



## A New Computer-assisted Literary Criticism?

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**Abstract.** If there is such a thing as a new computer-assisted literary criticism, its expression lies in a model that is as broad-based as that presented in John Smith's seminal article, "Computer Criticism," and is as encompassing of the discipline of literary studies as it is tied to the evolving nature of the electronic literary text that lies at the heart of its intersection with computing. It is the desire to establish the parameters of such a model for the interaction between literary studies and humanities computing – for a model of the new computer-assisted literary criticism – that gave rise to the papers in this collection and to the several conference panel-presentations and discussions that, in their print form, these papers represent.

**Key words:** computer criticism, humanities computing, literary studies, literary theory

### 1. Literary Studies and Humanities Computing: Modeling, Points of Intersection<sup>1</sup>

Perhaps the best historical model for documenting the accepted points of intersection shared by literary studies and humanities computing is that expressed several decades ago by John Smith in his seminal article, "Computer Criticism." Within, one finds computing applications for language and literary studies divided into two groups based on their resultant products: one consisting of those "in which the computer was used to produce through textual manipulation conventional aids for future research (dictionaries, concordances, etc.)," and the other made up of "those in which the computer was used in the actual analysis of specific works of literature (thematic analyses, stylistic studies, etc.," (13). Escaping my quotation above, but clearly evident in Smith's larger argument, is the founding of each in and on the literary text in electronic form.<sup>2</sup> Indeed, and as the humanities computing community has reminded itself a number of times, literary studies is largely defined by its reliance on and its attention to the literary text, broadly construed: the textual artefact and its intellectual contents.<sup>3</sup> Not surprisingly, the literary text in the computing-enabled form that our community has explored it has, for some time, been accepted as the central point in the relationship between literary studies and computing.

While such a focus has remained constant, not all has been static. Of note is that the idea of the literary text in its ultimate electronic scholarly form – the electronic scholarly edition of historical texts and what we might call the "electronic

literature” of contemporary texts – has undergone considerable change, invention, and reinvention since Smith’s work of the late 1970s. Equally significant is the considerable rise in acceptance of computing approaches within the literary studies community since that time.<sup>4</sup> And yet, even with such change in the electronically-cast object of our focus and the increasing acceptance of computing enhanced approaches, a model with the widespread application and utility of that expressed by Smith, a model that might best assist us in broad scoped consideration of the changing and increasingly positive relationship between literary studies and humanities computing, has rarely been articulated since Smith’s expression over two decades ago; the several exceptional literary-computing theories that have seen expression of late – such as those that have treated hypertext and its embodiment of literary theoretical principles, narrative studies as it relates to the electronic medium, and other aspects of electronic literary textuality – focus on points of intersection shared by literary studies and computing that are of the utmost importance, to be sure, but operate with a scope considerably less than that of Smith’s work.

If there is such a thing as a new computer-assisted literary criticism, its expression lies in a model that is as broad-based as Smith’s, and is as encompassing of the discipline of literary studies as it is tied to the evolving nature of the electronic literary text that lies at the heart of that discipline’s intersection with computing. It is the desire to establish the parameters of such a model for the interaction between literary studies and humanities computing – for a model of the new computer-assisted literary criticism – that gave rise to the individual and individually-focused papers in this collection and to the several conference panel-presentations and discussions that gave rise to these papers.

## 2. Computing Tools and Computer Criticism / High and Low Criticism

It is well worth establishing something as basic, and essential, as the foundation of a general model that allows us to examine the intersection of humanities computing techniques and the pursuits of those in literary studies in a broad way, in an environment typified by changing notions of the literary text and, perhaps, with reference to changing levels of acceptance of computing-influenced work. Such a foundation is most clearly informed by Smith’s work, but that model does not explicitly take into account the relationship among the many types of work carried out in the literary studies community. For this purpose in particular, a model worth presenting alongside Smith’s is one more recently articulated by literary/textual scholar Tim William Machan.

In the introduction to his *Medieval Literature: Texts and Interpretation*, Machan succinctly expresses a division of literary critical and scholarly work into two chief categories: what he terms “Lower Criticism,” which is chiefly textual and bibliographical in nature, and “Higher Criticism,” which is typified by interpretive studies (3). Lower criticism, Machan notes, is most “commonly viewed as the more

factual or 'scientific'; it provides numerical, analytical, and categorical information which is used to define . . . realities" (4); higher criticism is often seen as "the spirit which gives life to the letters established by the Lower Criticism; it is the intellectual and aesthetic activity which, depending on one's critical viewpoint, reveals, constitutes, or disassembles the meanings of a text" (5). As one might expect – and as one who works with either knows – the relationship between the two is mutually influential, for "without the traditional Lower Criticism's constructing of texts, there can be no focus for the theorizing of Higher Criticism, just as without the traditional Higher Criticism's interpretation of texts there can be no contexts within which Lower Criticism can identify facts" (7). In short, each is somewhat distinct, but each also necessarily assists in the definition and development of the other.

Machan's general model for literary studies and Smith's for literary computing are complementary in useful ways. One such way is in the affinity of those well accepted computing-derived research aids outlined by Smith – the "conventional aids for future research" that he stated to have already "been viewed as beneficial or, at least, inevitable," those that index, build concordances, collate, and the like – and the accepted work of Machan's lower criticism, that which is factual and enumerative, the area of textual studies and bibliography in which computing practices have seen such acceptance.<sup>5</sup> Another is that Machan's model helps bring into focus, from a literary critical perspective, areas beyond the "aids for future research" into which computing tools have thus far had their greatest acceptance by the literary studies community; in this regard one might note that the products of the latter of Smith's groups – that "in which the computer was used in the actual analysis of specific works of literature (thematic analyses, stylistic studies, etc.)" – bear a closer relationship to those of Machan's higher criticism.<sup>6</sup>

Recalling the central role of the electronic literary text in the intersection of computing and literary studies, it is important also to note that one such embodiment of that text, the electronic scholarly edition, occupies an important place when we think about that which both Machan and Smith address: respectively, the influence of lower criticism on higher criticism and, further, the influence of humanities computing tools on higher literary critical concerns in the form of what Smith calls "computer criticism." In addition to being a flagship of sorts today for the work of humanities computing in the field of literary studies, electronic editions of several sorts – primarily *dynamic* (which combine electronic text and text-analysis software such that the text indexes and concords itself) and *hypertextual*<sup>7</sup> (which use links to facilitate a reader's interaction with the apparatus that traditionally accompanies scholarly editions) – represent the culmination of decades of humanities computing work that has both supported and directly participated in interpretive studies. Dynamic interaction with a text – a process which is, essentially, enacting accepted lower critical practices upon a text – is a critical process that duplicates the sorts of tasks that Smith outlined as making up much of computer criticism; restated, such interaction is, itself, part of an interpretative

process, with the computer enabling the lower-critical tasks to be carried out swiftly and seamlessly.<sup>8</sup>

Truly, it is through the electronic scholarly edition that, today, one can most easily witness the influence of that which is chiefly textual and bibliographical in nature upon that which is more interpretive by nature – as well as the concomitant influence that schools of interpretation exert upon that which is bibliographic in nature; this latter point is best evinced by Schreibman's paper, second in this collection, and the former given considerable support by Best. Such a meeting and mutual information of high and low critical endeavours in the electronic literary text is implicit in most papers in this collection – as is the observation that the electronic scholarly edition is only one type of such a text; truly, as Schreibman and Best both note in their consideration of aspects of the edition, even this type of electronic literary text is undergoing considerable change, reflecting intended or possible applications well-beyond those of earlier-generation editions. At their very essence, Winder suggests, recent literary critical schools and methodologies have combined with computing technology to force us to reconsider aspects of the literary text and its textuality – aspects not as disparate as one might think, Van Pelt convinces us, from the meaning that we are able to construct from its contents. Indeed, and as treated most directly by the contributions of Soules, Rockwell, and Grigar, new forms of textual narrative and communicative interaction in new electronic literary texts have themselves opened up previously unavailable points of intersection between the humanities computing and literary studies communities.

### **3. Papers Towards a New Computer-Assisted Literary Criticism**

The papers of this collection demonstrate well the broad range of new work in computing-influenced areas of literary criticism. They suggest a number of things both positive and valuable: that trends within the literary studies community at large have expanded that community's notion of how computing relates to it – both explicitly and implicitly; that, while at times disputed, there is a strong sense of continuity among past work in humanities computing that addresses literary studies and similar work being carried out a present; and that there is a strong sense of continued promise for, and easily apparent value in, work taking place at the intersection of literary studies and computing.

Expounding and exemplifying the benefits of the electronic edition, Michael Best's "The Text of Performance and the Performance of Text in the Electronic Edition" explores the notion of the "performance crux" – a moment, puzzling to the director and actors, that calls for some kind of stage business to justify or explain action – in the surviving texts of many of Shakespeare's plays. Using the example of such a crux in *Romeo and Juliet*, he suggests how a modern, multimedia electronic edition can provide tools for the reader or actor to explore the possibilities both of the basic text and the performance that grows from it, ultimately treating the

mutual illumination of text and performance in the dramatic electronic scholarly edition.

In her article, "Computer-mediated Texts and Textuality: Theory and Practice," Susan Schreibman continues concern with the scholarly electronic edition, beginning with the observation that the majority of literary archives in electronic form within have been conceived more as digital libraries than disquisitions that utilise the medium as a site of interpretation – tracing this situation to the underlying philosophy of texts and textuality implicit in TEI-SGML. In her treatment of electronic textual theory, she urges that our understanding of electronic texts and textuality deepens as advances in technology allow for the realization of presentations and readings of electronic textual materials that could not, previously, be implemented in HTML or SGML. We can, therefore, expect advances in technology to bring about changes in guiding critical theoretical modes, particularly those that lend themselves to richer expression in a digital environment: reception theory and versioning.

Beginning with the observation that one high literary critical mode, French neo-structuralism, is built directly on the achievements of structuralism using electronic means, William Winder's "Industrial Text and French Neo-structuralism" discusses that mode in the context of its origins in reaction to French post-structuralist theorization and examines a number of exemplary approaches to text analysis in this vein. Further, he considers how computer-assisted accumulation of text-based expertise in the world at large complements this approach, ultimately concluding that we can anticipate the direction of critical studies to be radically altered by the sheer size of the economic stakes implied by a new kind of text, the industrial text which lies at the centre of an information society.

Exploring further the cross-fertilization of theoretical approaches and computing is Tamise Van Pelt's "The Question Concerning Theory: Humanism, Subjectivity, and Computing." Within, Van Pelt surveys the shift from humanist, to anti-humanist, to posthumanist assumptions in literary critical circles and questions whether today's computing environments can still be approached through late twentieth century anti-humanist theories or whether electronic texts demand new, media-specific analyses. Current work in new media, she asserts, suggests that the dominant discourse on the subject – the rational individual of the humanistic enlightenment, which gave way to the constructed subject of the mid-twentieth century (the discourse underlying much contemporary critical theory) – is being challenged by an emergent discourse of the posthuman.

Marshall Soules, in his "Animating the Language Machine: Computers and Performance," explores how we consider a recently-emergent type of text – the computer-mediated writing space – as a unique performance medium with characteristic protocols. Drawing on contemporary performance theory, literary criticism, and communication theory, Soules proposes that technologists, academics, and artists are developing idiomatic rhetorics to explore the technical and expressive properties of the new "language machines" and their hypertextual environments.

The role of improvisation, and its cross-disciplinary protocols, provides a further focus in the discussion of computing practice and performance.

In “Gore Galore: Literary Theory and Computer Games,” Geoffrey Rockwell provides a brief history of another recently-emergent type of text, the computer game, and asserts that they have not been adequately theorized. Rockwell develops a topology of computer games and a theory, based on Bakhtin’s poetics of the novel, that views them as rhetorical artifacts well-suited for critical study.

Bookend to this introduction is Dene Grigar’s examination of the genre of adaptive narrative. In her “Mutability, Medium, and Character,” Grigar explores the future of literature created for and with computer technology, focusing primarily on the trope of mutability as it is played out with the new media. In its speculation about the possibilities of this new genre, it explores ways in which we may want to think when developing future theories about literature – and all types of writing – generated by and for electronic environments.

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### Notes

<sup>1</sup> This introduction draws upon, and is drawn upon in, work presented in greater detail elsewhere (“Disparate Structures,” “Shakespearean Apparatus?,” “Unediting and Non-editions,” and in my contribution to the forthcoming *New Ways of Looking at Old Texts III*).

<sup>2</sup> In Smith’s discussion, an electronic text is central to all endeavours; it is the basis for the dictionaries and concordances generated as aids for other research, much as it is the basis for the sorts of textual manipulation necessary for thematic analyses and stylistic and authorship studies.

<sup>3</sup> See, for example, Fortier (375), and others.

<sup>4</sup> For a summary of such observations expressed ca. 1980–1994, see my “The New Scholarly Edition in the Academic Marketplace” (pp. 35–41).

<sup>5</sup> Since the time of Smith's writing, the perception of this group has remained relatively stable, such that Smith's view of the late 1970s could be shared a decade later by Roseanne Potter, in her preface to *Literary Computing and Literary Criticism*, and by others more recently; as Potter noted, the "practice of computing is widespread and little disputed in these supporting areas of literary study" (p. xv).

<sup>6</sup> Attracting the main focus of Smith's attention, this is something about which we do not yet talk in the same manner as we do about those tools more associated with the projects of lower criticism. Certainly there have been major studies, a number making great contributions that have seen acceptance and, at times, strong engagement in the literary studies community (see, for example, Foster, Lancashire, and others); but, on the whole, we cannot today refer to what Smith called "computer criticism" as being "widespread" and "little disputed," nor can we talk in the same way about its being perceived with any real degree of stability.

<sup>7</sup> I've discussed types of electronic editions in greater detail elsewhere (see my "Disparate Structures" and, more recently, "Shakespearean Apparatus?" and "Unediting and Non-editions"). If we consider scholarly electronic editions with reference to their implementation, there are today two basic models for electronic editions of a scholarly nature, each championing two relatively distinct approaches to the central textual matter of electronic editions. What each type shares is its promise of an interaction with its text possible only with the assistance of the computer (and impossible, for all practical purposes, in print) – and, one can argue, its promise of a new effect on the critical reader who enjoys that interaction.

The first of these models is referred to typically as the *dynamic text*; it is an electronic text which, in essence, indexes and concords itself, allowing the reader to interact with it in a dynamic fashion; this model of the electronic edition is made up of the combination of a properly-encoded electronic text with text-retrieval and analysis software. What makes this type of edition *dynamic* is the way in which the computer facilitates a non-linear interaction with the text – in essence, structuring and treating it as a database – and allows the reader to draw, seamlessly, a good deal of text-based information not easily accessible to the reader of the print edition. In addition to linear reading, those using a dynamic edition can also carry out a number of different types of text-based searches, map out the distribution of search results over the course of the text(s) under consideration and, using the software's statistical analysis capabilities, analyse connotative "clusters" of words associated the search terms.

The second model is what might best be referred to as the *hypertextual edition*. Seen by some as being, potentially, the technological manifestation of social theories of editing (especially, perhaps, when presented as "archive"), this type of electronic scholarly edition exploits the ability of hypertextual organisation to facilitate a reader's interaction with the apparatus (textual, critical, and otherwise) that traditionally accompanies scholarly editions, and with relevant external textual and graphical resources, critical materials, and so forth. It also allows one to "jump" from the text to other related documents of this sort.

The dynamic text, then, tends to emphasise extant linguistic relationships; its historical roots are in word-based scholarship – concording and indexing, collocation and distribution, attribution and dating, rhyme analysis, content analysis, and so forth – and, by its combination of electronic text and text-analysis software, the dynamic text facilitates an interaction with the text that is unavailable, in practical form, to the reader working with a printed text. The other, the hypertextual edition, is most often embraced for its employment of hypertext to emphasise relationships of textual and extra-textual natures, facilitating the reader's interaction with the text and materials related to it with an ease unknown even in the best of scholarly editions published in print; its historical roots are to be found in the apparatuses of scholarly editions and, in the best of examples, the variorum editions and large scholar archives.

The dynamic text automates reading-related functions that would likely not be carried out without the assistance of the computer because of the expense in time involved, such that one's *computer-assisted analysis* of the text and one's *linear reading* of it are acts that become closely affiliated,

potentially equivalent. The hypertextual edition, too, facilitates a close affiliation of the acts of reading and analysis, but does so by providing and assisting in the management of a significant amount of related material extra to the text of the edition itself; what is hypothetically available to the reader in a research library, or group of libraries, and beyond is here made immediately available, encouraging use of the resources by the reader in a seamless fashion. As such, the hypertextual edition, like the dynamic text, also makes accessible dimensions of the text not normally or conveniently available to readers, but does so by providing immediate access to a different sort of material than that handled by the dynamic text.

Ultimately, the new ways in which each type of electronic edition allow the reader to interact with its content suggest that both types of electronic edition have the potential to produce or shape, themselves, a new type of reader: one, say, much more attuned to the specific aspects of the text favoured by its electronic edition-type – in the least, a reader that has the potential to be better informed about the text and its content.

<sup>8</sup> This is true of the hypertextual edition as well; here, the computing tools that allow hypertextual interaction also facilitate a unique level of critical interaction with the text (though this type of computer critical act is outside the realm of Smith's concern).

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