

Chapter 103

The Data Machine: Identification in the Age of Data Mining

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ABSTRACT

Kenneth Burke warned of the trends of behaviorism in A Grammar of Motives as he found them to be a reduction of the human condition. In the current digital landscape, data mining aims at reducing the human user to characteristics and re-presenting those characteristics, through online advertising, to the user they were collected from. Due to these processes, rhetoricians are forced to take a deeper look at how the audience is constituted within digital situations. This chapter discusses the effects of data mining on Burke's work, providing an example for the contextualization of rhetorical theory in new media environments. By contextualizing Burke's concepts, this chapter allows for these ideas to be used more seamlessly within digital rhetoric and any medium where data mining is a consistent practice.

INTRODUCTION

A railroad is approached, not in terms of tracks, engines, roundhouses, repair plants, and working force, but through data as to its capital structure! There it lies, stretched over hundreds or even thousands of miles—yet it is not an actuality, but a prospect. (Burke, 1984, 42)

Meanwhile, if the quantity of information is increasing by 2.5 quintillion bytes per day, the amount of useful information almost certainly isn't. Most of it is just noise, and the noise is increasing faster than the signal. There are so many hypotheses to test, so many data sets to mine – but

a relatively constant amount of objective truth. ... We love to predict things – and we aren't very good at it. (Silver, 2012, p.13)

According to their patents, Sony sees the next generation of advertising to be interactive. In a media environment where machines such as Sony's PlayStation Eye and Microsoft's Kinect for the Xbox, both instruments for viewing and interpreting the movements of viewers, it is not too far-fetched that this will be the case. According to their patent, users will be required to shout out the name of the product to skip the advertisement or be prompted with a burger to throw pickles on in order to create a distinct relationship between

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physical action and consumer product (Ertz, 2012). With these watching machines pervading the media landscape, and the guarantee that they will continue and expand with the introduction of the newest PlayStation and Xbox consoles in 2013, one might believe that we are accelerating towards the surveillance systems of 1984 (Cutlack, 2013). However, online advertising has sped past these proposed connections of sound or motion and memetic imprints. Instead, the online advertisement aims at understanding the human's actions remotely, perceiving the everyday motions of the user to be more rewarding, and profitable, than that of simple response. Online advertising aims to discern the fragmented actions of a human user into patterns that can then be translated into user-specific advertisements. In short, online advertising looks to create a user which can then be fractionally identified with a whole host of products.

Data mining is the process through which these patterns are discerned and users' identities are created. Han, Kamber, and Pei (2012) write, "Data mining turns a large collection of data into knowledge. ... Interestingly, some patterns found in user search queries can disclose invaluable knowledge that cannot be obtained by reading individual data items alone" (p. 2). The Internet allows for a massive collection of data and, by its structure, allows for every data point to be associated with a single user. This creates a tremendous potential for discerning an individual's tendencies and patterns of informational, or material, consumption.

All technologies understand a user in various ways (de Vries, 2009). Take, for instance, an elevator. This machine requires simple inputs in order to transport the user to various floors of a building. With specific inputs, it recognizes the floor a user wishes to go to, the floor that user came from, if the user wishes to keep the doors open or close them, and, in case of emergency, if that user is stuck through the use of an alarm or intercom system. However, the elevator is a simple

machine in that it cannot discern a user's preferred destination upon entrance or sense people approaching from far away. Perhaps, one day, there will be a "smart" elevator that can discern the body of a particular user upon entrance, either by the use of cameras, weight distribution, or some other tracking device that allows for preferences to be understood for that user. Data mining allows for a vast array of inputs to be understood by the algorithms and for those inputs to then be redirected back at the user in a variety of forms.

The purpose of this chapter is not to argue the moralistic grounds of data mining and its effects on online advertising or the effects on the user. It does not aim at discussing the private and the public and how data mining bridges these through surveillance either. Instead, I look to provide as much antagonism over data mining and its effects on digital rhetoric as I think the two quotes above create. Here we see an early Kenneth Burke pitted against the data wunderkind Nate Silver, both providing an opposite side of the possibilities of data collection and manipulation. Here Burke puts forward the prophets that data bring with them and Silver holds out hope that an abundance of data does not drown out the reality it might bring with it. Instead this chapter looks mainly at defining, and re-defining, instead of chastising.

Internet advertising is driven by what I am calling here the data machine. This concept, derived from Paul Virilio's *The Vision Machine*, aims at understanding the complex sets of algorithms used online as a kind of machine, which requires inputs to create users and then pairs the user with a variety of possible outputs. Alongside my conceptualization of the data machine, this essay will focus on the effects of data mining on Kenneth Burke's concepts of identification and consubstantiation. With a changing understanding of identity – one that is created through associations unknown by the user – there are strong effects on the rhetorical conception of an audience and of identification. When an audience is reduced to the actions of users online, identification becomes a stratified

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