Chapter 8

Reading and Collaboration:
Developing Digital Reading Practices With Computer–Assisted Text Analysis Tools

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ABSTRACT

The introduction of digital media into university writing courses, while leading to innovative ideas on multimedia as a rhetorical enhancement means, has also resulted in profound changes in writing pedagogy at almost all levels of its theory and practice. Because traditional approaches to examining and discussing assigned texts in the classroom were developed to help students analyze different genres of print-based texts, many university educators find these methods prohibitively deficient when applied to digital reading environments. Even strategies in reading and text annotation need to be reconsidered methodologically in order to manage effectively the ongoing shift from print to digital or electronic media formats within first year composition. The current study proposes one of the first and most extensive attempts to analyze fully how students engage with digital modes of reading to demonstrate if and how students may benefit from reading digital texts using computer-assisted text analysis (CATA) software.

INTRODUCTION

As writing instructors working with students in this digital age, we find ourselves facing a number of critical imperatives regarding reading as an assigned activity. Prior assumptions concerning print-based methods of comprehension and communication may not correspond as effectively once one shifts from page to screen. Accordingly, traditional modes of examining and assessing assigned texts in the classroom, developed to help students analyze different genres of printed texts, may be prohibitively deficient when applied to digital reading environments. As many initial studies into this possible discrepancy show, students engaging with electronic texts are more likely to avoid active notetaking, highlighting key passages

or comparing multiple works (Berry, 2012; Gold, 2012). It has further been demonstrated that higher levels of comprehension, including remembering crucial premises and text-specific-terminologies, are adversely affected (Wolfe, 2018). In addition, many of these tendencies seem to derive from issues in digital text interface design and its use as a mode of presentation. As screen-based media (usually PDF format), digital texts cannot easily be marked up or changed while being critically engaged. Hence, at one level, active notetaking, whether in class or on an individual basis seems somewhat indirectly prohibited. The very act of taking notes while working with screen media often requires the simultaneous use of both print and digital media formats while texts are actually in use. Faced with two different formats, a student may just as likely avoid reviewing one over the other.

As a result of these significant changes in how texts are actually distributed and consumed by learners in and outside the classroom, a range of new pedagogical challenges to re- develop critical reading strategies for online literary analysis has emerged. Thus, the major premises informing this project begin by acknowledging first that to "read" or interact with text in a digital format is to engage a profoundly different kind of tool for a new mode of knowledge construction.

At a more nuanced level, it seems that reading digitally, compared to any print-based scholarship practices, entails a much more sophisticated categorization and critical review of the rhetorical aims of texts, not to mention a distinct re-construction (again rhetorically, and epistemologically) of what a text actually is. In fact, much of our research respects Bruno Latour's (1994) materialist theories of technical mediation, allowing us to see digital texts as more than a mere adaptation of print, but rather as a wholly transformative set of tools that changes our relationship to language in terms of "our quality as subjects, our competences, our personalities" (p. 31). In Latour's view—and held by many contemporary philosophers and cultural theorists following him—texts and writing in general, being technical, mediate our environment, not so much as a semiotic system, as a set of social utilities, conveying in the process a distinct linguistic materiality or object-ness. In his words, language is best considered first and foremost in term of its technological structures:

[m]y word processor, your copy of Common Knowledge [the journal publishing his essay], Oxford University Press, the International Postal Union, all of them organize, shape, and limit our interactions. To forget their existence—their peculiar manner of being absent and present—would be a great error" (Latour, 1994, p. 50).

This utility-oriented perspective continues to inform this very study. Quite specifically, as our work with first year learners shows, when one reads texts on the screen as part of actual functioning digital networks, they tend broadly to understand them to have less authority as individually authored voices and more as participants in a broader community that includes him or herself as readers. Argument and proposition as rhetorical features accordingly change, requiring more pedagogical options and possibly the subsequent refinement of instructional methods.

Addressing the issue of and its growing significance in the humanities, this project initiated both a qualitative and quantitative study of select NJIT first year writing classes to determine possible deficiencies in reading-related exercises assigned in electronic format according to specific learning objectives. This research project will pursue two primary lines of study in order to determine a more a substantive and analytically accurate understanding of how first year university students may be responding to information and argument presented in electronic formats. First, basic levels of student reading comprehension and critical engagement with electronically assigned and distributed texts at NJIT will be determined

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