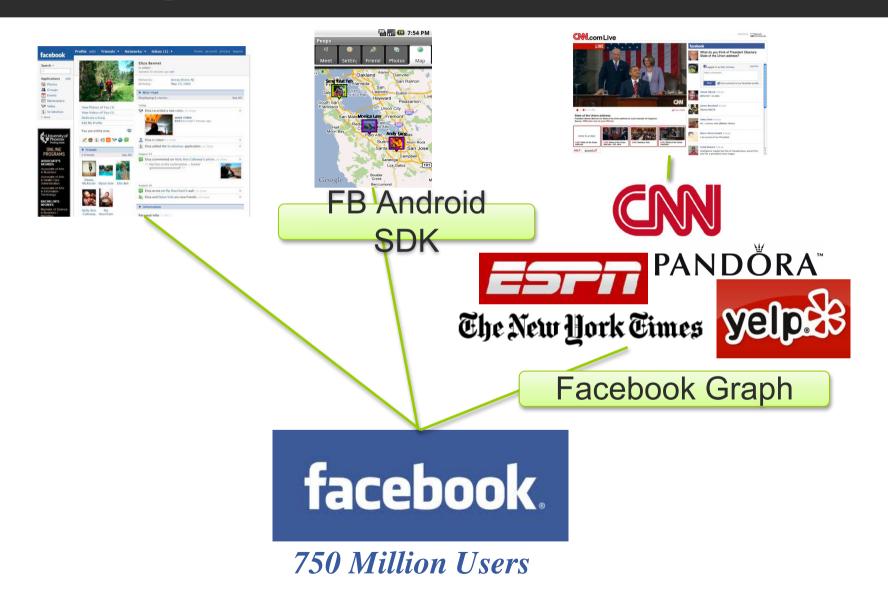
A Non-Proprietary Social Internet

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MobiSocial is supported by AVG, Google, ING Direct, Nokia, Sony Ericsson. Part of the NSF Programmable Open Mobile Internet (POMI) 2020 project.

Deep Social



Today's Social Intranets

- Cyberbullying
- Loss of privacy

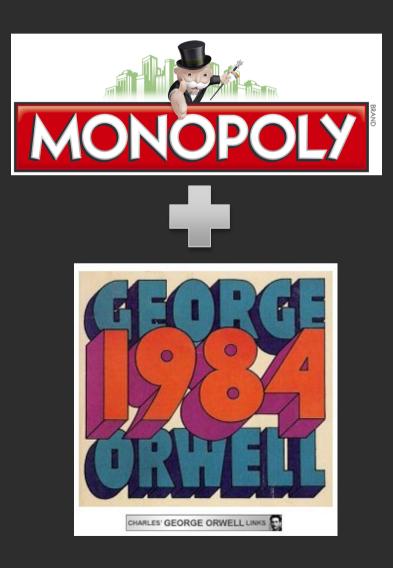
Outrage as Facebook changes its privacy rules AGAIN to share users' phone numbers and home addresses with third party companies

By DAILY MAIL REPORTER

Last updated at 8:58 PM on 2nd March 2011

Today's Social Intranets

- Cyberbullying
- Loss of privacy
- Monopoly



Today's Social Intranets

- Cyberbullying
- Loss of privacy
- Monopoly
- Loss of competition

Exclusive: Facebook Blocked API Access to Ping After Failure to Strike Agreement, So Apple Removed Feature After Launch

by Kara Swisher Posted on September 2, 2010 at 1:17 PM PT

Zynga Dependency on Facebook

wsj, 10-12-11

That reliance has raised investor concerns: In July, Facebook instituted a virtual payment system dubbed Facebook Credits, under which the social network takes a 30% cut of all game-developer revenue. The system has affected Zynga, which experienced a 95% drop in its profits last quarter.

Social Intranet -> Internet

- No single owner of users' data or app platform
- No need to join the same network



Challenges

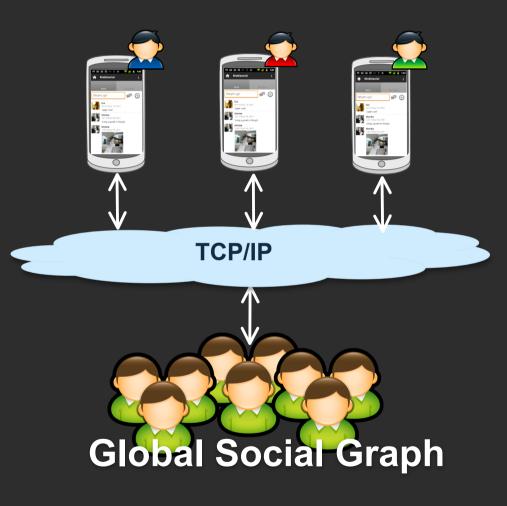
Installed base: 750 millions users, many developers, web pages Economic feasibility Lack of concern for privacy

A non-starter: FB + privacy

Design Goals

- Disintermediation for daily social interactions
- Minimize friction in interactions
- Healthy ecosystem: 100,000 social apps

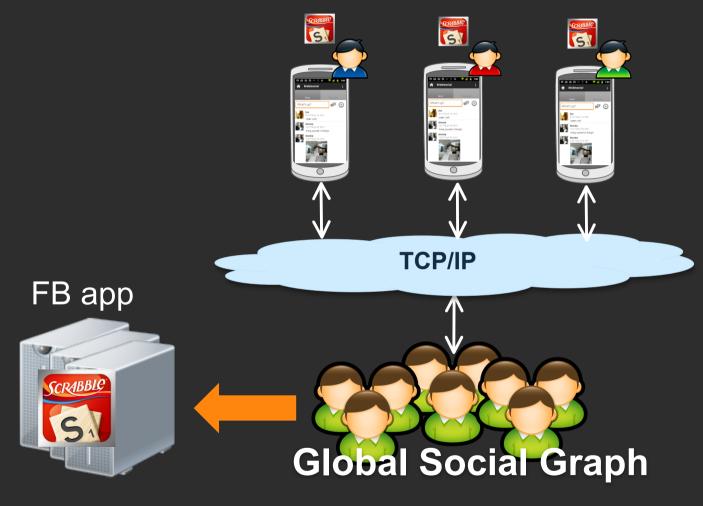
Today Social Networking



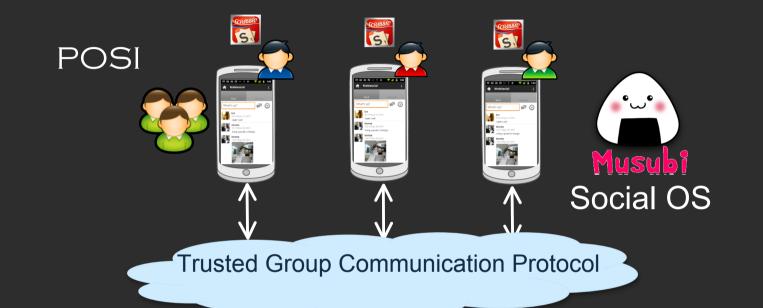
Disintermediation



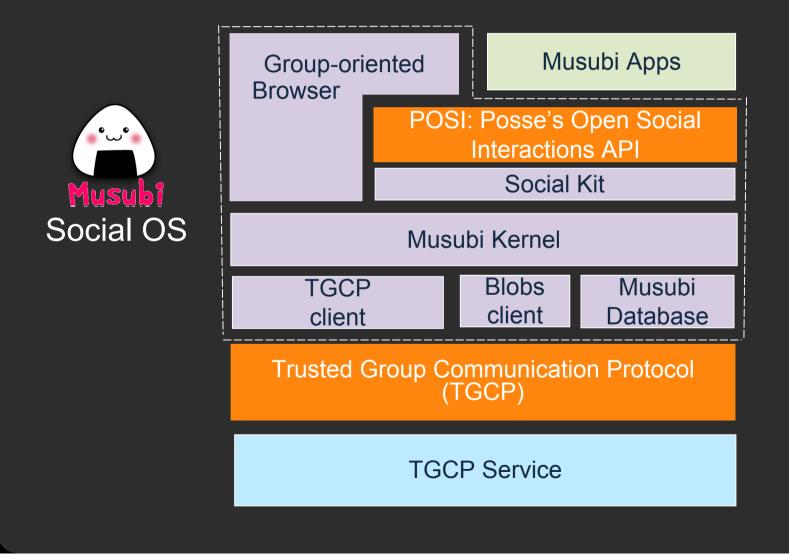
Today Social Networking



POSI: P2P OPEN SOCIAL INTERACTIONS API



Architecture



Privacy: Disintermediation

- Trusted Group Communication Protocol
- "Family net": for close friends/family
- Decentralized social graph:
 - Familiar address book model
- Data owned by end users
 - · Only participants see data
 - No accidental sharing
 - All communication encrypted with public key
 - Users can choose their own backup

No spam

- White listing senders
- Only spam: invitations

Frictionless Interactions



Hide the complexity of key management

- Friends and groups invite/accepts
- Quick exchange with physical contacts (NFC)
- Join groups in the nearby locations
- Integrate with existing identity providers (webfinger)
- Hide the complexity of access control
 - Group oriented UI: OK to overshare social info
 - Pick the group context
 - 1 click sharing
 - 0 click sharing with presence

100,000 Apps

POSI: P2P OPEN SOCIAL INTERACTIONS API

Make every personal app a social app (through intent)

- by sharing results: Picsay, maps, location
- by sharing logs: music, high-scores

Group P2P application, with continuation

- no server infrastructure; exposes no user information
- turn-by-turn using TGCP: Poker
- real-time, using Junction: whiteboard

Centralized apps with privacy

- pseudononymous members
- close-friends discovery

User Studies

Some Adults	 This is the future of social networking!
College	 Don't care.
High School	Indignant that their data are soldHalf of them want Musubi
Elementary School	 "This is awesome!"

Conclusion

Decentralized social graph

Familiar model: the address book

Disintermediation

 TGCP: Encrypted person-to-person, group communication as a primitive

Frictionless interactions

Musubi sOS: 0 to 1-click group interactions

100,000 apps

- POSI: Psuedononymous group communication API
- Easy decentralized apps