

# What would an Open Source Library for Social Media Look Like?

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# An Open Source Library for Social Media? Agenda

- **Trust**
- **Trust Factors**
  - Drivers, Influencers
- **Social Media**
  - Definitions, Genres
- **Research Opportunities**

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## **Trust**

Confident Reliance by a party  
on the behaviour of other parties

which results in willingness to expose oneself to risks

## **Origins**

Familial and Social Settings  
in which Cultural Affinity exists

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## **DisTrust**

Confident Reliance  
by a party  
on the MISbehaviour of other parties

OR

Active Belief by a party that the behaviour  
of other parties is not reliable, or  
is actively harmful to the first party's interests

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## Lack of Trust

The absence, or inadequacy, of confidence by a party in the reliability of the behaviour of other parties

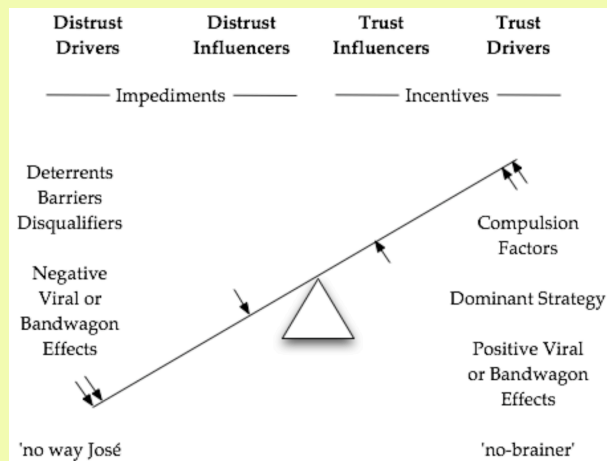
## Forced Trust

Hope held by a party that the behaviour of other parties will be reliable or not harmful, despite the absence or inadequacy of important trust factors

## Categories of Trust Factor

- **Trust Influencer**  
Positive influence on the likelihood a party will participate
- **Distrust Influencer**  
Negative influence on the likelihood a party will participate
- **Trust Driver**  
Such a strong positive influence on the likelihood of a party participating that it determines the outcome
- **Distrust Driver**  
Such a strong negative influence on the likelihood of a party participating that it determines the outcome

## Categories of Trust Factor



## Social Media A Classification

		Social presence/ Media richness		
		Low	Medium	High
Self-presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)

## A Participant-Oriented Classification of Social Media

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Interaction (Closed)	1 ↔ 1 OR 1 ↔ few	
Broadcast (Open)	1 → many	
Collaboration or Sharing (Semi-Open or Open)	1 ↔ many	Content
		Indicator
		Gaming

## Currently-Available Social Media Genres

### 1-with-1/Few INTERACTION Tools

- networked text **email** (asynchronous)
- networked text **chat / IM** (synchronous)
- SMS / texting** from mobile phones
- email-attachments**, any format (asynch)
- voice:**
  - over Internet (VoIP, Skype) (synch)
  - tele-conferencing (VoIP, Skype) (synch)
  - videophone (Skype Video) (synch)
  - video-conferencing (Skype Video) (synch)

### 1-to-Many BROADCAST Tools

- bulletin boards systems (**BBS**)
- Usenet / **netnews**
- email lists**
- web-pages**
- indexes** (Lycos, Altavista, Google, Bing)
- blogs** (WordPress, Blogspot)
- micro-blogs** (Twitter, Tumblr)
- glogs** – wearable wireless webcams, cyborg-logs, retro-nymed as 'graphical blogs'

- '**content communities**', e.g. for images (deviantArt, Flickr and Picasa), for videos (YouTube), for slide-sets (Slideshare)
- closed / 'walled-garden' 'wall-postings'** within SNS (Plaxo, MySpace, LinkedIn, Xing, Reddit, Facebook, Google+)

### 1-with-Many SHARING Tools

- Content Collaboration**
  - wikis** (Wikipedia)
  - social news sites** (Slashdot, Newsvine)
  - online office apps** (Zoho, Google Docs, MS Live)
- Indicator-Sharing**
  - '**social bookmarking**' (Delicious)
  - dis/approvals** (Digg's dig & bury, Reddit's up & down, StumbleUpon's thumbs-up & thumbs-down, Facebook's Like button, Google+'s +1 button)
- Multi-Player Networked Gaming**
  - text-based **MUDDs**
  - social gaming** sites (Friendster)
  - Massively Multiplayer Online Games (**MMOGs**), esp. Role-Playing Games (MMORPGs), e.g. World of Warcraft
  - online virtual worlds** (Second Life)

## Social Media A Working Definition And hence Scope Specification

## Social Media A Working Definition

### And hence Scope Specification

An application or service that is perceived by its users to support those users in relation to:

- interaction with other people
- broadcast to other people
- sharing with other people

## Location – from Added-Extra to Intrinsic

- **Network Address** has always been visible, as a necessary element of the services
- Physical Address / **Geolocation** has progressively become available, and for cellular phones is intrinsic to the service's operation
- Location-based services can be valuable to users
- A primary use is in consumer marketing
- For most current-round SMS, location is an extra
- **For the coming round, location is intrinsic**
- **Privacy sensitivities will leap**

## How to Socialise Social Media Service-Providers (SMSP) Alternative Approaches

- A Social SMSP
- **Tools for Social SMSPs**
- **Rules for Federation Among SMSPs**
  - Interoperability
  - Data Portability
  - User Choice

## SMSP Alternative Architectures

- Client-Server
- Client-Server with Replication
- Client-Server with Distribution
- Multi-server P2P
- Full P2P

## Social Media's Business Model

- 'There must be a way to monetise this somehow'
- 'You will find something interesting here' is a self-fulfilling prophecy, because people can be enticed to contribute 'something interesting'
- Contributors, and the people who come after them, can be enticed to click on targeted advertisements
- Targeting is based on:
  - profile-data that users supply about themselves
  - content that they have donated
  - their online behaviour while using the service
  - their online behaviour more generally
  - data that other people contribute about the user

## Privacy-Sensitive Social Media Research Opportunities

### Social Science

- Distinguish positive and negative Drivers from Influencers
- Measure the Strength of Influencers, under varying scenarios
- Assess trade-offs between positive and negative Influencers, under varying scenarios
- Prioritise possible privacy-sensitive features



### Design and Prototyping

- Specify Desirable Features
- Architect:
  - for Client-Server
  - for P2P
- Design and Code Open-Source Components
- Establish a Test-Harness and/or Demo Apps
- Publish Reference Code
- Publish Demo Apps

## Privacy Risks in Social Media

- **Second-Party Risk Exposure** (Service-Provider)
  - Content Provision about Oneself
  - Content Provision about Others
  - Social Networks including Oneself and Others
- **Third-Party Risk Exposure** (Others)
  - Openness that was Unanticipated
  - Openness through Breach of Original Terms
  - The Service-Provider's 'Strategic Partners'
  - Syndication
  - Demand Powers

## A Catalogue of Social Media Privacy Concerns

- 1 Privacy-Abusive Data Collection
- 2 Privacy-Abusive Service-Provider Rights
- 3 Privacy-Abusive Functionality and User Interfaces
- 4 Privacy-Abusive Data Exploitation

Source: Reviews of Media Reports 2005-11

# A Catalogue of Social Media Privacy Concerns

## 1 Privacy-Abusive Data Collection

### **Demands for User Data**

- identity data
- profile data
- contacts data, including users' address-books:
  - their contact-points (some sensitive)
  - comments about them (ditto)
  - by implication, their social networks

### **Collection of User Data**

- about users' locations over time
- about users' online behaviour, even when not transacting with the particular service
- from third parties, without notice to the user and/or without user consent

## 2 Privacy-Abusive Service-Provider Rights

### **Terms of Service Features**

- substantial self-declared, non-negotiable rights for the service-provider, including:
  - to exploit users' data for their own purposes
  - to disclose users' data to other organisations
  - to retain users' data permanently, even if the person terminates their account
  - to change Terms of Service:
    - unilaterally
    - without advance notice to users; and/or
    - without any notice to users

### **Exercise of Self-Declared Service-Provider Rights**

- in ways harmful to users' interests
- in order to renege on previous undertakings

### **Avoidance of Consumer Protection and Privacy Laws**

- location of storage and processing in data havens
- location of contract-jurisdiction distant from users
- ignoring of regulatory and oversight agencies
- acceptance of nuisance-value fines and nominal undertakings

# A Catalogue of Social Media Privacy Concerns

## 3 Privacy-Abusive Functionality and User Interfaces

### **Privacy-Related Settings**

- non-conservative default settings
- inadequate granularity
- complex and unhelpful user interfaces
- changes to the effects of settings, without advance notice, without any notice and/or without consent

### **'Real Names' Policies**

- denial of multiple identities
- denial of anonymity
- denial of pseudonymity
- enforced publication of 'real name', associated profile data

### **Functionality and User Interface**

- inadequate documentation and reliance on interpolation
- frequent changes; and/or without advance notice to users, without any notice to users and/or without user consent

### **User Access to Their Data**

- lack of clarity about whether, and how, data can be accessed
- lack of, even denial of, the right of subject access

### **User Deletion of Their Data**

- lack of clarity about whether, and how, data can be deleted
- lack of, and even denial of, the user's right to delete

## 4 Privacy-Abusive Data Exploitation

### **Exposure of User Data to Third Parties**

- wide exposure, in violation of previous Terms, of:
  - users' profile-data (e.g. address, mobile-phone)
  - users' postings
  - users' advertising and purchasing behaviour
  - users' explicit social networks
  - users' inferred social networks, e.g. from messaging-traffic
- changes to the scope of exposure:
  - without advance notice to users
  - without any notice to users; and/or
  - without user consent

- access by government agencies without demonstrated legal authority

### **Exposure of Data about Other People**

- upload of users' address-books, including:
  - their contact-points
  - comments about them
  - by implication, their social networks
- exploitation of non-users' interactions with users

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