

DS+DH: THE MACHINE AS HORIZON OF INTERPRETATION

A TRANSDISCIPLINARY CONFERENCE ON DATA SCIENCE AND DIGITAL HUMANITIES

During a remarkably short period of time, data science has produced significant changes within the sciences, from genomics to astronomy, introducing new computational methods and forms of knowledge that are transforming the foundations of scientific research. In the humanities, digital humanists using computational and data intensive methods have also challenged the foundations of historical and literary research by undermining the authority of reading, interpretation, and established canons of texts. Although data science and the digital humanities emerged independently, both share a series of foundational traits -- a belief in the effectiveness of machine learning, an embracing of new scales of research, an affinity for a series of methods extending from genetic algorithms to network theory, and, within the humanities, a belief in the suitability of these methods for the study of culture itself, particularly culture in the form of text and language.

Discussions about the relationship between data science and the humanities have generally been in one direction, focusing on how the humanities can benefit from data-driven methods that have proven successful in other domains. But what do the humanities – broadly conceived to include history, literature, philosophy, and the arts – have to contribute to these discussions? Can humanists provide unique insights into issues arising from data science beyond obvious ethical concerns? What can humanists, with long traditions and multiple perspectives on the concepts of culture, knowledge, and interpretation, and an engagement with computational methods dating back to the 1940s, contribute to the discussion of the epistemological transformation that is now happening so rapidly, broadly, and deeply?

In this one day conference, we will explore the rich theoretical and methodological affinities, as well as productive differences, that exist between the digital humanities and data science, with a focus on how the humanities can inform data science and the computational sciences. Topics to be discussed include:

- The concept of culture that is being developed and operationalized by “social computing” on data sets such as Twitter and other social media data
- The status of knowledge claims made about culture and society made by these approaches
- The sympathetic and antagonistic connections between the hermeneutic and formal approaches to knowledge
- Similarities and differences between the concept of texts as unstructured data versus

discourse (“parole”)

- Approaches to narrative being developed by digital humanists and data scientists

The format of the conference will be as follows. In the morning will have a keynote lecture given by Matt Jockers (Susan J. Rosowski Associate Professor of English, University of Nebraska-Lincoln and Author of Text Analysis with R for Students of Literature) to be followed by a discussion from a panel composed of Alison Booth (Director, Scholars’ Lab); Don Brown (Director, Data Science Institute; Abigail Flower (Systems and Information Engineering); Matthew Jockers; and William Pearson (Biochemistry and Molecular Genetics). Lunch will be provided and then followed by a more open discussion involving members of the UVA’s Presidential Fellows program, which pairs humanists and data scientists to pursue a single humanistic research topic.

The conference is organised by Rafael Alvarado (Media Studies, SHANTI, rca2t@virginia.edu) and Paul Humphreys (Philosophy, pwh2a@virginia.edu), co-directors of the Center for the Study of Data and Knowledge, a Center of Excellence of the Data Sciences Institute. The conference will be held on Grounds on Friday April 7 2017 with the morning sessions in Robertson 123.

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