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Andie Silva
CUNY York College

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Mediated Technologies: Locating Non-Authorial Agency in Printed and Digital Texts

ANDIE SILVA¹

York College, CUNY

The author had prepared his Fellow-Traveller to wait upon you in this Summers Receptions, but some of the chief workmen in the presse being sick, he could not set forth till now; yet any time he will be seasonable, being fitted for Summer-dayes and Winter-nights, This advantage you have by the stay, that the work comes forth most correct from the Presse, and more complete in divers parts from the Authour. And if it be lawful for us (who do know indifferently well the palates of men for books) to interpose our judgements, we are much decided if this do not generally please, having so much of what pleaseth most men, merry stories, and witty speeches: in which, within those stages the author hath limited his travels, you will finde more satisfaction then you expected ... so that it is below the commendation of the work to say it is worth your money'.²

The printing press undeniably depended on the collaborative work of multiple agents: not simply printers and booksellers, but also typesetters, woodcutters, binders, and papermakers, among others. Working as mediators between authors, readers, and a revolutionary technology, these 'print agents' knew how to frame books so that readers would identify not only where to buy a book, but also so they would see categories such as genre and authorship as measures of quality and good taste. As stationer Humphrey Robinson suggests in his preface to *The Fellow-Traveller Through City and Countrey*, the work of print agents involved every aspect of a book's lifecycle: from observing the health of 'chief workmen in the presse', to asking for updates from the author, to writing the book's preface. Implied in early prefaces and even errata notes was the anticipation that readers trusted the print agent's good taste. Claiming to 'know indifferently well the palates of men for books', early modern print agents ushered in a new technology while simultaneously highlighting the value of the labor behind book production.

¹ Email: asilva@york.cuny.edu.

² Henry Edmundson, *The Fellow-Traveller Through City and Countrey* (London, Printed for Hum. Robinson, 1658), sig. A4r-v.

Non-authorial paratexts can offer new perspectives to the study of remediation and data management. Paratexts' unique combination of financial and aesthetic value helped develop relationships between agents and readers that are mirrored in the (often invisible) remediation that occurs not only between project developers and scholars but between researchers (as technology users) and programmers and designers (as digital agents). In *Too Much to Know: Managing Scholarly Information before the Modern Age*, Ann M. Blair thoughtfully demonstrates that information management is not a concept unique to the post-digital age. Indeed, compiling and structuring knowledge was at once a cultural and political practice, which in many cases required 'tremendous collective investment of human and material resources on the part of authors and printers'.³ Locating the relationships between user and maker outside of networks of authorship and textual authority encourages broader discussions about the value of digital labor, designations of credit and accountability, and more broadly, the degree to which organizational paratexts continue to influence reception and comprehension.

This article offers a closer look at non-authorial paratexts as a unique genre, arguing that they functioned concurrently as marketing strategies and as standardized reading protocols for printed books.⁴ First, I discuss examples of different kinds of editorial maneuvers in order to establish the value of reading title-pages, prefaces, and errata as indicators of cultural capital and therefore central to the development of enduring reading markets. Turning to digital media, I then consider how the study of non-authorial paratexts can help contemporary users and makers of online resources engage more effectively with new technologies. As the issue of individual trade distinctions is undeniably complex, I

³ Ann M. Blair, *Too Much to Know: Managing Scholarly Information before the Modern Age* (New Haven: Yale University Press, 2010), 6-7. Although Blair's work focuses exclusively on reference books, her overarching argument about the nature and origins of information management is broadly applicable to the study of agency and labor in print and digital cultures.

⁴ This approach intentionally overlooks paratexts designed by authors and collaborations between authors and print agents. Such types of textual intervention arguably represent what Joseph Loewenstein has incisively identified as a 'bibliographical ego' that was at once shaped by prevailing editorial practices and would later contribute to the development of intellectual property. See Loewenstein, *Ben Jonson and Possessive Authorship* (Cambridge, UK: Cambridge University Press, 2002).

rely on the broader term ‘print agent’ (and, later, ‘digital agent’), in order to focus on issues such as agency, authority, and community. Print agents helped shape and popularize printed books by advertising them as unique commodities, instructing book-buyers in the art of becoming a careful reader. Digital humanists bear similar responsibilities, as they must not only reinforce the value of new technologies for academic research but also help establish broader audiences for the use of computational methods within the humanities. As a new kind of print agent, digital humanists can afford to make the labor behind online tools more transparent. As Diana Kichuk argues, a ‘digital veil’ inevitably stands between users and the material object.⁵ If digital environments cannot (and should not) replace material texts, what is their alternate value? How might they change our experience as readers or scholars? How shall we benefit from them, as both users and developers?

By comparing print and digital agents’ manipulation of printed texts, we may better understand the degree to which the tools we use affect our understanding of historical and contemporary editorial practices. The research in this article focuses exclusively on the early English market in part to understand the ways in which these print agents linked commercial and intellectual profit as a way to distinguish their markets.⁶ Despite efforts from the Stationers’ Company to discourage foreign workers from participating in the English book trade, continental influences were apparent everywhere from the material structures to the literary themes of printed books.⁷

One difference among continental and British markets, however, was language; whereas the majority of English books were published in the vernacular, about seventy per cent (and sometimes

⁵ Diana Kichuk, ‘Metamorphosis: Remediation in Early English Books Online (EEBO)’, *Digital Scholarship in the Humanities*, 22.3 (2007), 296.

⁶ Admittedly, a thorough understanding of the labor of print in early modern England has to account for the countless number of foreign workers who contributed to the development of the British market. Investigations about the biography and impact of such workers has already been undertaken with great success by critics such as John Hinks and Lotte Hellinga and is beyond the scope of the present study. In part, the intentionally broad term ‘print agent’ helps acknowledge the work of often-invisible stationers while focusing on the broader impacts their labor might have had on readers.

⁷ As it has been well documented by A. S. G. Edwards and more recently James Raven, the early English market was not only heavily dependent on continental book imports but also on the labor of foreign-born workers, and the high-quality materials brought over from France, Italy, and even Germany. See Edwards, ‘Continental Influences of London Printing and Reading in the Fifteenth and Early Sixteenth Centuries’, in *London and Europe in the Later Middle Ages*, edited by Julia Boffey and Pamela King (London: Queen Mary and Westfield College, 1995), 229-56.

more) of European books were still printed exclusively in Latin. A large number of English print agents therefore built a unique national identity by catering to merchants and other middle-class readers. Indeed, as publishers of pamphlets, newsbooks, and ballads proliferated among more established booksellers, ‘the multiplicity of markets was ensured by the greater definition of product identities’.⁸ Paratexts such as title-pages, prefaces, and even tables of contents were extremely influential tools, helping print agents promote their books as worthwhile investments and situating specific titles within a larger niche market.

Additionally, the relative delay of print technologies in England makes it an interesting comparative case for the growth of academic digital projects in relation to technical advances in other fields. As David McKitterick argues, between the early sixteenth- and the late seventeenth century, England experienced a ‘a period of innovation, experiment and compromise’, followed by ‘anxiety [at] the inaccuracy in the printed book ... with [its] tendency for ill as well as for religious and scholarly good’ (8). This transitional period between print agents’ thirst for experimentation and readers’ anxiety about authority and control is starkly parallel to contemporary questions about academic production and the value of digital humanities projects.

1. Non-Authorial Paratexts: (Financial) Profit and Delight

The early modern book trade introduced readers to a form of knowledge that combined aesthetic pleasure and financial profit in a way that made print unique from previous methods of textual circulation. As a result, print agents held a considerable influence over readers, controlling not only straight-forward elements like title-pages (which bore necessary information like stall locations and descriptive titles), but also more complex protocols designed to help identify literary quality and cultural capital. In their discussion of paratexts and digital narrative, Birke and Christ propose to further break Gerard Genette’s term into three different types: interpretative, which include prefaces or

⁸ James Raven, *The Business of Books: Booksellers and the English Book Trade* (New Haven: Yale University Press, 2007), 355.

marginalia designed to help readers understand the text; navigational, such as page numbers or indexes; and commercial, like copyright notices, prices, and other transactional elements.⁹ Non-authorial paratexts often performed a special combination of these elements: features such as tables of content or errata, which seem strictly navigational, were also cunning commercial moves. Whether virtual or material, paratexts are thus multimodal, bearing both symbolic and practical significance for navigating and comprehending the text itself.

Designed to be posted on walls as advertisements for book shops and new publications, title-pages provided the first direct communication between the print agent and his potential buyer. Print agents profited from idle browsing; prefaces and dedications suggest there was an implicit value in being identified as a discerning reader, capable of distinguishing which books carried the strongest cultural capital.¹⁰ The best title-pages offered the right balance of information and excitement, promising, for instance, narratives both ‘true and strange’; evidence that a play had been received ‘with generall approbation’; or arguments that the work had ‘never [been] published, or imprinted in any other language’.¹¹ Readers likewise knew to look at imprints for purchase-information and for recognizable names; as a result, print agents often featured prominently on title-pages. Such was the case with Hugh Singleton, whose name appears in a larger and more distinctive type than the rest of the imprint in the 1578 edition of Edmund Spenser’s *The Shepheardes Calender*. Singleton, who was only just recovering from a printing scandal that almost cost him his life, offered a considerable draw for readers yet unfamiliar with the poet Immerito (Spenser’s erstwhile pseudonym).¹²

⁹ Dorothee Burke and Birte Christ, ‘Paratext and Digitized Narrative: Mapping the Field’, *Narrative*, 21.1 (2013), 65–87.

¹⁰ See Paul Voss, ‘Books for Sale: Advertising and Patronage in Late Elizabethan England’, *Sixteenth Century Journal*, 29 (1998), 733–56; and Margaret Smith, *The Title Page: Its Early Development 1460-1510* (New Castle, DE, Oak Knoll Press, 2000).

¹¹ These examples can be gleaned from Henry Timberlake, *A True and Strange Discourse of the Trauailles of two English Pilgimes* (London, Printed by Nicholas Oakes for Thomas Archer, 1616); John Cumber, *A Pleasant Comedie, Called the Tvvo Merry Milke-maids* (London, Printed by Tho. Johnson, 1661); and John Reynolds, *The Triumphs of Gods Revenge Against the Crying and Execrable Sinne of (willfull and premeditated) Murther* (London, Printed for J. Bennet for Thomas Lee, 1679).

¹² Critics such as Jean Brink have argued that Spenser selected Singleton precisely for his subversive associations. For more, see Brink, “‘All His Mind on Honour Fixed’: The Preferment of Edmund Spenser”, in *Spenser’s Life and the Subject of Biography* edited by Judith H. Anderson, Donald Cheney, and David A. Richardson (Amherst, University of Massachusetts,

As readers grew acquainted with a print agent's output, they might further begin to interpret the repetition of particular words as a kind of shorthand. Richard Jones, for instance, established a market for upstart middle-class readers in part by using 'profit' as a buzzword to advertise his books, promoting them as reliable monetary and intellectual investments.¹³ In their function as interpretative paratexts, title-pages thus followed a recognizable structure: long titles helped readers identify not only plot but also more elusive qualities like style and aesthetic value. As I argue below, the landing pages for digital projects bear a similar function, both introducing users to the materials contained within the site and presenting the project as uniquely informational, archival, or educational.

Whereas the title-page might lead a reader to purchase one book over another, the contents of the work undoubtedly held significant value in converting one-time buyers into returning customers. It was thus not uncommon for books to contain prefaces or dedications from the print agent seeking to reinforce the unique value of his services. In his preface to *The Second Part of the Mirrour for Magistrates*, Richard Webster frames himself as not just a printer but a compiler, who 'findyng a booke already in print, entituled, the first and third part of the Mirrour for Magistrates, I was moued diuersly of diuers men, by printyng this latter woorke, to make perfite the former booke'.¹⁴ Webster suggests that his responsibilities as a printer go beyond producing a corrected and legible text; his contribution in fact lies on his ability to provide readers with a complete catalogue for their budding library.

Print agents frequently used prefaces to advertise their resourcefulness—for instance, stepping in for a missing author to introduce the work, or creating helpful indexes so that texts would be easier to consult. Edmund Spenser's preferred printer, William Ponsonby, claimed for instance that 'I have by

1996), 45–65.

¹³ For instance, John Partridge, *The Treasurie of Commodious Conceits...Mete and Necessarie for the Profitable Use of All Estates Both Men and Women* (London, Printed for Richarde Iones, 1573); S.R., *The Courte of Civil Courtesie...to Purchase Worthy Prayse of their Inferiours and Estimation and Credite Amonge Thyr Betters* (London, by Richard Jhones, 1577), and *Ars Adulandi, the Arte of Flatterie with the Confutation Thereof, Both Very Pleasaunt and Profitable* (London, by [William How for] Richarde Iones, 1579).

¹⁴ Richard Webster, 'The Printer to the Friendly Reader', in Thomas Blenerhasset, *The seconde part of the Mirrour for Magistrates* (London, Imprinted by Richard Webster, 1578), sig. iir.

good meanes gathered together these fewe parcels present, which I have caused to bee imprinted altogether, for that they al seeme to containe like matter of argument in them'.¹⁵ In bringing the publication forward, Ponsonby highlighted his own cunning: he took it upon himself to anthologize the work of someone he identified as a valuable English commodity. The publishers of Beaumont and Fletcher's 1679 *Comedies and Tragedies* similarly emphasize their labor in assembling and structuring the collection, which contained 'no fewer than seventeen plays, more than were in the former, which we have taken pains and care to collect, and print out of quarto in this volume, which for distinction sake are markt with a star in the catalogue of them facing the first page of the book'.¹⁶ Print agents used publisher-as-anthologizer prefaces such as these to solidify their future markets and purchase cultural capital with loyal readers. These prefaces operate as both informational and commercial paratexts. In this capacity, they are distinctively unique from authorial paratexts, which were typically designed to mediate the textual contents at an intellectual (not commercial) level.

As Leah Marcus observes, 'the printer and the publisher play a striking part in establishing ... [an] icon of authorship by which the book becomes a "real and authentic" communication of [the author's] essence as a man and poet'.¹⁷ Further yet, paratexts played a much larger role in setting up a relationship between the print agent and the reader. Non-authorial prefaces helped establish connections between readers (as both appreciators of quality literature and book-buyers with precious money to invest) and print agents, who sought not only to reinforce the authorial aura when necessary, but especially to demonstrate their capital as editors, collectors, and disseminators of printed materials.

As a navigational feature, indexes could invite non-linear readings akin to how we might now navigate websites. While many paratextual elements admittedly derive from manuscript culture, print

¹⁵ William Ponsonby, 'The Printer to the Gentle Reader', in Edmund Spenser, *Complaints Containing Sundrie Small Poemes of the Worlds Vanitie* (London: Imprinted for VVilliam Ponsonbie, 1591), sig. A2r-v.

¹⁶ John Martyn, Henry Herringmas, and Richard Mariot, 'The Booksellers to the Reader,' in Francis Beaumont and John Fletcher, *Fifty Comedies and Tragedies Written by Francis Beaumont and John Fletcher, Gentlemen* (London, Printed by J. Macock, for John Martyn, Henry Herringman, Richard Marriot, 1679), sig. A1r-v.

¹⁷ Leah Marcus, *Unediting the Renaissance* (London, Routledge, 1996), 198. Marcus uses John Donne as an example to introduce the idea of the editor as ultimately responsible for shaping the 'authorial presence'.

agents called attention to the agent's labor and agency in selecting the appropriate structures to maximize the reader's experience.¹⁸ Protestant printer John Day, for example, offered copious indexes for his books. His edition of Robert Hutchinson's *The Image of God* contains four individual tables, one concerning 'the contents and chapters'; another for the 'heresies confuted in this booke'; an 'exact table of all the principal matters conteyned in this booke'; and an index 'to find hard texts, and such as have beene abused for evill purposes, playnely and truely expounded'.¹⁹ While arguably overwhelming for the unpracticed reader, Day's edition of *The Image of God* offered a unique value to the committed, studious Protestant, multiplying the kinds of readings and purposes of the book, which could then be read multiple times through different critical lenses.

A clever print agent could further make use of errata lists as occasions to encourage the complicity of his readers in the production of knowledge. Print agents such as Nathaniel Brooke saw in errata a unique opportunity to associate error correction with aesthetic pleasure. As he claims in the errata for Richard Brathwaite's *English Gentlewoman* (helpfully bound with his own *English Gentleman*), 'to describe an English Gentlewoman without an error, were a glozing palpable error, and to free her more than an English Gentleman of error, were to incurre a prejudicate censure'. He encourages the reader to see correction as a bold and even sensual act, which will 'vindicate the author, and by being a virtuous lover, gaine a most deserving mistresses favor'.²⁰ As this example conveys, print agents relied on a social contract between themselves and the reader whom, in purchasing the book, agreed to accept it as a work in progress. A truly understandable, discerning reader would

¹⁸ As Ann Blair explains, 'the earliest printed books consisted of texts already available in the Middle Ages and printed to mimic medieval manuscripts' (*Too Much to Know*, 48). For other case-studies, see Evelyn M. Cohen, 'Can Colophons Be Trusted? Insights from Decorated Hebrew Manuscripts Produced for Women in Renaissance Italy', in *The Hebrew Book in Early Modern Italy* (Philadelphia: University of Pennsylvania Press, 2011), 17-26; Furio Brugnolo, 'Testo e paratesto: la presentazione del testo fra Medioevo e Rinascimento', in *Intorno al testo: tipologie del corredo esegetico e soluzioni editoriali: Atti del Convegno di Urbino: 1-3 ottobre 2001* (Roma: Salerno, 2003), 41-60; and Arthur Marotti, *Manuscript, Print, and the English Renaissance Lyric* (Ithica: Cornell University Press, 1995), pp. 17-25, 281-291.

¹⁹ Roger Hutchinson, *The Image of God or Boke of a True Christian* (London, Printed by Iohn Daye, 1550), sig. A1r-A3v, AA4r-AA7r.

²⁰ Richard Brathwaite, *The English Gentlewoman* (London, Printed by B. Alsop and T. Fawcet, 1631), sig. KKr.

acknowledge, as William Lee hopes, ‘that absolute perfection is not to be found in Angels, and therefore much lesse to be expected or hoped for in men, who for the most part are wholly composed of Errours’.²¹ Conversely, contemporary approaches to error and revision are much more fraught with anxiety. As I discuss below, omissions and silent emendations can often mislead researchers, while large-scale redesigns require financial and time-sensitive efforts that project runners are not always willing to disclose to users.

As effective ad men and taste-makers, print agents knew well that to invest in their audience meant investing in their own longevity. These examples demonstrate the extent to which non-authorial paratexts played a significant role not only in shaping book production and reception, but in establishing monetary, literary and, at times, emotional connections between book-buyers and print agents. As a result of their unique blending of marketing strategies and literary word-play, these kinds of paratexts offer a new understanding of how the labor of print was coded into the text’s framing devices. Furthermore, they account for how particular structures of printed books such as prefaces and tables of content became reliable points of reference for both navigating and appreciating a new technology.

As I have argued, there is much to be gained from a sustained analysis of non-authorial paratexts that takes into account both their symbolic and practical functions. A closer look at vernacular paratexts across the continent may similarly reveal that print agents made significant contributions to the development and expansion of domestic readerships and uniquely-national tastes. Tellingly, the production of digital resources across the English-speaking world continues to develop at disparate paces, in great part due to differences in financial support and the persistence of traditional systems of scholarly production. Further, digital projects often replicate author-centered library catalogues and organizational structures, which often do not allow for a thorough investigation of paratextual features

²¹ William Lee, ‘The Printer to the Courteous Reader’, in J.D., *Usury Explain’d* (London, Printed by D.E, 1695/6), no sig.

within their historical contexts.²² As I discuss in the next section, this oversight is in part a symptom of larger issues regarding labor, what counts as academic research, and the disconnect between the expectations of users and the goals of project designers.

2. Digital Agents and the Early Modern Book Trade

Much as it was for printed books, digital projects rely on an audience of readers familiar with and ready to invest in this new technology. Indeed, as Fred Gibbs and Trevor Owens argue, tool builders cannot simply focus on academic innovation without first ‘cultivating a broader audience and new relationships with them’.²³ Digital scholarship will inevitably become more efficient once it manages to educate users and evaluators, who need to know what they are looking for and whether the argument of a particular project fits their own academic needs. The key to evaluating digital projects for the early modern book trade may lie in the history of the trade itself: instead of attending to either tool makers or their audiences, we must seek to understand how relationships between the two have come to be shaped and maintained. As such, labeling project developers, web designers, and programmers as ‘digital agents’ can contribute to efforts in highlighting their labor and agency at all levels of the process, placing value in the ways that peripherals like navigation, interface, and metadata are crucial to the formation of digital literacy.

If title-pages represented the first communication between book buyers and print agents, then the visual design of websites similarly functions as the first gateway of mediation between researcher and project. Digital natives and immigrants alike have by now become accustomed with navigational paratexts such as hyperlinks, headers, menus, and search boxes. Intuitively, users know how to

²² While I touch on some examples of paratextual research further down, a thorough discussion of how digital projects account for specific kinds of book history research is beyond the scope of this article. For considerations on the value of material culture to development of digital technologies, see Marlene Manoff, ‘The Materiality of Digital Collections: Theoretical and Historical Perspectives’, *Libraries and the Academy*, 6.3 (2006), 311-325. For an overview of the kinds of arguments databases make about early modern drama, see Silva and Estill, ‘Storing and Accessing Knowledge: Digital Tools for the Study of Early Modern Drama’, in *Shakespeare’s Language in Digital Media: Old Words, New Tools*, edited by Janelle Jenstad and Jennifer Roberts-Smith (Burlington, VT: Ashgate, 2015), forthcoming.

²³ Fred Gibbs and Trevor Owens, ‘Building Better Digital Humanities Tools: Toward Broader Audiences and User-centered Designs’, *Digital Humanities Quarterly*, 6.2 (2012), par. 36 of 36.

maneuver these features because, like early readers before them, they have seen enough examples to find such paratexts familiar. Digital academic projects face an added difficulty over other digital genres, having to function somewhere between a recognizable site, blog, or virtual exhibit and a credible academic tool. In great part, digital projects must introduce a diverse audience of scholars to a new technological process. Such introductions require that readers be able to identify old paratexts within new purposes and contexts. For example, having interacted with printed maps and their digital surrogates, a researcher may arrive at *The Atlas of Early Printing* and quickly understand its purpose.²⁴ Greg Prickman and Andrew Holland utilized Google Maps' Application Programming Interfaces (API) to provide users with interactive maps of early works spreading throughout Europe, tracing developments like revolutions and trade routes. Even without knowledge of APIs, however, any potential user may navigate the site—which is customizable by date range and 'layer type', including paper mills, trading routes, and universities—because its developers have modeled it after pre-digital technologies.

Much like early modern agents Richard Webster and William Ponsonby, the digital agents behind the *Atlas* rely on different levels of readership to build their audience. Attentive readers may look to their preface in the 'about' section to learn about the programs used to produce the site as well as the individuals who contributed to its development. A thorough evaluation of and engagement with this project must then credit not only the academics who researched the information behind the map but those collaborators who designed the visualization itself. These agents had to consider who would be using the site and what levels of interactivity that audience might require. By creating layers of visualizations and more straight-forward narratives under their 'about' and 'sources' pages, the digital agents encourage the construction of different levels of reading communities, from the expert digital humanist to the undergraduate student researcher.

²⁴ Greg Prickman, *The Atlas of Early Printing* <<https://atlas.lib.uiowa.edu>> [Accessed 28 September 2015].

The work of print agents often included framing, compiling, and even anthologizing. Projects like *Virtual Paul's Cross* demonstrate the degree to which virtual surrogates can likewise supplement existing projects by not only compiling but restructuring information.²⁵ The original project, housed at North Carolina State University, used Google SketchUp to recreate the physical, social, and aural conditions of John Donne's Gunpowder Day sermon outside of St. Paul's Cathedral. The project's digital counterpart, however, is designed to look like a traditional website; underneath the header, the menu offers quick navigational options through which users can see pictures of the installation, observe videos of a 'fly-through' of the whole model, and hear replicas of St. Paul's ambient noises. Although much credit goes to the developers of the original model, it is the work of digital agents such as the NC State graduate researchers Craig Johnson, Chelsea Slacks, and Jordan Gray that makes the project eminently accessible to a broader audience with little to no knowledge of digital architecture.²⁶

Rather than overlook the individuals who conceptualize and develop digital humanities projects, focusing on design and interface highlights the value of transparency and collaboration. In their status as navigational paratexts, the maps, hyperlinks, and sounds in each of these projects function as an invitation to uncover the specific contexts of the people and texts being studied. Instead of acting as barriers to accessing knowledge, they conduct users to manipulate the data according to their own interests. And yet, the labor involved in preparing a website for publication often goes unacknowledged in academic projects. Regardless of their level of involvement, contributors such as web developers and designers play an important role in the remediation of early modern texts. Their work reflects a broader goal of the digital humanities: to not simply produce these tools, but to ensure that humanities scholars can learn how (and why) to use technologies like GIS, APIs, or 3D-visualization in their own research.²⁷

²⁵ John N. Wall, *Virtual Paul's Cross* <http://vpcp.chass.ncsu.edu/> [Accessed 28 September 2015].

²⁶ 'Production Team', *Virtual Pauls* <<http://vpcp.chass.ncsu.edu/project/production-team/>> [Accessed 28 September 2015].

²⁷ Lev Manovich, 'Trending: the Promises and Challenges of Big Social Data', in *Debates in the Digital Humanities*, edited by Matthew K. Gold and Laura F. Klein (Minneapolis, University of Minnesota Press, 2012), 460-476. See also Kathleen Fitzpatrick, 'The Humanities, Done Digitally', and Michael Witmore, 'Text: A Massively Addressable Object', in *Debates*,

Search-engines are arguably the evolution of indexes and tables of content—they allow for non-linear and targeted readings of the types anticipated by printers like John Day and certainly manuscript scribes before him. Projects such as the *Database of Early English Playbooks* (DEEP) seem to draw attention to this correlation by displaying search options via drop-down menus.²⁸ The programmers behind the project (Brian Kirk, Pan Thomakos, and Michajlo Matijkiw) contributed to allowing a wide range of search avenues by offering menus that include, for example, distinctions between printers, publishers, and booksellers, as well as categories like ‘imprint location’ and ‘attributions’. DEEP also includes in its drop-down menus specific labels for paratextual materials, including dedications, commendatory verses, ‘to the reader’, and errata, among others.²⁹ While most databases have some version of such advanced search options, these creative browsing features are often hidden or hard to navigate. By encouraging users to manipulate the categories around which the database is organized, DEEP’s digital agents make a clear argument for DEEP’s distinct cultural capital, wherein users can ask new kinds of research questions without needing an intimate knowledge of Farmer and Lesser’s underlying database. DEEP is evidence of the collaboration between different kinds of agents necessary to develop successful digital humanities projects. As such, although the website seems constructed on a more direct relationship between academics (that is, between Lesser and Farmer on the hand and the researchers who use the site on the other), we cannot overlook the labor of the programmers in establishing the navigational paratexts that mediate between one form of scholarship—compiling and structuring information— and another of form altogether—interpreting and locating the information on the site itself.

As I suggest above, John Day’s overzealous tables of content may have proven off-putting to an

12–16, 324–328.

²⁸ Alan B. Farmer and Zachary Lesser, *Database of Early English Playbooks* <<http://deep.sas.upenn.edu/>> [Accessed 28 September 2015].

²⁹ Arguably the programmers were able to create such versatile search options because the database has a relatively small dataset: ‘every playbook produced in England, Scotland, and Ireland from the beginning of printing through 1660’ (‘Welcome’). Nonetheless, as the ‘DEEP Update History’ attests, the process happened in stages and greatly benefited from user input. <http://deep.sas.upenn.edu/whats_new.html>

unpracticed devotional reader; by offering too many navigational choices, Day risked keeping his audience from a clear and transparent reading experience. Digital agents face similar challenges when they try to anticipate the needs of their audience. One such example is the *British Book Trade Index* (BBTI), a project that aims to organize in one place all historical and geographical sources about the British book trade.³⁰ The digital agents added a ‘search notice’ hoping to preemptively address what some call the ‘white box syndrome’—that is, the challenge users face when they cannot imagine what keywords might produce the desired results or even what data is available for research. The editors therefore detail how to look for elements like ‘names and titles’ or ‘trading and biographical dates’, and warn against counting trades in a locality, which ‘is hardly ever likely to give an accurate indication of the scale of the trade’ due to duplicate entries.³¹ While their rationale for structuring the database can be an interesting model for any scholar attempting to build a new project, it may be overwhelming for users trying to browse or search for records.³² The BBTI serves as an incredibly detailed account of all the available resources for scholarly research on the book trade. Nonetheless, it is also a testament to the difficulties of building a structured database around malleable, uncertain elements like date ranges, questionable birth or death dates, individuals bearing the same name, or ever-changing trade designations.³³

Broadly speaking, digital projects and their paratexts do not take early modern paratextual features into consideration. While tools like *Early English Books Online* (EEBO) have provided an invaluable contribution to scholarship by making facsimile images available online, nuances about the book trade are often lost in their catalogue. For instance, it is not always possible to differentiate

³⁰ Peter Isaac, *The British Book Trade Index* <<http://www.bbti.bham.ac.uk/>> [Accessed 27 September 2015]. The project is undergoing institutional and hosting changes, and will soon be hosted by the Bodleian Library. Its developers also hope to make the database more functional and better integrated with the *Stationers’ Register Online*.

³¹ ‘Search Notice,’ BBTI. <<http://www.bbti.bham.ac.uk/SearchNotice.htm>> [Accessed 27 September 2015]

³² The site offers a broad number of sources, including data from all the *Dictionaries of the Printers and Booksellers who Were at Work in England, Scotland and Ireland* (Plomer 1910; 1922; 1932) among countless other publications as well as primary research conducted by book trade experts.

³³ Given that the site does not provide information about the contributors who designed the site and programmed the search engine, it is not possible to conjecture from where (or whom) that these shortcomings arise.

between title-page attributions in the imprint or silent editorial emendations made by the English Short-Title Catalogue (STC). Scholars interested solely in tracing title pages across different print agents might be well served with EEBO and the occasional consultation in the BBTI. However, other more nuanced paratexts can prove more difficult to find. Since both authors and print agents have been known to write prefaces and dedications, unless a preface is deliberately titled ‘the stationer’ or ‘the printer’ to the reader, it becomes difficult to perform a targeted search, even with the advent of EEBO-TCP, which allows for full-text searches. While DEEP has addressed this problem by cataloguing paratexts and stationers as a separate category, their database only catalogues dramatic texts, which severely curtails some of the potential research to be made on the variety and volume of these paratexts across genres. These issues arise because the audiences and goals for digital projects have changed: whereas the goals for first generation sites like EEBO involved preservation and access, newer project developers and digital agents in general have begun thinking about the specific kinds of questions their projects can help answer.³⁴ This is another area where we can learn from early modern print agents, whom deliberately identified their target audiences in paratextual features in order to ensure not only transparency but enduring relationships and collaboration.

Early modern print agents quickly learned that building a community of returning readers was not enough to ensure their survival, as they sought to collaborate with other stationers to divide their labor and expand their markets. Digital projects can likewise benefit from such a perspective, as exemplified by the Universal Short-Title Catalogue (USTC). The USTC offers not only internal cross-searches (clicking on the date link within a record, for example, brings up a new search for all works published on that date) but also external links to resources like the *English Short-Title Catalogue* (ESTC), paywalled facsimiles from EEBO, and open-source images from multiple websites. The print agents

³⁴ David M. Berry, ‘Digital Humanities: First, Second, and Third Wave’, *StunLaw: A Critical Review of Politics, Arts, and Technology*. < <http://stunlaw.blogspot.com/2011/01/digital-humanities-first-second-and.html>> 14 January 2011. Accessed 18 December 2015.

behind the USTC used hyperlinks not only as navigational tools but as a way to expand their audience—users searching through the database get a better sense of the range of academic tools available for primary research as well as the different kinds of services each site can provide.³⁵

As these examples illustrate, digital agents play a critical role in shaping the ways scholars both approach digital research as well as how they understand the function of new kinds of paratexts within each project. Transparency and community-building can appear in a variety of forms, and they do not necessarily require lengthy user instructions. As scholars navigate across different kinds of digital humanities resources, they are bound to become gradually familiar with the function and usefulness of paratexts like visual design in user-interfaces, search engine configurations, and hyper- and cross-linking. Julia Flanders argues that the burden of digital criticism is not simply to develop new tools but make us aware of the human element of such tools, wherein we must be ‘*inside* the process, *inside* the tools, as they mediate between us and the field we are seeking to grasp’.³⁶As potential users of these new technologies, we must find ourselves, like their developers, inside the tools: we must recognize our role in the production and publication process by offering feedback, making contributions, and amending errors. The early modern book trade was itself recognizably unstable, wherein print agents relied on readers to learn from and enhance the material text. Certainly digital scholarship is ripe with the same potential. By using digital resources scholars enter a social contract in which collaboration, discovery, and labor must be carefully acknowledged. A well-appointed title-page might attract the browsing reader into the stall, but only the successful combination of paratexts and learned readers could ensure a long-lasting relationship between agent and user.

3. Conclusion

³⁵ Since the ‘Staff’ page does not credit web designers or programmers and includes general bios for the project contributors, it is difficult to know who exactly designed the cross-linking structure of the USTC. <<http://www.ustc.ac.uk/>> [Accessed 28 September 2015].

³⁶ Julia Flanders, ‘The Literary, the Humanistic, the Digital: Toward a Research Agenda for Digital Literary Studies’, in *Literary Studies in the Digital Age* edited by Kenneth M. Price and Ray Siemens (2013), [para. 10 of 20](#). <<http://dlsanthology.commons.mla.org/the-literary-the-humanistic-the-digital/>> [Accessed 28 September 2015]

Non-authorial prefaces can provide illuminating perspectives on the implied relationships between readers and print agents. Whereas critics have widely discussed how authors' prefaces can control or otherwise shape a reader's interpretation of the main text, print agents' prefaces have not received enough critical attention as a genre. New research on the book trade has shifted our focus from the text itself to its material production, helping us consider how elements like the cost of paper or stationer patents influenced the production of printed books. We must not, however, forget in this process to recognize the agency of the individuals who participated and invested in printing books. Focusing on the human element at both endpoints (maker and user) of the production of knowledge helps scholars better understand and value the labor involved in book-making and book-selling just as much as website development and publication. Transparency in the production process will also ensure users become better consumers of digital projects in ways that should be both profitable and sustainable.

This article has demonstrated that the agents working outside the formal system of authorship and publication need to be examined in context with their own careers and writing output. As the aforementioned examples of title-pages, prefaces, and errata prove, print agents acted as brokers of knowledge, creating niche markets and establish reading protocols for the new technology of print. These protocols effectively developed reliable, recognizable structures for printed works of varying genres and styles. Comparatively, digital technologies are similarly mediated by project developers, web designers, programmers, and digital agents at large, not simply the scholars who compiled and researched the original textual corpus. Thus, beyond simply utilizing digital tools, users can benefit from understanding how these practices are both shaping and helping solidify methodologies, taxonomies, and visual structures that are often copied and repeated by the next generation of digital projects. Users and makers can both benefit from becoming more aware of the influence digital paratexts bear on allowing for or curtailing new kinds of research.

By considering digital projects as the new frame (or paratext) for printed books and project developers as a new kind of print agent, I have argued that the first step towards properly evaluating

and building digital projects is to build lasting relationships between tool makers and their audience. Secondly, as users of these tools, we must be able to understand the benefits and limitations of specific digital platforms (databases, digital repositories, virtual GIS maps, etc.) in order to properly identify the tools that best attend to our scholarly interests. Much like early modern readers had to learn how to properly read and respond to title-page advertisements, printer's prefaces, and errata, modern scholars must now learn how interacting with complex search engines, virtual maps, and digital repositories impacts the ways we study early modern texts. By developing a critical apparatus with which to analyze and design tools, we can question how finding, editing, and cataloguing materials continue to influence how we read, teach, and understand these texts as byproducts of ever-evolving technologies.