



Social networking task force

Jeff Jaffe

14 May 2012



What we've done

- Tried to identify specific standards opportunities
- Decided we first needed to create an architecture block diagram to show relationships
 - Made some progress
- Liaison calls with Open Social
- Initial ideas on next steps



Today

- Ann Bassetti: Block diagram, scenarios, narrative
- Jeff Jaffe: Standardization possibilities
- Steve Holbrook: Workshop opportunities
- Discussion



Desired output

- Work plan for block diagram
 - With specific comments
- Guidance on proposed standards activities
- Consensus on workshop scoping



Ann Bassetti:

- Block diagram
- Scenarios
- Narratives
- ...



Teams & Contributors

- Federated Social Web XG / Community Group
- Social Business Community Group
- Social Headlights Task Force

Particular thanks to:

Lloyd Fassett

Rich Rogers

David Robinson

Alberto Manuel

Blaine Cook

Ruinan Sun

Laurent Walter Goix

Virginie Galindo

Stéfane Fermigier

Evan Prodromou

Steve Holbrook

Harry Halpin

Jeff Jaffe

... apologies to anyone
overlooked!



What we're asking & doing

Seeking to determine:

- Essential components of "social networking"
- Relationships between parts
- Characteristic scenarios and narratives
- Basis set and tests
- What technologies and standards exist?
- Where was that work done?
- Is more needed?
- Should W3C play a role?



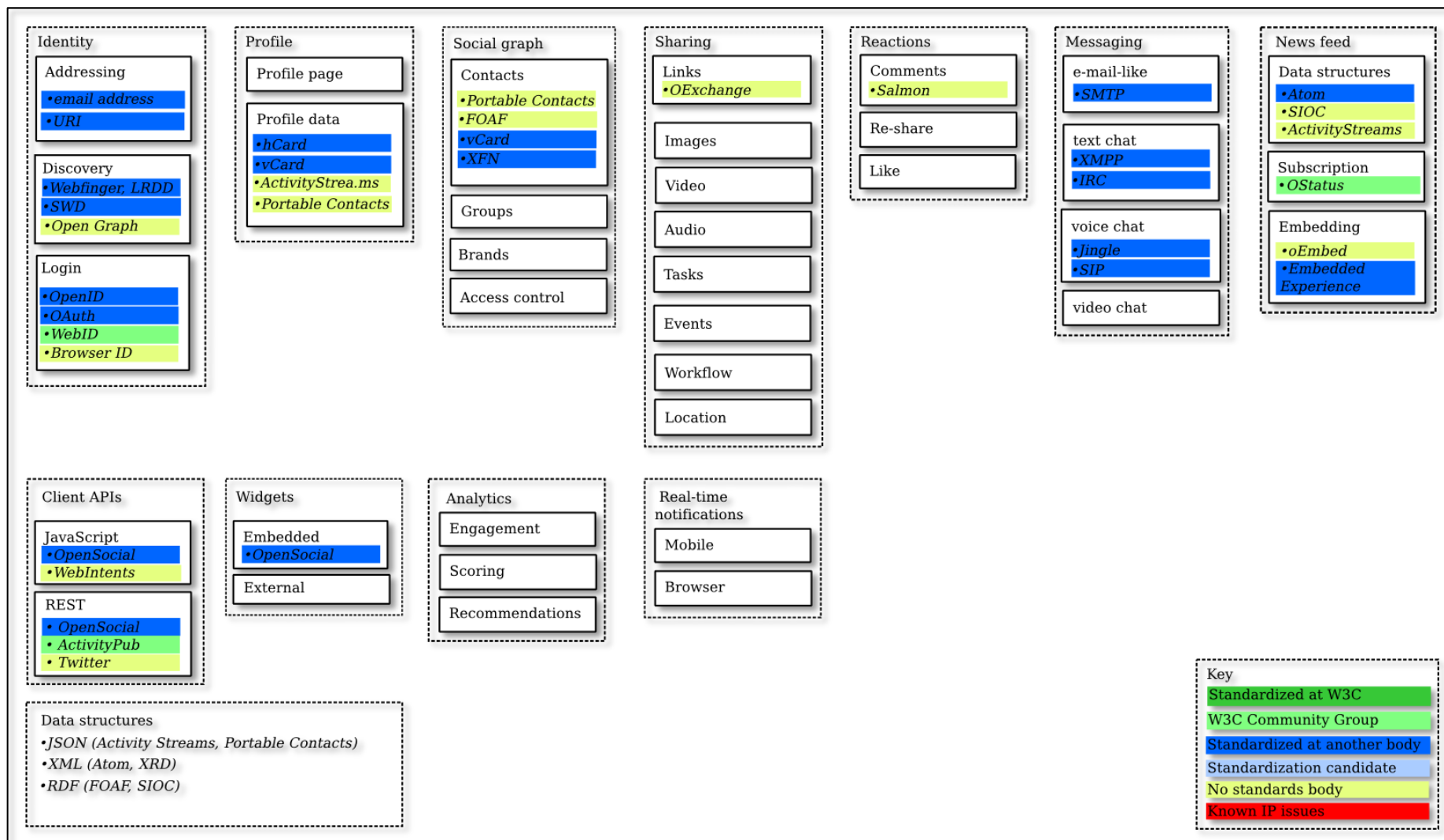
Essential components?

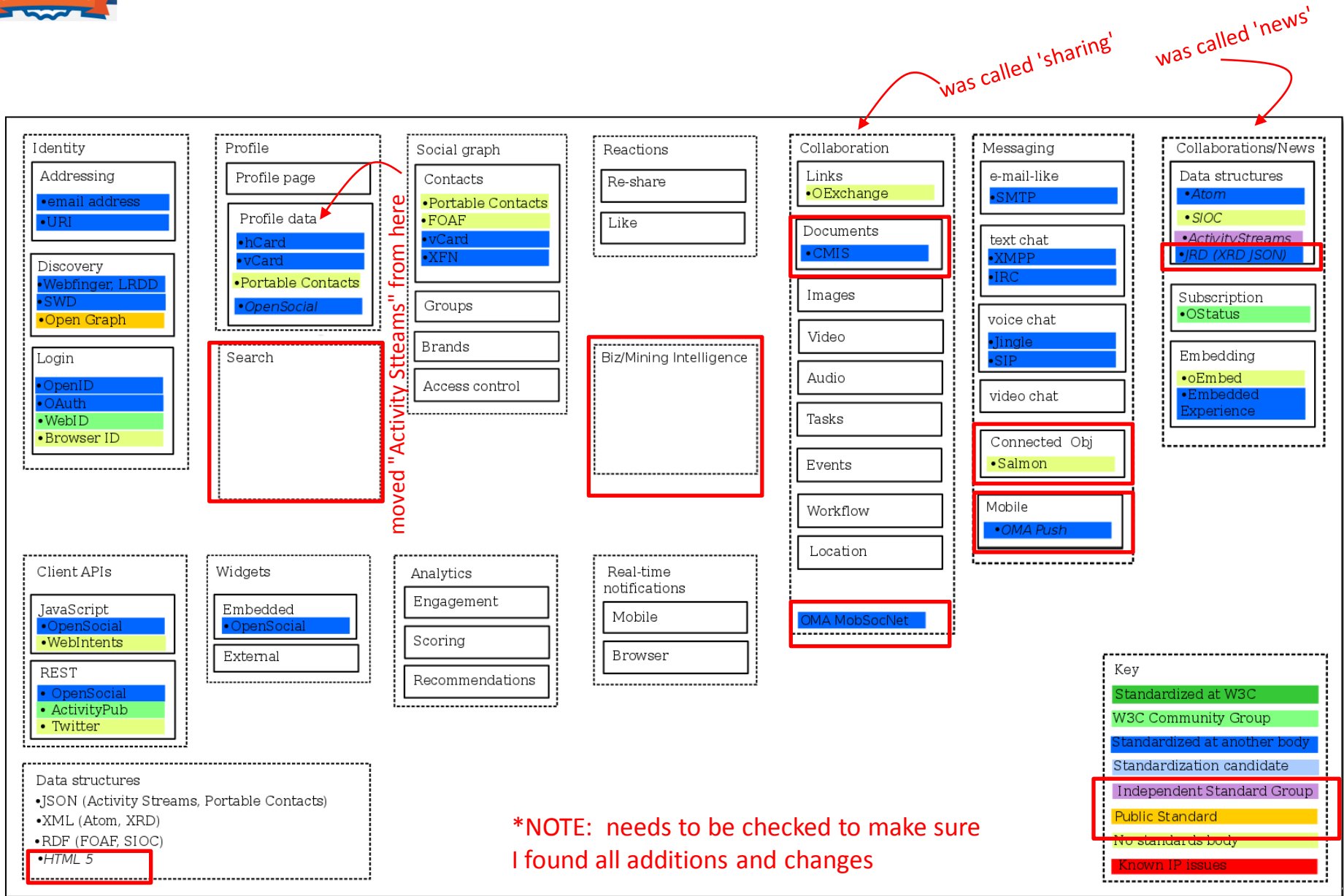
- A question covering such a large area...
- Methodology
 - Criss-crossing the social web principles
 - Listing all the components
 - Classifying them
 - Into groups, by standardization body, by technology

→ Here is the result ...

What are essential components of "social networking" or "social web"?

Harry Halpin, Evan Prodromou
based on work in Federated Social Web group





Sharing

Text

Links

• OExchange

Images

Video

Audio

Tasks

Events

Workflow

• Routing
• Signatures

Location

Bookmarks

Status

• Presence
• Microblog

Messaging

E-mail like

• SMTP

Text chat (includes 1:1 and 1:multiple; also includes "Live Chat" such as with Helpline person)

• XMPP
• IRC

Voice chat

• Jingle
• STP

Video chat

Forward / reply (might be part of others or part of 'Sharing')

Threaded discussions (e.g., bulletin board; includes "Idea Generation / Jam")

Group Dynamics (e.g., Community, Team)

Create

Join / Un-join

End / Close

Membership list(s)

Group list(s)

Distribution list(s)

Newsfeed

Data structures

• Atom
• SIOC
• ActivityStreams

Subscription

• OStatus

Embedding

• oEmbed
• Embedded Experience

Alerts / Notifications

Reactions

Comments

• Salmon

Re-share

Like / rating

Recommendations

Tags

Key

Standardized at W3C

W3C Community Group

Standardized at another body

Standardization candidate

No standards body

Known IP issues

About the human *

Ubiquitous attributes

- Threading
- Sorting (by 'likes', 'most recent', ...)
- Hyperlinks
- Variable device display
- Variable security settings
- ...

Identity

- Given/family name
- Username(s)
- Assigned number(s) (e.g., governmental)
-

- snail mail address
- email address
- URI

Social Graph

Contacts

- Portable Contacts
- FOAF
- vCard
- XFN

Groups

Brands

Access control ??

Profile

Profile page ??

Profile data

- hCard
- vCard
- ActivityStrea.ms
- Portable Contacts
- ...

Presence

Location

Skills

*Note: inside corporate firewall one has professional profile, separate from one's personal profile.

Technical foundations

Client APIs

JavaScript

• OpenSocial
• WebIntents

REST

• OpenSocial
• ActivityPub
• Twitter

Widgets

Embedded

• OpenSocial

External

Analytics

Engagement

Scoring

Recommendations

Trends

Real-time Notifications

Mobile

Browser

Login credentials

- OpenID
- OAuth
- WebID
- Browser ID

Discovery

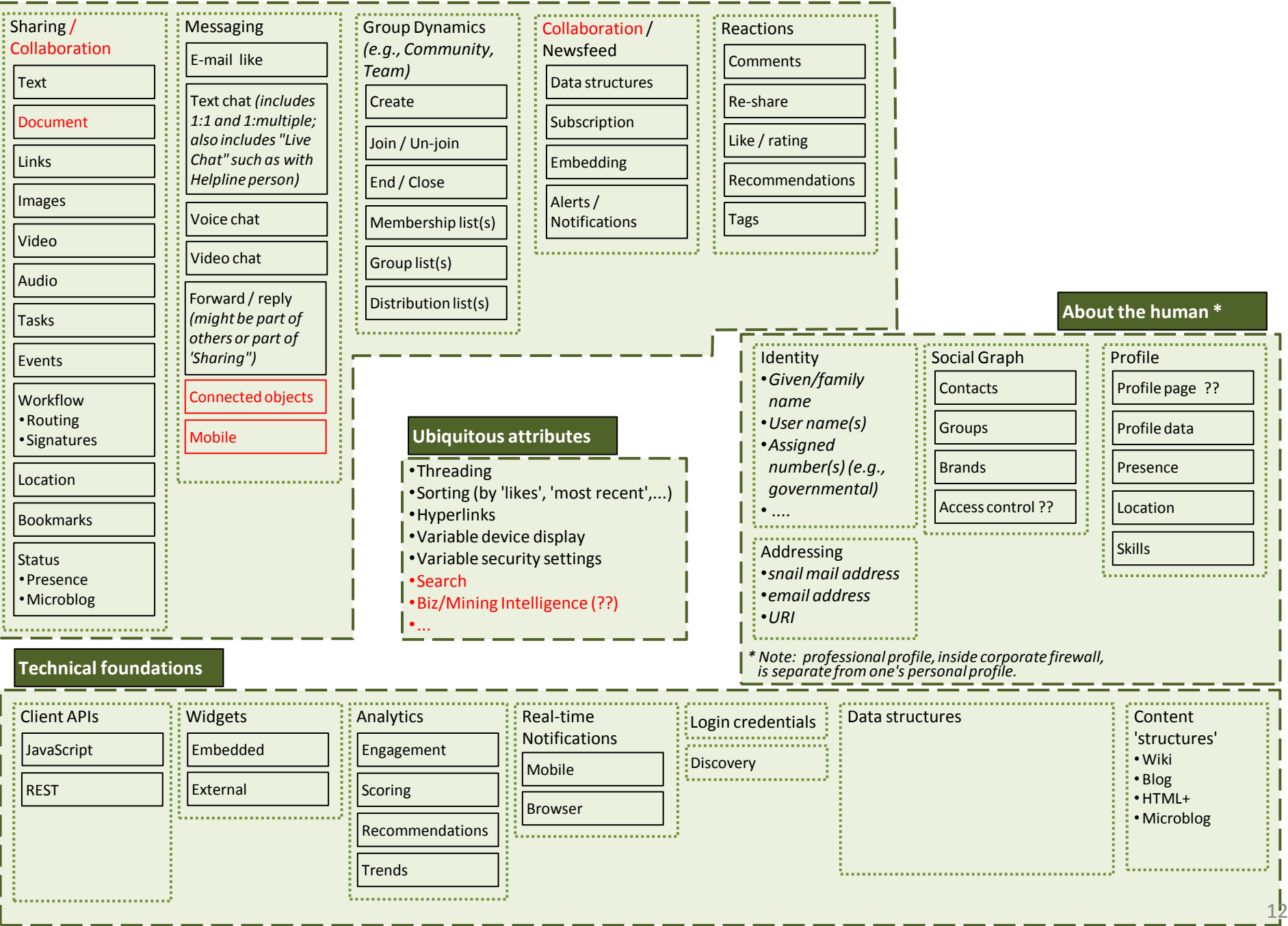
- Webfinger, LRDD
- SWD
- Open Graph

Data structures

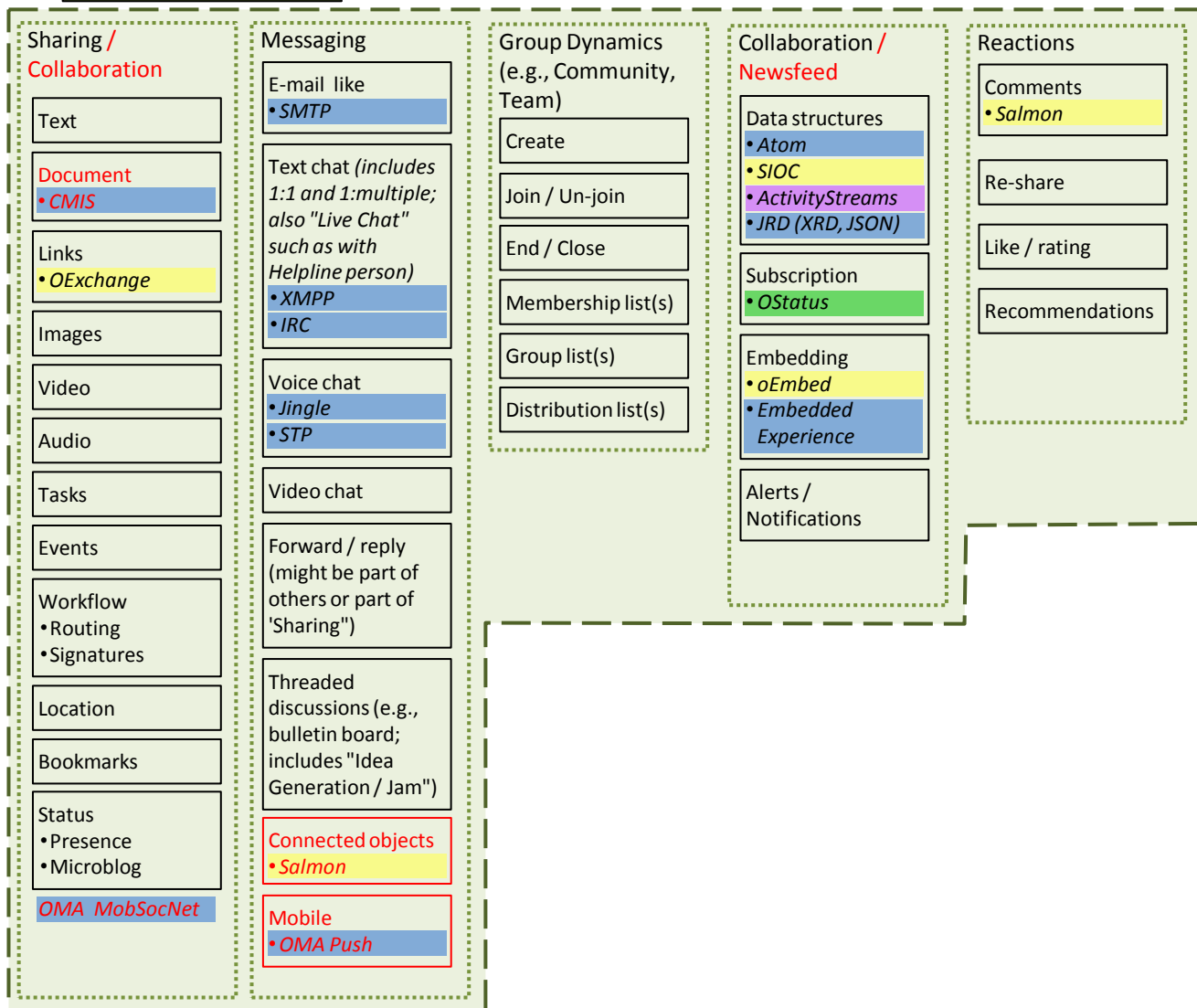
- JSON (ActivityStreams, Portable Contacts)
- XML (Atom, XRD)
- RDF (FOAF, SIOC)

Content 'structures'

- Wiki
- Blog
- HTML+
- Microblog



Human interactions



Key

Standardized at W3C
W3C Community Group
Standardized at another body
Standardization candidate
Independent standard group
Public standard
No standards body
Known IP issues

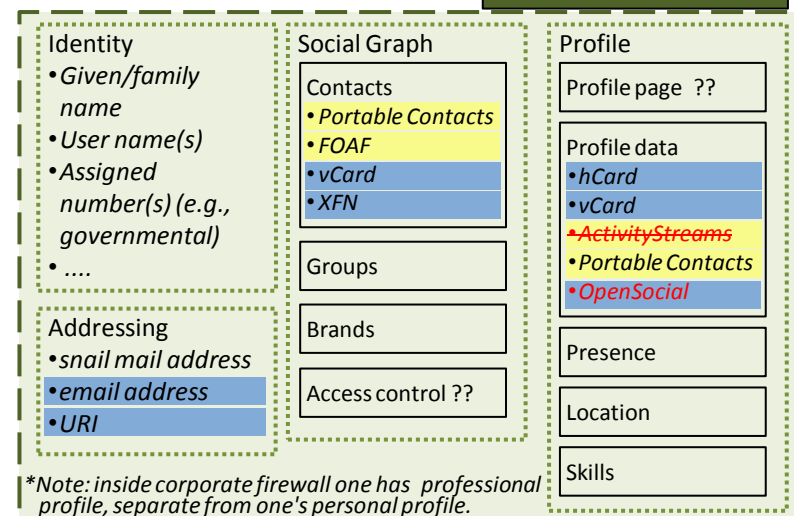


Adding technologies, standards, and who is doing. (Not complete)

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Embedded
External

Analytics

Engagement
Scoring
Recommendations
Trends

Real-time Notifications

Mobile
Browser

Login credentials

• *OpenID*
• *OAuth*
• *WebID*
• *Browser ID*

Discovery

• *Webfinger, LRDD*
• *SWD*
• *Open Graph*

Data structures

• *JSON*
• *Activity Streams*
• *Portable Contacts*
• *XML*
• *Atom*
• *XRD*
• *RDF*
• *FOAF*
• *SIOC*
• *HTML5*

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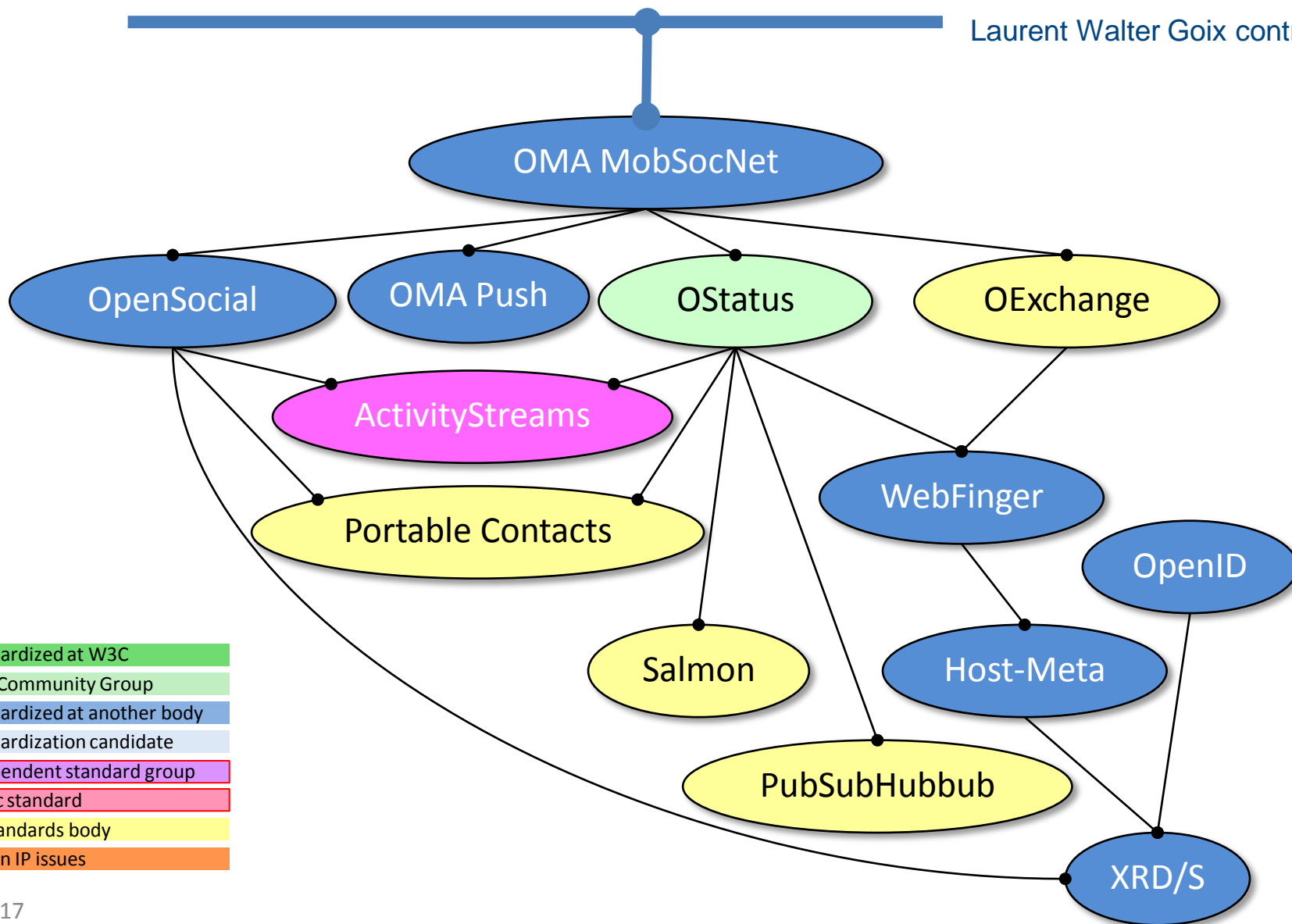
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Ubiquitous attributes

- Threading
- Sorting (by 'likes', 'most recent',...)
- Hyperlinks
- Variable device display
- Variable security settings
- Search
- Biz/Mining Intelligence (??)
- ...

"Mobile" equilibrium of social network specifications

Laurent Walter Goix contribution





Layer view

Blaine Cook contribution (Not complete.)

3. Transport Layer

Open Standards	pubsubhubbub · xmpp pubsub
Proprietary	facebook · twitter

2. Identity Layer

Addressing	email · postal · telephone number · username · http url · assigned numbers · bank account
Profile	name · age · gender · presence · availability · location · skills · employment · associations · preferences
Network	group membership · employment · friends · family · contacts · collaborators · teams

1. Infrastructure Layer

IP	http · smtp · xmpp
Telephony	gsm · pstn



Layer view, continued

6. Application Layer

Sharing	links · images · video · audio · tasks · events · location · status · code · profiles
One-to-One Messaging	email · im · voice · video
Many-to-Many Messaging	email lists · group text chat · video conference · audio conference
Meta	comments · rating · tagging

5. Data Layer

(lots here; not finished)

4. Session Layer

Authentication	openid · facebook connect · twitter sign-in · openid connect · browserid · username & password · saml
Authorisation	oauth · cookies · saml

3. Transport Layer



Additional perspectives

- Having described the social web components by categories, making sure everything is there...
 - Human interaction
 - About the human
 - Ubiquitous attributes
 - Technical foundations
- We may want to organize items in a different way
 - to identify relationships
 - to identify the Basis Set
 - to identify essential tests



Scenarios & Narratives

- Scenarios are the activities that drive the diagram.
- What is the canonical set of social networking scenarios?
Examples:
 - Update personal information
 - Explore a social graph
 - Share information
 - Provide a reaction
 - ...
- Can we write narratives to describe each scenario?
 - Samples:
<http://www.w3.org/wiki/SocialWebHeadlightsTaskForce>



Basis set

"Basis Set" = the irreducible list of 5-10 components that are the top-level description of the block diagram

Example: in the OSI model, the basis set is 7 layers

Initial proposed social networking basis set:

1. Identity and addressing (includes profile)
2. Data (text, documents, etc.)
3. Sharing infrastructure (events, location, status)
4. Linking to more information (posting, hyperlinks, search)
5. Group dynamics (create groups, membership lists, social graph)
6. Transport / messaging
7. "Feeds" management
8. Reactions



Tests

How to test if we have the correct Basis Set:

- If, every time we describe a scenario:
 - it uses the basis set; and
 - these technology categories are used in roughly the same way each time
- ... then we have correctly described the underlying technology.

Example: With data communications, every time a message is sent, it goes through the 7 layers in approximately the same way



Current work summary

Multiple efforts on how to represent a complicated subject area, including:

- Component parts
- Relationships
- Scenarios
- Tests
- Standards to-date
- Who's doing what

... toward answering "what, if anything, would best role of W3C?"



Jeff Jaffe:

- Standardization possibilities



Standardization possibilities

- Within the social space there are many potential areas for standardization
 - The block diagram helps clarify
 - Some are already underway elsewhere
 - Some have not started and could be opportunities for W3C
- But we also ask whether there are unique opportunities for W3C
 - Here's one!



Developers want common APIs to get at social data

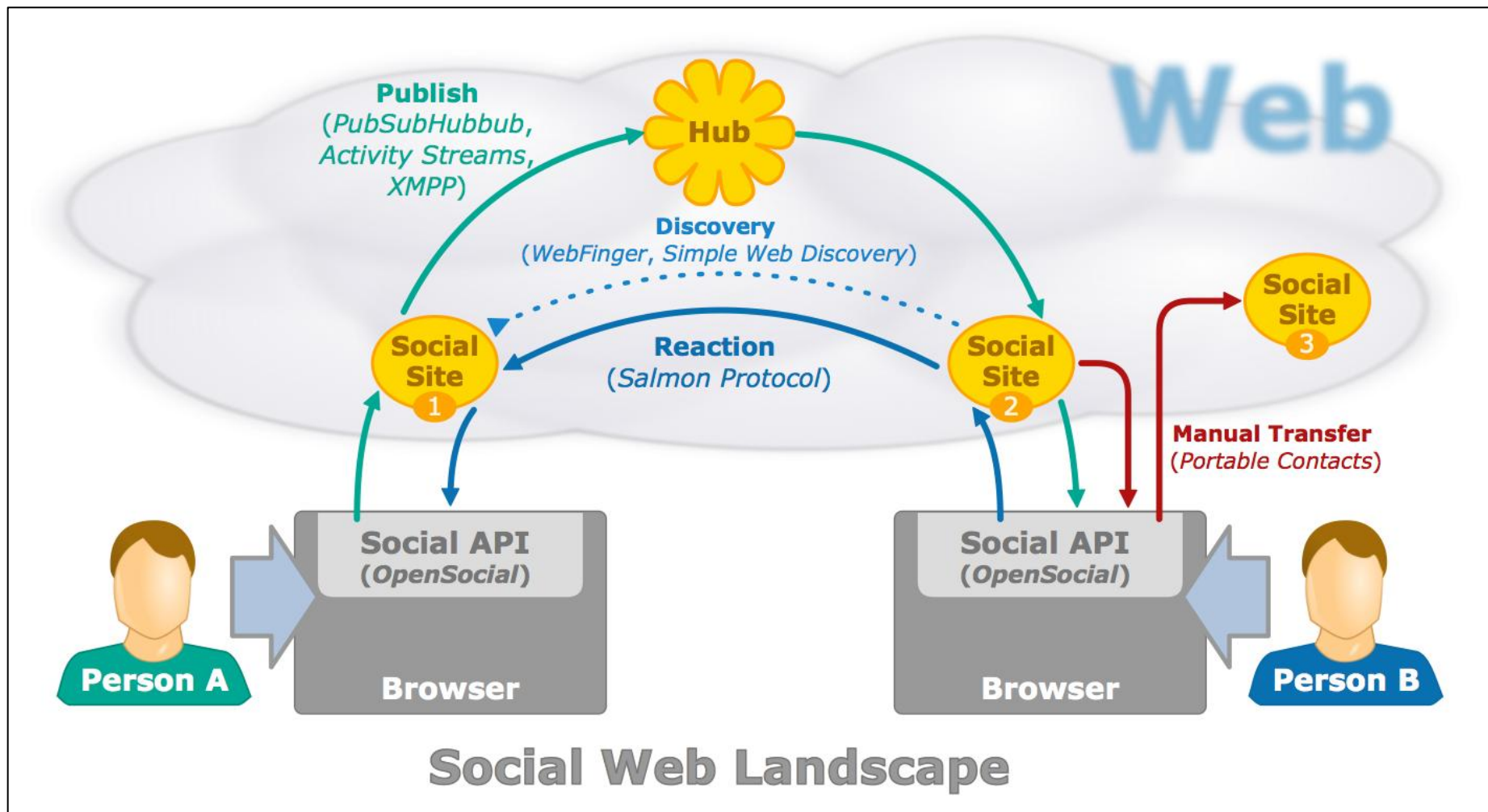
- Sites who want to be part of a standardized social web can share social data in "near real-time" via server-to-server federation --- but many do not.
- Today, several sites use OpenSocial
- Other, significant sites open their APIs to developers, but do not use any standard
- Developers are forced to customize applications to individual sites
- But every social site sits on top of a browser
- Browsers can get access to social data and provide a standard social view (APIs) to developers



How would this work?

- For example, users could download their profile data into their browser
 - Don't they want to own their profile data?
- A standard browser API could make this available uniformly across applications
 - Contact information
 - APIs to manage this information
 - Protocols to socialize this with other sites
 - Data formats
 - Candidate specs exist as starting points
- This could be repeated for other information in the social world

Putting it all together





Steve Holbrook:

- Workshop Opportunities



Discussion

- Questions?
- Reactions?
- Suggestions?
- Want to help?