of our [REDACTED] how and in what manner the said

[REDACTED]

now here lying dead, and whose body you shall have view, came by her death;

and such other matters relative to the same as shall be lawfully required of you,

and true verdict give, without fear, favour, affection, or ill-will, according to the

Evidence laid before you.

We find that the said [REDACTED]

<verdict>Met her death by the accidental scalding

received in her bath - the shock

<X mark in left margin spans two lines>X causing Heart failure -

It is the wish of the Jury that in future

a second attendant should be present

when the patients are being bathed

Figure 7: Image of the coroners' inquest record regarding the death of "AM," NAI/CP/DN/10/1/1/10 inquest dated 30 April 1900, displayed beside the "encoded" transcription, with a link to the full TEI record, as presented on the Omeka online exhibition.

Inquest No.10

Inquest No.20


Inquest No.30

Inquest No.40

Inquest No.50


Inquest No.60

CORONER'S INQUEST PAPER NO.10

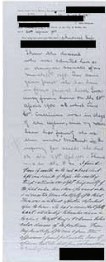


ORIGINAL
INQUEST PAPERS.

Cover page



Jury's verdict



Witness statement

Title: Coroner's Inquest Paper No. 10

Identifier: NAI_DN_CC_1900_10

No. of Inquest: 10


Date when held: 30th April 1900

Where held: [REDACTED]

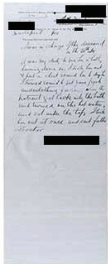
Verdict: Met her death by the accidental scalding received in her bath, the shock causing heart failure.

Creators: [REDACTED]

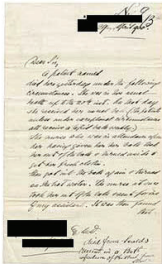
Extent: 7 pages



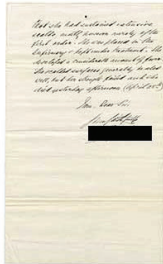
Witness statement



Witness statement



Witness statement



Witness statement

Inquest No.20 →

Inquest No.10

Figure 8: Images of the coroners’ inquest record regarding the death of “AM,” NAI/CP/DN/10/1/1/10 inquest dated 30 April 1900, as presented on the Omeka online exhibition.

with “low stakes” (as advocated by David Gibson, Dirk Ifenthaler, and Davor Orlic) to engage participants on the VLE.³⁹ Assessment of *précis* work in Week 5 and Weeks 9 through 12 aimed to teach students the importance of close reading and engagement with the work of established scholars. This encouraged discursive writing and provided the relevant historiographical contexts, leading toward an essay that served as a “summative assessment” with “high stakes.”⁴⁰ Students received weekly feedback by the module leader through the VLE’s feedback mechanism, and this was augmented by e-mail contact and a two-hour block of weekly open office hours. The archivist and digital librarian had administrative access to the VLE and were available to communicate freely with students through that mechanism and via e-mail. In theoretical terms, and as Thistlethwaite advised, assessment was in full alignment with an agreed set of learning outcomes.⁴¹ The levels of student engagement with the PBL segment was determined from the degree of data encoding and linkage performed by the groups in their assignments. The students’ decisions had an impact on the grading, and the groups that went the extra mile in terms of research were rewarded accordingly. The grading criteria for the students’ combined transcriptions and linked metadata spreadsheet was decided as follows:

“A” grade:

- Submissions demonstrate great attention to detail, i.e., both the content and format of the original document is accurately represented, to the best of the students’/Microsoft Word’s ability.
- Submissions have little or no spelling and/or transcription errors.
- Submissions demonstrate a clear understanding of the task, i.e., notes from “cheat sheet” are followed, special characters are used as necessary, pages are clearly numbered, and students have included their own comments and observations in triangular brackets to guide the researcher.
- Metadata database includes map coordinates, links to census information, and other relevant material.

“B” grade:

- Submissions demonstrate good attention to detail, i.e., the main elements of the record are captured in transcription.
- Submissions have minor spelling and/or transcription errors.
- Submissions demonstrate a working understanding of the task, i.e., notes from “cheat sheet” are largely followed, but additional

value-added elements are missing or inconsistent (such as page numbers, comments, etc.).

- Metadata database contains all important elements, but demonstrates that no additional work was done to identify other relevant linked records.

“C” grade:

- Submissions demonstrate poor attention to detail, i.e., incomplete or missing transcription elements, such as the cover page or section headings within a document.
- Submissions have significant spelling and/or transcription errors.
- Submissions demonstrate a poor understanding of the task, i.e., “cheat sheet” is followed inconsistently, transcriptions are presented in a messy format.
- Metadata database contains incomplete or incorrect elements.

All students demonstrated a good understanding of the key principles of the transcription process, and grades ranged between A- and B for the transcription component. Some showed incredible initiative in their recreation of the original document’s format and in the commentary included with their files. Three of the five groups traced named individuals in the Irish 1901 census and included coordinates of known addresses. One group went further and found a newspaper article on the particular case they transcribed. The most common errors resulted from difficulties in reading handwriting or deciphering archaic abbreviations, while only one group found the “header metadata” section difficult to complete. Some students found the medical particulars difficult to deal with, and they were furnished with a glossary of arcane medical terminology. While feedback about group work was largely positive, one group noted how some of their members were derelict in their duties. To reconcile this problem, the instructors implemented a reflection on the experience that could be submitted as an individual response in Week 8. As this was a pilot project, the reflection permitted a way of discerning how the group dynamic worked (or did not work). Notably, conflict did not arise because the workshops were closely supervised and undertaken during class time. Instructors were there to resolve problems as they arose and to encourage learning in the ZPD. Having worked closely with the records themselves for a number of weeks, feedback from the students indicated that, at the end of the process, they had a greater appreciation that the “archive” does not necessarily

equate to “accurate.” Some students used the transcription outputs to underpin their essays and all expressed a broad satisfaction with the transferrable skills they learned.

Conclusion and Findings

This article provides a template of how university archivists and librarians can work with academic staff as collaborative partners in the delivery of PBL to enhance history teaching. Such collaboration has the potential to not only increase students’ appreciation of and engagement with original source material, but also develop their understanding of the theory behind the archival process. What was striking, and what we aimed to address, was the initial poor levels of archival awareness and understanding of the importance of archival sources to historical research. Many students demonstrated an increased awareness concerning the digital aspects of the archivist’s and librarian’s role, an understanding of the time-consuming nature of archival and digital humanities work, a greater appreciation of the sensitive aspects of archiving medical data, and a recognition of the importance of objectivity in historical research.

From the outset, incorporating TEI into the module proved challenging due to the limited time in the course and the limited experience with metadata encoding in the student body. Perhaps excluding TEI from the module might have allowed more time to concentrate on discussing data mining and reuse, but the opportunity to introduce future humanities researchers to this valuable tool would have been lost. An unexpected benefit reported in feedback was learning more about Microsoft Word functionality. We are already planning further innovation using flipped classroom and blended learning principles. Permitting students to conduct more transcription would allow a more in-depth approach and could employ a practicum-only assessment model. For instance, students could undertake detailed research on one case and work with the digital librarian to present these data in Omeka or other data visualization software.

While we achieved the aim of encouraging active learning in the classroom and instilled a passion for history, archives, and digital librarianship, three workshops were insufficient. The inclusion of PBL to a specialist history module is undoubtedly time-consuming

and involves careful planning, but any disadvantages were outweighed by its many rewards. Our most salient finding in “making space” for PBL is the dearth in how we train historians in archival and library sciences at the undergraduate level and, as this article shows, it is possible to address this even in short timeframes. Ultimately, this project demonstrates that through the collaboration of historians, archivists, and digital librarians, along with the application of PBL, students can learn to become conscious researchers, shifting from consumers to producers of history.

Notes

We are grateful to the students of Autumn 2018's "Health, Gender, State, and Irish Medical Care, 1837-1948" for generously engaging in this work.

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1. Shu Ching Yang, "A Case Study of Technology-Enhanced Historical Inquiry," *Innovations in Education and Teaching International* 46, no. 2 (May 2009): 237.
2. Morris Siu-Yung Jong, "Empowering Students in the Process of Social Inquiry Learning through Flipping the Classroom," *Educational Technology & Society* 20, no. 1 (2017): 306.
3. The virtual learning environment/learning management system at the University of Limerick is known as "Sulis" and is based on open-source software.
4. Jill E. Thistlethwaite, "Practice-Based Learning Across and Between the Health Professions: A Conceptual Exploration of Definitions and Diversity and their Impact on Interprofessional Education," *International Journal of Practice-Based Learning in Health and Social Care* 1, no. 1 (June 2013): 15.
5. Emily E. Straus and Dawn M. Eckenrode, "Engaging Past and Present: Service-Learning in the College History Classroom," *The History Teacher* 47, no. 2 (February 2014): 253-266.
6. See the Transcribathon Europeana 1914-1918 project at <<https://www.transcribathon.com/en/>>.
7. See the Folgerpedia Transcribathon project at <<https://folgerpedia.folger.edu/Transcribathon>>.
8. Originally designated as HI4187, the course code changed to HI4307 in Autumn 2020. While this article was written and submitted prior to the global pandemic, the methodology described here lends itself well to the online-only environment.
9. L. S. Vygotsky, *Mind in Society: The Development of Higher Psychological Processes* (Cambridge, MA: Harvard University Press, 1978).
10. Vygotsky, *Mind in Society*, 86.
11. The emergence of scaffolding is contested among scholars of early learning psychology. Recently, Anna Shvarts and Arthur Bakker have used personal papers of Vygotsky (among others) to detect the precise timing of when the "scaffolding metaphor traveled from philosophical and political discourse to Soviet psychology and physiology." Anna Shvarts and Arthur Bakker, "The Early History of the Scaffolding Metaphor: Bernstein, Luria, Vygotsky, and Before," *Mind, Culture, and Activity* 26, no. 1 (January-March 2019): 17.
12. Tony Harland, "Vygotsky's Zone of Proximal Development and Problem-Based Learning: Linking a Theoretical Concept with Practice through Action Research," *Teaching in Higher Education* 8, no. 2 (2003): 263. Note that Harland's usage of "PBL" refers to "problem-based learning," as opposed to our

designation of “practice-based learning” or similar concepts of “project-based learning.” Regardless of specific wording, these variations of “PBL” all place emphasis on encouraging students to “learn by doing.”

13. Harland, “Vygotsky’s Zone of Proximal Development and Problem-Based Learning,” 266.

14. Vygotsky, *Mind in Society*, 86.

15. Marcus C. Robyns, “The Archivist as Educator: Integrating Critical Thinking Skills into Historical Research Methods Instruction,” *The American Archivist* 64, no. 2 (Fall-Winter 2001): 365.

16. Elizabeth Yakel, “Information Literacy for Primary Sources: Creating a New Paradigm for Archival Researcher Education,” *OCLC Systems & Services: International Digital Library Perspectives* 20, no. 2 (2004): 61-64. Barbara Rockenbach, “Archives, Undergraduates, and Inquiry-Based Learning: Case Studies from Yale University Library,” *The American Archivist* 74, no. 1 (Spring-Summer 2011): 297-311.

17. Nancy A. Van House, “Assessing the Quantity, Quality, and Impact of LIS Research,” in *Library and Information Science Research: Perspectives and Strategies for Improvement*, ed. Charles R. McClure and Peter Hernon (Norwood, NJ: Ablex Publishing, 1991), 88.

18. Van House, “Assessing the Quantity, Quality, and Impact of LIS Research,” 88.

19. Anne Gilliland and Sue McKemmish, “Building an Infrastructure for Archival Research,” *Archival Science* 4 (2004): 182-183.

20. Ann Laura Stoler, “Colonial Archives and the Arts of Governance,” *Archival Science* 2 (2002): 89.

21. Ann Laura Stoler, “Colonial Archives and the Arts of Governance,” 87, 89-91, 99, 104-105.

22. Heather MacNeil, “Picking Our Text: Archival Description, Authenticity, and the Archivist as Editor,” *The American Archivist* 68, no. 2 (Fall-Winter 2005): 270.

23. Joan M. Schwartz and Terry Cook, “Archives, Records, and Power: The Making of Modern Memory,” *Archival Science* 2 (2002): 11.

24. Entry for “accuracy” in the Dictionary of Archives Terminology, Society of American Archivists, <<https://dictionary.archivists.org/entry/accuracy.html>>.

25. More information about Transkribus and FromThePage is available at their respective websites, <<https://readcoop.eu/transkribus>> and <<https://fromthepage.com/about>>.

26. Ian A. Burney, *Bodies of Evidence: Medicine and the Politics of the English Inquest, 1830-1926* (Baltimore, MD: Johns Hopkins University Press, 2000); Elizabeth T. Hurren “Remaking the Medico-Legal Scene: A Social History of the Late-Victorian Coroner in Oxford,” *Journal of the History of Medicine and Allied Sciences* 65, no. 2 (April 2010): 207-252; Ciara Breathnach, “Infant Life Protection and Medico-Legal Literacy in Early Twentieth-Century Dublin,” *Women’s History Review* 26, no. 6 (December 2017): 781-798.

27. See the Text Encoding Initiative at <<https://www.tei-c.org>>.

28. Julianne Nyhan, "Text Encoding and Scholarly Digital Editions," in *Digital Humanities in Practice*, ed. Claire Warwick, Melissa Terras, and Julianne Nyhan (London, United Kingdom: Facet Publishing, 2012), 117.

29. Mackenzie Brooks, "Teaching TEI to Undergraduates: A Case Study in a Digital Humanities Curriculum," *College & Undergraduate Libraries* 24, no. 2-4 (2017): 474.

30. Unfortunately, the timing of our collaboration coincided with a hiatus in the Research Ethics Committee (REC) meetings during summer recess, and in accordance with our institutional rules, we are not permitted to use student work or surveys in publications. The REC rules also state that work cannot commence without securing approval in advance.

31. David A. Bearman and Richard H. Lytle, "The Power of the Principle of Provenance," *Archivaria* 21 (Winter 1985-1986): 14-27.

32. Marc Berg and Geoffrey Bowker, "The Multiple Bodies of the Medical Record: Toward a Sociology of an Artefact," *The Sociological Quarterly* 38, no. 3 (1997): 513-537.

33. Kathryn Sutherland and Elena Pierazzo, "The Author's Hand: From Page to Screen," in *Collaborative Research in the Digital Humanities*, ed. Marilyn Deegan and Willard McCarty (London, United Kingdom: Routledge, 2016), 191-212.

34. Stoler, "Colonial Archives and the Arts of Governance," 93, 87.

35. Kirsten Mulrennan, "The Development of Recordkeeping Practices in Irish Asylums: A Case Study of Grangegorman Psychiatric Hospital," in *Archives and Archivists 2: Current Trends, New Voices*, ed. Ailsa C. Holland and Elizabeth Mullins (Dublin, Ireland: Four Courts Press, 2013), 114-126.

36. Dot Porter, "Workflow: MS Word to TEI," Dot Porter Digital (blog), March 21, 2018, <<https://www.dotporterdigital.org/workflow-ms-word-to-tei/>>.

37. Text Encoding Initiative, OxGarage Conversion, <<https://oxgarage.tei-c.org/>>.

38. Omeka is an open-source web publishing platform, <<https://www.omeka.org/>>.

39. David Gibson, Dirk Ifenthaler, and Davor Orlic, "Open Assessment Resources for Deeper Learning," in *Open Education: International Perspectives in Higher Education*, ed. Patrick Blessinger and T. J. Bliss (Cambridge, United Kingdom: Open Book Publishers, 2016), 258.

40. Gibson, Ifenthaler, and Orlic, "Open Assessment Resources for Deeper Learning," 259.

41. Thistlethwaite, "Practice-Based Learning Across and Between the Health Professions," 15-28.

Appendix A

Workshop 4: Mark-Up Rules for Transcription Work “Cheat Sheet”

Header Metadata

At the beginning of the document, record some metadata about the item:

- Identifier (e.g., NAI/CP/DN/10/1/1/10)
- Name of deceased
- No. of inquest
- Date when held
- Location where held
- Verdict
- Creators: name and address of coroner; (your name) = transcriber
- Extent (how many pages)
- Note (relating to item provenance, condition, use, etc.)

Mark-Up Rules

Transcribe the document to recreate it as best you can in Microsoft Word:

- Use page breaks and line breaks (return), as well as paragraph indents
- Maintain text case
- Use underline, ^{superscript}, _{subscript}, ~~strike through~~, {curly brackets}

Linked Data

Use different color text to identify the following:

- Person – Purple (R112 G48 B160)
- Role – Blue (R0 G176 B240)
- Organization – Green (R0 G176 B80)
- Place (geographic/address) – Red (R255 G0 B0)
- Date – Orange (R247 G150 B70)

Other Text Features or Comments

Use [] brackets to surround text that you are unsure of. Use <> brackets to insert comments or indicators **BEFORE** the appropriate text as needed:

- <stamp>
- <verdict>
- <abbreviation = insert full word>
- <signature>
- <large X written on left-hand side margin near bottom of page>

Page Type

At the start of each page, insert a comment to describe the type of page, e.g., <page type = letter>:

- Covering sheet
- Jury’s verdict
- Witness/sworn statement
- Station report
- Telegram
- Unstructured note

Appendix B

**Metadata Spreadsheet
Headings for Linked Data Task**

First Name				
Surname				
Title				
Role				
Occupation				
Gender				
DOB YYYY-MM-DD				
DOD YYYY-MM-DD				
Live Address				
Live Address Coordinates				
Death Address				
Death Address Coordinates				
Link to Census Record				