Communities as a first-class abstraction for information sharing

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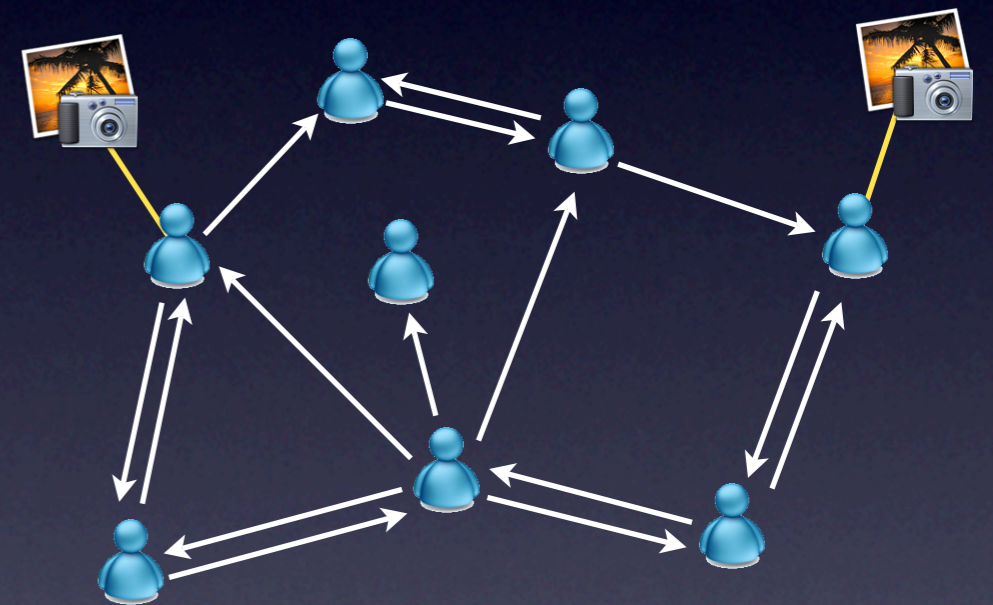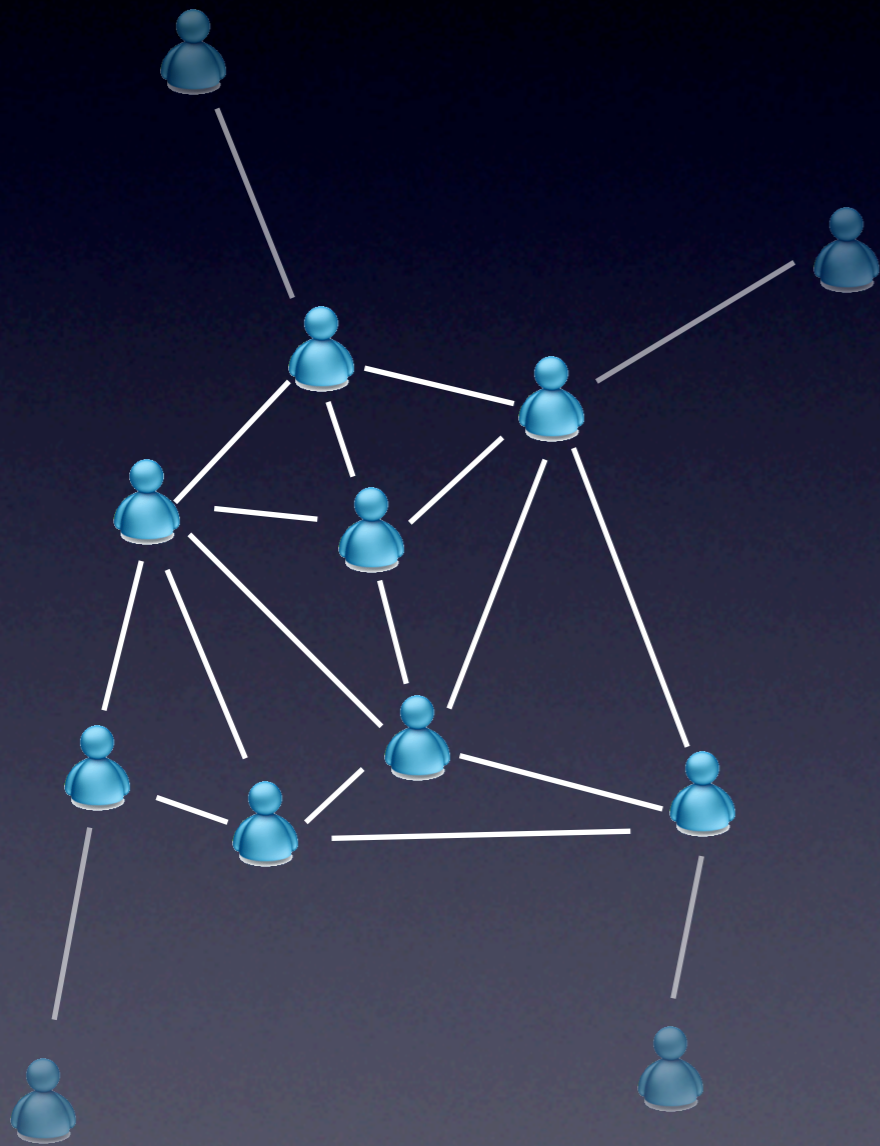Peter Druschel[†]

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OSDI 2008 Work-in-Progress Session

Online social networks

- Popular way to connect, share content
  - Among most visited sites on Web
  - Users: MySpace (247 M), Facebook (120 M)

- But, all is not well...

- Increasing volume and variety of content leading to challenges
  - Privacy and access control
  - Relevance

Can *communities* help us?

- Communities are groups of densely connected users
  - Can offer a solution to this dilemma

- Members often
  - Share interest
  - Enjoy mutual trust

- In practice, can automatically detect communities [Phy.E'02, ICCT'03, PNAS'04]
  - Manual maintenance not necessary

Addressing privacy

- Today, access control limited to
  - (Subsets of) friends
  - Entire world

- Communities provide a natural middle ground

- Can enable sharing between groups of users
  - Beyond just friends

Addressing relevance

- Increasing amount and variety of content
  - Search facilities return aggregated global opinion

Family
Work
Football Team

- Communities represent users with shared interest
  - Can naturally be leveraged to find relevant information
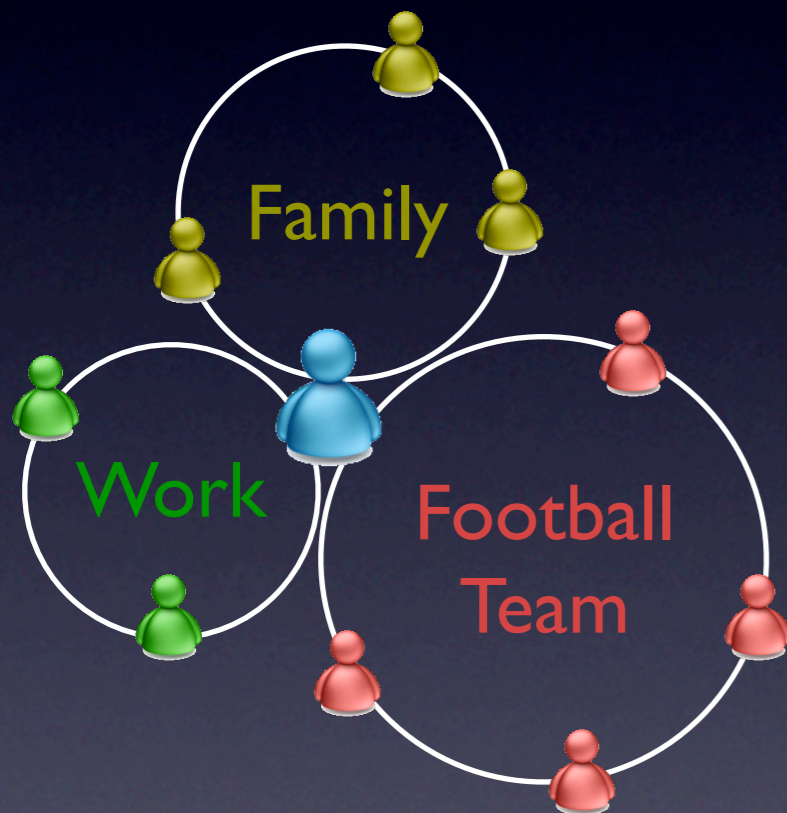
Using communities in PeerSpective

- PeerSpective is a social network-based web search tool
  - Indexes browsed pages
  - Web search collects results Google and from friends

- Aggregate results by community
  - Allows community-based sharing
  - Find more relevant results

Google   PeerSpective

Questions?

PeerSpective information and downloads:

`http://peerspective.mpi-sws.org`