CS 4803 Social Computing: Purposes of Social Computing Systems I

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Many of us consider social media to be useful for social capital (last class). Were you surprised reading about their utility as a news media or for social search?

What is Twitter, a Social Network or a News Media?

Do you really agree that Twitter is a news media?

Summary

- Examine the potential of Twitter as a medium of information sharing
- Data was all of Twitter – crawl was made in 2009 – 41.7 million user profiles, 1.47 billion social relations, 4, 262 trending topics, and 106 million tweets
- Findings:
  - In its follower-following topology analysis authors found a non-power-law follower distribution, a short effective diameter, and low reciprocity
  - Retweet popularity based influence is different from follower count based influence
  - 85% trending topics are headline news
  - Quick diffusion of retweets occur, independent of the follower count of the originator

What Do People Ask Their Social Networks, and Why?

Summary

- The paper studies the phenomenon of using social network status messages to ask questions
- Survey of 624 people, asking them to share the questions they have asked and answered of their online social networks
- Data examines: frequency of this type of question asking, the types of questions asked, and respondents' motivations for asking their social networks rather than using more traditional search tools like Web search engines.
- Findings explored: type of information need, trust issues, response time, efforts (curated responses), personalization (friends knew people well)

Your reflections…

Four degrees of separation

Four Degrees of Separation

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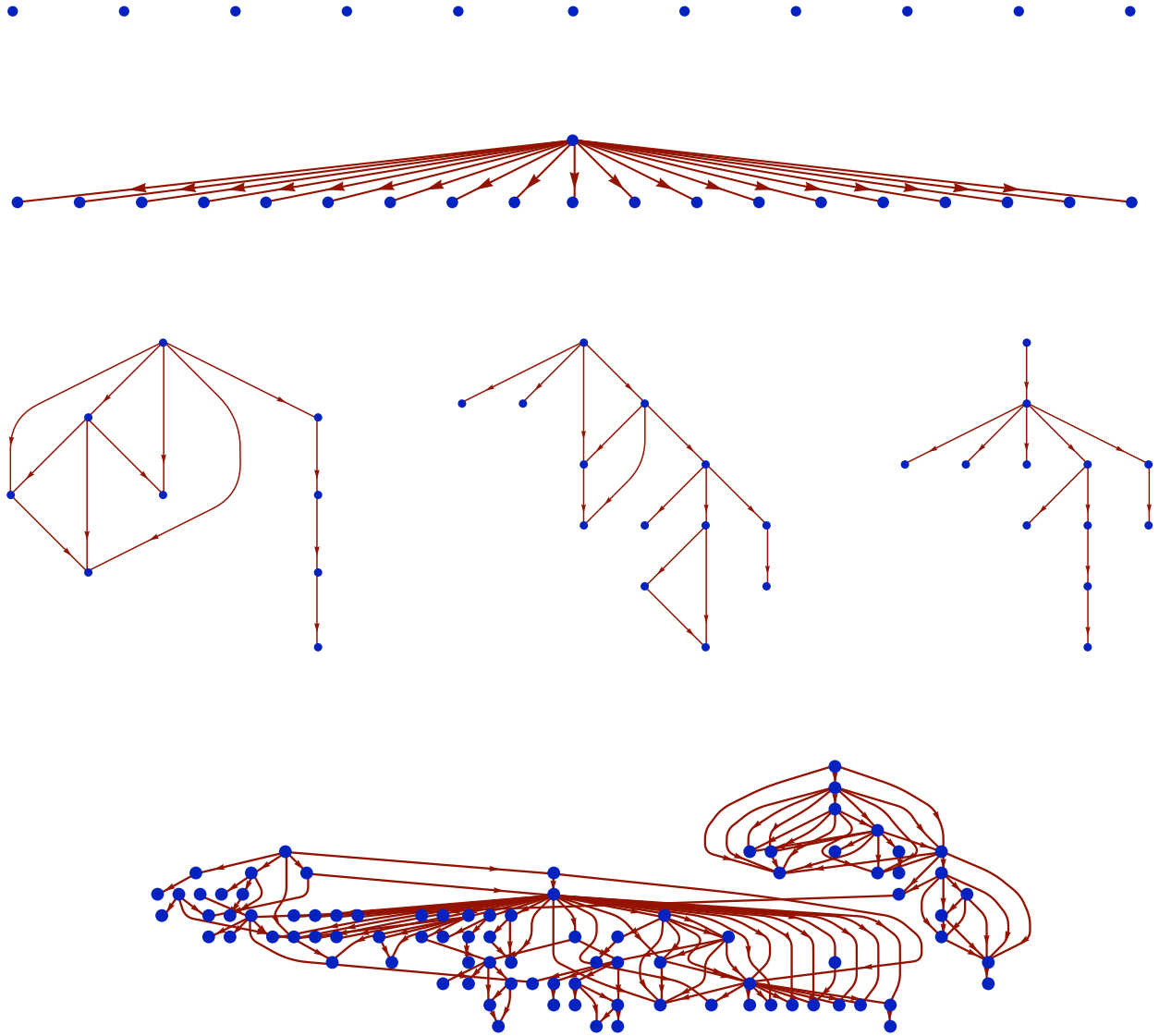
ABSTRACT

Frigyes Karinthy, in his 1929 short story "Láncszemek" (in English, "Chains") suggested that any two persons are distanced by at most six friendship links.[1] Stanley Milgram in his famous experiments challenged people to route postcards to a fixed recipient by passing them only through direct acquaintances. Milgram found that the average number of intermediaries on the path of the postcards lay between 4.4 and 5.7, depending on the sample of people chosen. We report the results of the first world-scale social-network graph-distance computations, using the entire Facebook network of active users (≈ 721 million users, ≈ 69 billion friendship links). The average distance we observe is 4.74, corresponding to 3.74 intermediaries or "degrees of separation", prompting the title of this paper. More generally, we study the distance distribution of Facebook and of some interesting geographic subgraphs, looking also at their evolution over time. The networks we are able to explore are almost two orders of magnitude larger than those analysed in the previous literature. We report detailed statistical metadata showing that our measurements (which rely on probabilistic algorithms) are very accurate.

At the 20th World–Wide Web Conference, in Hyderabad, India, one of the authors (Sebastiano) presented a new tool for studying the distance distribution of very large graphs: HyperANF [3]. Building on previous graph compression work [4] and on the idea of diffusive computation pioneered in [19], the new tool made it possible to accurately study the distance distribution of graphs orders of magnitude larger than what was previously possible.

One of the goals in studying the distance distribution is the identification of interesting statistical parameters that can be used to tell proper social networks from other complex networks, such as web graphs. More generally, the distance distribution is one interesting *global* feature that makes it possible to reject probabilistic models even when they match local features such as the in-degree distribution. In particular, earlier work [3] had shown that the *spid*[2], which measures the *dispersion* of the distance distribution, appeared to be smaller than 1 (underdispersion) for social networks, but larger than one (overdispersion) for web graphs. Hence, during the talk, one of the main open questions was "What is the spid of Facebook?".

Going beyond Stanley Milgram's initial 1967 experiment (that crystallized the "six degrees of separation" study), why have we come to a shrinking online world (discuss in the context of both Twitter and Facebook)? Does geography play a role?



Information cascades on Twitter (based on retweets) – Bakshy et al, 2010

Kwak et al. found that retweet popularity based influence is different from follower count based influence. What could be the reason?

Retweets in a way measure social influence. What are the methodological challenges of attempts to social influence via retweet data?

Kwak et al also found that fast likelihood of diffusion occurred following the first retweet. What could be the possible reason behind this?

Kwak et al. found that 85% trending topics are news. To what extent the design of Twitter (and its trending topic) algorithm is responsible for it? Is it still true (given the Twitter of today?)

Twitter now allows some basic algorithmic curation of feeds. Do you think this may cause Twitter to no longer be a news medium?

Is Facebook a news medium? If not, why not? Would you consider Reddit to be one?

What makes a social media a news media? Take Twitter's example. Conversely, is the New York Times a "social media" now that you can comment on articles?

In what contexts would you use social media and social networks for Q&A or “social search”?

In what contexts would you **not** use social media and social networks for Q&A or "social search"?

What do you think are the design or functionality challenges towards using today's social media platforms for social search or Q&A? Would you rather bring search to social or social to search?

Aardvark (search engine)

From Wikipedia, the free encyclopedia

Aardvark was a social search service that connected users live with friends or friends-of-friends who were able to answer their questions, also known as a knowledge market. Users submitted questions via the Aardvark website, email or instant messenger and Aardvark identified and facilitated a live chat or email conversation with one or more topic experts in the asker's extended social network. Aardvark was used for asking subjective questions for which human judgment or recommendation was desired. It was also used extensively for technical support questions. Users could also review question and answer history and other settings on the Aardvark website. Google acquired Aardvark for $50 million on February 11, 2010.[1][2] In September 2011, Google announced it would discontinue a number of its products, including Aardvark.[3]

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History [edit]

Aardvark was originally developed by The Mechanical Zoo, a San Francisco-based startup founded in 2007 by Max Ventilla, Nathan Stoll (bot Horowitz and Rob Spiro.[4] A prototype version of Aardvark was launched in early 2008[5] with an alpha launch in October 2008.[6] Aardvark wa although initially new users had to be invited by existing users.[8] The company did not release usage statistics.

What are the risks of social search?

One question for us to think is, whether Facebook/Twitter are the right places to ask questions. Algorithmic curation often dumps posts without enough responses. This might give a biased view of the effectiveness of these methods.