

NYU Stern School of Business
Department of Information, Operations & Management Sciences
OPERATIONS MANAGEMENT RESEARCH SEMINAR

TOPIC: Predictive Models of Retweeting in Twitter

SPEAKER: Tauhid Zaman (MIT)

DATE: Wednesday, September 25, 2013

TIME: 11:00 AM-12:00PM

PLACE: KMC 5-75

ABSTRACT

We propose a model which captures the structural and temporal dynamics of users' retweeting behavior on Twitter. With this model we are able to predict how many retweets a tweet receives within a few minutes of its posting using only basic information about the users and the timing of the retweets. This model is fairly general and can be extended to user generated content in other social networks.

The ability to predict retweets has relevance to other important applications. One is the ranking of tweets in a user's timeline. Tweets are currently ranked in chronological order. However, many times this is not optimal. What a user would want to see is newer tweets that are going to be important or popular. Measuring how new a tweet is can be done easily, but measuring its eventual popularity is not as obvious. However, our retweet predictions can be used as a measure of a tweet's eventual popularity. Based upon this, we will present a new way to rank tweets by combining their age and our retweet predictions.

Bio

Tauhid Zaman is an Assistant Professor of Operations Management at the MIT Sloan School of Management. His research focuses on utilizing large-scale data from online social networks such as Facebook and Twitter to develop predictive models for user behavior and enhance business operations. He received his BS, MEng, and PhD degrees in electrical engineering and computer science from MIT. Before returning to MIT he spent one year as a postdoctoral researcher in the Wharton Statistics Department at the University of Pennsylvania.

His work has been featured in Wired, Mashable, the LA Times, and Time Magazine.