Final Performance Report
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Cultures of Reception: Transatlantic Readership and
the Construction of Women's Literary History

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Introduction

This report describes the Women Writers Project's recently completed "Cultures of Reception" project, which began in January 2011 and was completed in December 2015 after several no-cost extensions. This project took as its point of departure the WWP's digital collection of early women's writing, and took as its central motivation the question "What can we learn about the readership and reception of women's writing for a collection of this scale, and how do we go about framing that research?" The results are an extensive and growing body of data on readership and reception, a digital framework to sustain the ongoing collaborative assemblage and exploration of that data, and a preliminary body of research on reception that will continue to grow.

"Cultures of Reception" also involved an examination of what we mean by collaborative research. One recognizable definition (which probably informed the design of the NEH funding program) envisions a team of scholars (i.e. faculty) working together on a shared research question. This conception represents an important expansion of the traditional isolationist model of scholarly research. It offers a diversification of perspective on the research topic—perhaps even perspectives from multiple disciplines—but also more importantly it envisions some synthesis of methods and outcomes so that the resulting research is not simply the additive sum of the work of the team members, but some more complex product of the interaction.

In the age of digital scholarship, we can expand this understanding of collaboration even further; we can also expand our understanding of the boundaries of "research." The tools and working environments we use are deeply implicated in our research, and the intellectual framings they offer are continuous with our scholarship. Hence in order to think about how to conduct collaborative research through a resource like Women Writers Online, we need to involve not only the scholarly participants who have a topical interest in reception history, but also the graduate student researchers who worked on developing the reception data that feeds that interest, and also the analysts and developers who can bring into being the research environments (for both data capture and analysis) through which that research is conducted.

These ideas informed our original proposal, but during the actual conduct of the project we had opportunities to gain a much deeper understanding of these synergies—and of the kinds of collaborative activities needed to reinforce them. During the course of the project, we also found some valuable cross-overs between roles: several of the graduate student researchers have undertaken exhibits that will eventually be contributed to the collaborative research cluster; three of the external collaborators have participated in the text encoding; and discussions of topics like the use of thematic keywords and the design of the research interface have ranged widely across the group.

Here is a summary of what we did:

- We assembled a collaborative research group that included a variety of roles (faculty, graduate students, library and digital staff) and many types of expertise (in reception history, literary studies, data representation, digital research methods, digital tool development) and focused their expertise and individual research activities on the question of how to study reception and readership through a mid-scale digital text collection.

- We developed an environment for future collaborative research on readership and reception as a permanent feature of the Women Writers Online research environment.
- We populated that infrastructure with an initial set of reception data—transcribed periodical reviews and other sources—to support the work of the collaborative research group and enable us to test and demonstrate the potential of the research tools being created.
- We developed a set of collaboratively developed materials representing the outcomes of this research, including digital texts, exhibits, reception data, and reflections on method; some of these materials have been formally published and some will be released in the coming months.

The following report details the project activities, the changes made to the original plan, the dissemination efforts and audiences, our evaluation of the project and plans for its continuance, and the project's long-term impact. Screen shots are included in an appendix, and the main grant products can be viewed freely at http://www.wwp.northeastern.edu/review and http://wwp.northeastern.edu/context/.

Project Activities

The main project activities for this grant fall into four categories:

- development of metadata and bibliographic data records for periodical reviews of women's writing
- full-text transcription of periodical reviews of texts in Women Writers Online
- collaborative research on reception
- development of interfaces and integration with Women Writers Online

As will become clear, the "collaborative research on reception" activity also forms a strong component of the other three since it affects the underlying modeling and representation of the data being gathered.

1. Development of Metadata and Bibliographic Data

General Approach

Our starting point for the capture of reception data was to gather an extensive collection of bibliographic data for periodical reviews, to establish a set of digital records that would anchor our subsequent transcription and also enable some preliminary exploration of the domain. To support this data capture, because our metadata and bibliographic data were highly structured and fairly complex, we wanted to provide a strongly constrained environment. For the WWP's regular text encoding, we use the Oxygen XML editor, but for this project we wanted to be able to involve a broader range of collaborators (anticipating the future possibility of contributed records from outside the WWP) and felt that a more user-friendly system that didn't require training in XML would be better. For this purpose we developed web-based data entry interface

supported by a back-end database using CouchDB. The interface enabled us to enforce appropriate metadata requirements for different genres of document, and also to provide auto-completion for many fields (including author names, place names, periodical names) and simple data entry features such as check boxes and drop-down menus to enforce consistency. Later on, during the full-text transcription of reception items, the interface offered a WordPress-like suite of clickable tagging options for things like quotations, titles, names, and other features to be represented in the markup. Transcribers could also type markup directly into the transcription (which caused problems later on, as we detail later in this report). Knowing that we would eventually be using this data as XML, we established at the outset that the data could be exported as XML. We hired and trained an initial set of students to perform the initial capture.

First Phase: Basic Bibliographic Data Capture

We captured bibliographic records for 9835 reception items, representing reviews of 2570 distinct texts from 372 periodicals. We captured bibliographic data about reception items concerning both male- and female-authored texts, to provide an overall picture of the reviewing landscape during the period under investigation. We also captured additional data about the journals in which these reviews appeared. Treating William Ward's bibliography of literary reviews (*Literary Reviews in British Periodicals*, multiple volumes covering 1787-1826) as a starting point, we captured all of the 9835 entries in these volumes, with the following distinct fields being represented:

Data about the review itself:
• Title and author of review
• Title of the venue in which the review was published
• For periodicals, the volume, issue, date, and page range (captured as distinct fields)
• A pointer to the work being reviewed (stored as a separate set of records in the database)

Data about the work being reviewed (2570 works thus far):
• Title (including a short title and a full title) and author
• Editor, if relevant
• Publisher and publication location
• Edition, if relevant
• Year of publication
• Collection in which the work appeared, if relevant
• Length of the work in pages

Data about people (editors, authors, reviewers; 2491 people thus far). The WWP already captures information about people in connection with Women Writers Online (authors, editors, publishers, printers, translators) and this new data is integrated with that same system, so that we can take advantage of cases where we already have information about the person in question. For WWP authors, we capture detailed information that includes birth dates, marital status, and biographical notes. For reviewers and journal editors, for purposes of this project we captured the following basic information:

- Name (broken out into first, middle, last, birth name, rolename, pseudonym)
- Gender
- Role

Data about periodicals (372 periodicals thus far):
- Title and short title
- Series (if relevant)
- Dates of publication
- Location of publication
- Editor
- Publisher
- Frequency of publication
- Notes on the general political leanings of the journal

Second Phase: Data Export and Cleanup

In preparing for publication, we used the data that was stored in CouchDB to create three XML data collections or "ographies"—a "personography" containing biographical details on authors, editors, and publishers, and two bibliographies covering the reviewed texts and the periodicals in which the reviews appear.

During this phase, we performed some data cleanup, primarily ensuring that the information recorded about texts and persons was standardized, complete, and consistent. We established unique identifiers for the individual reception items, for the texts that were the subject of each reception item (that is, for the novels, plays, poems, and so on that were being reviewed or otherwise discussed), and for the periodicals in which the reception items were published. We also added the existing WWP identifiers to authors' metadata. It was during this process that we consolidated all duplicated entries and selected standard versions where there were variations in the names of authors and texts.

In adding identifiers, we were able to draw on several information systems already in place at the WWP, including the project's substantial database of personographic information and our systems for identifying texts and handling multiple editions and volumes of those texts. Because many of the reviewed texts did appear in multiple editions, our metadata operates on several levels of FRBR abstraction. Wherever it was clear that a review was referring to a particular edition of a text, we have added a unique identifier for the expression-level information—contained in the TEI element <monogr> ("monographic level work")—that is nested within the work-level <biblStruct> ("structured bibliographic citation") element in the bibliography, thus enabling us to point to that edition from individual reception items' metadata. In many more cases, the particular edition at stake could not be determined, and so we have pointed to the work-level bibliographic entry instead. In the bibliography of reviewed texts, we also included manifestation-level information on particular printings using the TEI <imprint> element. For example, the work-level <biblStruct> for Maria Edgeworth's *Harrington and Ormond* contains expression-level <monogr>s for both titles under which it was published—*Harrington and Ormond, Tales* and *Harrington, a Tale; and Ormond, a Tale*—and nested

inside of these entries are the imprint details for the printings of these editions (e.g. published by Rowland Hunter, London, 1817).[1]

During the metadata cleanup process, we also encoded information that was meant to serve the exploratory web interface, which we are calling Women Writers in Review. We created display versions of the often-lengthy periodical and text titles that the interface needs to display. In the two bibliographies, we either added display versions of texts' titles or marked the main title as short enough to be used in the display. For example, Hannah Cowley's *The Poetry of Anna Matilda: Containing a Tale for Jealousy, the Funeral, her Correspondence with Della Crusca, and Several Poetical Pieces* has a display title of "*The Poetry of Anna Matilda*" and *The Analectic Magazine, Containing Selections from Foreign Reviews and Magazines, of Such Articles as Are Most Valuable, Curious, or Entertaining* has a display title of "*The Analectic Magazine.*"

We use these display titles not only to facilitate exploration and discovery in the publication interface but also to create headings for the individual reception items, very few of which have titles of their own (and fewer still of which are likely to be searched for *by* their titles). Since we expect that readers will want to discover reception items by their subject matter (the authors and texts reviewed), by their publications, and by their dates, we have generated headings for each reception item based on the display versions of text and periodical titles. For example, an untitled review of Charlotte Smith's *Celestina* appears in the exploratory interface under the heading: "1791: *The European Magazine* on Smith's *Celestina.*"

To assist in metadata cleanup, the WWP's XML Applications Developer Ashley Clark created an inspector tool that enabled programmatic intervention across multiple files along with human intervention where needed. The inspector tool uses XPath and XQuery to create XML reports and a web interface to facilitate human intervention in cases where judgment calls were needed (for example, in determining uniqueness, as was needed for the two versions of *Harrington and Ormond*); fixes made in the web interface were ported back to CouchDB using its RESTful API.[2] This inspector enabled us to take advantage of the efficiency of programmatic fixes across multiple files wherever possible and to individually address those cases where human intervention was necessary as they arose. We were able to use this tool to normalize received authors' names and the titles of received works and periodicals, to link received works to their unique identifiers in Women Writers Online, and to perform several other data cleanup tasks.

The three ographies for authors, periodicals, and texts contain standardized information on these entities and serve as single points of management for future data creation. The roughly 700 reception item files contain metadata specific to those texts—for example, publication dates, page ranges, volume and issue numbers, the automatically-generated titles, and any WWP notes. Each reception item's metadata also includes analytical information that was collected during the transcription process and augmented during the review process—for example, the overall evaluation of the item under review (ranging from very positive to very negative), its genre and format, and the topics it discusses (such as gender identities or slavery and abolition).

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[1] See Appendix 3 for a sample of bibliographic encoding.

[2] An API, or application programming interface, which permits the database to be modified via commands received through communication with a web browser.

2. Full-text Capture of Primary Source Reception Records

Transcription

As of the completion of this report (August 2016), we have 631 "reception items" (that is reviews, publication notices, advertisements, and other documents responding to or discussing texts by women) transcribed and published to a prototype interface, and an additional 66 items that are in the process of transcription and editing for publication. The contents of each reception item are encoded in TEI markup that is tailored to the research concerns of Cultures of Reception. The tagset we use focuses on the reception and circulation of women's texts, and includes markup of quotations; titles; textual notes; names of persons, places, and organizations; poetic and prose structures, such as paragraphing and line groups; rhetorical structures such as emphasis; dates; and specialized terms. The metadata for each reception item also includes markup indicating whether it contains quotations from works other than the one under discussion and whether the reception item is itself extracted from a longer work.

In transcribing and encoding this corpus we have favored efficiency and reading accessibility. Whereas in the encoding of Women Writers Online we aim for a very complete representation of a wide range of textual features (anticipating very open-ended research approaches), for the reception items we have limited the tagset to the markup that is most relevant for research on readership and reception, with the goal of ensuring consistency across a sizeable corpus and keeping the project within scope. Unlike our practice with WWO, we also have silently regularized many typographic and renditional features (such as irregular use of quotation marks, shifts in font size, the presence of ruled lines and ornamentation, and so on), with the goal of increasing intelligibility to a broad range of audiences in the web interface. We have, however, recorded the typographic features that are most likely to have semantic significance—such as italics—and made those visible in the exploratory interface.

This markup both supports online display (e.g. in formatting poetry or multi-paragraph quotations) and enables analysis based on textual phenomena. For example, we can extract the titles and authors that have been named in these documents to consider patterns of intertextual reference or look at the lengths of textual quotations to examine the practice of extracting in early reviews. We can also understand the dimensions of the corpus as a whole through its markup—for example, there are currently 467 reception items labeled with a genre of "literary review," 86 with a genre of "notice," 18 with a genre of "theatrical review," 8 with a genre of "biography," 7 with a genre of "letter," 1 with a genre of "literary history," and 26 with a genre of "other."

Export and Cleanup

After the main phase of transcription was complete, we used the text inspector tool described above to address the XML well-formedness errors that had occurred during transcription. One drawback of the web interface and use of CouchDB was that the interface could not provide any checking of XML well-formedness or validity, and also could not enforce the correct use of tags if the transcribers chose not to use the special-purpose buttons for that purpose. We had anticipated some errors as a result (and had decided that this disadvantage was offset by the ease and speed of transcription and the low barrier to usage); our retrospective assessment indicates that the tradeoff was probably worthwhile, but only just barely. Many of the errors

were incorrectly-entered delimiters—for example, a common issue arose when encoders added their own tags, rather than using the buttons provided in the transcription interface, and mistyped end tags (for instance, omitting the slash in the close-tag, as in "<name>America<name>"). Another set of well-formedness errors occurred due to the overlap of XML elements, often in cases where dialogue occurred in quoted verse or where quotations crossed paragraph boundaries.

Once the CouchDB records were well-formed, we were able to convert them to TEI-encoded XML using XQuery to transform each record into XML using the XQJSON library. The transcription was thus parsed as an XML fragment instead of a string representation. This XML representation of the JSON record was then transformed into TEI using XSLT, and stored in one of the WWP's eXistDB instances. At this point, we began using oXygen to edit the files and Subversion for version control, following the WWP's established practices for publishing texts (such as entering change logs for major revisions and adopting a folder structure in which files move from being "under construction" when they are first created and proofed to "on deck" when they are reviewed for publication on a test interface to "distribution" upon publication).

Another important aspect of the post-export data cleanup was validity—our adoption of a relatively constrained tagset in our schema enabled us to locate and remove any unanticipated elements by checking validity across the corpus. We also used validity checks to resolve encoding inconsistencies. For example, we discovered that encoders had adopted several different practices in handling notes; with a combination of validity checking and searching across the corpus for common annotation features, we were able to locate these instances and ensure that they were consistently encoded with a TEI <note> element. A similar issue arose in regards to the characters indicating elisions in quoted materials (often a series of asterisks or dashes); these were flagged during a validity check and then encoded with a customized <elision> element, created for WWO encoding. We will continue working to resolve the validity errors that remain, some of which may yield further adaptations to our encoding; we have prioritized addressing those that will impact the display outcomes for the current interface.

Data Modeling of Reception Items

The transcription interface enabled encoders to select from a list of topics or themes that we had identified as being of significance for this project; these are now included in the metadata for each reception item. The current set of topical tags we have applied across the corpus is as follows:

- Racial identities
- Gender identities
- Religious identities
- Class or socioeconomic status
- Nation or empire
- Slavery and abolition
- Literary circulation
- Review culture
- Theories of genre and literature
- Moral impacts of literature

- Education
- Women as writers and readers
- Place, space, or geography

We have also collected approximately two hundred individual keywords, added by encoders during transcription to record locally significant topics that were not covered by the corpus-wide keywords. The encoder-authored keywords include more specific terms, such as "photography," "cross-dressing," "children's literature," and "coquetry." Collecting both standardized and individual thematic keywords enabled us to record the particular concerns of each reception item while also gathering consistent information on the project's research concerns. We will return to the individual keywords in the future to look for additional thematic clustering.

For each reception item, we have recorded basic information on genre (in the sense of literary category) and format (that is, the forms in which items were published). These break down as follows:

Genre:

- Biography
- Letter
- Literary History
- Literary Review
- Poem
- Notice
- Theatrical Review
- Other

Format:

- Advertisement or list of published works
- Article or essay
- Entry
- Extracted passage
- Other

As with keywords, information on genre and format is stored in the metadata for each reception item.

The schema we are using for this corpus was designed to constrain our tagset to the most relevant elements for recording document structures and intertextual features, as described above. The Cultures of Reception schema also includes some of the customizations developed for WWO encoding, such as the element for recording elisions, and an extensive set of metadata elements, including the TEI's <xenoData> element, which enables us to keep JSON data within our XML files.

3. Research on Reception

Our first area of research was on the representation of reception as a textual fact: that is, the textual evidence of an encounter between the circulating text and some context of consumption. The phrase "readership and reception," which we had used in discussions to denote a fairly wide range of such encounters, came under discussion early on as needing to be further broadened in scope. "Readership" implies a specific type of consumption: intentional, individual, aimed at completing a kind of literary circuit initiated by the author's own intentions in writing. "Reception" implies an emotional, intellectual, or social response prompted by the act of reading in which there is an implicit or explicit evaluation, something that could be characterized in crude terms as positive or negative; the clearest example of "reception" would be the periodical reviews which were the primary focus of our data capture. But in our early discussions with the collaborative team, it became clear that the group's research projects required a broader definition of both terms. Inasmuch as the larger mission of the WWP has been to document the very presence of women's writing in the textual ecology—a presence which has always been contested—it seemed important to consider not only the individualized acts of readership entailed in the deliberate acquisition and consumption of a book, but also what we might call "disseminated reading": the many smaller ways in which a text presents a legible surface for partial, casual, and indirect apprehension. One example is things like advertisements, through which a text becomes visible as a cultural fact even to those who will never read it (but who may nonetheless have an opinion about it and may contribute to the formation of a public "reception"). Another is quotations and references appearing in other works, where a text is run through a kind of cultural filter to circulate by proxy and to be read vicariously through the lens of prior readings. Still another is representation in literary history, biography, and anthologies, through which texts are written into the cultural record as worthy of memorialization and pedagogical consumption. And finally, the broad category of manuscript documents—letters, personal records, diaries, and annotations—seemed important to us as traces of readership that might be entirely private or might represent a further circulation of opinion to a recipient or subsequent reader. We coined the somewhat awkward term "reception item" to refer to the full range of documentary events that might provide evidence of reception and readership.

Some of this breadth is represented directly in our capture of reception items. Both advertisements and extracts are included in the Women Writers in Review data and are flagged as distinct types; they represent about 14% of the total reception materials captured. Manuscript materials are receiving special attention through our exploration of the manuscript almanacs of Mary Moody Emerson (being edited by collaborators Sandra Petrulionis and Noelle Baker and published in Women Writers Online), and also in Elizabeth Hageman's project on the long history of reception of Katherine Philips. In our early meetings we also discussed a group of genres that both attest to various forms of reception and also perform the recirculation of texts to new audiences. This group includes literary biographies, anthologies, spiritual autobiographies, conduct books, and pedagogical treatises. We agreed that these merited special attention, but exceeded the scope of this project.

The domain of quotations and other intertextual references also seemed important and distinctive enough to us that we framed it as a separate project for which we have just received a second Collaborative Research grant from the NEH, on which we will be starting work in October 2016. For that project, we will enrich the data in Women Writers Online itself so that

quotations and citations are explicitly represented, enabling us to directly study the ways in which women's reading is evidenced in their writing—and, by extension, the ways in which women's writing is read and reused by other women writers.

As noted in our earlier discussion of metadata, our representation of reception items also included information about genre and format, topical keywords, and also information about the journals where reviews appeared and about their publishers. The group considered genre and format especially important because of the future breadth of scope in what we might consider as a "reception item"; even though at this stage the preponderance of our collection consists of periodical reviews, other genres and formats are included and will increasingly be so in the future. We considered both the Getty Art and Architecture thesaurus and Project Orlando's list of genres (shared with us by that project's director, Susan Brown), and developed a short list of genres and formats representing the types of items included in the current data set. We also discussed the potential value of information about a journal's or publisher's politics and geographical locus, and undertook some preliminary research in that area which is currently captured as notes on individual publications; this data needs to be expanded, formalized and integrated into the publication interface of Women Writers in Review. Finally, as noted above, we developed a set of topical keywords that reflect the core themes of the project.

We spent significant time discussing the modeling of reception items and the question of what information to capture and how much detail to represent. We also considered which of these types of information would be best represented as metadata (i.e. as a piece of information associated with the reception item as a whole) and which would need to be represented as embedded markup within the reception item (i.e. in the place where the reference actually occurs), as we currently handle features like quotations and names. The latter approach would be more useful if we wanted to enable the study of specific phenomena such as evaluative language (since it would enable us to extract and analyze the specific words used to express the evaluation), but also requires considerably more work in the data capture and may be quite difficult to do. We decided to record references to persons, places, and other texts (including quotations) in the transcription itself, and to record all other information as metadata for ease of both transcription and analysis.

Our other major area of research concerned individual writers and texts, which were the focus of the individual research projects conducted by the collaborative team members. These projects also explore this diversity of forms of readership and reception.

Elizabeth Hageman's research on the long reception history of Katherine Philips includes discovery of printers' advertisements, catalogues of individual libraries, manuscript annotations in copies of Philips' work, paintings, and even funerary epitaphs. This work contributes an important dimension to the group's research into reception, since it constitutes a kind of case study in how reception operates over longer periods of time, and across modes of readership. Her project drew on collaborative work with Jackson Boswell, Scholar in Residence at the Folger Shakespeare Library, to compile an annotated chronological list of references to Katherine Philips (1632-64) in 17th- and 18th-century texts. Building on this work and on Peter Beal's *Index of English Literary Manuscripts*, Professor Hageman explored references to Philips in manuscript sources held in depositories in America and abroad, gathering evidence of both readership and reception. These references demonstrate the widespread circulation of Philips's writing and also her positioning as a "premiere" English writer during her own lifetime and in the century after

her death, and provide a model for a similar study of other women writers of prominence. Hageman's work explored what these patterns of reception and shifting prominence reveal not only about Philips herself as a poet, but also about the changing perception of the genres in which she wrote and the political and cultural associations her work may have had.

Sandra Petrulionis and Noelle Baker's contribution to this project focuses on the manuscript almanacs of Mary Moody Emerson, drawing on a longer-term collaboration with the WWP in which the almanacs are being published in Women Writers Online. Emerson's writing has provided an important diversification of our ideas about reading and readerly engagement. Their editorial work includes annotation and analysis of the role Emerson's extensive and eclectic reading plays in her spiritual self-examination. Their exhibit for this project draws together and reflects upon some of the most significant examples of Emerson's reading and commonplacing practices, which involve wrestling with contemporary religious and spiritual debates and deep introspection into her own spiritual state.

Jacqueline Wernimont (who joined the group after the grant was awarded) has focused on readerly engagement with The Ladies Diary, an early modern almanac that cultivated female contributions and female readership, and that also directly sought readerly interaction by publishing mathematical puzzles and questions together with readers' responses. For this project, she worked closely with undergraduate encoders at her own institution and also with the WWP's graduate research encoder Nicole Keller Day to determine how the digital representation of the text could best reflect its complex combination of astronomical and astrological information, mathematical puzzles, and readerly contributions. Her exhibit for this project will offer an analysis of the Ladies Diary as a complexly genred and gendered series of documents in which we can examine contemporary attitudes towards women's engagement with mathematics and science.

Sarah Connell, who joined the team following the move to Northeastern (replacing John Melson as the WWP project manager), conducted an in-depth examination of the reception data as part of the development and testing of the interface for *Women Writers in Review*. Her analysis discusses several key themes from transatlantic literate culture—contemporary publication and review practices, literature and constructions of national identities, gender and authorship, and the impacts of women on the novel—as they are evident in periodical responses to the works of Maria Edgeworth.

Shortly after the WWP's arrival at Northeastern, the project director met with interested members of the Northeastern University English Department to discuss the Cultures of Reception project, learn about how the project might fit into existing strands of research, and ascertain their interest in joining the collaborative team. Several of these faculty have research interests that directly bear on the group's work, and we have involved them in the project in varying ways that reflect their specific research areas:

- Nicole Aljoe (Assistant Professor of English specializing in Caribbean literature and gender studies) is interested in examining revisions that were made to The Woman of Color between its first and second editions, possibly in response to reader feedback. The WWP is planning to digitize this text for inclusion in WWO, and Professor Aljoe may in the future develop an exhibit for Women Writers in Context that explores these revisions systematically, drawing on the digital versions.

- Elizabeth Maddock Dillon (Professor of English specializing in early American literature and transatlantic print culture) is interested in our reception data for the light it can shed on transatlantic literary culture. Prior to her appointment as department chair, she was planning to collaborate with members of the WWP on an exhibit examining geography and national identity in our reception data, but this project has had to be postponed; we hope it may be resumed at a later point.
- Ryan Cordell (Assistant Professor of English specializing in 19th-century American literature and the culture of reprinting) directs a digital project titled "Viral Texts" that studies reception history through patterns of reprinting. This project promises to provide an important amplification of our coverage of North American periodicals as we extend the data set for *Women Writers in Review*. Professor Cordell has been on research leave this year in Germany, but following his return we hope to discuss a future exhibit with him that would examine reprinting in the context of readership and reception analysis.

Exhibits on Katherine Philips, Mary Moody Emerson, The Ladies Diary, and Maria Edgeworth will be published in *Women Writers in Context* between October and December 2016. Additional exhibits on reception will be added over time.

4. Interface Development and Digital Integration

Transcription Interface

As noted above, we developed a web-based transcription and data capture interface to support this project using CouchDB. CouchDB seemed like a good choice for several reasons; for one thing, it represents a comparatively recent genre of database tool that is less schema-dependent than a conventional SQL database (in which fields and tables need to be fully defined in advance), and hence it permitted us to proceed with data capture in an exploratory manner, without having to anticipate all of the aspects of the data we might encounter during the course of the project. CouchDB also offered good support for the creation of web-based interfaces for data capture and display. The disadvantages of CouchDB had chiefly to do with its lack of XML-awareness. For the metadata component of the project, this was not a problem because each metadata field could be treated as a single database field and could be constrained through the data entry interface: for instance, using controlled value lists or auto-completion for values already in the database. But for the full-text transcription of the reception items themselves, although CouchDB did support simple XML encoding (using a WordPress-like dashboard of available markup elements), it could not provide any constraint on the XML structure of the data, nor could it provide warnings or error messages if the transcribers made errors in their XML encoding (such as omitting a tag, using a non-existent tag, or using a tag in the wrong place). As a result, when we exported the data from CouchDB in preparation for publication, we had to do some detailed error discovery and correction to fix well-formedness errors, inconsistencies, and validity errors in the XML. On balance, using CouchDB did enable us to start work much more quickly (and with a collaborative team of XML novices) but at a certain cost later in the process.

Display Interface and Integration with Women Writers Online

To expose the richness and detail of our reception data for research, we developed Women Writers in Review (http://www.wwp.northeastern.edu/review): an exploratory interface integrated with WWO that supports discovery and retrieval. Users can find and filter reception items by all of the metadata fields described earlier in this report, as well as by the thematic and analytical markers that are associated with each item. For example, users can locate all of the reception items that discuss Maria Edgeworth or Charlotte Smith, all of the items that review *Harrington and Ormond* or *Celestina*, all of the items that are published in the *British Review* or the *American Monthly Critic*, all of the items that are marked as "very positive" or "somewhat negative," all of the items that are reviews or advertisements, and all of the items that deal with religious identities or class and socioeconomic status. Readers can also use facets to filter their results—retrieving only the responses to Edgeworth that are very negative, for example, or only those items published in the *British Review* that discuss racial identities.

Women Writers in Review also provides users with contextual information on authors and periodicals—for authors, the interface shows birth, death, and floruit dates; birth and death locations; gender identifications; and links to LCNA, VIAF, and WorldCat. For periodicals, this information includes dates and locations of publication and alternate titles. For reviewed texts, the interface displays publishers, publication dates and locations, and details on various editions and printings of the reviewed works (we do not record all of the editions in which works were published, only those that are discussed in the corpus).

The data we have collected are also able to support a range of visualizations, revealing, for example, patterns in the reception of authors over time or geography. We can also visualize evaluations by individual periodicals, or by their dates and locations (for examples of some initial visualizations we have created, see Appendix 2**)**. These visualizations will be made part of the Women Writers in Review interface and we plan to add to them substantially as we expand the corpus and gain additional feedback on areas of interest from our users.

For works from Women Writers Online that appear in Women Writers in Review, we have included a direct link to WWO so that readers can move easily from the reviews to the texts under discussion. We are also planning to update the WWO interface to include links from WWO texts to their reviews, so that readers can navigate in both directions (this requires some re-engineering of the WWO publication platform and proved to be out of scope for this initial stage).

Workflow and Apparatus for Ongoing Data Capture

With the Cultures of Reception corpus now in XML, we have shifted our data capture approach to align more closely with the rest of the WWP's transcription processes. The initial input interface was useful at the earlier stages of the work, when we had a large volume of items to capture and a largely novice encoder population—and when our final publication plans had yet to be determined. At this point, we have established processes for publishing our files in the exploratory interface and we now have an encoder population that is well versed in the TEI and comfortable working with oXygen and Subversion.

For current and future encoding, we have adapted a workflow that mirrors WWO's. We can continue to use the information that was gathered in the transcription interface to populate the metadata fields for the approximately 300 not-yet-transcribed reception items that were entered there. As we identify additional reviews and materials to be added to the corpus, we will manage their data entirely in the XML.

We are still considering the feasibility of soliciting reception items from external contributors, and the kind of data entry interface that would make this possible. One approach would be to use only the metadata capture interface and request bibliographic data from contributors (with the WWP performing any full-text capture using our regular process outlined above). This would avoid the challenges of under-constrained full-text transcription and the subsequent need for data cleanup. For contributors with significant numbers of items and a higher level of technical acumen, we could provide training workshops to develop an external team of full-text contributors, in the manner of Transcribe Bentham or the Folger Shakespeare Library's Early Modern Manuscripts Online project. We will first see how Women Writers in Review is used and how researchers respond.

Omissions and Changes

This project was interrupted by significant changes in project personnel and institutional location for the WWP which proved very disruptive and entailed repeated revisions to our planning. Where our original focus had been on a set of individual research projects that we anticipated would arise from the published data, the changes in personnel and timing described below required us to adjust the timing of the various grant outcomes, some of which are now being completed after the conclusion of the grant period. The net outcome we anticipated from this project, however, remains essentially the same.

Changes in Key Personnel

The most significant change in personnel was the loss of John Melson, the WWP's project manager who also served as the lead developer on this project and a major collaborative partner. In February 2013 John announced his departure from the project for another position at Brown University. At that point he had set up the transcription and data management interface but not the publication and research interface. His departure was followed very shortly by the start of our planning for the WWP's move to Northeastern University; because of that larger institutional move, we were not able to fill his position until this grant was formally transferred to Northeastern. That process took much longer than expected, partly because it was one of six federal grants being transferred. We were finally able to post the position in fall 2014, and it was filled in January 2015 by Ashley Clark, who began work shortly thereafter on familiarizing herself with the data and the details of the WWO interface so that she could start work on the final interface development. By the conclusion of the grant in December 2015, she was able to complete the essentials of this work, and she has continued to develop the interface in collaboration with the Digital Scholarship Group's data visualization specialist, Steven Braun. This work will continue as part of the WWP's regular interface development process.

This interruption in the interface development had its greatest impact on our plans for the study of the reception data. Although the data itself has been available for study, the analysis of

larger-scale patterns (such as comparisons along geographical lines) has not been really feasible without an interface to support it. As a result, we shifted the emphasis of our research to focus (during the period of disruption) on the representation of the reviews themselves and on their thematics, developing a language for characterizing their topical focus and looking at how they proxy the text under review and situate it culturally. The project's external collaborators continued working on their own research projects during this period as well, but to the extent that some of those projects depended on having exploratory access to the data (through an intuitive interface) and the collaborative attention of WWP staff, they also suffered some necessary delay during the period of transition. The full set of published exhibits that we projected at the start of the project have taken some time to finish now that we are able to expose the data for exploration through Women Writers in Review. This work will be completed by the end of 2016.

The other major result of these changes in personnel (and the consequent delay in developing the public interface) was a revision to our plans for gathering reception items. We had originally planned to provide a contributory interface for gathering reception items from external scholars, so as to cast a wide net among researchers working on WWP authors who might encounter evidence of readership in a variety of places. Our early discussions of this feature revealed challenges having to do with the handling of intellectual property issues and also the provision of appropriate constraints so that we could ensure the quality of the contributed data without creating too high a barrier to contribution. When our personnel changes necessitated a delay in the development of the publication interface, it no longer seemed feasible to develop a contributory interface as well under the current grant, and we put the effort towards additional attention to the exhibit publication and review/curation of the reception data. A contributory interface is still on the horizon as a possible future expansion of the project, probably starting with the contribution of bibliographic records rather than complete reception items (to get around the intellectual property challenges).

Technical Changes

As with many research projects that make substantive scholarly use of digital tools, there were some changes to the technologies and technical approaches during the course of the project, but they did not have a substantive impact on the outcome. Our data entry process was essentially as anticipated. During the project's initial stages, as noted above, we designed the data entry around a web-based form to enable us to make use of available undergraduate and graduate student labor without extensive training in XML, with consequent tradeoffs in data cleanup that are detailed earlier in this report. In the later stages of the project, following our move to Northeastern, where we have had access to more highly trained and longer-term student research assistants, we shifted our transcription and data management to use the oXygen XML editor (which the WWP uses for its routine transcription activities for Women Writers Online). There were no other changes to the software or hardware for this project.

Publicity and Dissemination

This project's work has been presented publicly as follows:

- Julia Flanders presented a work-in-progress talk at Northeastern University's College of Social Sciences and Humanities in January 2013 (included in Appendix 1).
- Early-stage work was also shared during an invited lecture that Sarah Connell delivered at the seminar series *Women and Culture in the Early Modern World* at Harvard in February 2016. The lecture shared the WWP's research into using markup to examine intertextuality in early women's texts; during the lecture, the Cultures of Reception project was discussed as a resource for exploring how texts by women circulated in a transatlantic context and an example of how TEI encoding supports detailed research endeavors. Sarah Connell also shared the WWP's work on intertextuality and reception at the Northeastern University Library's Digital Scholarship Group (DSG) work-in-progress discussion series. In both talks, the goals and contents of Cultures of Reception were discussed and an early version of Women Writers in Review was demonstrated.
- The WWP staff created handouts, with links to the test interface, and shared them at the April 2016 Research, Innovation, and Scholarship Expo (RISE).
- Julia Flanders shared a more developed iteration of Women Writers in Review at the Renaissance Society of America (RSA) annual meeting in Boston, March 2016. The WWP organized a roundtable, "Modern Information Systems and the Gendering of Early Modern Textuality," which included Marie-Louise Coolahan (National University of Ireland, Galway; the Reception and Circulation of Early Modern Women's Writing), Laura Mandell (Texas A&M University; 18thConnect), and Isobel Grundy (University of Alberta; Project Orlando). During the session, Flanders demonstrated the interface and shared its features for metadata-based exploration, searching by theme, and comparison of individual items.
- Sarah Connell and Ashley Clark presented a paper titled "Meta(data)morphosis" at the 2016 Balisage pre-conference symposium, "XML In, Web Out: International Symposium on sub rosa XML" (included in Appendix 1) This paper, which discusses the processes of preparing the Cultures of Reception data for publication and creating the exploratory interface, was also published in the conference proceedings.

Two future talks are already planned:

- Julia Flanders will present a paper on this work in March 2017 at "Reception, Reputation and Circulation in the Early Modern World," a conference hosted by the RECIRC project at the National University of Ireland, Galway.
- Julia Flanders will present a keynote lecture in June 2017 titled "Cultures of Reception: Readership and Discontinuity in the History of Women's Writing" at the Digital Humanities Summer Institute at the University of Victoria, British Columbia.

The exploratory interface is now visible at http://www.wwp.northeastern.edu/review and is undergoing some final user testing. It will shortly be made live on the WWP site and we will use our publicity channels to share it—including announcements on the WWP site and Twitter feed and a post on relevant listservs. We have begun posting about the Cultures of Reception project at the WWP's blog (http://www.wwp.neu.edu/blog) and we will continue to publish a series of posts describing the data gathering that we completed, the encoding and transcription processes, the interface design and features, and the exhibits we are authoring for Women Writers in Context. As a complement to the longer exhibits, we will write and solicit blog posts

about research conducted with the exploratory interface. We will also use the blog to share notable reception items, introducing the materials in Cultures of Reception and calling attention to the wide range of content available there.

As we publish the exhibits on reception that will soon be completed, and continue with publishing those that are still in their initial stages, these will offer repeated opportunities for publicity. The first set will include the exhibits by Elizabeth Hageman, Jacqueline Wernimont, Sarah Connell, and Sandra Petrulionis and Noelle Baker discussed above. Additionally, several scholars have planned research using the exploratory interface, with the goal of publishing their findings in Women Writers in Context. In addition to the faculty-authored exhibits discussed above, several graduate students have expressed interest in using Women Writers in Review and the Cultures of Reception data to conduct research, with the goal of authoring exhibits. Nicole Keller Day, Ph.D. candidate in English at Northeastern University, will be using Women Writers in Review in her research on the reception of eighteenth-century women's scientific works. William Quinn, a Ph.D. student in the English department, has begun preparing the Cultures of Reception data for topic modeling and principle component analysis as part of his research into nineteenth-century periodical culture.

Audiences

Because Women Writers in Review is web-based and open access, we expect that the geographic reach of the audience will extend internationally to scholars and students working with English-language texts. The audience for Cultures of Reception is likely to be demographically broad, as the materials in the collection will be of interest to anyone researching or studying the individual authors discussed, transatlantic periodical culture, early women's writing, reception history, women's readerships, eighteenth- and nineteenth-century literature, among other fields.

We expect that the increased visitor flow that will follow the release of the exploratory interface will help to raise awareness of less-studied women writers of the eighteenth and nineteenth centuries. Women Writers in Review can provide points of entry to scholars who are beginning to work with early women's writing; the reception items are relatively brief and they are often quite engaging. These reviews also help to situate the texts in WWO within a network of textual circulation, showing how literary texts participated in a broader print culture and making the contemporary responses to literary works visible.

The release of the exploratory interface coincides with the WWP's increased emphasis on pedagogy. We are actively working with faculty and graduate students to help develop assignments that work with the WWP's materials, and we recently offered a workshop on teaching with digital interfaces. We have also begun conversations on pedagogy through our blog, and we are improving the pedagogical resources that we offer for the materials we publish. We will be including the Cultures of Reception publications in our pedagogical efforts, working to help teachers of early literature use the interface and exhibits in their classrooms.

In addition to student and teacher audiences, we will continue to support research audiences (acknowledging, of course, that these groups will also overlap). We expect that the exhibits we will soon be publishing will help to show some of the ways that Women Writers in Review can be used in a range of research efforts. We also anticipate that the improvements Ashley Clark is

currently making to the project's API will enable text analysis and other forms of research that focus on the corpus itself. We will continue the outreach and dissemination activities that we have described above; as we gain additional data about use of the interface, we can improve its utility for both research and pedagogical audiences.

Evaluation

This project has not yet been formally evaluated. When it was first planned, formal peer review processes for this kind of digital publication (such as DHCommons) were not as available as they are now; we are currently considering whether it would be useful to submit Women Writers in Review to DHCommons for review in the coming year. During the course of the project (and at least partly through the preparation of our interim performance reports) we have done periodic assessments of the project's design, strengths, and weaknesses, and during the transition from the grant-funded portion of the project to the WWP's long-term maintenance of it we have also performed some assessments of the successes, obstacles, and failures. Several points are worth emphasizing here.

First, we did meet the four major strategic goals of the grant:

- To assemble a collaborative research group and focus their expertise and individual research activities on the question of how to study reception and readership through a mid-scale digital text collection
- To develop an infrastructure for future collaborative research on readership and reception that would stand as a permanent enhancement to Women Writers Online
- To populate that infrastructure with a set of reception data that would support the initial work of the collaborative research group and enable us to both test and demonstrate the potential of the research tools being created
- To develop an initial set of research exhibits to demonstrate the scholarly potential of both the data set and the research interface.

The overall quantity and quality of the research (and potential for future research) developed under this grant corresponds to our hopes for this project.

The project was subject to several key weaknesses and vulnerabilities. The most significant of these was its vulnerability to staff changes, and this is unfortunately something that most small projects suffer from time to time. Staffing in digital humanities projects is often the result of fortunate accidents—people finding a niche and developing skills and interests that are highly situational—and hence there is much less interchangeability of roles; if a staff member leaves, one cannot easily find someone else with the same skill profile. The problem is especially acute for technical positions, because of strong competition from better-paying jobs in industry. Another vulnerability was the tension between ease of capture and curatorial concerns, exemplified in our decision to use CouchDB as the basis for a form-based data capture interface, with the resulting difficulties in exporting that data as XML later in the process. At a deeper level, this problem comes back to issues of expertise in the encoding staff: if we had had earlier access to the pool of highly trained research encoders that we developed later in the project, the need for an easy-to-use form-based data capture interface would have been eliminated, and we

could have worked in XML from the start. This would have saved significant effort in data cleanup (as described earlier in this report). We might still have developed the web-based capture interface for use by contributors, if we had involved them in data capture, but the quantity of data affected would have been much lower. Finally, we underestimated the level of oversight needed to coordinate the many different components of the project, including external collaborators, technical components, and editorial components. In hindsight, a greater proportion of funding should probably have been dedicated to project management.

Among the strengths of the project are first of all its data design and the overall conception of the relation between this data and Women Writers Online. This project represented a first step in what we now see as a much broader effort to extend the research value of the WWO collection through the creation of related data sets. By designing the reception research materials as *data*—that is, as a systematic set of formal observations—we have ensured that they can be connected systematically to relevant components of WWO, to any future data we may add, and also to external resources. In addition, by attending carefully to the design of the supporting infrastructure (the schemas that constrain the data, and the publication tools through which it is expressed), we have established a stable environment that can be used for a long time to come as we continue to expand our reception data set and publish future exhibits, without requiring further external support. Finally, this project showed considerable resilience in the face of immense challenges; we are proud to have completed the work (albeit after many delays) and we are very grateful to NEH for their flexibility, which has enabled us to adapt and ultimately to produce a valuable scholarly outcome.

Continuation of the Project

This project was designed from the beginning as the first phase of a much longer undertaking. The field of readership and reception, for a collection as extensive as Women Writers Online, is too vast for a single collaborative study to encompass. Our goal in this effort was rather to support the collaborative development of an intellectual and technical framework that could become a permanent part of the WWP's work and could be expanded over time as part of our regular project development efforts. With this framework now in place, in the coming years we plan to expand our coverage both geographically and temporally, including more North American periodical sources and extending our coverage window to include earlier and later materials. We will also expand our generic coverage, extending beyond the domain of periodical reviews to include excerpts from literary history and biography and from unpublished documents such as letters and diaries as we had originally planned. The pace at which we can extend Women Writers in Review will depend on our level of base funding, which in turn depends on our income from WWO. This income has held more or less steady in recent years (our pricing has remained at 2011 levels), but the addition of reception data to the WWO interface will enable us to make a modest and long-overdue rate increase that will directly support our encoding and transcription effort.

We have also developed one important new collaborative partnership, with RECIRC (http://recirc.nuigalway.ie), an ERC-funded project on the impact of women writers in the sixteenth and seventeenth centuries that directly complements Women Writers in Review. RECIRC is still in the very early stages of development, but the collaboration has already borne fruit through an exchange of presentations: the RECIRC lead, Marie-Louise Coolahan,

participated in the WWP-led panel on early women's writing at the Renaissance Society of America in March 2016, and as noted above Julia Flanders will be presenting on *Women Writers in Review* at a conference at the National University of Ireland, Galway, in March 2017. Professor Coolahan is also a member of the advisory group for our newly funded "Intertextual Networks" project, which will provide additional opportunities for collaboration and information exchange. We will be exploring more substantive ways for the two projects to connect at the level of data once RECIRC is more fully under way.

Long Term Impact

The long-term impact of this project is bound up with the long-term horizons of the Women Writers Project, which is designed and conducted as a permanent research and publication project and is now embedded in a digital library context that provides a high degree of stability. The work funded by this grant—both the Women Writers in Review collection and the accompanying exhibits soon to be published in Women Writers in Context—constitute permanent enhancements to Women Writers Online and as such will help shape the scholarship and learning enabled by that resource for generations of students and scholars. Furthermore, because Women Writers in Review and Women Writers in Context are open-access, they will reach an even wider audience than WWO.

More specifically, as discussed above, we expect that one major audience for the exploratory interface of Women Writers in Review will be in the undergraduate classroom. The materials in the interface can be used to situate individual authors; in a class that is reading Maria Edgeworth, for example, the instructor might ask students to compare reviews of Edgeworth's works published in Great Britain, in Ireland, and in North America. A class that is reading Hannah Cowley might look at the shifts in content or in evaluation of her works over time. Students could explore which authors tend to be reviewed together, conduct primary research on the ways women readers are characterized in periodical texts, or investigate the characteristics of individual periodicals—among numerous other possibilities.

We have established close relationships with faculty at Northeastern and elsewhere, which will make it possible for us to gather feedback and offer support as instructors begin assigning materials from Women Writers in Review in their classrooms. We will also explore options for working with a broader user community; for example, we intend for our blog to become a locus for conversation about use of the materials and we hope to share assignments and syllabi as they are developed. In these activities, we can draw on the community we have built as a long-established digital humanities project—while also bringing in new participants through this open-access collection.

In addition to the long-term pedagogical impact, this project also has important long-term consequences for Women Writers Online itself. Women Writers in Review constitutes the first step in a larger initiative to create open scholarly resources that build on and contextualize WWO. The recently-funded Intertextual Networks project—in which we will produce a comprehensive bibliography of the texts that are cited, quoted, and echoed by WWO authors—will enable the study of these women as readers in a way that complements our current study of how they are themselves read. Two further related initiatives lie ahead: the development of comprehensive name authority data for people mentioned in WWO, and the development of

comprehensive geographical data for places mentioned in WWO; both of these resources would tie in closely with Women Writers in Review, Women Writers in Context, and the projected intertextuality resource. All of these resources would be open-access and would be shared via open APIs, as Women Writers in Review already is. The result would be a comprehensive environment for the study of early women's writing, based on linked open data.

Grant products

The major products developed under this grant are, first, the Women Writers in Review site (http://www.wwp.northeastern.edu/review), through which readers can explore the reception data we have gathered, and second, the forthcoming exhibits we are publishing in Women Writers in Context, reflecting on issues of readership and reception and exploring the materials we have gathered as part of this project.

Women Writers in Review

The Women Writers in Review site serves two important purposes. First, it offers an exploratory interface to the new domain of reception and readership information that this grant has enabled us to amass. As described above, this information represents the interconnected network of entities that are significant to the circulation of texts in culture: authors, publishers, locations, reviewers and readers, and vectors of dissemination such as periodicals, books, and potentially unpublished documents as well. Scholars can start with any of the major entry points—authors, works, periodicals, and thematic tags—and follow linkages via genre, format, source publication, theme, and the tenor of the review. The interlinked architecture of the site and the detailed underlying data provide a foundation on which we can continue to build, to add visualizations (for instance, maps and timelines) and further exploratory tools. Furthermore, the site includes an open API (documented in detail at http://www.wwp.northeastern.edu/review/#api) through which scholars and other projects can access the data and develop exploratory options of their own.

The second purpose of the Women Writers in Review site is to provide additional points of entry to Women Writers Online, enabling readers to move readily from an exploration of review feedback to a reading of the texts themselves. For readers unfamiliar with the WWO collection—such as students or those from outside the field—exploring women's writing first from the perspective of its reception can be a compelling way to get oriented, and to motivate exploration. For students in particular a review can offer a vivid prompt to think about what contemporary readers expected from women as authors, and can also prompt a novice reader to notice specific plot points, literary devices, or comparisons with other texts. Very shortly we will also have links going in the other direction, from WWO to Women Writers in Review, enabling WWO readers to discover the review commentary associated with individual WWO texts.

As noted above, beyond the specific content currently visible in Women Writers in Review—which is considerable in itself—the most significant achievement of this grant is the development of the intellectual and technical framework for capturing, representing, and expressing information about readership and reception. The collaborative effort of framing and theorizing the domain, developing descriptive vocabularies, and conceptualizing the research

processes that this resource needs to support would have been impossible without this intensive support and without the collaborative scholarly team this funding made possible.

Exhibits on Reception and Readership

The exhibits being published in Women Writers in Context represent a variety of perspectives on how women's writing is "received": read, reviewed, engaged, and reechoed across time and space. The scholars chosen for our collaborative team constitute a deliberately diverse set of approaches to this domain and theorize the idea of "reception" quite differently; their work has already been described in detail earlier in this report. Each piece takes different advantage of the flexible exhibit format, which combines features of the scholarly article with additional digital affordances such as the ability to include dynamic visualizations (including features like timelines, biographical sidebars, and textual extracts) that display the underlying exhibit data in non-narrative ways. This adaptable format also encourages different forms of exposition; for instance, some future planned exhibits will present an encoded primary source through specialized stylesheets that draw attention to specific informational or interpretive features, subordinating the scholarly commentary to the text or re-expressing that commentary as markup. Our initial set of exhibits arising from this project will be published in fall 2016 as a cluster on reception and readership in which we will also include a discussion of the Cultures of Reception project itself, to illuminate the development process and the underlying data for readers. These exhibits will be freely available at the Women Writers in Context site, http://www.wwp.northeastern.edu/context.

Appendices

Three appendices are included below

- Appendix 1: Conference papers and presentation materials
- Appendix 2: Screen shots
- Appendix 3: Samples of encoded data

Appendix 1: Conference papers and presentation materials

Julia Flanders

Work-in-Progress Presentation: Cultures of Reception

College of Social Sciences and Humanities, January, 2014

Background on WWP

- digitizing large collection of primary sources, early women's writing

- publishing for research and teaching

- context is important: orientation within an unfamiliar textual landscape; different perspectives on the material; different entry points for different kinds of learning and pedagogical environments

- now seeking ways to support more detailed scholarly analysis of these materials

How does the project work? (background for understanding how grants and publication work together)

- The WWP is both a research group and a publisher

- The research group is interested in questions of digital representation: how do we represent texts in digital form for teaching and research? What are the salient features of documents?

- The publication (WWO) provides a steady base income and also a real-world context for using our data; the income meets the base costs of maintenance

- When we want to develop a new idea or explore a new theoretical domain, that's an opportunity for grant funding

- As we develop expertise in various areas, we move it into outreach activities

Grants and activities of the project:

- Seminars in digital humanities (three NEH-funded series plus regular open workshops)

- Conferences and colloquia: WiA, KODM

- Grants researching the representation of names and persons

- Documentation and guidelines for encoding and representation of early modern texts

The research project I'm going to talk about is a 3-year grant-funded project supported by the NEH Collaborative Research program

What is Cultures of Reception?

Goals:

- develop a picture (sort of a data map) of the emerging transatlantic literary culture at the end of the 18th/beginning of the 19th century in Britain and north America

- study the reception of women's writing over time and across space
- improve the contextualization of WWO texts by giving information on how they were received by contemporaries

Activities focus on two areas: digitizing reception materials and producing analysis

- developed an interface for transcribing reception items
- students captured bibliographic data for a large number of items (about 10000 so far), transcribed those that pertain to WWO texts and authors (about 560 so far)
- particular attention to specific features: quotations, references to authors and texts, references to locations and geographical frames of reference, references to other topics of interest
- next, developing interface for visualizing various aspects of this material that are of special interest
- NB progress somewhat interrupted by staff changes and the transition to NEU
- now hiring grad students, recruiting additional collaborators, getting momentum again

Interesting questions:

1. What is a reception item?

- in principle, any document or textual object that carries evidence of some reading or evaluation of another text (in this case, a text by a female author)
- for us, in the first phase of the project, most typically a periodical review
- later on, extending to include letters and diaries, anthologies, literary biographies, other forms of reception evidence

2. How do we model reception items?

- metadata: bibliographic information (author, title, publication data; thematic keywords; genre and format, general tenor (favorable or unfavorable)
- context: information about the reviewer, the journal itself and its editors (e.g. political leanings, frequency of publication, dates of operation, publisher, etc.)
- the reception item itself: basic structure, named entities, quotations and their source: in other words, information that is pertinent to the analysis we want to do

3. What do we want to know about them? How do we want to think with them? What kinds of light do we expect them to shed on the primary sources and vice versa?

Simple questions, basic data-gathering (note that this information is probably to some extent already known by experts; what we are doing is making it explorable by novices and also creating a basis for a more broad-based view):

- how does the reception of a given work change over time?

- is there widespread agreement in the evaluation of a work, or do reviewers differ in their assessment?

- are there patterns we can see in the evaluations: for instance, what can we learn about the preferences of certain reviewers or certain journals? Do some journals tend to be contrarian?

- what kinds of language do reviewers use in discussing these texts? what kinds of evaluative or comparative language appear? does this change over time or vary with geography or genre?

- what kinds of passages are quoted from the text under review? same passages in all reviews or different?

- what other texts are quoted or cited in these reviews (i.e. other than the text under review)?

- where do we see discussion of the key themes we have singled out for interest (race, geography, nationality, gender, etc.)?

More complex analysis:

- how does the reviewer situate this text within the history and landscape of texts? what texts are serving as the frame of reference? what geographical space (explicitly or implicitly) is the text taken as operating in?

- what can we learn about the conceptual and critical landscape within which the reviewer is operating?

- how are the boundaries of genre being discussed, defined, critiqued or altered? how is genre used as an interpretive or evaluative category in relation to gender and geography?

Next steps:

1. Identify further reviews (emphasis on North America)

2. Move the interface to Northeastern

3. Complete the transcription

4. Develop interface for analysis

5. Produce analytical essays

6. Integrate reception data with WWO

7. Hold a small conference?

8. Final report and celebrate

Cultures of Reception

Work-in-progress

Julia Flanders

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The Women Writers Project is a long-term research project devoted to early modern women's writing and electronic text encoding. Our goal is to bring texts by pre-Victorian women writers out of the archive and make them accessible to a wide audience of teachers, students, scholars, and the general reader. We support research on women's writing, text encoding, and the role of electronic texts in teaching and scholarship.

FEATURED

Women Writers Online texts by genre and year of publication
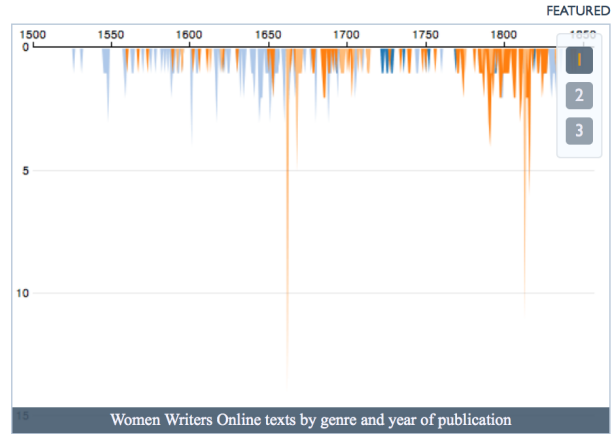
ANNOUNCEMENTS

June 28, 2013
Women Writers Project moves to Northeastern University »

April 30, 2013
New series: Women Writers in Context »

April 15, 2013
Teaching with TEI: deadline approaching »

March 1, 2013
WWO free for Womens History Month »

February 20, 2013
New texts in WWO »

FEATURED QUOTATION

A Woman who seeks Consolation under Domestic troubles from the Gaieties of a Court, from Gaming and Courtship, from Rambling and odd Adventures, and the Amusements meer Company affords, may Plaister up the Sore, but will never heal it; nay, which is worse, she makes it Fester beyond a possibility of Cure.

Mary Astell
Reflections Upon Marriage, 1706

UPCOMING EVENTS

MAR 11   Taking TEI Further: Transforming and Publishing TEI »

LINKS
Frequently Asked Questions
About
Women Writers Online
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Workshops & Seminars

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Center for Digital Scholarship

Women Writers Project

Publication
Women Writers Online
Women Writers in Context
Encoding Guide

Research
Cultures of Reception
TEI and early printed books
XML standards

Outreach
TEI and DH seminars
Conferences
Consultation

Women Writers Project
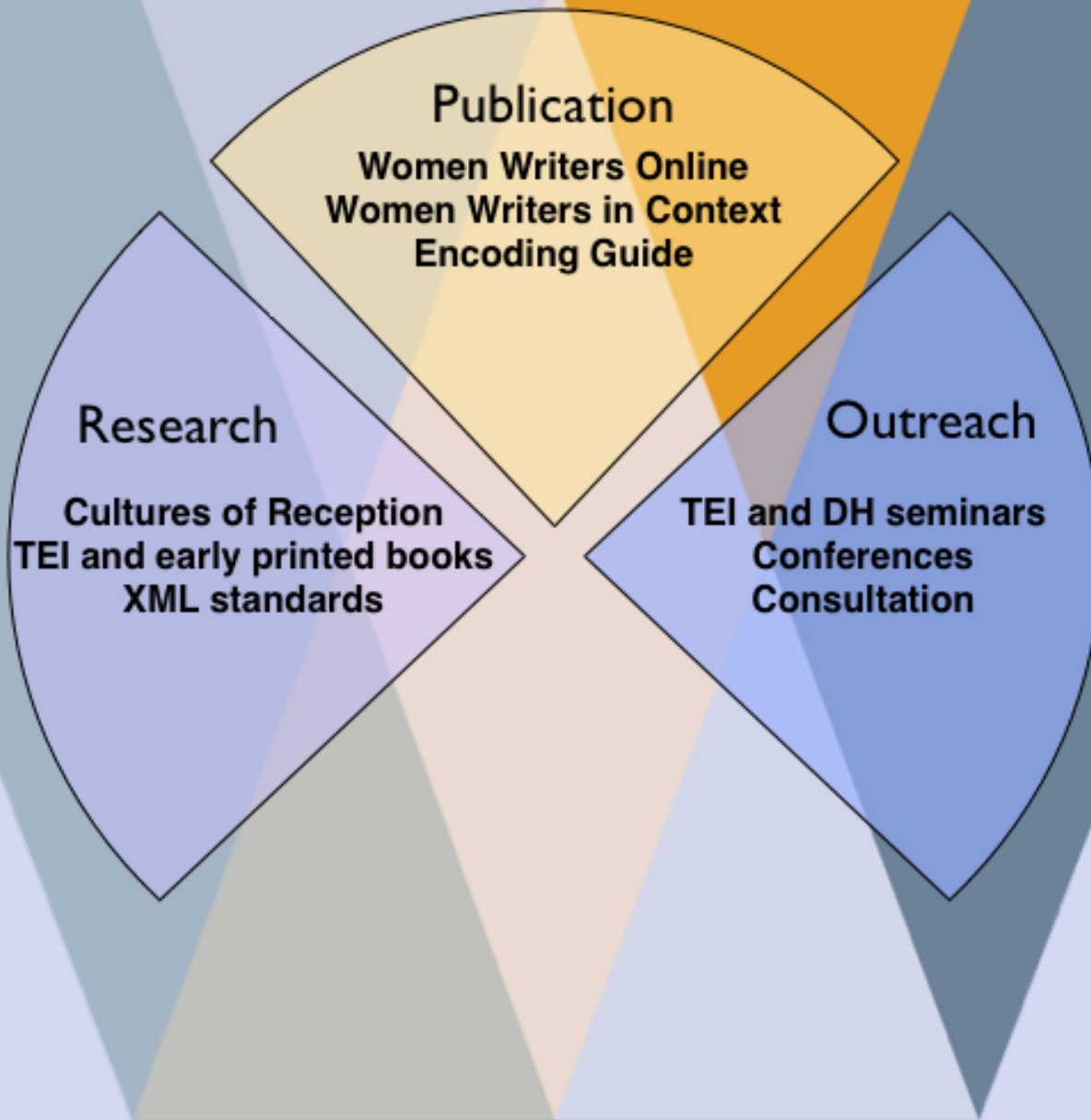
Introduction to Text Encoding with TEI

University of Illinois, Urbana-Champaign, February 21–23, 2014

This seminar is organized for a local audience, but some space may be
for attendees from other institutions. For more information, please con
wwp@neu.edu.

Taking TEI Further: Transforming and Publishing TEI Data

Northeastern University, March 11–13, 2014

No registration fee; travel funding is available

Apply (deadline: January 3, 2014)

Taking TEI Further: TEI Customization

Northeastern University, May 14–16, 2014

No registration fee; travel funding is available

Apply (deadline: February 25, 2014)

Advanced TEI Concepts

University of Victoria, June 2-6, 2014

Tuition scholarship and travel bursaries are available. To apply, visit the DHSI site

Text Encoding Fundamentals

University of Victoria, June 2-6, 201

Tuition scholarship and travel bursari

Taking TEI Further: Teaching With T

Northeastern University, August 20

No registration fee; travel funding is

Apply (deadline: April 25, 2014)

Knowledge Organization and Data Modeling in the Humanities

Home   About   Glossary
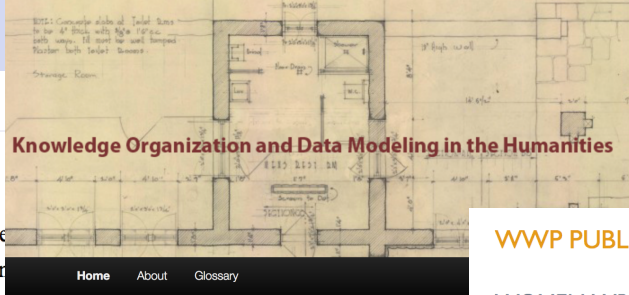
FEATURED

Knowledge Organization and Data Modeling in the Humanities: An ongoing conversation

WWP PUBLICATIONS AND PRESENTATIONS

WOMEN WRITERS ONLINE AND RELATED RESOURCES

- *Women Writers Online*, a digital collection of early women's writing in English
- *WWP Curricular Materials*, including teaching materials and a searchable database of syllabi

REPORTS ON GRANT-FUNDED WORK

- *Encoding Names for Contextual Exploration in Digital Thematic Research Collections*, 2008–2009, funded by NEH: Final report and white paper
- *Seminars in Humanities Text Encoding with TEI*, 2007–2009, funded by NEH: Final report
- *Creating a Guide for Encoding Early Printed Books*, 2003–2006, funded by NEH: Final report
- *A Textbase of Pre-Victorian Women's Writing in English*, 1997–2000, funded by NEH: Final report
- *Renaissance Women Online*, 1997–1999, funded by the Andrew W. Mellon Foundation: Initial report and final report

DOCUMENTATION

- A Guide to Scholarly Text Encoding: A detailed reference and guide to text encoding with TEI. The WWP Guide is an online resource designed to help scholars grapple with the whys and hows of text encoding. Clear, jargon-free, and aimed at a humanities audience, the Guide explains text encoding and XML markup from the ground up and provides detailed explanations of how to use the TEI Guidelines in scholarly digital projects.
- Women Writers Project Encoding Documentation: The WWP's internal documentation database.
- Women Writers Project Training Materials: Various tutorials, training guides, and hotsheets.

Cultures of Reception:

- 3 years, $200K
- Studying transatlantic literary culture, 1780s–1830s, focusing on the reception of women's writing
- Improving the contextualization of Women Writers Online materials

Main activities:

- Develop data model and transcription interface
- Capture bibliographic data (about 10000 records so far), information about journals
- Transcribe periodical reviews, about 560 so far
- Focus on reception: how are works evaluated, contextualized, compared?
- Capture quotations, references to other authors, evaluative language, geographical and national frames of reference
- Develop interface for viewing and analysing
- Produce collaborative scholarship on various aspects of reception

What is a reception item?

- Any document or textual object carrying evidence of reading or evaluation of another text

- For purposes of this project, initially focusing on periodical reviews

- Later, include letters and diaries, anthologization, literary biographies, other forms of reception evidence (suggestions?)

How do we model reception items?

- Metadata: bibliographic information, thematic keywords, genre and format, evaluative tenor

- Context: information about reviewer and periodical

- Transcription of the reception item itself

Transcription and related information

Transcription

<p>From <persName>Miss Lucy Aikin's</persName> <title>Epistles on the character and condition of Women in various ages and countries</title>, which we think no one can peruse without receiving a strong impression of the lofty genius and delicate taste of the writer, the following beautiful passage in her rapid view of the state of <placeName>Athens</placeName>, may here be quoted with the utmost propriety:—</p>

<l>Graced by the sword, the chisel, and the pen,</l>
<l><placeName>Athens!</placeName> illustrious seat of far-famed men,</l>
<l>Receive my homage! Hark! what shouts arise</l>
<l>As Phryné gilds the pomp of sacrifice!</l>
<l>To Beauty's queen the graceful dance they twine,</l>
<l>Trill the warm hymn, and dress the flowery shrine;</l>
<l>Priestess of love she fills the eager gaze,</l>
<l>And fires and shares the worship that she pays.</l>
<l>Haste, sculptor, haste! that form, that heavenly face,</l>
<l>Catch ere they fade, and fix the mortal grace.</l>
<l>Phryné in gold shall deck the sacred fane,</l>
<l>And Pallas' virgin image frown in vain.</l>
<l>Rise, bright Aspasia too! thy tainted name</l>
<l>Sails down secure through infamy to fame;</l>

F

Reception items:

- structure
- names
- quotations
- geographic references

Received text information

General evaluation   positive

Simple things we want to know:

- Change in reception over time

- Patterns of assessment

- The language of reception

- How do reviewers present the text under review?

- What other texts are mentioned?

- Is there attention to the themes we're interested in?

More complex questions:

- How does the reviewer situate the text within history, genre, other frames of reference?

- What geographical space is the text positioned in?

- What can we learn about the conceptual and critical landscape of the reviewer?

- How are genre boundaries discussed and defined?

- [your question here…]

Next steps:

- Identify further reviews (emphasis on North America)
- Move the interface to Northeastern
- Complete the transcription
- Develop interface for analysis
- Produce analytical essays
- Integrate reception data with WWO
- Hold a small conference
- Final report and celebrate

Thank you!

Julia Flanders

j.flanders@neu.edu

META(DATA)MORPHOSIS
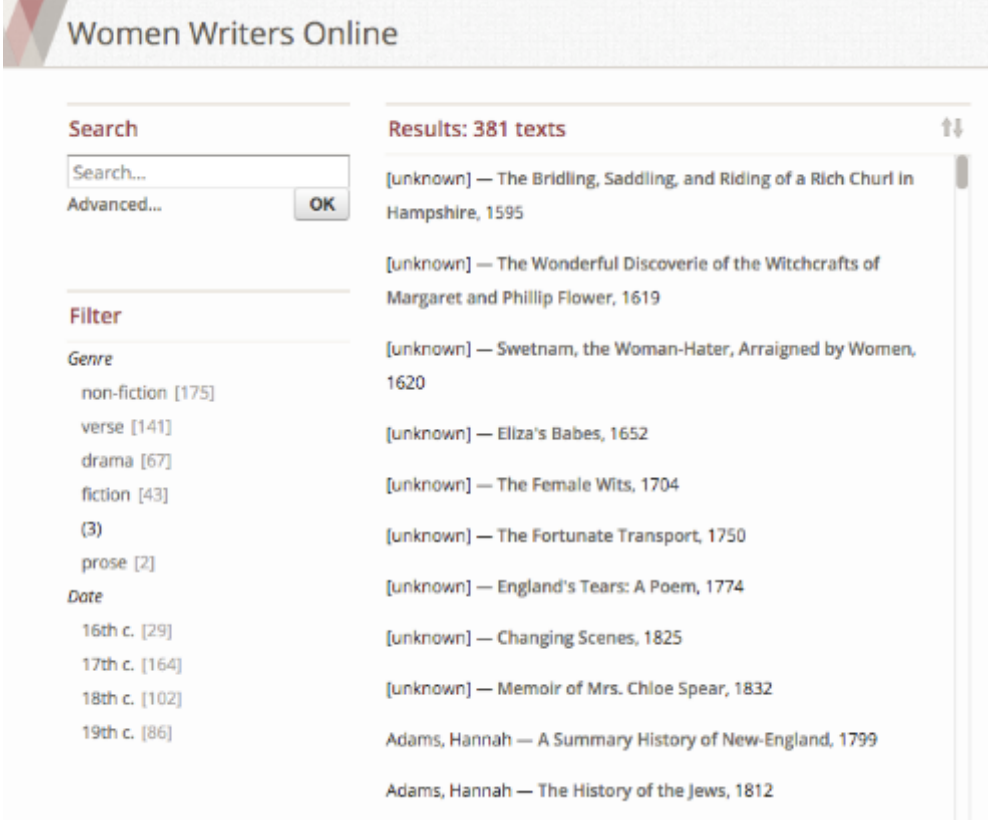
Ashley M. Clark, XML Applications Developer
Sarah Connell, Project Manager
Northeastern University Women Writers Project

XML In, Web Out
August 1, 2016

The Women Writers Project and Women Writers Online

- 390 texts written, translated by, or attributed to women
- Primarily print texts that were first published between 1526 and 1850
- TEI-encoded & published through the WWO interface

Women Writers Online

Search

Search...
Advanced... OK

Filter

Genre
non-fiction [175]
verse [141]
drama [67]
fiction [43]
(3)
prose [2]

Date
16th c. [29]
17th c. [164]
18th c. [102]
19th c. [86]

Results: 381 texts

[unknown] — The Bridling, Saddling, and Riding of a Rich Churl in Hampshire, 1595

[unknown] — The Wonderful Discoverie of the Witchcrafts of Margaret and Phillip Flower, 1619

[unknown] — Swetnam, the Woman-Hater, Arraigned by Women, 1620

[unknown] — Eliza's Babes, 1652

[unknown] — The Female Wits, 1704

[unknown] — The Fortunate Transport, 1750

[unknown] — England's Tears: A Poem, 1774

[unknown] — Changing Scenes, 1825

[unknown] — Memoir of Mrs. Chloe Spear, 1832

Adams, Hannah — A Summary History of New-England, 1799

Adams, Hannah — The History of the Jews, 1812

The Cultures of Reception initiative

- Goal: support collaborative research into the transatlantic reception and readership of texts by women
- Begun at Brown University in 2010: first phases included selecting, sourcing, & gathering data on the texts to be transcribed; setting up a transcription interface; and a substantial amount of the encoding work
- In 2013, the WWP moved to Northeastern University; since then, priorities have been:
    - continuing with transcription, and
    - preparing for publication—data cleanup and creating a publication interface

The *Critical Review* on Maria Edgeworth

ART. 26.—*Leonora; by Miss Edgworth. 8vo. 2 Vols.* Johnson. 1806.

THE professors of modern philosophy have been already hunted down by moral writers with such vigour that we trust very few of the race remain ; but while a single animal of this description exists, the efforts towards a complete extermination must not be relaxed :—there is now less glory in the enterprize, but the attempt is in itself always meritorious.

This novel is written in a series of letters. Leonora is a virtuous woman, and attributing the reports which she hears of Olivia's conduct to the mischievous spirit of scandal and to the malignity of envy, invites her to her house as an asylum from the persecutions of the malicious. Olivia is a professor of the modern philosophy, and has no other conceptions of the rules of right and wrong, than of rules for the game of whist, which may be very useful in the game of life, but which may be broken through or complied with in any particular emergency. She comes ripe from France, a determined foe to all those restraints which confine *tide-less blooded* females within

Source: *HathiTrust*
http://hdl.handle.net/2027/njp.32101076402963

Cultures of Reception and Women Writers in Review

- 690 texts responding to works written or translated by women
- Literary and theatrical reviews, publication notices, textual extracts &c.
- Published between 1770 and 1830
- TEI-encoded & published through the Women Writers in Review interface

Two TEI projects focused on women's texts

Women Writers Online
- First published 1999
- Substantial tagset (around 165 elements)
- Designed as a reading interface
- Encoded texts are very generically & chronologically diverse

Women Writers in Review
- First published 2016 (very soon!)
- More limited tagset
- Interface foregrounds discovery & exploration
- Encoded texts tend to be brief, represent a more constrained set of genres & publication dates

Publication challenges and goals

Challenges:

- Substantially increased need for context to make each "review" useful (i.e., not just the publication details for the review itself, but also those for the authors and texts being discussed)
- Relative obscurity of transcribed materials (both in the likelihood that readers would look for individual reviews and in their authorship and titles)

Goals:

- Linking between authors and texts in both interfaces
- Making the reviews discoverable and navigable: easy to explore and useful for research

The transcription interface

Transcription

The complete transcription of the reception item or review.

Transcription

`<head>` `<p>` `<lg>` `<l>`

`<italic>` `<persName>` `<placeName>` `<quote>` `<title>`

`<head>`Art. 26.—`<italic><title>`Leonora`</title>`; by `<persName>`Miss Edgworth`</persName>`. 8vo. 2 Vols.`</italic>` Johnson. 1806.`</head>`
`<p>`The professors of modern philosophy have been already hunted down by moral writers with such vigour that we trust very few of the race remain; but while a single animal of this description exists, the efforts towards a complete extermination must not be relaxed:—there is now less glory in the enterprize, but the attempt is in itself always meritorious.`</p>`
`<p>`This novel is written in a series of letters. `<persName>`Leonora`</persName>` is a virtuous woman, and attributing the reports which she hears of `<persName>`Olivia's`</persName>` conduct to the mischievous spirit of scandal and to the malignity of envy, invites her to her house as an asylum from the persecutions of the malicious. `<persName>`Olivia`</persName>` is a professor of the modern philosophy, and has no other conceptions of the rules of right and wrong, that of rules for the game of whist, which may be very useful in the game of life, but which may be broken through or complied with in any particular emergence. She comes ripe from

The transcription of the reception item's content.

Excerpt or partial transcription?

☐ Check if the transcription is an excerpt from a longer reception item

Quotations from other texts?

☐ Check if the transcription contains quotes from works other than the primary text

The transcription interface: tagging themes

Transcription Details
More information about the transcription of the reception item or review.

General evaluation

Somewhat positive ▼

Themes

☐ Class or socioeconomic status   ☐ Gender
☑ Nation or empire   ☐ Place, space, or geography
☐ Race

Tags

Christianity; religion; morality

Tags or general keywords that describe or identify significant aspects of the reception item. Separate multiple keywords with a semi-colon.

Update

Transcription architecture

- Designed to get encoders of all skill levels working with little training
- CouchDB backend
  - NoSQL, JSON-based database
  - Accessible via web interface or HTTP request
- BackboneJS frontend
  - Connected to CouchDB API
  - Contains an index of records in the Couch database
  - Allows users to edit and update JSON records

JSON records in Couch DB

Pre-publication decisions: XML

- Transcriptions in CouchDB aren't XML but JSON strings. Well-formedness and validity aren't guaranteed.
- The Women Writers Project has invested much of its architecture and expertise into XML technologies, especially TEI encoding and XSLT.
- To make publication of transcriptions easier, we should convert the reviews from JSON records to TEI-encoded XML files.

Pre-publication decisions: Metadata

- There are over 600 JSON records with transcriptions.
  - A single index would give a human user information overload.
  - A human user would find more value in browsing reviews in manageable sets, by categories.
- Each record includes a variety of contextual information:
  - Information on the record itself (such as date last edited),
  - Information on the source of the review, often a journal or magazine,
  - Information on the reviewed author, and
  - Information on the reviewed work (including the probable edition reviewed).

The Inspecter

- Most of the existing metadata was serviceable, but prone to inconsistency.
- Normalizing the metadata manually would be tiresome for a human.

Our "robots"—XQueries and XSLT report-makers—could not easily identify distinct entities (misspelled names, pseudonyms, etc.).

- Instead, we decided on a composite, cyborg approach.

The Inspecter: Report maker

```
● reception.xql  ×  ● index.html  ×  ● couch.xql  ×
271 ▽ (:~
272   : Return a truncated report on each ill-formed transcription in CouchDB.
273   :
274   : @return XML
275   :)
276 ▽ declare function cor:getIllformedTranscriptions() {
277    let $docSeq := cor:getAll("_design/reception/_view/transcription",())
278    return
279      for $record in $docSeq//item[@type eq "object"]
280      return
281        if ( $record//pair[@name eq "isWellformed"]/@type eq 'boolean' and $record//pair[@name eq "isWellformed"]/text() eq 'true' ) then
282          ()
283        else
284          let $isWellformed := cor:isWellformed($record//pair[@name eq "transcription"])
285          return
286            if ( $isWellformed ) then
287              ()
288            else
289 ▽          <corItem>
290              <source>{ $record//pair[@name eq "source"]/text() }</source>
291              <date when="{ $record//pair[@name eq "docDate"]/text() }"/>
292              <rcvdAuthor>{ $record//pair[@name eq "rcvdAuthor"]/text() }</rcvdAuthor>
293              <rcvdTitle>{ $record//pair[@name eq "rcvdTitle"]/text() }</rcvdTitle>
294              <id>{ $record/pair[@name eq "id"]/text() }</id>
295              <rev>{ $record/pair[@name eq "key"]/text() }</rev>
296            </corItem>
297 };
298
299 ▽ (:~
```

The Inspecter: Ill-formedness index

Ill-formedness report: Editor

The Inspecter: Ill-formedness report

```xml
• reception.xql  ×  • index.html  ×  • couch.xql  ×  • illformed-cor.xml  ×

set   corItem   rcvdAuthor

 1 ▽ <set xml:id="illformed-cor" toHTML="modules/illformed-cor.xq">
 2 ▽    <corItem>
 3          <source>The Augustan Review; a Monthly Production</source>
 4          <date when="1816-05"/>
 5          <rcvdAuthor>Morgan, Lady Sydney (Owenson)</rcvdAuthor>
 6          <rcvdTitle>O'Donnell: A National Tale</rcvdTitle>
 7          <id>c03a5d2e8f72f27f185b13fe0a0af25d</id>
 8          <rev>10-afe5b4d8ffcca75e172e2edfb3e96940</rev>
 9      </corItem>
10 ▽    <corItem>
11          <source>The New Annual Register, or General Repository of History, Politics, and Literature</source>
12          <date when="1792"/>
13          <rcvdAuthor>Smith, Charlotte (Turner)</rcvdAuthor>
14          <rcvdTitle>Desmond</rcvdTitle>
15          <id>c03a5d2e8f72f27f185b13fe0a112950</id>
16          <rev>10-fae7730c430034f40d87e6416b8aa09a</rev>
17      </corItem>
18 ▽    <corItem>
19          <source>The Critical Review; or, Annals of Literature</source>
20          <date when="1817-05"/>
21          <rcvdAuthor>Edgeworth, Maria</rcvdAuthor>
22          <rcvdTitle>Comic Dramas, in Three Acts</rcvdTitle>
23          <id>c03a5d2e8f72f27f185b13fe0a060532</id>
24          <rev>11-108f31a61fda6434377e81f4264a0b35</rev>
25      </corItem>
26 ▽    <corItem>
27          <source>The Critical Review; or, Annals of Literature</source>
28          <date when="1797"/>
29          <rcvdAuthor>Edgeworth, Maria</rcvdAuthor>
30          <rcvdTitle>Letters for Literary Ladies. To Which Is Added, an Essay on the Noble Science of Self-Justification</rcvdTitle>
31          <id>bee857503f04ddd247104bf6b602af26</id>
```

JSON to TEI

- XQuery turned JSON records into intermediate XML.
- XSLT transformed each record into TEI. The XSLT also did a pass where it tagged the new TEI for potential metadata problems, that we'd eventually fix in the new files.
- The new files were added to a Subversion repository as the new canonical records for the reviews.
- The combined metadata for each named entity was then drawn into its own record within a TEI file for that category of entity.

Sample bibliography entry

```xml
<biblStruct xml:id="CR0030" corresp="#frbr.work">
  <monogr corresp="#frbr.expression">
    <author>
      <persName ref="persons.xml#medgewort.onp">Edgeworth, Maria</persName>
    </author>
    <title type="main" subtype="display">Comic Dramas, in Three Acts</title>
    <respStmt>
      <resp>contributor</resp>
      <persName>Edgeworth, Richard Lovell</persName>
    </respStmt>
    <note>12mo. pp. 286</note>
    <imprint xml:id="CR0030.1" corresp="#frbr.manifestation">
      <publisher>
        <name>Hunter, R.</name>
      </publisher>
      <pubPlace>
        <placeName><settlement>London</settlement>, <country>England</country></placeName>
      </pubPlace>
      <date when="1817"/>
    </imprint>
    <imprint xml:id="CR0030.2" corresp="#frbr.manifestation">
      <publisher>
        <name>Wells and Lilly</name>
      </publisher>
      <pubPlace>
        <placeName><settlement>Boston</settlement>, <region>Massachusetts</region>, <country>United States of America</country></placeName>
      </pubPlace>
      <date when="1817"/>
    </imprint>
  </monogr>
</biblStruct>
```

Creating display titles

- Most reviews are anonymous or pseudonymous, and unlikely to be searched by their titles, so we needed to give each one labels that would be useful & intelligible, eg:

1817-09: *The Edinburgh Magazine* on Edgeworth's *Comic Dramas*

- Both sources and reviewed works tend toward the verbose:

A View of Religions, in two Parts. Part i. Containing an Alphabetical Compendium of the various Religious Denominations which have appeared in the World, from the beginning of the Christian Æra to the present Day. Part ii. Containing a brief Account of the different Schemes of Religion now embraced among Mankind. The whole collected from the best Authors, ancient and modern

For example

```
<biblStruct xml:id="satmag">
  <monogr>
    <title type="main">The Saturday Magazine: Being in Great Part a Compilation
      from the British Reviews, Magazines, and Scientific Journals</title>
    <title type="display">The Saturday Magazine</title>
    <imprint><pubPlace><placeName><settlement>Philadelphia</settlement>,
      <region>Pennsylvania</region>, <country>United States of America</country></placeName></pubPlace></imprint>
  </monogr>
</biblStruct>
```

1821-07-21: *The Saturday Magazine*
on Edgeworth's *Early Lessons*

1821-10-06: *The Saturday Magazine*
on Carter

1822-03-09: *The Saturday Magazine*
on Aikin's *The Memoirs of the Court of King James the First*

1822-03-30: *The Saturday Magazine*
on Benger's *Memoirs of the Life of Anne Boleyn*

The Saturday Magazine
Philadelphia, Pennsylvania, United States of America

The Scots Magazine
Edinburgh, Scotland

Select Reviews of Literature
Philadelphia, Pennsylvania, United States of America

The Souvenir
Philadelphia, Pennsylvania, United States of America

The Theatrical Censor
Philadelphia, Pennsylvania, United States of America

The Theatrical Inquisitor
London, England

The Time Piece
New York, New York, United States of America

The Town and Country Magazine
London, England

Women Writers in Review: Goals

- Making these materials easy to browse and search
- Providing extensive linking among texts and authors
- Supporting discovery & exploration
- Offering a clean and readable display

Helping researchers ask questions like:

- How has Hannah Cowley been reviewed in British and American periodicals?
- What changes are evident in the *British Critic* over time?
- How did periodicals in this period discuss questions of women's authorship?

Women Writers in Review: Components
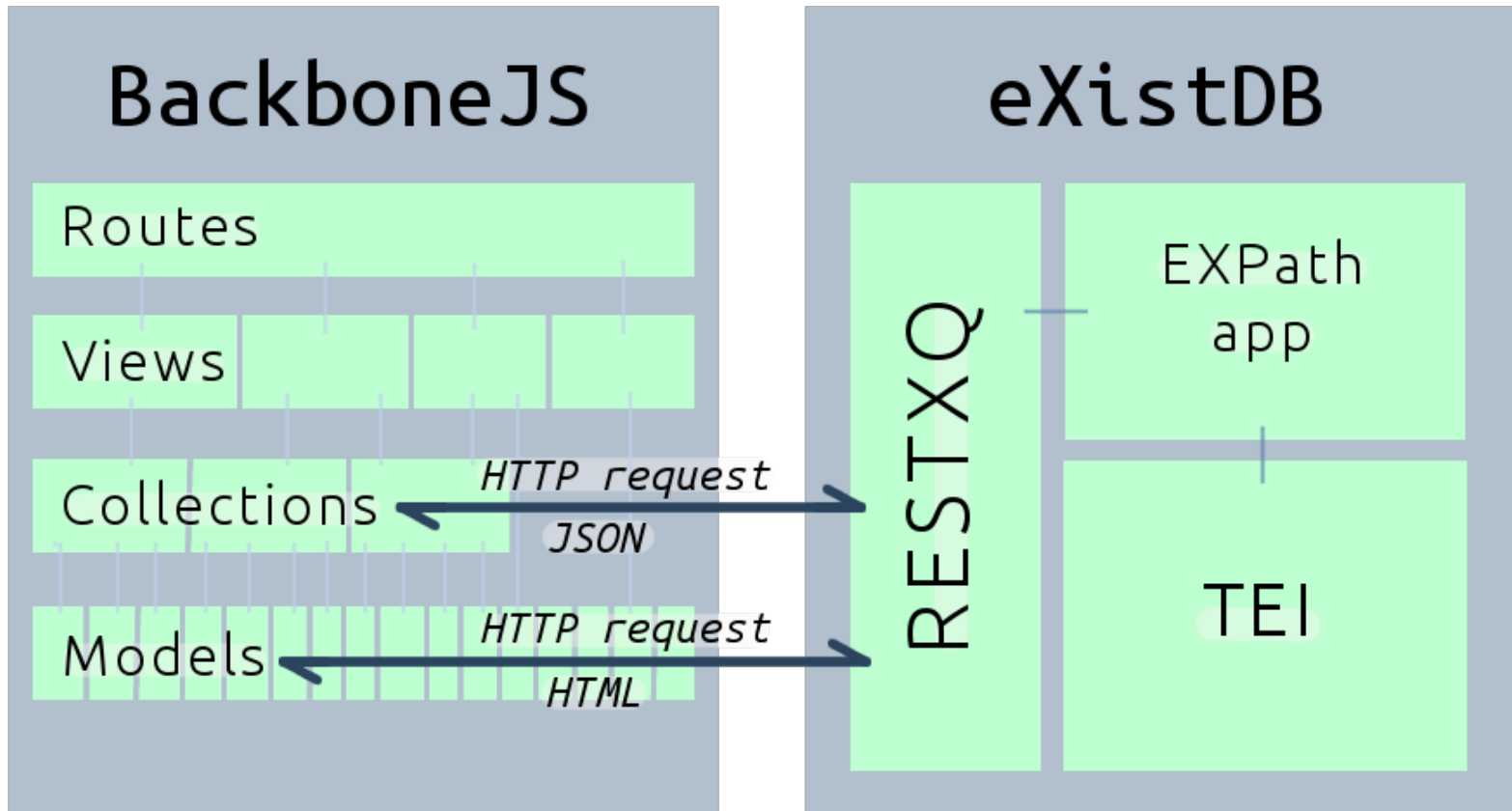
Visualizing evaluations over time
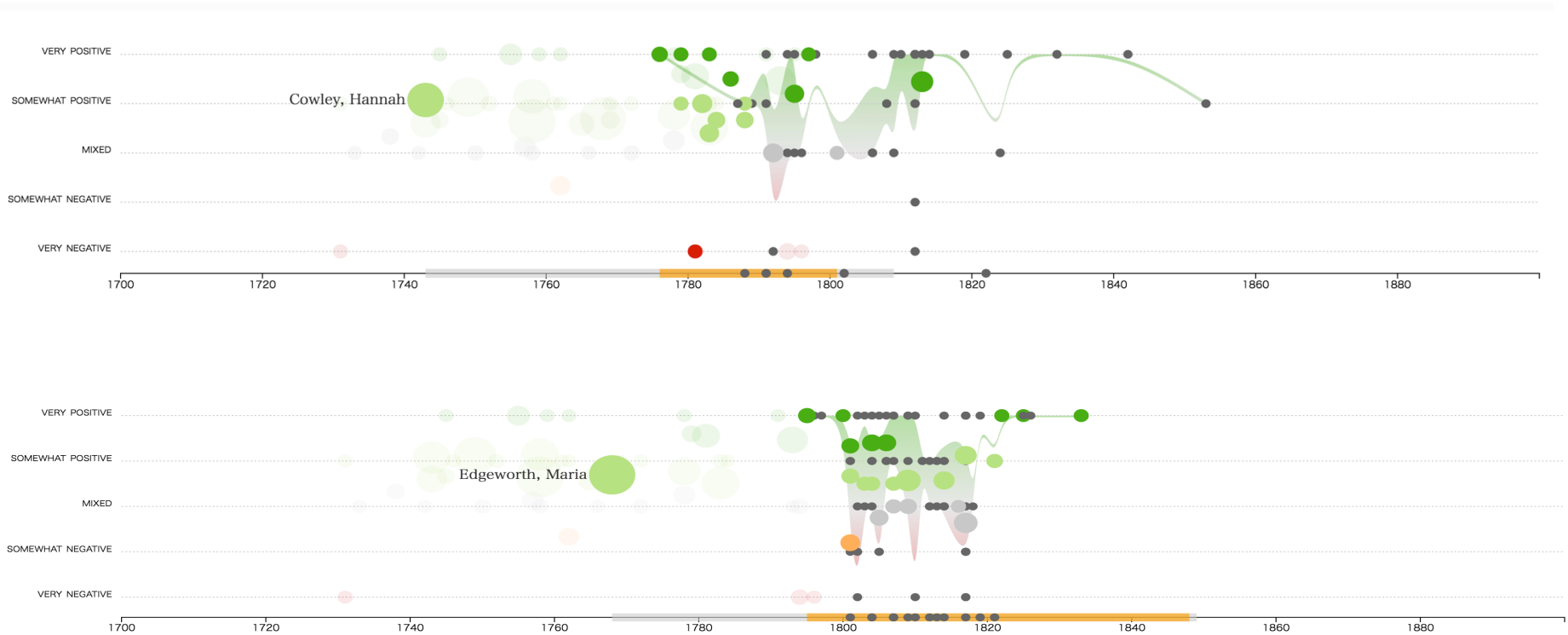
THANK YOU!

wwp@northeastern.edu
@Nuwwp
wwp.northeastern.edu/review
wwp.northeastern.edu/blog

Appendix 2: Screen shots

Women Writers in Review

Reading view: This example shows the reading view for a typical transcribed text—in this case, a review of Maria Edgeworth's *Harrington and Ormond* from the *British Review.* The heading for this page is created automatically from the display versions of the text's metadata. The green buttons enable the reader to navigate to other documents that have the same tags—such as other documents that discuss women as writers and readers, other reviews, or other texts that offer mixed evaluations of their subjects. The box on the left provides more information on this individual document, including the heading provided in its original publication and the date and page range of the publication. The beginning of the transcribed review itself (which is roughly 25 pages long in its original publication) is visible on the right.

Metadata display for a received text: This example shows the metadata display for a received text—Lucy Aikin's *Epistles on Women,* with a link to the text in Women Writers Online. In this case, the display shows a single expression with two manifestations—the question marks are mouseovers, with explanations of the FRBR terms at stake.

Metadata display for individual authors: This example shows the data provided for individual authors, including basic biographic information, the texts that are discussed in Women Writers in Review, and links to LCNA, WorldCat, and VIAF details.

Landing page for sources: This example shows a landing page for *Blackwood's Edinburgh Magazine.* In the box at the top are the basic details for this publication, including its editors, publication place and dates, and publisher—wherever additional details are available, these will also appear here. The facets on the left enable readers to filter results by their subject matter and the boxes in the right-center enable to reader to see more details on reception items (by

clicking on the green triangles) and to enter an item's reading view. In this example, the first reception item's data field has been expanded to show more details.

Exploration by facets: This example shows a fuller set of the facets available for filtering a set of results—in this case, for reception items that were published in the *Monthly Mirror.* As this example shows, the sidebar distinguishes between facets that identify features of the result set, and those which can be used to reduce results to a subset. For example, one can see that all of the 11 items associated with this publication are literary reviews; one can also click on the "Reception" facet to select from a list and narrow results.

Sample visualizations: evaluation over time

These show variations in individual authors' reception over time by mapping each possible evaluation (with the exception of "mixed") to an integer value (namely, "positive" = 2, "part_positive" = 1, "neutral" = 0, "part_negative" = -1, "negative" = -2) and plotting those evaluations over the course of each author's lifetime. Positive evaluations are represented by dark green circles (on the upper y-axis), negative evaluations are represented by dark red circles (on the lower y-axis), and partial gradations are colored accordingly in between. Each circle represents a cluster of evaluations at that point in time, and the size of each circle is proportional to the number of evaluations.
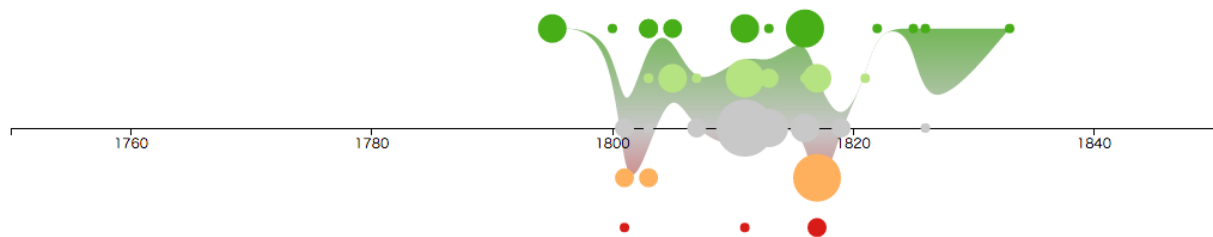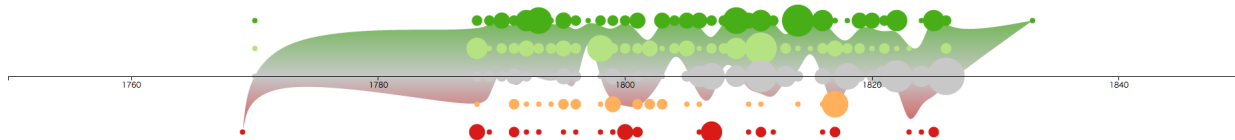
Robinson, Mary
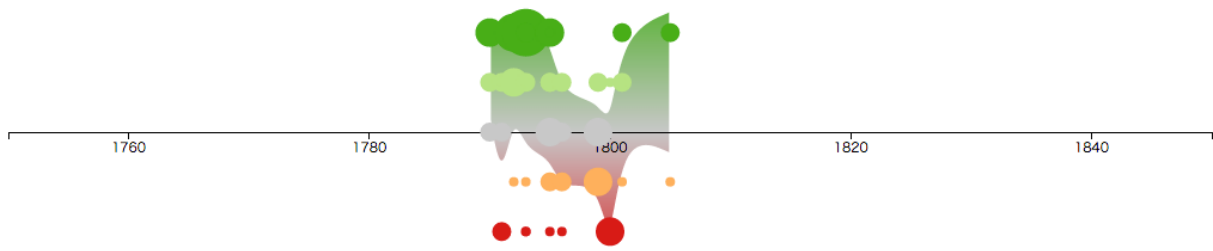
Smith, Charlotte
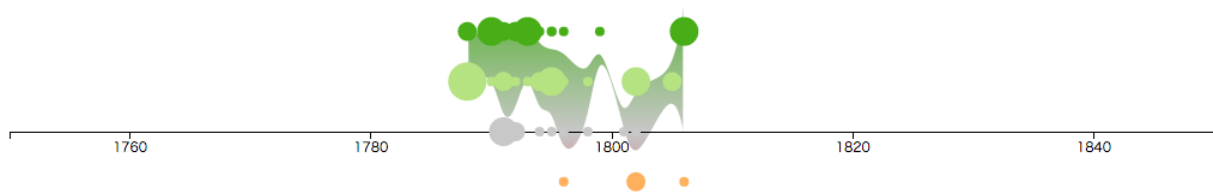
Edgeworth, Maria

Full Corpus

Appendix 3: Samples of encoded data

Received work with multiple expressions:

```xml
<biblStruct xml:id="CR0033" corresp="#frbr.work">
  <monogr xml:id="CR0033.1" corresp="#frbr.expression">
    <author>
      <persName ref="persons.xml#medgewort.onp">Edgeworth, Maria</persName>
    </author>
    <title type="main" subtype="display">Harrington, a Tale; and Ormond, a Tale</title>
    <imprint corresp="#frbr.manifestation">
      <publisher>
        <name>Hunter, R.</name>
      </publisher>
      <pubPlace>
        <placeName>London, England</placeName>
      </pubPlace>
      <date when="1817"/>
    </imprint>
  </monogr>
  <monogr xml:id="CR0033.2" corresp="#frbr.expression">
    <author>
      <persName ref="persons.xml#medgewort.onp">Edgeworth, Maria</persName>
    </author>
    <title type="main" subtype="display">Harrington and Ormond, Tales</title>
    <edition>Second edition</edition>
    <imprint corresp="#frbr.manifestation">
      <publisher>
        <name>Hunter, R.</name>
      </publisher>
      <pubPlace>
        <placeName>London, England</placeName>
      </pubPlace>
      <date when="1817"/>
    </imprint>
  </monogr>
</biblStruct>
```

Bibliographic encoding for periodicals:

```xml
<biblStruct xml:id="nymirror">
  <monogr>
    <title type="main">The New-York Mirror, and Ladies' Literary Gazette</title>
    <title type="alt">The New-York Mirror: a Weekly Gazette of Literature and the Fine Arts</title>
    <title type="alt">The New York Mirror. A Weekly Journal Devoted to Literatre and the Fine Arts</title>
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