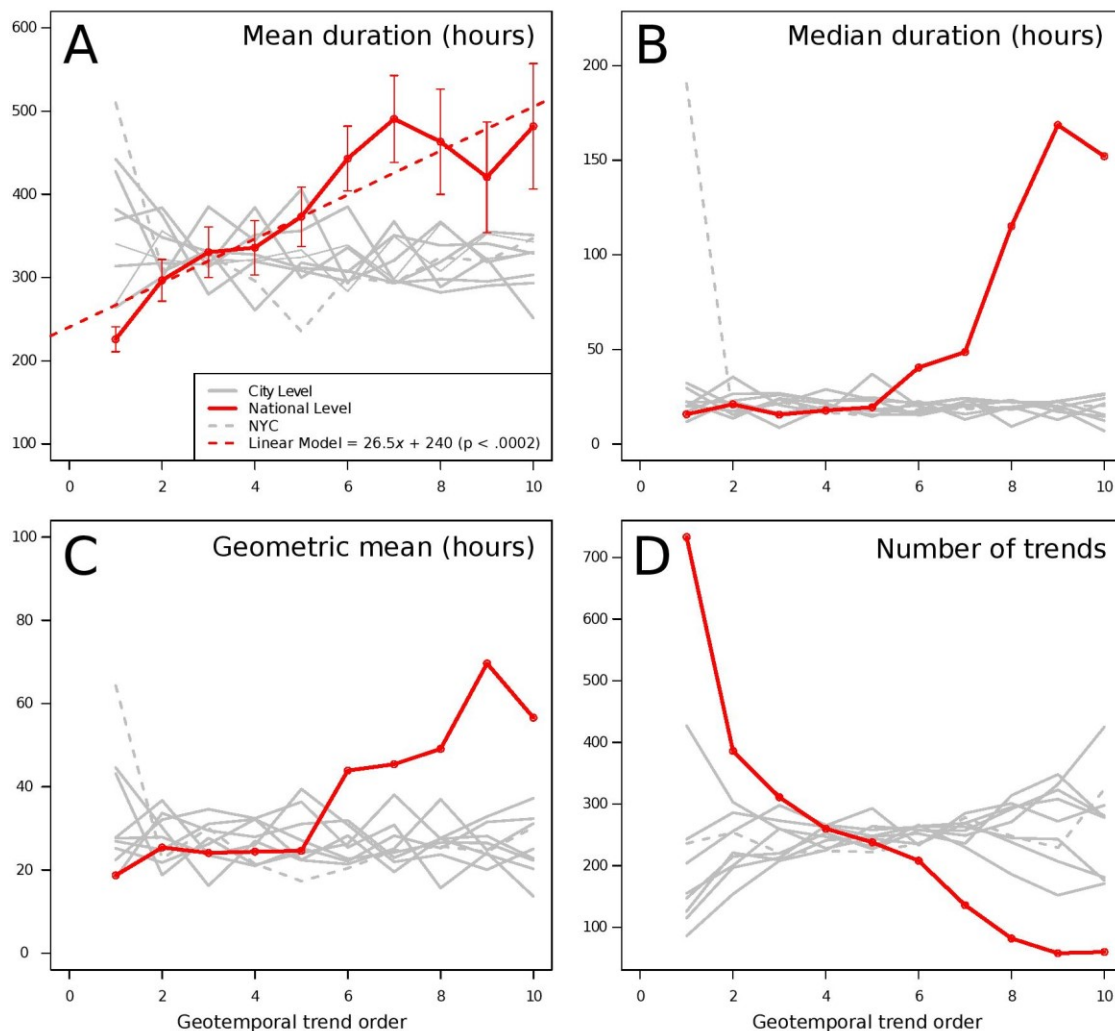


As a digital humanities scholar, my research applies data science tools and methods to the study of rhetoric and writing in digital networks. While concepts like *network*, *trending*, and *virality* have motivated extensive theoretical inquiry into the cultural effects of digital media, we have barely glimpsed the possibilities for exploring the material dimensions and operational functions of these concepts for humanities research. My forthcoming article in *Digital Humanities Quarterly*, titled “Attention Ecology: Trend Circulation and the Virality Threshold,” exemplifies the type of research afforded by data science methods. Through a study of trend data mined from Twitter, the article identifies a *virality threshold* for Twitter trends, and argues that such a concept has broader implications for social network research in the digital humanities. For this study we collected data on 17,343 unique trends over 73 days through Twitter’s API, and conducted a geotemporal analysis of the data. As the figure below displays, trends that quickly appear at the national level tend to be volatile in nature—quick to rise, and quick to fall. By contrast, topics that increase in attention slowly, growing and spreading to more locations prior to trending at a national level, are much more likely to achieve critical mass:



The lines in the figure above display geotemporal trend sequence. The red line represents the trends that appeared in all other locations in our analysis prior to trending at the national level. The grey lines depict trends that appeared at a national level prior to reaching all 10 locations.

