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Slide 1

Thank you and welcome to Visualizing Computational Rhetoric. My name is Ryan Omizo from the University of Rhode Island. Just a note: some of these slides have been created for offline readers and have notes.

Slide 2

By computational rhetoric, I mean rhetorical analysis that is assisted by computerized algorithms. There are many different algorithms that can be deployed for these purposes. I will be focusing on machine learning for this talk and how machine learning can be used to classify rhetorical moves for an ongoing project of mine.

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That project is the faciloscope, which is an extension of a previous WIDE project interested in how human facilitators foster conversations in online learning environments. You can follow the link in the slide to read more about it. Also see:

- Sackey, D. J., Nguyen, M. T., & Grabill, J. T. (2015). Constructing learning spaces: What we can learn from studies of informal learning online. *Computers and Composition*, 35, 112-124
- Grabill, J. T., & Pigg, S. (2012). Messy rhetoric: Identity performance as rhetorical agency in online public forums. *Rhetoric Society Quarterly*, 42(2), 99-119.
- Grabill, J. T., Pigg, S., & Wittenauer, K. (2009). Take Two: A Study of the Co-Creation of Knowledge on Museum 2.0 Sites. *Museums and the Web 2009: Proceedings*.

Part of this project was focused on isolating high-value facilitation techniques and rhetorical moves in the Swayles and Najjar (1987) sense of a move that advances persuasion.

Slide 4

The faciloscope was designed to automatically classify large chunks of discourse according to 3 high-value facilitation moves: Staging, Inviting, and Evoking Relationships.

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The problem or provocation for this project boils down to this: by annotating an input text with descriptions of moves, the faciloscope expands the original dataset. How can we now visualize this expansion of data while also making use of condensation of information that visuals are routinely obliged to offer?

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What I propose for this talk is an approach to computational rhetorical outputs that views textual information as an assemblage of objects that collaborate to form certain "views."

The challenge is to understand the new affordances and constraints that quantitative resolutions can offer qualitative rhetorical judgments.

Slide 7

One path along this object oriented approach is through the use of small multiples theorized by Tufte. And here are some examples of traditional small multiples: a pie chart showing percent distribution of moves; a bar chart showing distribution of moves by sentence.

Slide 9

And this is a small multiple that I created while trying to negotiate the quantitative counts of rhetorical moves and the overall density of the source text. We call this the “bands” visualization. The bands illustrate the spatial dimension and arrangement of the each of the 3 rhetorical in a text. We sort of think of this visualization as a DNA smear of the text.

Conclusion

I want to end this talk with 1 final provocation:

That the theorizing and implementation of visual data in digital humanities projects should consider app development as part of its theoretical and practical scaffolding. Speaking about the facioscope, it wasn't until late stages of app development that the “bands” visualization was proposed and it was proposed because the existing application framework and visual design made it feasible.