CS 8803 Social Computing: Social Media Overview

Munmun De Choudhury
munmund@gatech.edu
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Assignment I

• Due: September 15, 2014
• *Topic*: Propose the design and implementation of a tool that would give real-time notifications of “trending topics” based on the users you follow on Twitter

• What to hand in?
  • 3 page report, with a mockup of what the tool will look like
  • Submission on T-Square
Assignment I

• What your report should contain (other than the mockup):
  • Section 1 (Main idea): How will the tool work (e.g., smartphone, website, frequency of updates)?

  • Section 2 (Method): What do you need to do to get access to your friends’ posts? How can you identify trending topics?* (see handout for details) How frequently will you have to collect your friends’ data to ‘refresh’ trending topics?

  • Section 3 (Design process): Justify why you chose the particular design you show in the mockup, e.g., how your tool will visualize the trending topics (bonus if you propose interesting non-list ways to present the information)
“Why we twitter: understanding microblogging usage and communities”
• The first archival, peer-reviewed paper on Twitter
• Investigation of the purposes behind microblog use
• Findings:
  • Users with similar intentions and interested form communities, or are “clustered”
  • People either talk about daily activities, or seek or share information – finer roles were examined compared to the Naaman et al paper: Daily Chatter, Conversations, Information Sharing, News
• Twitter’s growth showed monotonic increase over time for the dataset analyzed, and its user retention was consistent
• Indegree and outdegree distributions followed expected power law distribution
“Measuring User Influence in Twitter: The Million Follower Fallacy”
• An early paper examining spread of influence on Twitter and people’s social network and interaction characteristics.
• Early uses of a very huge Twitter dataset
• Influence measured through three attributes: in-degree (number of followers), retweets, mentions
• Findings:
  • More in-degree doesn’t imply more influence in terms of RTs or mentions
  • Influence users tend to share content on a number of topics
  • Influence generation is gradual, and happens through focus on specific topics
“Is It Really About Me?: Message Content in Social Awareness Streams”
• Seems like this was the favorite paper of the class this week!

• Analysis of communication patterns on Twitter (tweet content analysis)
• Both qualitative (hand coding of messages) and quantitative methods used
• Findings indicate the presence of two kinds of individuals: “meformers” and “informers”
  • Meformers garner more mentions, informers garner more retweets
  • Informers have more followers, meformers are more women and mobile users
Popularity may spread information—however how can one judge whether the information being shared is credible? *Example: vaccination and autism myth*
Does trust come as a corollary of popularity?

*Point: Trust can vary by topic; probably you wouldn’t trust Justin Bieber’s recommendation on which laptop to purchase.*
Now that we have a sense of how social media influence works, can we guess why the ALS ice bucket challenge worked?
However there can be a lot of aspects, beyond the popularity or topical authority of a power user, that would affect whether a piece of information is shared or not. What could some of these aspects be? [Hint: information sharers are humans, who have agency]
How accurately do “meformers” and “informers” capture intent behind information sharing on Twitter? Point to note: the paper is from 2010-11, could other intent have emerged over the years? Examples: media sharing, Q&A

With the emergence of smartphones, Instagram etc., people are likely to take moment-to-moment pictures of things happening around them. Does it mean we are seeing emergence of information-sharing “meformers”?
The paper uses a small dataset (350 users), what kind of biases can this potentially introduce in the categorization of “meformers” and “informers”? 
After all, who are “meformers”? And who are “informers”? *Hint: later work found Twitter users to span different categories*
We all are perhaps “meformers” and “informers” at different points in time—what factors influence this negotiation? [Hint: people have social networks]
Why is it useful/important after all, for us to learn about different uses of Twitter? *Tip: think beyond viral marketing, advertising*
Between 2007 when the Java et al paper came out and now, we have come a long way. What could be reason for widespread acceptability of Twitter?
Next class

• No class on Monday (Labor Day); next class Wednesday 9/3 (topic: Social System Design)
• If you can’t access the paper directly, the library proxy or logging into the GT VPN should allow you to do that
• Your response should focus on the following:
  • What is the main contribution?
  • Is it important? Why or why not?
  • What assumptions are being made?
  • What applications could arise?
  • How can it be extended?
  • What was unclear?
  • Did you find the paper interesting?

• Responses should be on Piazza by 11:59pm on Tuesday 9/2
Next class

• Bring laptops
• Have a version of Python (2.7 preferred over the new 3.4) installed
  • https://www.python.org/downloads/
• Some additional libraries to install: the SciPy stack
  • http://www.scipy.org/install.html
  [Many dependencies, so install each carefully and in the sequence they tell you to]
• We will do some practicum exercises in the class