

Tracking and Predicting the Flow of Information through Networks

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007 Kemeny Hall, 4:00 pm
(Tea 3:30 pm 300 Kemeny Hall)

Abstract

The information we experience online comes to us continuously over time, assembled from many small pieces, and conveyed through our social networks. This merging of information, network structure, and flow over time requires new ways of reasoning about the large-scale behavior of information networks.

I will discuss a set of approaches for tracking information as it travels and mutates in online networks. We show how to capture and model temporal patterns in the news over a daily time-scale – in particular, the succession of story lines that evolve and compete for attention. I will also discuss models to quantify the influence of individual media sites on the popularity of news stories and algorithms for inferring latent information diffusion networks.

Joint work with Jaewon Yang, Seth Myers, Lars Backstrom, Manuel Gomez-Rodriguez and Jon Kleinberg.