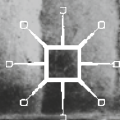


EDITED BY DAVID CURRELL AND ISLAM ISSA

DIGITAL
MILTON



Digital Milton

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Editors

Digital Milton

palgrave
macmillan

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ISBN 978-3-319-90477-1 ISBN 978-3-319-90478-8 (eBook)
<https://doi.org/10.1007/978-3-319-90478-8>

Library of Congress Control Number: 2018952371

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For Mum and Dad
For Mama and Baba

ACKNOWLEDGMENTS

The editors are grateful to all those who have made *Digital Milton* possible.

David Currell was fortunate to study the history of textual media with Bernard Muir and Milton with David Quint, two extraordinarily generous teachers. Islam Issa has continued to benefit from all that he was taught by Hugh Adlington.

The Birmingham City University Faculty of Arts, Design and Media's Research Investment Scheme bought time out for Islam Issa to work on this project and funded the index, prepared by Nick de Somogyi. Special thanks are due to Andrew Kehoe, as well as Gemma Moss, Tim Wall, and Sarah Wood.

An Erasmus+ staff mobility exchange allowed the editors to spend valuable time working on this volume together in Beirut and Birmingham. We are grateful to Peter Sjølyst-Jackson, Lucy Stubbs, Hala Dimechkie, and Olga Safa for their support in making this possible.

We are also grateful to discussants and audiences at a Faculty of Arts and Sciences Research Lunch, American University of Beirut (November 2016), and at the roundtable "Milton and the Digital Humanities," Renaissance Society of America Annual Meeting in Chicago (March 2017), organized by David Ainsworth and also featuring Olin Bjork, Thomas Luxon, and John Rumrich.

For advice and helpful suggestions at various stages of the project, our thanks to three of the contributors in particular, Olin Bjork, Angelica Duran, and Peter Herman, in addition to Paul Edmondson, Mario Hawat,

and David Wrisley. Iman Al Kaisy provided valuable editorial assistance. We also thank the anonymous reviewer(s) for their highly constructive comments.

Our editors at Palgrave Macmillan, Ben Doyle and Camille Davies, have been a pleasure to work with, as has been the book's production manager, Vanipriya Manohar.

Andrew Kulman produced, with skill and generosity, original and distinctive art especially for the book's cover. "Pandemonium" is the product of conversations with the artist, followed by his work with carefully chosen physical media. The image is a drypoint monoprint, produced on zinc and tissue-wiped to create layers of tone. The artist notes that "this is a traditional method of intaglio printmaking and while referencing Gustave Doré, it also reflects contemporary art practice." Such innovative handling of traditional media resonates with our conception of digital scholarship.

Family and friends are a constant source of love and support. We dedicate this book to our parents.

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CHAPTER 1

Milton! Thou Shouldst Be Living in These Media

David Currell and Islam Issa

Digital Milton presents new scholarship on John Milton that engages with digital methods and digital media. That this scholarship fills a book is a sign that Milton studies is participating in the digital turn. That this scholarship fills a *book* is a sign that relationships between media and platforms are not (and are never) simple relationships of transition or substitution, and a sign that humanists accord unique value to both print and digital media while grappling with the urgent and compelling challenges to which their simultaneity gives rise. Our hopes are that Milton should have renewed life in digital media, that scholarship should have a vital role in this metamorphosis, and that the results should enliven global literary culture.

D. Currell (✉)

I. Issa

© The Author(s) 2018
D. Currell, I. Issa (eds.), *Digital Milton*,
https://doi.org/10.1007/978-3-319-90478-8_1

Digital literary study is a rapidly changing field whose theories, resources, methods, and institutional arrangements reflect this state of dynamic flux. In that context, although this book aims to present the full range of digital work on and with Milton, many of the contributions within it are notable for their reflexivity and critical outlook towards this digital moment and the histories leading to it, and are explicitly experimental or exploratory in their orientation. The range spans all five illustrative clusters of scholarly activity in the digital humanities (DH) presented by Julia Thompson Klein in her mapping of kinds of work frequently associated with that rubric.¹ To identify just one example from each of Klein's clusters that is well represented in this volume: "electronic text production and editing," "computing practices in disciplines of the humanities and arts," "cultural impacts of the Internet and new media," "design and production," and "new approaches to teaching and learning." Our methodological openness is also an openness to methods yet uninvented, and so, to a greater than usual extent, this book anticipates its own eclipse with optimism. That said, the genealogical spirit animating many of these chapters intimates longer durations, extending both into the past and into durable futures of new connections and collaborations, fresh momentum for existing projects, and sustainable trajectories for germinal ones.

The contributors represent a wide spectrum of academic experience, from doctoral student to professor emeritus. Their range of institutional and geographical locations is also broad. For some, digital literary studies is already a primary scholarly identity. For others, this work is a first taste, or even a "trial...by what is contrary."² While chapters have been written and projects have been designed so as to speak directly to contemporary Milton studies, the issues and approaches engaged are also crucially in dialogue with early modern studies more broadly, textual and editorial theory, media studies, the sociology of reading, curatorial practice, and the teaching of literature.

"BOOKS ARE NOT ABSOLUTELY DEAD THINGS"³

Collections of Milton scholarship have rarely taken account of the digital.⁴ Likewise, collections in the digital humanities have rarely taken account of Milton.⁵ This mutual blindness contrasts with the state of Shakespeare studies,⁶ to such an extent that "the digital" begins to look like another axis to add to Rachel Trubowitz's sketch of the orthogonal orientations of Shakespearean and Miltonic scholarship in recent decades.⁷ Where the

decisive influence in the former domain has been “Greenblattian New Historicism,” the governing paradigm of Milton studies has been Cambridge School “contextualist historicism.”⁸ But “the rise of ‘big data,’” Trubowitz continues, “has further exposed the limitations of traditional archives (among them the exclusive rare book collections at elite libraries), on which the specificity of historicist interpretation was grounded.”⁹ While the mass digitization that underpins “big data” promises to make work in book history, print culture, and the sociality of text accessible to scholars physically remote from “traditional archives,” it does so under conditions of mediation and representation that leave the physical archives indispensable. Shakespeareans’ comparative cosmopolitanism across material and mediated scholarly worlds surely reflects the medial confluence of theatre and print, as well as Shakespeare’s greater presence in mass media and popular culture generally. Shakespeare also has an unusual prominence within the long history (antedating the modern computer) of quantitative stylistics, motivated by questions of authorship. While scholars including Blaine Greteman and Whitney Anne Trettien have published work at the intersection of Milton studies and digital literary studies, and while Milton has a presence in major digital projects like *Six Degrees of Francis Bacon*, the academic imbrication of Milton and the digital remains incipient.¹⁰ Another way to put this is to say that while we are all digital Miltonists now, nobody is yet a Digital Miltonist.

To assert that we are all digital Miltonists now probably still has some shock value, but part of this should be a shock of recognition. From communicating by email with colleagues and students, to searching online databases for scholarly sources, downloading and reading articles on computers or mobile devices, consulting facsimiles of seventeenth-century texts on *Early English Books Online*, or performing a keyword search at *The John Milton Reading Room*, the routines of academia have become digitized. The scholarship and study of Milton’s works inevitably engage the kinds of digital and computational technologies and electronic media that have continuously reshaped culture over the last several decades. Yet a digital revolution in the everyday practice of scholarship on a print author sharpens the pointed question that Jerome McGann poses in *A New Republic of Letters*: “What kinds of research and educational program can integrate the preservation and study of these two radically different media?”¹¹ McGann’s own answer is “philology in a new key,” and scholars of Renaissance literature should take timely advantage of their special collective capacity to compose that answer.¹²

The nature and timeliness of *Digital Milton* also validate Lauren Klein and Matthew Gold's assessment in the 2016 edition of *Debates in the Digital Humanities*, that "the challenges currently associated with the digital humanities involve a shift from congregating in the big tent to practicing DH at a field-specific level, where DH work confronts disciplinary habits of mind."¹³ The "big tent" has been a longstanding metaphor in digital humanities circles.¹⁴ It is a reassuringly irenic image. It may recall:

By living streams among the trees of life,
Pavillions numberless, and sudden reared,
Celestial tabernacles[.]¹⁵

What follows in *Paradise Lost*, of course, is a war in Heaven. It is as well to acknowledge that a title like *Digital Milton* might also presage a drawing of battle lines, recalling William Kolbrener's figuration of Miltonists as "warring angels."¹⁶ Should we fear that Miltonists have been seduced, and, the more to increase your wonder, with an Apple?¹⁷ Our contention is that Miltonists' "disciplinary habits of mind" (including philological habits) are too important to leave out of conversations about digital scholarship or distant reading.

"Distant reading" is the term under which quantitative and computational approaches to literary studies have become widely known and widely argued in the twenty-first century. The term was advanced by Franco Moretti in a spirit of iconoclasm. Hitherto, he claimed, academic literary criticism had been essentially "a theological exercise—very solemn treatment of very few texts taken very seriously—whereas what we really need is a little pact with the devil: we know how to read texts, now let's learn how *not* to read them."¹⁸ Being of the devil's party is generally more tolerated in Miltonic circles than elsewhere, and we have already stressed that, in fundamental ways, the contemporary academy is already of the digital party whether knowingly or not. But DH is more than distant reading. The "Milton" of our title foregrounds the ongoing serious reading of selected and prized texts (but not only those), while "Digital" is intended to denote much more than the algorithmic processing, visualization, and computational analysis characteristic of "macroanalytic" methods.¹⁹ More than, but *also* those: it is necessary to take the measure of quantity.

McGann notes of the digital humanities that "both its promoters and critics regard [it] as a set of replacement protocols for traditional humani-

ties scholarship.”²⁰ Framed as a battle line, the situation may appear—to both “sides”—as a zero-sum game, a mutually exclusive contest between two cultures over cultural studies themselves. This reflex framing has roots in C. P. Snow’s thesis of “the two cultures”—of letters and of science, bisecting both academic and public life in mid-twentieth-century Britain—with its frequently invoked observations concerning the mutual failures of communication and recognition between the two domains.²¹ Recent scholarship has helped to clarify that such a division between literature and science was no part of Milton’s intellectual formation, while also valuably complicating its application to his period altogether.²² Nevertheless, the present-day stakes for disciplinary formations and future philologies are high. While we lack space to unpack these issues here with the fullness that they deserve, we wish to underline two specific and related problems raised by critical voices internal and external to digital literary studies, one regarding close reading, and one regarding the term “distant reading.”

Close reading: we moved quickly past Moretti’s “let’s learn how *not* to read” in part because a vocational commitment to teaching those who wish to be, but are not yet, among the “we” who “know how to read texts” resiles from the idea. But if one is doing both, the polarity evaporates, or else becomes newly productive. Anupam Basu’s accomplished performance of “not reading” within this volume can facilitate closer navigations of the reading space (in the sense of either the entire catalogue *or* the individual formatted page) of early English books. Thinking with digital media and tools will help us read Milton—or at worst drive us back to the stacks. But this very point has also been staged as a critique: that digital humanities accentuates a narrow canon because of the resources required to mount major digital projects. In a 2012 survey of British DH centers, Andrew Prescott identified preponderant engagement with “standard cultural icons,” among whom the author of *Eikonoklastes* (1649)—an attempted justification for executing Charles I—would presumably be numbered.²³ This is a structural critique, based not simply on digital reflections of “traditional” curricula (which would include traditions of feminist, postcolonial, and other kinds of critique), but also on the way in which the unevenness of digitization risks accentuating or creating monoglot and Anglocentric archives. Power hierarchies and differential access transect this field in ways that threaten to reproduce and accelerate global and institutional forms of political, economic, and cultural oppression or inequity.²⁴ This issue comes particularly to the fore in Islam Issa’s study of digital Milton in the Middle East, and is further highlighted in Angelica Duran’s epilogue.

“Distant reading”: with Basu we reject “an artificial opposition between ‘distant’ and ‘close’ readings,” hyped in the academic and popular press alike, in the awareness that these artificially opposed terms denote distinct functions, whose separate intellectual and disciplinary integrity the critical imagination is stimulated to bridge. Johanna Drucker helpfully clarifies what “distant reading” typically designates within digital literary study and argues that the expression is a misnomer:

Distant reading is the computational processing of textual information in digital form. It relies on automated procedures whose design involves strategic human decisions about what to search for, count, match, analyze, and then represent as outcomes in numeric or visual form....Processing is not reading. It is literal, automatic, and repetitive. Reading is ideational, hermeneutic, generative, and productive. Processing strives for accuracy, reading for leniency or transformation. No text-analysis program weeps when it reads the passages in Felix Salten’s *Bambi* in which Bambi’s mother dies.²⁵

One would have to have a core of silicon to process the death of Little Nell without laughing. As the chapters by David Ainsworth, Olin Bjork and John Rumrich, Issa, and Cordelia Zukerman exemplify, this collection is specially charged with concern for the mechanisms whereby the digital can engender ideational, hermeneutic, generative, and productive encounters with Milton. Even where they leverage algorithmic criticism or data visualization, the stakes ultimately lie in those encounters.

The close/“distant” false dichotomy is partly a symptom of the widespread treatment of Moretti and the Stanford Literary Lab, one of the highest-profile practitioners and best-funded centers, as normative or even representative of the digital humanities. It is a limitation of the first chapter of Tom Eyers’ stimulating *Speculative Formalism*.²⁶ Drucker’s history of scholarly, poetic, and artistic practice, including the theoretical and experimental work that, along with McGann and Bethany Nowviskie, she pursued under the rubric of “speculative computing,” could productively complement and complicate Eyers’ narrow critique of DH.²⁷ An ethos of speculative computing and a version of speculative formalism may in practice prove to be allies against any “new positivism.” David Currell’s chapter on the Miltonic verse line proposes a confluence of critical formalism and digital formats, while Basu’s algorithmic processing of the EEBO-TCP explores how form, information, and format might be computed through big data.

As Zukerman's chapter relates, the desire to help human readers fully enjoy the cognitive and affective richness of Milton's poetry actuated the editorial and design philosophies of *The John Milton Reading Room*, which privileges accessibility while simultaneously hailing students as scholars-in-training. The adaptive and accretive potential of digital editions, as well as their ability to incorporate and mediate facsimiles, features of original format, or old spellings, can also begin to address Blair Worden's lament that "embalming" Milton "in modern editions, often volumes of high and invaluable scholarship, distances them, through no fault of the editors, from the ephemeral context of debate and publication to which much of their writing originally belonged."²⁸ Worden's phrasing deliberately inverts customary temporal valences: for him, it is the "modern" that is associated with taxidermy or the tomb, cut off from the lively ephemerality of history. However, a modern "multimodal social edition" as conceived by Bjork and Rumrich elevates speech, debate, comment, and community into important textual critical principles—principles that also lie at the heart of Ainsworth's *Edifice Project*. Modern technology may be the means to new life.

The subjunctive of the previous sentence, however, aims to temper facile triumphalism. For a start, if (as Milton claimed) books are not entirely dead things, hyperlinks frequently are.²⁹ The meaning of "life" needs examination. Whitney Anne Trettien invokes Mary Shelley's *Frankenstein* (1818)—a literary meditation on life and technology featuring a crucial scene of Miltonic reading—in a recent study of *Areopagitica* and the questions of textual life and death that it poses.³⁰ Trettien's analysis of online print-on-demand (POD) books uses *Areopagitica* as a case study for the "undead" products of this recent publishing phenomenon, whereby (perhaps unreliably) scanned or otherwise digitized editions of uncopyrighted material are printed on spec when a customer places an online order. The virtual transaction brings material being to such artifacts as "Edward Arber, *English Reprints Jhon Milton Areopagitica* (BiblioLife, 2011)." One should say brings material being *back*, as this book is the materialization of the virtualization of an earlier material text: a volume in a nineteenth-century popular reprint series with its own peculiar typographical ideology. *Jhon Milton Areopagitica* is therefore a digitally mediated "re-reprint" (albeit with a newly generated and garbled title). Trettien likens these products to Frankenstein's monster and to zombies—soulless reanimations rolling off printers with uncanny mechanistic momentum. In view of the acronym, one could invoke another horror touchstone, *Invasion of the Body Snatchers* (1956), and imagine these publications as

“POD people” threatening to repopulate the local library. Whether or not one agrees that the “evident artificiality of POD reprints invites a productive skepticism of textual editing,” it is surely essential to follow Trettien in moving beyond disdain to evaluate critically “the strange novelty and print/digital hybridity of Milton’s POD monsters” and “welcome them as an opportunity to foreground the mediated nature of *all* historical texts—indeed, of the notion of ‘textuality’ itself.”³¹ This imperative animates the present book.

HISTORIES OF DIGITAL MILTON

The historicist instinct that Trubowitz sees embedded in modern Milton studies might in and of itself offer some welcome amelioration of “the digital community’s increasingly attenuated historical sense.”³² Some chapters in this book (notably those by Basu, Bjork and Rumich, Currell, Duran, Randa El Khatib and Currell, Peter C. Herman, and Issa) shuttle between the digital present and Milton’s historical context in order to rethink genealogies of reading, composition, publication, format, or geography. Several more (notably those by Ainsworth, Bjork and Rumich, Hugh Macrae Richmond, and Zukerman) include a complementary kind of historical purview, giving an account of the development of a specific digital Milton project within its intellectual and institutional context. In aggregate, they begin to compose a picture of digital Milton studies as an evolving field, of which some other major strands and precursors may be conveniently considered here.

The electronic encoding of Miltonic texts was inaugurated by the late Joseph Raben of Queens College, CUNY, who was also founding editor of the journal *Computers and the Humanities* in 1966. As noted by Currell in the final section of Chap. 4, Raben’s digitization work underpinned a computational analysis of Milton’s influence on Percy Bysshe Shelley and remains the basis of the Project Gutenberg text of *Paradise Lost*.³³

On the other side of the Atlantic, computational approaches to Milton were pioneered by Thomas N. Corns in his doctoral dissertation during the 1970s, and informed his books *The Development of Milton’s Prose Style* and *Milton’s Language*.³⁴ Corns was concerned primarily with “historical stylistics,” the comparative study of Milton’s prose or poetic style in relation to that of other writers of the period.³⁵ His findings on Milton’s style have critical implications, such as suggesting a change in Milton’s mood and outlook at certain key moments—for example, after Charles I’s execution in 1649,

which validated Milton's role as statesman. Corns also makes pragmatic assertions: that much of Milton's prose style resembles that of his contemporaries. But most importantly, such research demonstrated that there is no longer an excuse for rash impressionism about phraseology or word usage.

Corns was additionally part of the team, also comprising Gordon Campbell, John Hale, and Fiona Tweedie, that conducted the highest-profile computational stylometric study of Milton to date, an investigation of the provenance and authorship of the *De Doctrina Christiana* manuscript. Stylometric comparison against other Latin texts by Milton helped illuminate its Miltonic character and settle the authorship controversy in favor of a Miltonic provenance, while also suggesting "that the notion of 'authorship' needs some reconsideration in the context of neo-Latin technical prose in the early modern period."³⁶

This result was published in book form on the cusp of the quartercentenary of Milton's birth. That year, 2008, saw several exhibitions and initiatives celebrating the poet's life and works. The varying degrees to which these have left online traces perhaps reflects a moment within, rather than after, the decisive turn—immensely enriching for visual culture and art scholarship—on the part of galleries and museums towards open-access digitization and multimedia supplementation of collections and exhibitions. Digitized materials made available as part of the Morgan Library's exhibition "John Milton's Paradise Lost," which ran from October 2008 to January 2009, include high-resolution scans of the 33 folio pages of the Morgan's manuscript of Book 1 that can be consulted on the Library's website.³⁷ A noteworthy born-digital project that coincided with the quartercentenary is *Darkness Visible*, a web resource for the study of *Paradise Lost* that is the outcome of collaborative work among students at Christ's College, Cambridge.³⁸ Thoughtfully designed with both the affordances of online publication and a student audience in mind, the site includes a section on "Milton and the Arts," and a guide to research and quotation using online materials. Contributor notes in the form of discussions of a favorite Miltonic passage lend a personal touch to a collegial enterprise.

The quality and accessibility of digitization are among the most important issues confronting the humanities. Massive digitization and data-mining initiatives are taking place, but too often without adequate scholarly oversight or even input. Aspirant data monopolists such as Alphabet Inc. (the corporate parent of Google) engage rapaciously in what has been aptly termed "primitive digital accumulation," and the admixture of good and evil contained in the promised fruits, such as

Google Books, would trouble Psyche.³⁹ In this context, independent, open-source initiatives are to be applauded. Between 2011 and 2014, John Geraghty scanned and uploaded to the open-access *Internet Archive* several early editions of Milton (and others), including two copies of the 1674 *Paradise Lost*, Richard Bentley's 1732 edition, and a 1736 edition of Paulo Rolli's *Paradiso perduto*, the first Italian translation of the epic.⁴⁰

Finally, for more than a quarter century scholars have been able to benefit from a dedicated listserv, "Milton-L," founded by list owner Kevin J. T. Creamer "in 1991 with the support of Roy Flannagan and Louis Schwartz."⁴¹ The transformation wrought by email is so complete that it can easily escape attention, but the maintenance of the discussion list archives (2003–present) makes available a unique record of scholarly communication concerning Milton.⁴² News and announcements from the septuagenarian Milton Society of America also reach members through the medium of email, and are posted on the organization's recently refurbished website.⁴³

DIGITAL MILTON: SCOPE AND STRUCTURE

Digital Milton is divided into three parts. The first, "Textual Remediations," concentrates on the theoretical and practical implications of re-editing or re-presenting Milton's works in digital media. The second, "Scale, Space, and Sociality," engages prominent strands of current digital literary studies: computation at scale, the geospatial humanities, and network analysis. The third, "New Audiences, Novel Engagements," considers the specific ways in which digital environments affect and facilitate diverse readerships' initial encounters with Milton in contexts of differential access and his reputation for difficulty. Several themes cut across all sections: a dialectic between visualization and close reading, scholarly editing and editorial theory, multimodal and multimedia affordances, media history, social media, and pedagogy—particularly the teaching of students encountering Milton for the first time. While attention to developing and reconceiving practices of sustained, interpretive close reading is central to many chapters, in Herman's chapter alone is a fresh reading the principal critical product. This is unusual for a collection on Milton. We see this atypical feature as primarily attributable to this collection's being the first of its kind, and therefore inviting special attention to contextual second-order disciplinary issues, as well as to the presentation and explanation of materials and methods.

Cordelia Zukerman opens the volume with a critically and personally informed account of the most comprehensive and most utilized online edition of Milton, *The John Milton Reading Room*. Drawing on interviews with its editor and developer, Thomas H. Luxon, and the experiences of those, like herself, who worked on the project, Zukerman contextualizes the design of the site in terms of the philosophy of interactivity, debates over modernization, and a citational imperative that aims to produce for the online edition a similar sense of connectedness to that possessed by a print edition in a library: as a node in a virtual web of works that expand, explain, and expound its contents. Outward-directed hyperlinking distinguishes the *Reading Room* from more typically insular online editions, embodying its optimism regarding the quality, adequacy, and sustainability of the web as a scholarly environment. From Andrew Marvell on, few Miltonists have thanked John Dryden for tagging Milton's points in rhyme; every Miltonist owes Luxon a debt immense for tagging them in markup language.⁴⁴

Alternative editorial visions have been formed and implemented. In fact, by itself, "vision" is too limited a word for Olin Bjork and John Rumrich's audiotext edition of *Paradise Lost*, Books 1, 2, and 9. Citing Milton's composition of the epic through dictation, the archangel Michael's transition at the beginning of Book 12 from presentation to oral relation, and Adam's reception from the visual to the aural, Bjork and Rumich make the case for a digitally assisted multimodal pedagogy of the text, while addressing the theoretical context and the design choices they made in developing their edition. Ambitious in its marshalling of the affordances of a digital environment, the *Paradise Lost Audiotexts* project can be used in several distinct modes, choosing to emphasize format, editorial annotation, or—in a design choice reflecting theories of the social text and anticipating the "social" character of Web 2.0—user annotation.

David Currell also considers digital media as a platform for social textual practices in discussing the remediation of *Paradise Lost* through Twitter. His discussion of the line-by-line tweeting of Charles Reid's "Milton Bot Flock" follows a wider consideration of *Paradise Lost* as a lineated text, divisible into discrete, enumerable verse lines. Foregrounding lineation goes against the grain of Milton's prefatory note on "The Verse" and the normative reception of *Paradise Lost* through linear reading, but underpins the way that matter from the epic appears in reference works including the *Oxford English Dictionary* and *Oxford Dictionary of Quotations*. Contextualizing the compilation of these works in terms of

commonplacing and consultation reading, two textual practices thoroughly familiar in Milton's time, Currell mines their digital editions for an experiment in visualizing the lines of *Paradise Lost* that each of these reference works cites, a technique that might be extended to larger and more diverse corpora, including social media. Lineation and remediation are vectors of textual "deformance," a concept carried through other formalist approaches represented in this volume.

Where Currell thinks form at the level of the verse line, Anupam Basu thinks form at the largest scale. In the collection's most computationally sophisticated contribution, Basu effects the coup of simultaneously "reading" two billion words and zero words. His chapter begins with an authoritative and accessible overview of the digitization of early modern print texts through *Early English Books Online* (EEBO, a commercial facsimile database) and the *Early English Books Online-Text Creation Partnership* (EEBO-TCP, a public text-encoding initiative) and the intellectual issues associated with working at scale upon such materials. Typical text-analytic work representative of the present computational turn in literary studies treats texts as idealized linguistic artifacts—a disciplinary inheritance from computational linguistics that analyzes text as a stream of language or "bag of words." Familiar computational work addressing the archives of print culture as linguistic corpora therefore jettisons a great deal of information, including information about format. What traction, asks Basu, can such methods have upon *form*, the root of "information" and of "format"? Alert to an under-theorization of form in digital work, Basu introduces both recent and foundational formalist work in literary studies that stresses form as the enabling condition of literature—constraint as affordance—preparatory to an algorithmic resituating of selected Miltonic texts within the multidimensional space of EEBO as viewed through the lens of format.

By addressing *Paradise Lost* in light of the geospatial turn in the humanities, Randa El Khatib and David Currell build on important critical work on Milton and geography by such scholars as Michael Murrin, Morgan Ng, and Elizabeth Sauer. This "building" is literal, taking the form of an interactive online map that tracks the place names in *Paradise Lost*. This project was designed and developed not simply to geolocate Milton's myriad references, but also to impinge on important interpretive issues by organizing the visualization in terms of the epic's layered geographical imaginary, spanning biblical, classical, and contemporaneous temporalities. The map additionally allows the plotting of the epic in terms of its

spatial “moralization”: by examining each geographical reference in its poetic context and assigning to it a positive, negative, or neutral moral valence, this tool aims to provoke fresh consideration of Milton’s making of the world as a space of moral contestation.

While El Khatib and Currell move from close reading to visualization, Peter C. Herman’s study of early modern relations of indebtedness uses visualization as a spark for novel readings. Although early modern writers on debt showered usury in conventional opprobrium, Herman reads debt as the creation of social networks, ramified in space and persisting through time. Debt is a circulation that—conditional upon repayment—can constitute a virtuous circle. This social function of debt remains out of mind, however, so long as the respective networks remain out of sight. By reconstructing and visualizing specific debt networks in which Milton’s father was embedded, Herman establishes within the poet’s domestic experience a form of economic relation influentially represented across early modern literature. Further application of these visualizations facilitates Herman’s reading of Shylock’s bond in Shakespeare’s *The Merchant of Venice* as a creditable but thwarted effort to connect networks. In *Paradise Lost*, by contrast, the unrepayable debt felt by Satan—“still paying, still to owe” (4.53)—is symptomatic of God as the kind of usurer who gave money-lending a bad name. In characteristically provocative fashion, Herman redeems the idea of debt as a potential social good in Shakespeare, but he makes Milton’s God irredeemable.

Islam Issa analyzes Milton’s relationship to “online revolution” in contemporary Middle East and North Africa (MENA). This expression evokes the expanding participation in digital media in the context of revolutionary social movements across the MENA region since 2011. Issa proposes the relevance of Milton’s poetry and thought to these conditions of political and religious upheaval, and investigates both digital and print materials and practices through which English- and Arabic-reading students are able to access Milton. Issa’s study of the Arab book market, the dissemination of Arabic translations of *Paradise Lost*, online forums to which Arab students post, and the evidence of predictive text in Google’s search engine yields the striking conclusion that *Paradise Lost* is, for Arabic readers, “becoming, materially, a de facto online text,” whose principal format is not the codex but the PDF. While a rise in Internet penetration and English proficiency promises to create many new readers of Milton, tensions between Miltonic texts and state censorship apparatus, and problematic secondary resources for Arabic readers and students in some MENA countries, constrain a potentially revolutionary Miltonic readership.

David Ainsworth offers an engaging narrative of the pedagogical principles underpinning, and the educational experiences that have grown out of, his *Edifice Project*. This long-term teaching endeavor, which takes its name from Milton's *Of Education*, seeks to address the widely felt challenge of introducing undergraduate readers inexperienced in Renaissance literature to *Paradise Lost*. By assembling a repository of successful student work, Ainsworth has crafted a resource within which students can conduct research framed in terms of dialogue among peers. One of the most gratifying outcomes of this program has been the enrichment of face-to-face engagement in the classroom, including through visits from former student-scholars whose work supports the *Edifice*. Ainsworth's discovery of a productive dialectic between presence and virtuality—the fact that a website and invitation to engage in digital scholarship, far from substituting for bricks-and-mortar classroom learning, deeply enhance it—undoes any simplistic traditional/digital division in the field of pedagogy.

Hugh Macrae Richmond begins his chapter with a glance back at six decades of academic engagement with Milton that fed into the creation of the collaborative website *Milton Revealed*. It is a multimodal and multimedia revelation: theatre, music, dance, painting, video games, fiction, criticism, audio, visual, audio-visual, and in the case of some *Comus*-inspired material, audio-visual-historical-pastoral. The place of *A Masque Presented at Ludlow Castle* and especially its enchanter protagonist in popular culture is one of the notable revelations of Richmond's curatorial labors. From this material diversity emerges a suggestive homology among three dyads: the user of *Milton Revealed* and the editorial work that conditions their independent navigation of the site, the player of *The Talos Principle* and the "Milton" within its game-world that directs the player's exploration, and finally the reader of *Paradise Lost* and the poetics of choice through which the poet Milton brings a literary readership to engage the new scientific culture of early modernity.

Angelica Duran begins her epilogue, likewise reflective of a career-long engagement with Milton scholarship across multiple media and modes, with a literary experience that virtually conjoined the aural and visual: the oral reading by the 2017 Pulitzer Prize in Poetry awardee Tychimba Jess of his sonnet "When I consider how my light is spent," at the 2017 Annual Dinner and Meeting of the Milton Society of America, a poem whose intertexts included both Milton's sonnet of the same title and footage of racially charged police brutality of Frankie Taylor published online. This moment affords a just illustration of how the digital age restages Miltonic