

**Meditation: Annotation as Implicit Interaction to Bridge Close and Distant Reading.**  
**Mehta, et al. TOCHI. 2017.**

**What are the core research questions addressed by the work?**

- How do expert poetry critics analyze and make sense of poems?
- How can the process of poetry analysis, which involves a feedback loop of reading, hypothesis generation, and re-reading, be supported with the development of digital tools?

**What motivates the work?**

- The process of engaging with external resources while performing readings, which is necessary with the existing pen-and-paper work-flow, is time-consuming and disruptive of the analysis process.
- The cyclical workflow of close reading a text is poorly supported by existing literary analysis tools

**How does the work understand the usage, capabilities, and limitations of paper?**

- The practice of making physical annotations, in the domain of literary analysis, is not merely an exercise in note-taking (for future reference), but also a means for sensemaking
  - Spatial arrangement of annotations is significant
  - There is a need to support idiosyncratic annotations
  - There is a need to minimize distractions from the reading task
- Physical paper's affordances: flexibility of free-form in-context ink annotations, ease of switching between annotating and reading (mode switching), ease of cross-referencing of multiple documents, bimanual interactions
  - Existing margin space of paper printouts of poetry used by critics
- Mainly appreciated for support for free-form annotations
- Benefits of coupling physical and digital documents

**What is the target application domain of the work?**

- Literary analysis

**What are some proposed extensions to paper proposed by the work?**

- Couple desktop-based literary support application with physical paper through the Anoto pen
- Interpret co annotations to deduce reader intent and generate apt assistance based on this interpretation to better support the critic's current thought process
- As the reader annotates the poem, the pen position is captured and communicated with an application running on a nearby computer in real time. The annotations are processed and used as a query for contextually relevant information like semantic and phonetic relations, word definitions, usage history, etc. The results are visualized on a desktop application.
- Present just-in-time, context-specific metadata (supplemental information) as a reader annotates a poem printed on a physical sheet of paper, in a non-interruptive manner
- Support idiosyncratic and polymorphic notetaking: Allowance for custom gestures and notations

### **How are the proposed extensions implemented?**

- Anonto pen
  - Annotations made by a critic while reading initiate interaction with the system
  - Annotations processed in real-time, taking into account their space on the page, time, and order of occurrence, and form
  - Processed into annotated words and used a query for reference resources. This is displayed on a desktop application.

### **What findings have been obtained from either the implementation process or an evaluation of the proposed system?**

- The prototype presented in the paper demonstrated to have the potential to augment existing work practices in the domain of literary criticism while connecting close reading to large corpora and literary history
  - Provides the advantage of supporting an already familiar method of annotating text with a physical pen, and proceeding meta-information in a separate space to aid the sensemaking process
- Users could benefit from having an additional resources to support their work
- Minimal interruptions to the original workflow is desirable
  - The ability to engage with the augmentations within a user-defined time frame ensures that the interruptions to the workflow can be minimized
- Technical limitations:
  - Sometimes relationship between notations was incorrectly guessed, leading to the system unintentionally discovering an unarticulated pattern