

Simplifying Friendlist Management on Facebook

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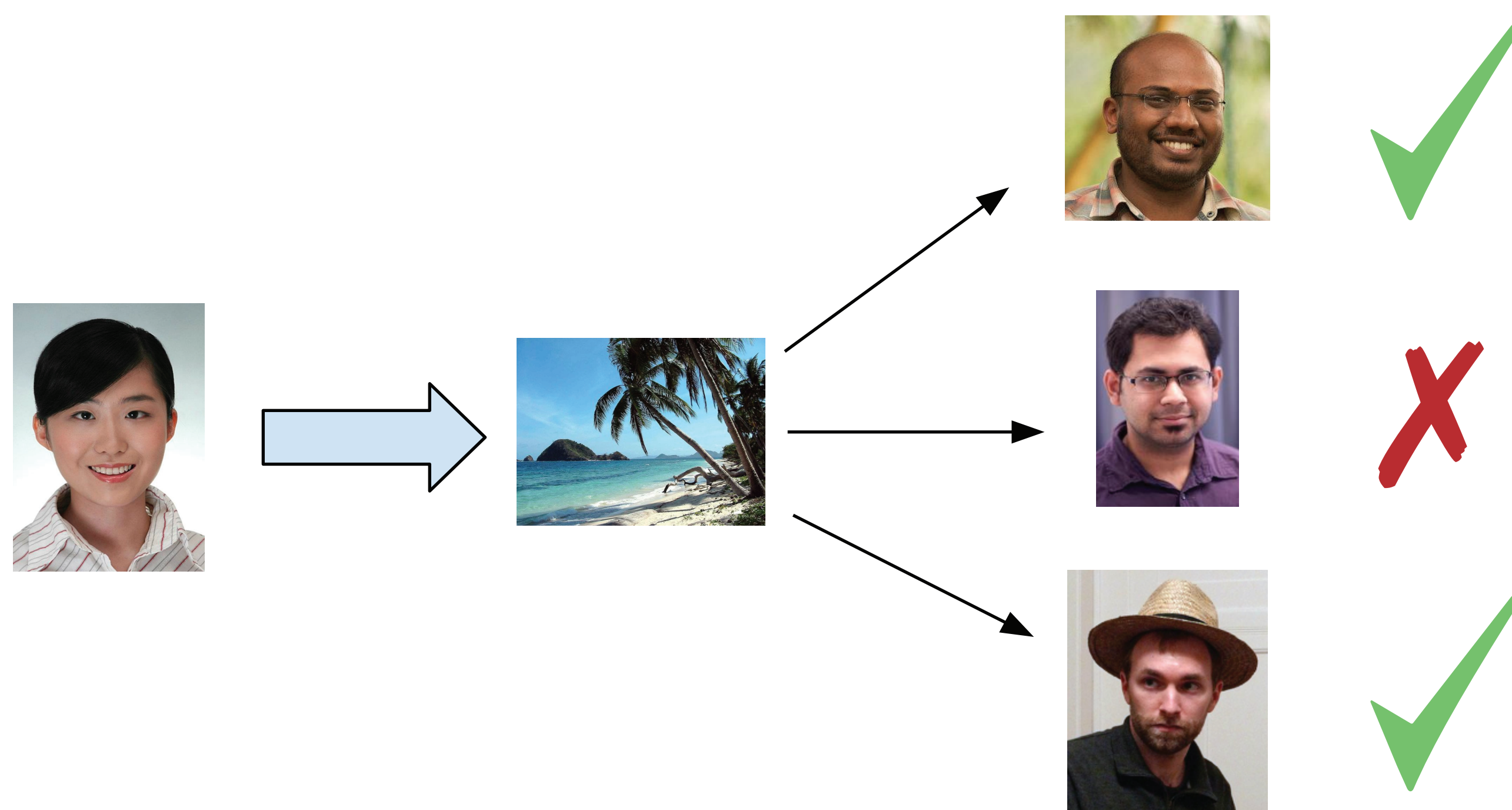
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Motivation

Lots of content shared in Online Social networks

- ~72 billion pieces of content per month on
- 90 pieces of content per user on average!
- Three sharing options : Public, Private, Custom
- Custom settings can be reused via Friendlists



Friendlists: User-created subsets of friends

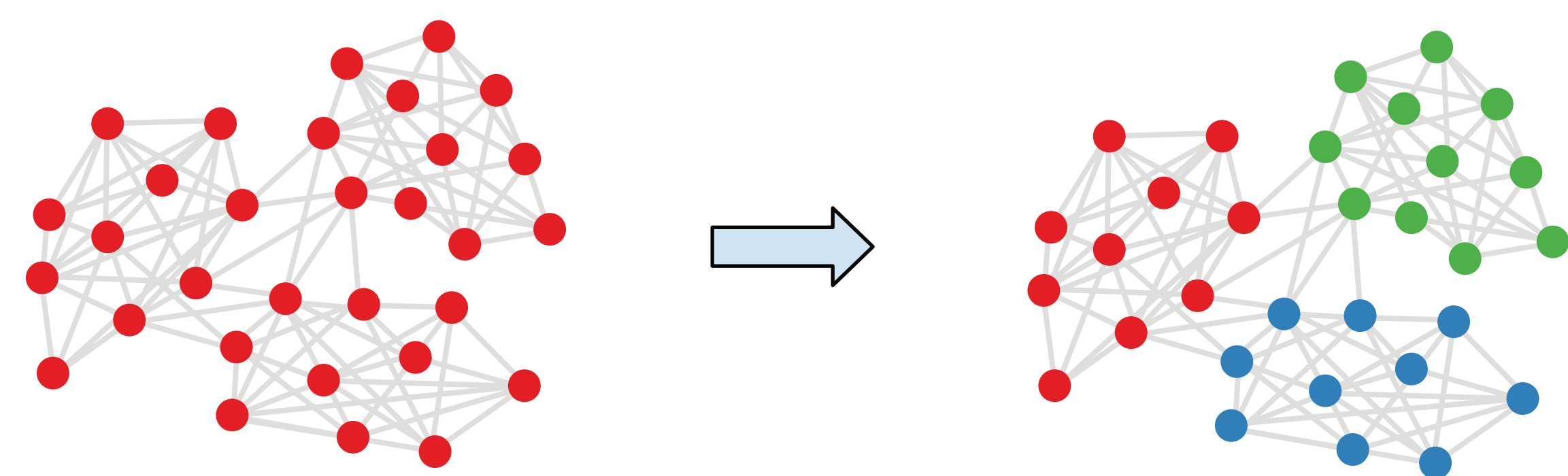
- Share content with members of the friendlists
- Aggregate and view the content from the friendlist
- Limitations:
User has to create lists and enumerate members manually.
User has to maintain lists as his/her relationships change.

Goal: Help users manage their friendlists

Key idea

Leverage structure of user's 1-hop social network

- Create new lists of user's friends
- Update the existing lists as the user forms or breaks friendships



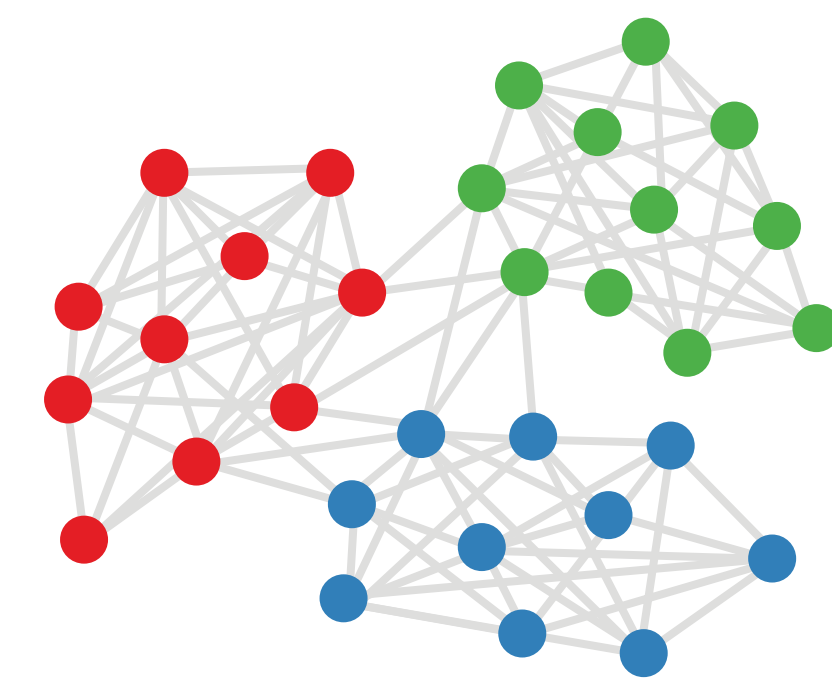
Friendlist Manager

Facebook Application

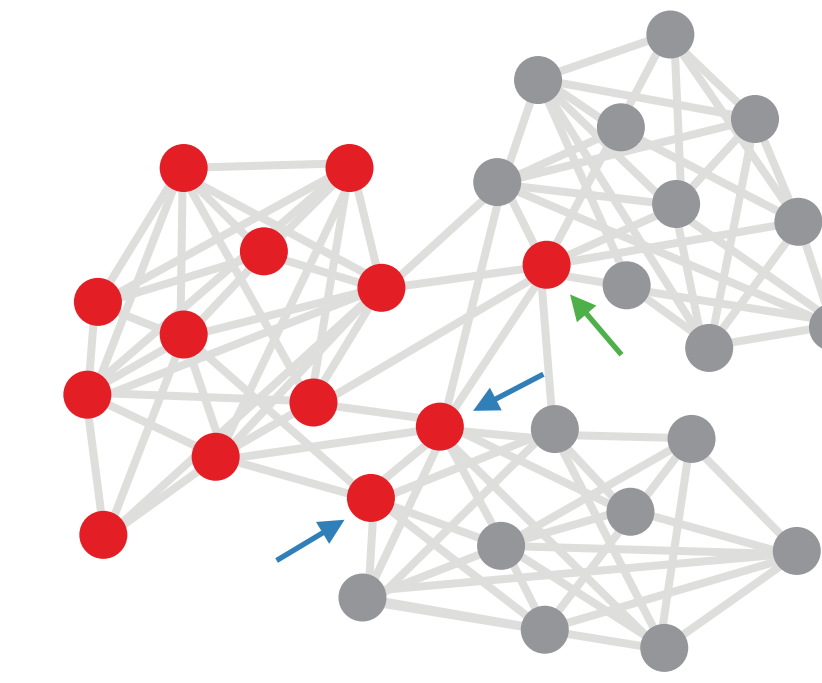
Step1: Use community detection to suggest friendlists

- Create "seed" lists via a global algorithm [JSTAT'08]
- Expand "seeds" via a local algorithm [WSDM'10]

Partition into distinct lists

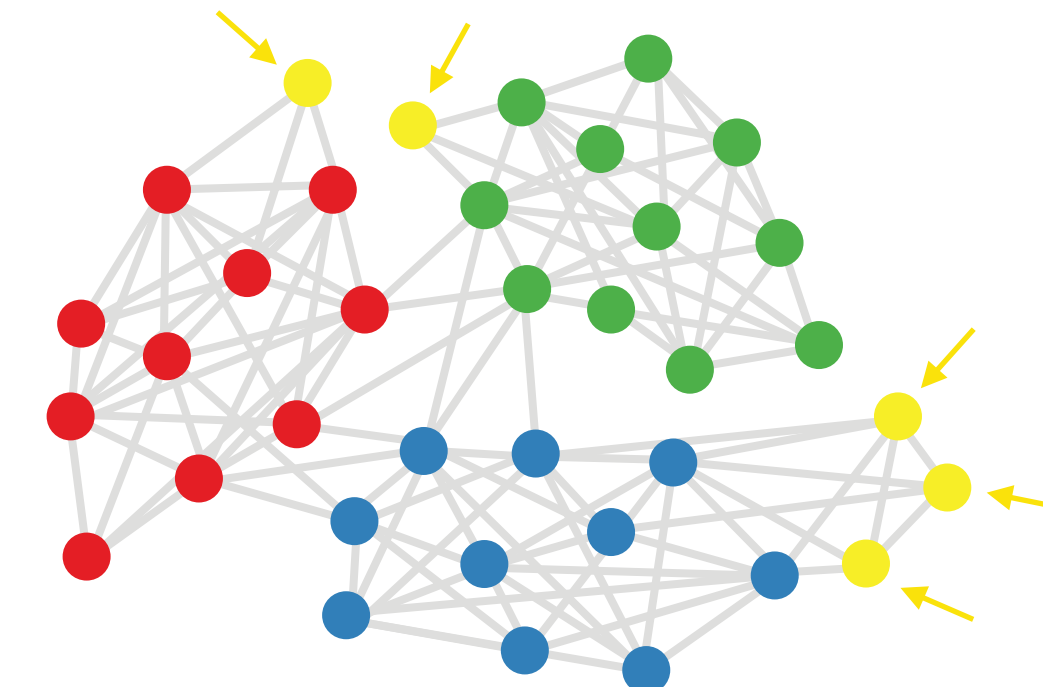


Expand each list

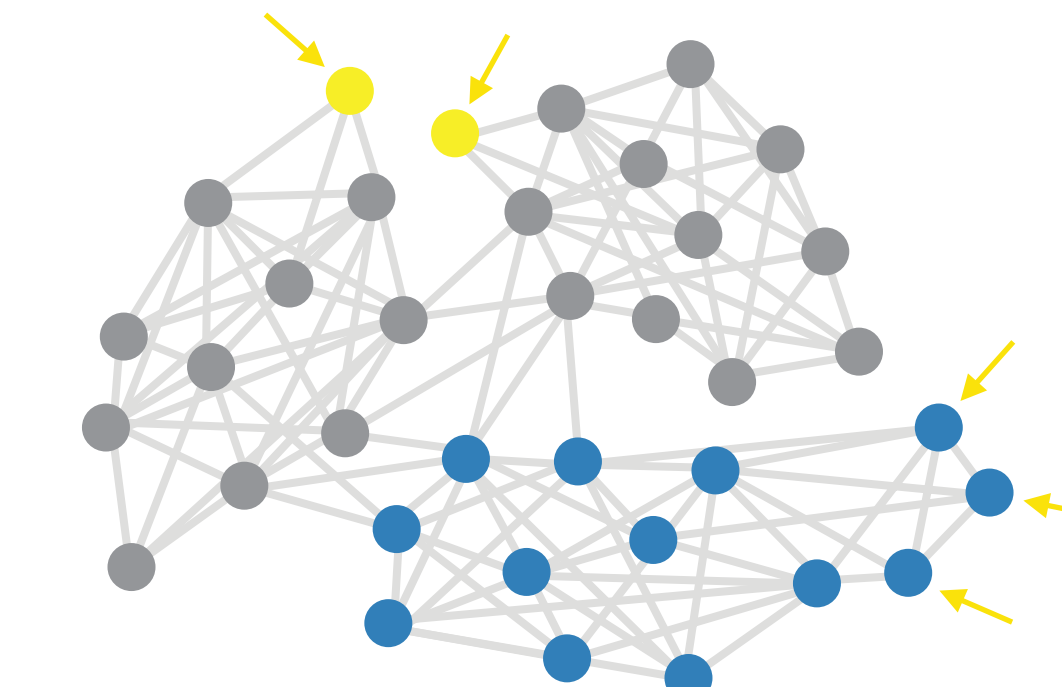


Step2: Locate missing members using a local algorithm [WSDM'10]

New local social network



Update each list

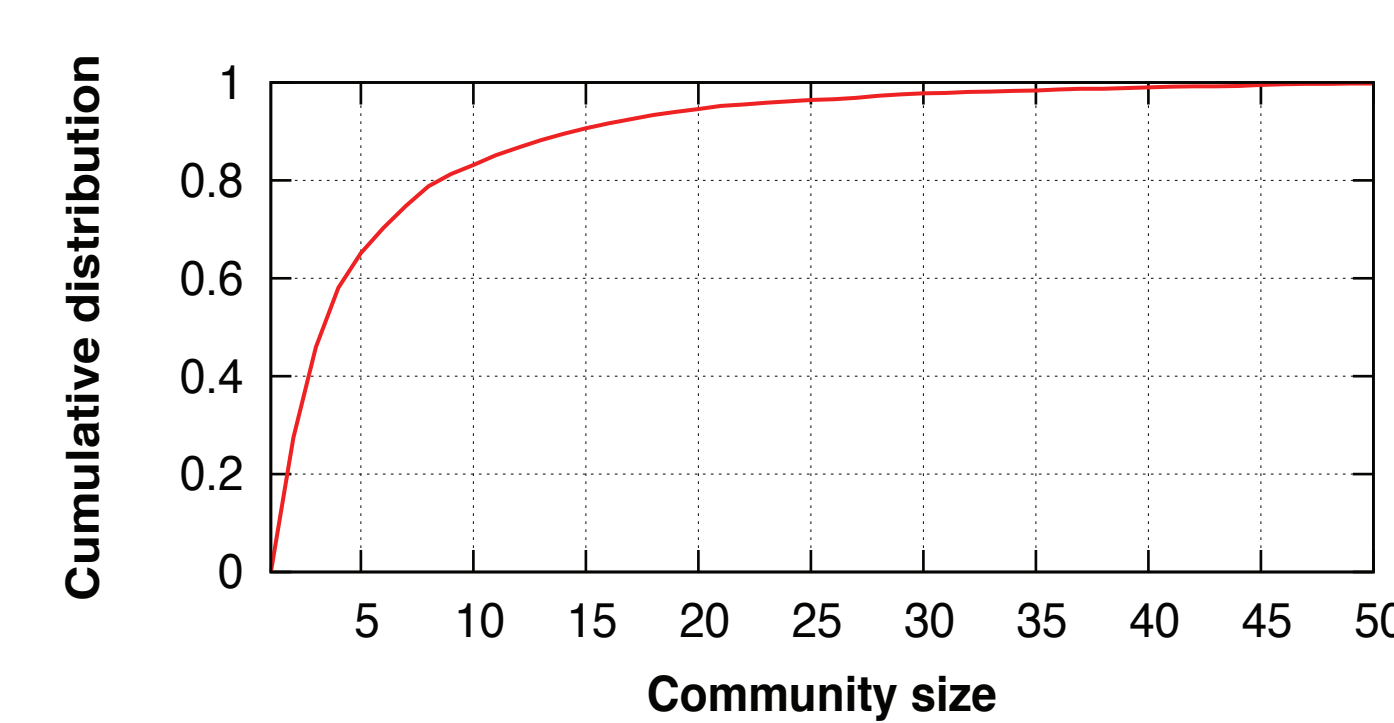


Evaluation

Can community detection find friendlists?

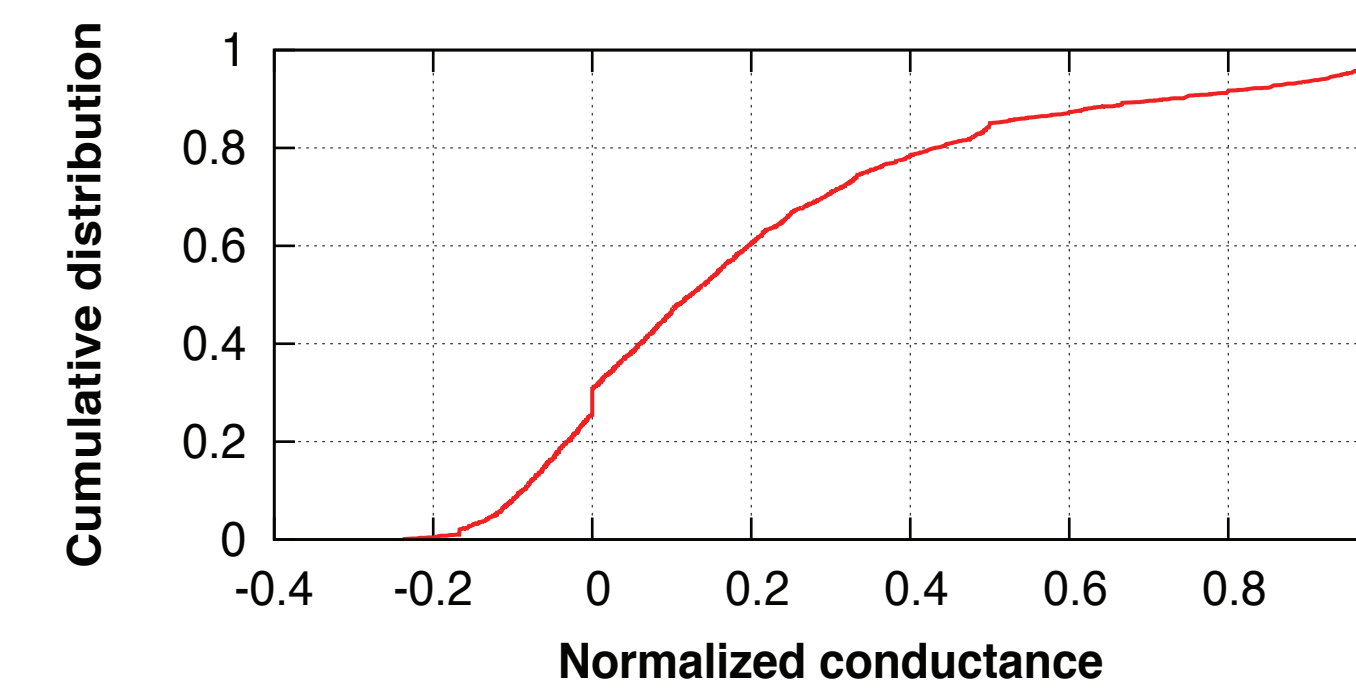
- Randomly select 1000 users from each of the 3 Facebook networks

How big are the proposed lists?



In more than 90% of cases, Friendlist Manager creates communities with fewer than 20 members.

Are the lists "tightly knit"?



In 40% of cases, Friendlist Manager creates communities with normalized conductance greater than 0.2.

User interface

Built and deployed Facebook App

- Downloads 1-hop network, runs community detection algorithm
- First propose additions to existing lists
User can apply any changes to Facebook
- Next propose missing lists
User can tweak lists, then automatically created on Facebook

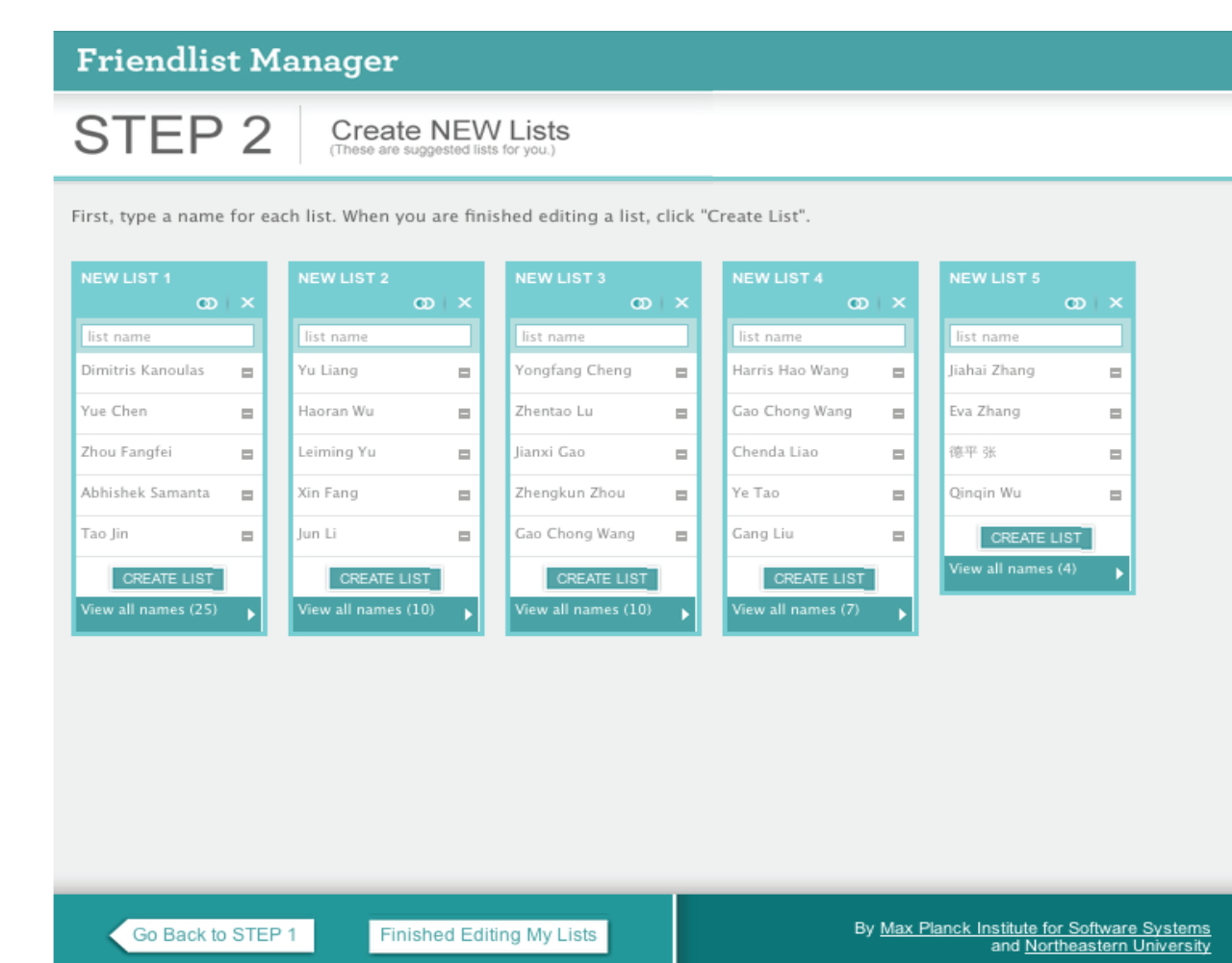
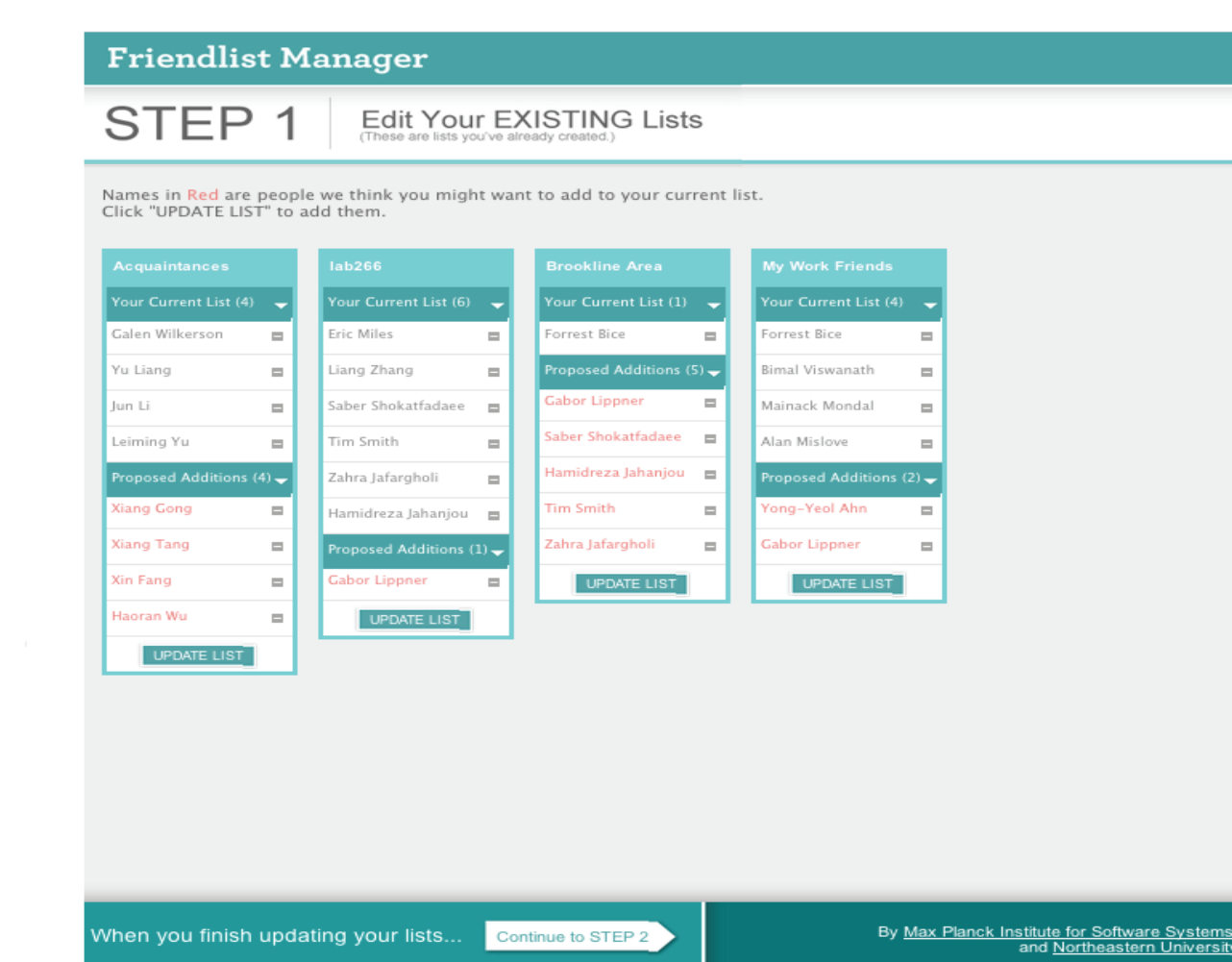
Tools provided to user for tweaking lists

Existing Lists

- Drag-and-drop friend
- Delete friend
- Collapsible tab groups
- Update friendlists

New Lists

- Drag-and-drop friend
- Delete friend
- Merge/ Delete friendlists
- Name/ Create friendlists



App usage so far

Friendlist Manager is released for public now
https://apps.facebook.com/friendlist_manager/

Some usage statistics from Feb 2012

- 374 users tried our app
- On average, 4 existing lists suggested
- On average, 6 new lists suggested
- 148 users updated at least one existing list
- 36 users created at least one new list