Digital Humanities and Italian Studies: Research Outcomes

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Abstract

This section presents new digital projects related to Italian Studies. Some of the essays included in here were delivered at the Modern Language Association 2017 Roundtable on the State of Digital Humanities in Italian Studies, sponsored by the Forum on 20th- and 21st- Century Italian.

Introduction

This section grew from conversations at the Modern Language Association 2017 Roundtable on the State of Digital Humanities in Italian Studies, sponsored by the Forum on 20th- and 21st-Century Italian. While the Roundtable was focused on professional questions for those working at the intersection of Digital Humanities and Italian Studies, the panelists and audience agreed that there is a continued need for documenting the specific research questions and results that are enabled by digital projects. Intentionally, panelists' research topics spanned diverse centuries, themes, genres, and objects within Italian Studies. That same diversity is represented in the four articles in this section: visual, spatial, textual, and aural culture from the Medieval through Modern periods. Each contribution adopts a different suite of analytical methods, but they all share a commitment to the value of a combined digital and non-digital investigation of Italian culture. The Digital Humanities projects from which this scholarship arises likewise represent different scopes and various stages of completion, highlighting both the importance of thoughtful project management and the opportunities to achieve results even in early phases of development.

These four pieces attest to the rich variety of outcomes within digital environments. The nature of digital, networked resources allows scholars to learn about their materials both in the creation of the project and through its eventual use. While the early stages of a project are often only available to the group of collaborators, once finished (or at least once they have been made public), the resources are available to the scholarly community. Excellent work has been done across Italian Studies to create digital projects.[1] The articles in this section are an invitation to expand that networked community and the groups of users of these sites and tools.

The presentation of these projects and their research results is particularly timely, given the seemingly perpetual professional debate about the status of Digital Humanities (DH) and outcomes

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[1] For a preliminary list of networked resources and Digital Humanities Projects related to Italian Studies, see Crystal Hall, "Italian Studies and Digital Humanities: Examples of Projects and Resources," July 31, 2017. http://www.bowdoin.edu/~chall/ItalianDHResources.pdf

of DH-related research. Some of these concerns were echoed in the comments during the Roundtable, with a particular interest in how completely Digital Humanities can address the questions of the field of Italian Studies, how representative the material is, and if these approaches can offer a "whole picture" of the research question. Such concerns gesture towards anxiety about the dominance of technology that we feel in everyday life, a pervasiveness that would seem to erode the interactions, expressive media, and creative outlets that have long been the materials of humanistic study.

The four pieces here engage with that monolithic façade by critiquing the digital tools, applying them for their strengths, and acknowledging their limitations. Humanists are uniquely aware of the power relationships embedded in infrastructures, the potential blindspots in epistemologies, and the strength of representation. When Digital Humanities research is conducted by such self-aware humanists, the partnership with computational technologies is rich with discovery, as attested by the scholarship presented in this section. As for the anxieties about complete or total coverage, humanistic work has been at its strongest when it has been an interdisciplinary investigation of a carefully selected group of events, documents, or objects. For example, historians of art, materials, and intellectual traditions work with economists, social scientists, and literary scholars to better articulate the power and influence of the Medici court. DH offers a complementary set of methods and materials, not a totalizing or dominating final word on a subject or question.

As this scholarly space at the intersection of the two fields grows, awareness of the projects and possibilities will too, which is the purpose of this collection of essays. While each article offers specific contributions to subfields of Italian Studies, every piece also describes methods and their evaluation for those who are considering adding DH to their scholarly perspective.

Isabella Magni offers a poignant articulation of the research questions and preliminary answers derived from the *Petrarchive*, a collaborative endeavor involving Magni, Wayne H. Story, and John A. Walsh. The site is hosted by Indiana University and supported by an internal New Frontiers Start-up Grant. The project builds upon Storey's edition and commentary of Petrarch's *Rerum vulgarium fragmenta* (*Rvf*). Magni is particularly interested in the visual meaning of Petrarch's songbook. By focusing on the Text Encoding Initiative (TEI) Guidelines for adding metadata to the text and the visual display options available through HTML, Magni explores the ways in which patterns of composition, use of page space, and scribal hands can add meaning to our understanding of Petrarch's poetics. The visual index created by the project team allows the scholar to have a comprehensive view of the manuscript structure of Vat. Lat. 3195, the partial holograph of the *Rvf*.

Using the privileged perspective afforded by this digital reconstruction of Petrarch's 366 poems, Magni is able to pose and resolve a series of analytical questions that also incorporate historical contextualization, close reading, attention to figurative language, and a thematic understanding of the *Rvf*. The article investigates the place of Vat. Lat. 3195 in the shift from Medieval to Humanistic representations of texts, the poetic meaning encoded into blank page space (beyond the oft-mentioned seven blank pages preceding *Rvf 264*), and the phases of preparation of this unfinished partial holograph. As Magni demonstrates with multiple examples, the attentiveness to materiality while digitizing through encoding acts as an extension of philological practices, which add layers of understanding to the poetics of the *Rvf*.

An indirect strength of Magni's piece is the critical investigation of XML tagging (with TEI) and HTML encoding, two of the cornerstones for the retrieval of data, navigation of the web, and visualization of information. The thoughtfulness applied to the functionality of these digital structures moves certain aspects of this humanistic investigation toward a better understanding of the systems that currently mediate our world. Behind the scenes of this article (if it is being read through a browser window) are these very tools, operating so invisibly that they seem nonexistent. As Alan Liu (2012) has forcefully articulated, the a-critical consumption of these technologies gives them a power that humanists would interrogate and approach with skepticism if they were but removed from our immediate moment. By making the XML and HTML explicit actors in the construction of the analysis, Magni demonstrates their strength as a learning tool as well as their limitations for capturing other aspects of the text.

Similarly, Andrea Gazzoni engages with the capacities of geographic information systems (GIS) for representing the spatiality of Dante's *Commedia*. Gazzoni's project, *[Mapping Dante: A Study of Places in the Commedia](#)*, demonstrates the work that is possible for a single scholar using free software. After receiving initial funding through the Price Lab for Digital Humanities at the University of Pennsylvania in May 2015, Gazzoni was able to launch this interactive digital map of the 340 places named in the *Divine Comedy* in May 2016. The site takes advantage of full text of the passages that include one of these places, visualization of geographic patterns, cumulative information about the spatial references in the three *cantiche*, and a bimodal network visualization of the ways in which places connect the 100 *canti* through these references. The accumulation of spatial information about the *Commedia* offers the Dante scholar multiple entry points for evaluating apparent trends and exceptions to those trends within the historical and textual contexts of the poem. For scholars new to GIS, but interested in applying such analysis in their own research, Gazzoni's project description is a transparent and accessible guide to practical steps and theoretical considerations.

Mapping Dante capitalizes on the layered nature of GIS that facilitates connections between cartographic and non-cartographic data that results from intensive close reading of the entire *Commedia*. While being attentive to the fact that the patterns visualized on the map are subject to evaluation and interpretation, much like the features of the text themselves, Gazzoni highlights that the structure of such maps allows for a multiplicity of perspectives, multimodal expression, and the construction or deformation of different possible realities, and, as such "they end up resembling the ways medieval geography worked." Like nearly all practitioners of literary GIS, Gazzoni directly confronts the challenge of uncertain, ambiguous, and fictional locations and a system, but approaches the issue as a non-diegetic mapping project which draws the user's attention specifically to the non-correspondence between the poem and the places mentioned within it.

By remaining vigilant about the affordances and the specific limitations of the GIS platform, Gazzoni is able to reveal how closer inspection of these patterns adds new layers of understanding to the poetics of the *Commedia*. The heterogeneity of Dante's use of spatial references is captured on the map through a series of analytical categories for each marker. In this way, Gazzoni highlights Dante's strategies for creating intimacy and distance with the reader through the use of different kinds of places. In one example, those sites that can be experienced in 14th-century Italy stand in sharp contrast to those that exist as ancient cultural symbols. The specificity of Gazzoni's reading of the text also allows for this kind of analysis to occur at the level of the speaker, considering the characterization of Cacciaguida or Beatrice, for example, via their references to specific cities or

regions, and earthly or heavenly sites. Overall, Gazzoni demonstrates how many new analytical doors can be opened by digitizing one aspect of a text in service of a specific question.

My contribution to this section articulates a similar result: in order to assess the rarity or commonality of the similarity between Galileo Galilei's prose and Ludovico Ariosto's poetry, I had to gather significant information about communities of early modern texts. Much like the patterns as yet unexplored in *Mapping Dante* or the Petr*archive*, the indications of similarities between texts other than Galileo's letter on comets, *Il Saggiatore* (1623), and Ariosto's epic poem *Orlando furioso* (1532) remain to be analyzed. As an exploratory part of the in-development project *Galileo's Library*, this piece uses very elementary computational text analysis in conjunction with close reading and historical interpretation in order to explore the strength of the intertextuality between Galileo and his favorite author. For evaluation, that relationship is contextualized against the similarities between 45 other texts and Ariosto's poem. The results are patterns that are interesting for my specific question, but open the doors for other questions about the authors in this small corpus of early modern and late Renaissance works. With the networked resources and opportunities for collaboration, *Mapping Dante,* the Petr*archive*, and *Galileo's Library* are examples of resources awaiting communities of future users.

With the example of simple pattern matching of similar phrases, the contribution on Galileo's Ariosto expands the known contours of the stylistic fields delimited by Ariosto and Torquato Tasso's poetics in the sixteenth century. While only some of the similar phrases carry a literary or figurative value that adds meaning to the text, the remainder probe the contours of those communities across genre boundaries, and notably across chronological periods as well. By remaining in the relatively well-studied area of these literary debates about poetics, the article seeks to build trust in computational text analysis by exploring the textual relationships from multiple angles. There are more complex methods available (normalizing the texts, using fuzzy matching, or applying topic modeling), but with complexity comes further assumptions built into the code and further specificity for what patterns can be identified. By focusing on the text as it would have appeared to readers in the period, the process of analysis reflects my concerns about the contextualized understanding of textual similarity. In common with the other contributions in this section, the article promotes a critical, self-aware application of selected tool in service of a question, not for the sake of using a tool.

Serena Ferrando contributes a next step to this conversation, by describing how the collection of soundscape data can influence artistic and scholarly understanding of an urban environment, and then engaging the public that inhabits that urban space in the presentation and analysis of the results. Audioscan Milano uses sounds from 1,580 recordings in Milan's piazzas and streets to create music that is digitally mapped in an interactive multimedia installation. The project finds historical roots in the Studio di Filologia Musicale and inspiration in the musical theorization of noise. The critical engagement with the technologies and methods of remixing stays at the forefront of the Audioscan project for the express purpose of building a stronger engagement with the audience. This can be seen both in the database of recordings available to the public and the interactive installations that invited participation from visitors.

Ferrando offers an historical analysis of the earlier Studio and its reincarnation in the *Audioscan Milano* project. With attentiveness to the capacities and shortcomings of technology for accessing and documenting urban sounds, the article outlines the roles of the artists and the urban dwellers in consuming, processing, and evaluating that soundscape. While there is significant overlap

in the interest of both parties, Ferrando highlights the disparities of knowledge and analysis that make the recordings valuable to each group. Importantly, the complex artistic and scholarly work of remixing the urban sounds into music was the least understood or accessible to the public audience. The interactive database instead generated the most widespread interest.

The *Audioscan Milano* results gesture toward an important aspect of digital, and digital humanities work. The ubiquity of electronic and digital media would suggest a cultural accessibility that borders on transparency, when in fact the critical assumptions, epistemologies, intellectual argumentation, and peer evaluation within those digital infrastructures is nearly always opaque. Artists, historians, literary scholars, and cultural scholars contribute in meaningful ways to the uncovering and analysis of those structures. Magni, Gazzoni, myself, and Ferrando all offer avenues of exploration into the technology while suggesting the valuable research results that can be achieved with its application.

We have completed this work fully aware that, in its most extreme expression, Digital Humanities work has been criticized as empiricist, secular, and reductive of the creativity of human expression to a mathematical elegance that perhaps no longer carries the evocative mysteries of the original object or experience of it. Yet, these essays suggest the opportunities for humanists who control the methods rather than be controlled by them. The critical, selective application shifts the balance of power toward a humanist perspective, articulates a thoughtful and powerful epistemology, in the name of better understanding how our materials communicate meaning to our audience. In a future in which the public role of the humanities will likely continue to be debated, this nexus of the causality of algorithmic formulae and the open-endedness of multiple, often ambiguous, layered interpretations could very well be the site for declaring the connection between our valuable work as humanists and ultracontemporary societal concerns.