Scaffolded Hermeneutica for Literary Scholars with Novice Technical Skills

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Hermeneutica

In *Hermeneutica*, Geoffrey Rockwell and Stéfan Sinclair (2016) argue for an approach to the digital humanities that deemphasizes the tool and positivist notions of proof. Their proposed approach, also called **Hermeneutica**, champions tool accessibility over tool sophistication. Similarly, scholarly play is legitimated as a useful step in developing research questions and as a means to reconsider established notions within literary disciplines. The aim of Hermeneutica as a methodology seems to be the generation of interesting humanistic questions as much as the resolution of open questions.

Rockwell and Sinclair demonstrate the difference between Hermeneutica and typical DH approaches by quoting from Gary Wong's 2009 blog post:

> [Typical DH] takes the worst part of the scientific papers (really really long sets of tabular data in the body of the text) and the worst part of papers from the humanities (really really complicated language where simple language would have done) and puts it in one. If this is what the cooperation of computational text analysis and traditional literary analysis yield, I am scared.

Because Hermeneutica attempts to join the **best parts** of these fields, it has the potential to turn DH into a discipline that is more useful for the vast majority of non-DH humanists. It could be the means of accelerating the mainstreaming of DH methods and bringing us to the eventual point where all humanities are digital—a destination Claire Clivaz described succinctly (DARIAH, 2016).

Voyant

One feature that distinguishes Hermeneutica from many other DH approaches is its companion set of tools meant to demonstrate its application. Voyant Tools, now referred to simply as Voyant, is a web-based, modular suite of tools meant to be "worth thinking **with**" (Rockwell and Sinclair, 2016: 10, original emphasis). The goal is to accommodate playful exploration of text and sharing of corpora across the web. It is not designed as an industrial-grade text analysis tool, but as a "toy" that allows scholars to uncover new questions and gain new appreciation of texts.

Current limitations of Hermeneutica

A fundamental component of Hermeneutica is that the scholar views text through the lens of Voyant (or other computational text analysis tools), and then synthesizes that experience with their prior knowledge of the text and its milieu. A problem that Voyant addresses, but does not solve, is that many scholars who know the most about specific texts lack the technological skills that would be considered pre-novice in DH circles. Voyant allows everyone with a text and a browser to explore word frequencies, collocations, etc., but it presupposes that the text is available and clean enough for use. In order for Hermeneutica to appeal to non-DH humanities scholars, these issues of text availability and the lack of user skill must first be addressed.

On the issue of text availability, it is not often that scholars wish to analyze text that is rare or missing. More often they are interested in text that is protected by various copyright laws, which prohibit posting the text to public websites such as Voyant. Thankfully, in the Unites States at least, Google Books' recent court victory (Stohr, 2016) now permits scholars to publish online the analysis results derived from copyrighted texts, so long as the original text is not recoverable by the user. To this end Rockwell and Sinclair developed Voyant 2's "non-consumptive" mode which restricts access to tools that allow full-text views.

While such developments represent Rockwell and Sinclair's amenability to meet the ever-evolving needs of Hermeneuticans, accommodating users' lack of technology skill is beyond the scope of their involvement. For example, it is not reasonable to expect the Voyant developers to be concerned over issues of text acquisition or text preparation. Rather, those concerns—while critical to expanding the pool of potential Hermeneuticans—are issues of local implementation. Similarly, it makes sense that Voyant would offer the ability to link to a corpus after uploading the text, but uploading the text and keeping track of various versions of corpora is beyond the scope of Voyant. A local practice of adding some structure around the

Voyant suite ought to make Hermeneutica useful to a far greater audience than it is now.

Scaffolding

In the field of instructional design, such structure is called **scaffolding**. Specifically, scaffolding refers to the process of providing learners adequate introduction and examples before allowing them to attempt a task on their own (Bruner, 1978). For **scaffolded Hermeneutica**, DH-savvy professionals can work to acquire, clean, and upload text to Voyant (and other tools), and then provide public listings of the resulting corpora.

Examples of scaffolded Hermeneutica

We have implemented this scaffolded Hermeneutica approach in our Office of Digital Humanities beginning with the Cormac McCarthy Corpus Project (CMCP). The CMCP includes 13 Voyant corpora of McCarthy's 10 novels: one for the complete works, one for each novel, and two for novels (*The Orchard Keeper* and *The Road*) where the narration has been segregated from the dialogue. But the linchpin of scaffolded Hermeneutica is the CMCP's publicly-accessible website that organizes these Voyant corpora. The website is built on WordPress with the Pods content management plugin, and contains information on McCarthy's work, descriptions of Voyant (and other tools), and listings of links to the Voyant corpora. An essential feature of the website's structure is the ability to accommodate revisions to the current corpora as well as the addition of other tools in the future. Already, there is a non-Voyant sentence structure search tool attached as a beta-testing option.

A rough version of the Cormac McCarthy Corpus Project was presented at the 2015 conference of the Cormac McCarthy Society. The reaction to these tools being available for public use was strongly positive. One attendee referred to the website as "a game-changer."

The same scaffolded Hermeneutica is being implemented on two other projects: *Machado à longa distanciâ* and The Modernist Short Fiction Project. Preliminary demonstrations of the approach have yielded similar reactions to what we observed with the CMCP. Non-DH scholars become excited rather than anxious when the digital analysis tools are scaffolded to provide them ready access. In fact, these demonstrations turn into play sessions where non-DH scholars repeatedly request for certain words to be added to the frequency charts and other Voyant panels.

Conclusion

Hermeneutica and Voyant represent the greatest potential for growth in DH not because they are the most technologically or theoretically **advanced** developments, but because they are the most **accessible** to non-DH scholars. Still, they don't quite reach the ground level of technology skills possessed by most researchers in the humanities. The scaffolded Hermeneutica approach proposed in this paper seems to span that gap to make Hermeneutica more accessible.

Bibliography

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