SN-0021 A Prosthetic Reading of Shakespeare's Genres

A prosthetic reading of Shakespeare's genres - University of Wisconsin-Madison

Collection Date: 1/8/2009

Scholar #1 Info: (if more than one scholar's process is described, copy this set for each scholar)

- Name: Michael Witmore
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- Title: Professor, English Department
- Institution/Organization: University of Wisconsin-Madison
- Field of Study/Creative Endeavor: Shakespeare, renaissance drama, early modern intellectual history, rhetoric, theories of narrative and interpretation, the history of materialism.

Collector Info (can be the same as "Scholar" above):

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Notes on Methodology:

This story was copied, with the support of Professor Witmore, from an article in the Carnegie Pulse from April 3, 2004, found at http://www.tcpulse.com/2004/04/03/ac/shakespeare/, which describes the work in this story. (Carnegie Mellon was where Professor Witmore performed this work.)


Scope

TO BE COMPLETED

The scope section is provided by the collector, with input from the scholar(s), and attempts to estimate the scope of the group that performs the processes described: How broadly do the practices described in this story apply to others in same field, in related fields, etc?

1. In the opinion of the scholar, who participates in the process the story describes?
2. What is this process intended to accomplish for the scholar?
3. Who is the intended audience of the processes described?
4. Is this the only process the scholar uses to accomplish his/her goals?
5. What "shared services" would help transform the story into something of more benefit for the scholar or his/her audience? What process or processes in the story could be automated?

Keywords

Stories
Aggregate, Consider, Publish

Story

A prosthetic reading of Shakespeare's genres

Apr 3, 2004 6:09 pm | by Catherine Scudera

Armed with a slideshow and an extensive knowledge of William Shakespeare's plays, Carnegie Mellon's Michael Witmore and the University of Strathclyde's Jonathan Hope gave a presentation this past Tuesday about their collaborative research on Shakespeare's histories and comedies.

Using a program called Docuscope, developed at Carnegie Mellon, Witmore and Hope were able to statistically distinguish the two Shakespearean genres from each other. Equipped with a specialized dictionary, Docuscope is able to divide texts into strings of words that are then sorted into one of eighteen word categories, such as "Inner Thinking" and "Past Events." The program turns differentiating amongst genres into a statistical task by testing the frequency of occurrence of words in each of the categories for each individual genre and recognizing where significant differences occur.
A point that both Witmore and Hope emphasized was that although Docuscope can calculate numbers with mechanical accuracy, the actual interpretation of the differences in genres takes place after Docuscope spits out the raw data. Without a background in Shakespeare, they said, they couldn't have accurately assessed Docuscope's results. "We didn't really have a hypothesis," said Hope. Originally, the pair went through a variety of different possible topics before deciding to "put Shakespeare through [Docuscope] to see what would happen."

What they found was that Shakespeare's comedies and histories were written with distinctly different diction. For example, the comedies have the most "Interacting" words, which Hope said is plausible because of the witty dialogue that often takes place in comedic plays. A more surprising finding was that comedies had a higher frequency of "First Person" words. This may indicate an interesting twist on the traditional mindset that the "creation of the modern self" occurred in the tragedies, with their many soliloquies and monologues. Tragedies themselves were not found to be statistically distinguishable from the other two genres.

The importance of the human interpretation of Docuscope's results became clear to Witmore and Hope when the program said that histories have a significantly higher frequency of "Word Picture" words, which primarily includes nouns relating to objects and places such as "chair" and "room." It wasn't until Witmore and Hope looked at the results more carefully that they noticed that Docuscope was incorrectly coding the word "king," often the title of the lead character in Shakespeare's histories, as a "Word Picture" word. Once they edited out the characters' names from the directing cues, "Word Picture" words no longer distinguished histories from the other genres.

Hope noted that they may try to create an early Modern English dictionary for Docuscope in addition to fixing problems such as the "king" one, which could potentially produce more accurate results. Some day, Witmore says, he and Hope "want to find what is distinctly different of Shakespeare from other writers." Although such a project would take many years if done by reading alone, with the help of Docuscope, they hope to be able to more quickly identify a "recipe" for Shakespearean quality. With research such as Witmore's and Hope's, Docuscope is poised to play a more prominent role in the literary community in the coming years.

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Other Comments:

**Related Activities:**

- Expose Patterns Within Objects

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