User Interactions in OSNs

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• Do you have a Facebook account? Why?

• How likely to know ALL your friends?
• Why confirm requests?
• Why not remove them?
• How much do you care?
  ◦ Interactions, birthday wishes, updates, news
To summarize

- Problem: Indicators of real interactions? Meaningfulness of links, “ties” strength
  - What about quality?
  - Future?
  - Easy task to measure?
    - Extremes? Think about siblings or singles!!

- Approach: Data analysis

- Main Finding: Milgram’s experiment not applied
  - Small World Properties
    - High clustering
    - Smaller path lengths (Barabasi)

- Connection with protein interactions?
Evolution of activity graphs

- Interaction networks: What about the fluctuations in activity?
  - Example: workplace
- Different approach: study subsets by distinguishing strong & weak links
- Over 54% of the interactions between the infrequently interacting user pairs can be directly attributed to Facebook’s birthday reminder feature
- Privacy: filtering VS public profile
- Challenges:
  - Strong ties: family do not interact online
  - Weak ties: miscellaneous relationships, friends diversity
Interaction Characterization: Usage profiles in OSNs

- Wall posts, Message exchange? What about “silent” interaction?
- Questions:
  1. What keeps you interested? What is the impact of interactions?
  2. Is there homogeneity in user behavior?
- Where is it useful?
  - Design
  - Feature
  - Differences & commonalities
    - densification laws, degree dist,
- However:
  - Clickstream: HTTPS vs HTTP
  - Data Availability: limited
- Observations:
  1. Users stay within same activity
  2. Power law session duration
  3. Criteria for feature popularity
More precisely...

- Only 25–35% @ users’ own profile
- Facebook, 10–15% of the accesses are to public profiles vs 20–25% in LinkedIn
- Why?
- Everything Connected?
Thank You 😊