**Genetic Criticism and the Auto-Saved Document**

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Since the 1970s, the discipline of *critique génétique* or *genetic criticism* has focused on the writing process of modernist authors, through careful analysis of manuscripts that come mainly from the 19th and the 20th centuries.

Which challenges does genetic criticism face concerning 21st-century authors? Most conspicuously, contemporary writers use digital writing instruments. The 'manuscript' itself is thereby changed irrevocably. What constitutes a digital 'version' of a document? Is it the author's consciously saved version, or does it also include the many auto-saved versions that text-processing software creates in the background?

The starting point of this paper is the question of how to deal with text histories that number tens or even hundreds of different versions. Which new concepts should be introduced for dealing with such 'micro-variants'?

I would like to propose a new method for representing and interpreting digital text variants. This approach seeks to visualize the history of a text. My case study comes from contemporary theatre, and comprises the adaptation of Dostoyevsky's novel The Brothers Karamazov by Susanne Meister and Luk Perceval (Thalia Theater, Hamburg, April 2013). In the context of the research project The Didascalic Imagination (FWO Research Foundation Flanders / University of Antwerp), Meister and Perceval have made a large set of 125 preliminary versions of this text available for research. This paper will show how genetic analysis can make use of digital text analysis in order to visualize the history of text variants. First, a difference algorithm is applied to the subsequent versions of the text. Then the full range of edits is visualized on a timeline, making it possible to distinguish between minor edits and decisive revisions. I will detail which mathematical measures can represent the edit distance between two revisions, and how they may be interpreted for genetic research.

The genetic scholar may finally single out specific versions for further analysis. This last step of the research process (comparing the variants of individual text versions) can again be supported by digital text visualization. Contemporary implementations of diff algorithms (such as Neil Fraser's Diff Match and Patch libraries) allow to visualize the variants as a series of insertions and deletions in the original text. I will demonstrate a prototype interface to switch from the 'panoramic' view of a text's full history to the detailed view of individual text edits.