



# CS 8803 Social Computing: Social Media Overview

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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 interests 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