

# Collaboration Tools and Web 2.0

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- Collaboration
- Tools
- Trends
- Philosophies

# Collaboration

# Definition

- From Wikipedia:
    - **Collaboration** is a process defined by the recursive interaction of knowledge and mutual learning between two or more people who are working together, in an intellectual endeavor, toward a common goal which is typically creative in nature.
- <http://en.wikipedia.org/wiki/Collaboration>

# The Process

- Often associated with ‘teamwork’
- Gray (1989) explores collaboration as a process by framing it in three phases: problem setting, direction setting, and structuring
- May also be associated with the output – a ‘collaboration’

# The Main Idea

- ... is of working together
- sharing of planning, making decisions, solving problems, setting goals, assuming responsibility, working together cooperatively, communicating, and coordinating openly (Baggs & Schmitt, 1988).

[http://www.medscape.com/viewarticle/499266\\_2](http://www.medscape.com/viewarticle/499266_2)

# Collaborative Processes

- Team Creation
- Idea Generation
- Decision-Making
- Work or Production
- Evaluation or Recap

# Team Creation

- = *connecting*
- Katzenbach and Smith
  - Small numbers of people - < 12
  - Complementary skills in group members
  - Common purposes for working
  - Performance goals agreed upon
  - Shared working approaches
  - Mutual accountability amongst all members

[http://en.wikipedia.org/wiki/Collaborative\\_method](http://en.wikipedia.org/wiki/Collaborative_method)

*The Wisdom of Teams*. New York, NY: HarperCollins, 2003.



# Idea Generation

- = *creating*
- Brainstorming
- Concept mapping / mind mapping
- Breakdown (analysis)
- Storyboarding
- Role Play
- Etc.

[http://creatingminds.org/tools/tools\\_ideation.htm](http://creatingminds.org/tools/tools_ideation.htm)

# Decision-Making

- = *deciding*
- Autocratic
- Hand-clasping and cliques
- Consensus
- Deliberative Processes
- Polling
- Voting (voting mechanisms)  
<http://www.csuchico.edu/sac/leaders/grpdecision.html>

# Work or Production

- = *producing*
- Functions: execution, tracking, timelining and optimizing...
- Separate roles and responsibilities – individual work
- Iterative (eg. Word Update)
- Common Environment (Music and Lyrics)

# Evaluation or Recap

- = *reflecting*
- Tabulation of expectations and results
- Surveying, polling
- Scoring and measurement against objective standards
- Story-telling, lessons learned
- Collection of best practices

# Tools

# An Electronic Environment

- Basic needs:
  - Computers, mobile phones, PDAs
  - Wireless internet connection
  - Power outlets
  - Display screens or monitors

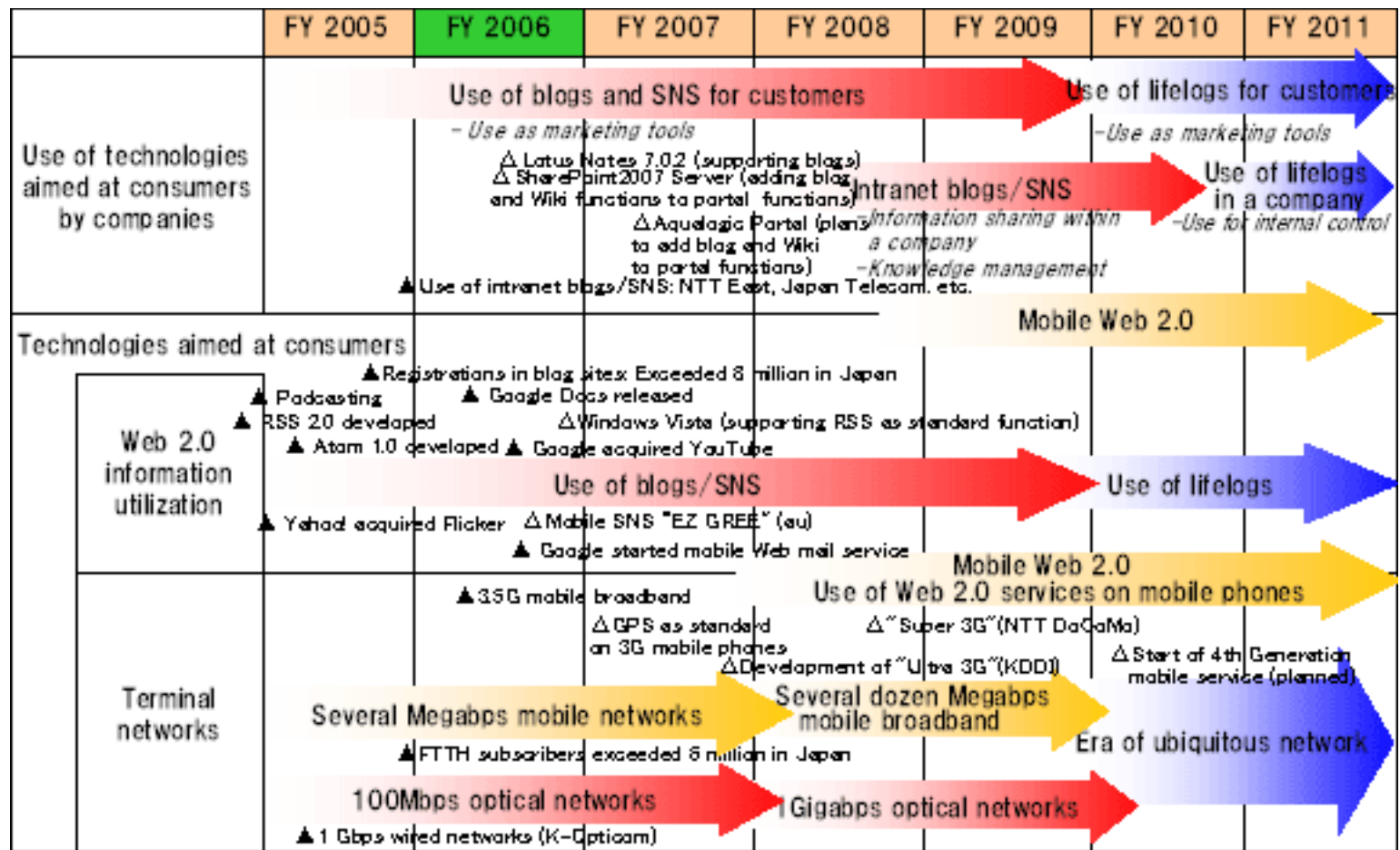
# Basic Communications

- Email / Mailing List
- Instant messaging
- Bulletin or Discussion Board
- Telephone / Audio Chat
- Meeting / Video Conference
- Presentation Tools
- Document storage and exchange

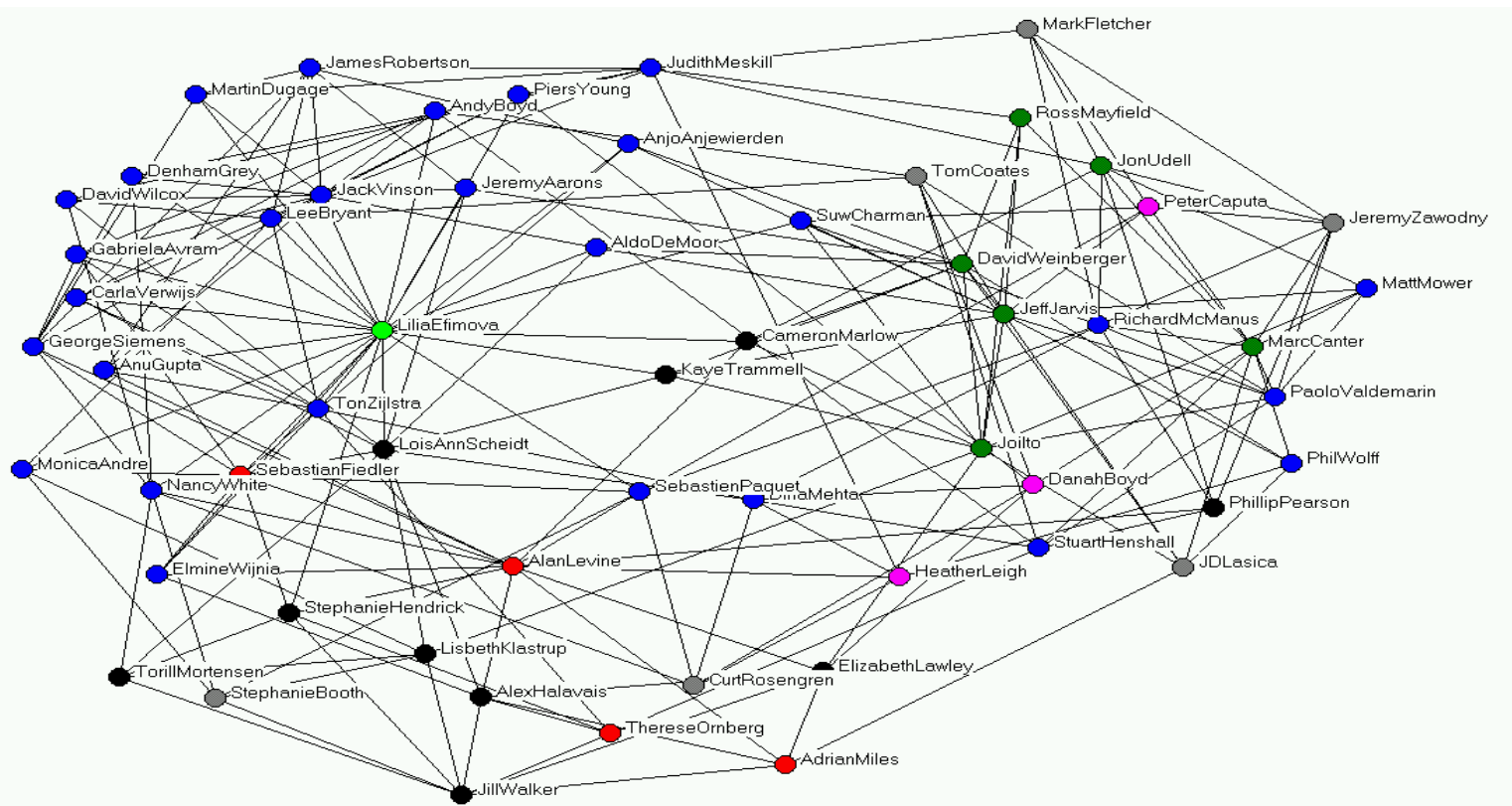
# Web 2.0



# The Core Technologies

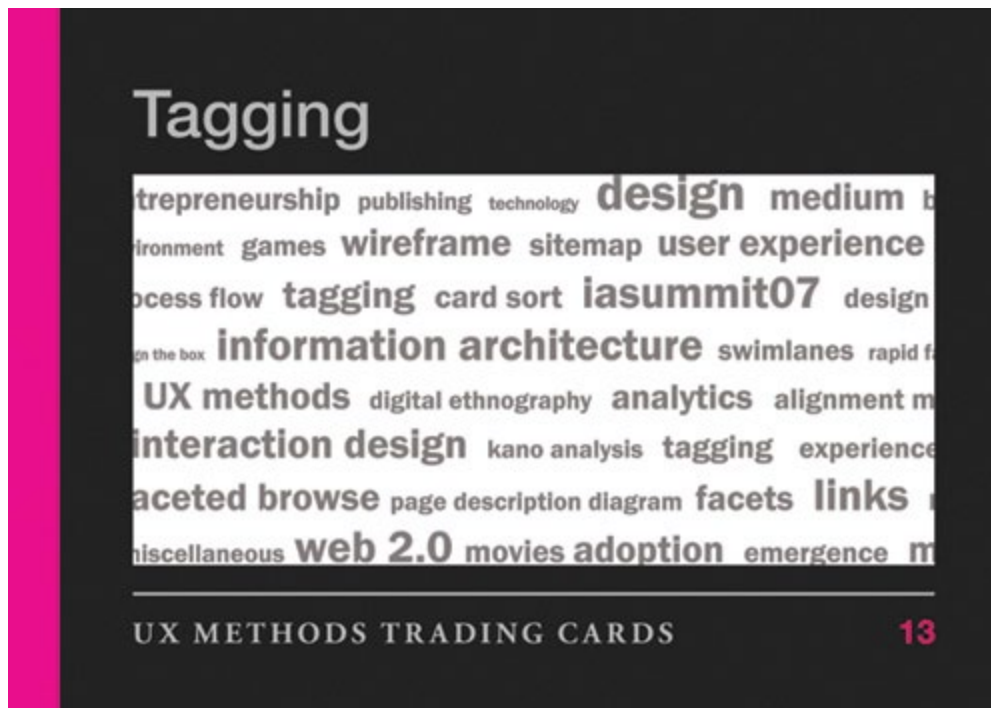


- Social Networking



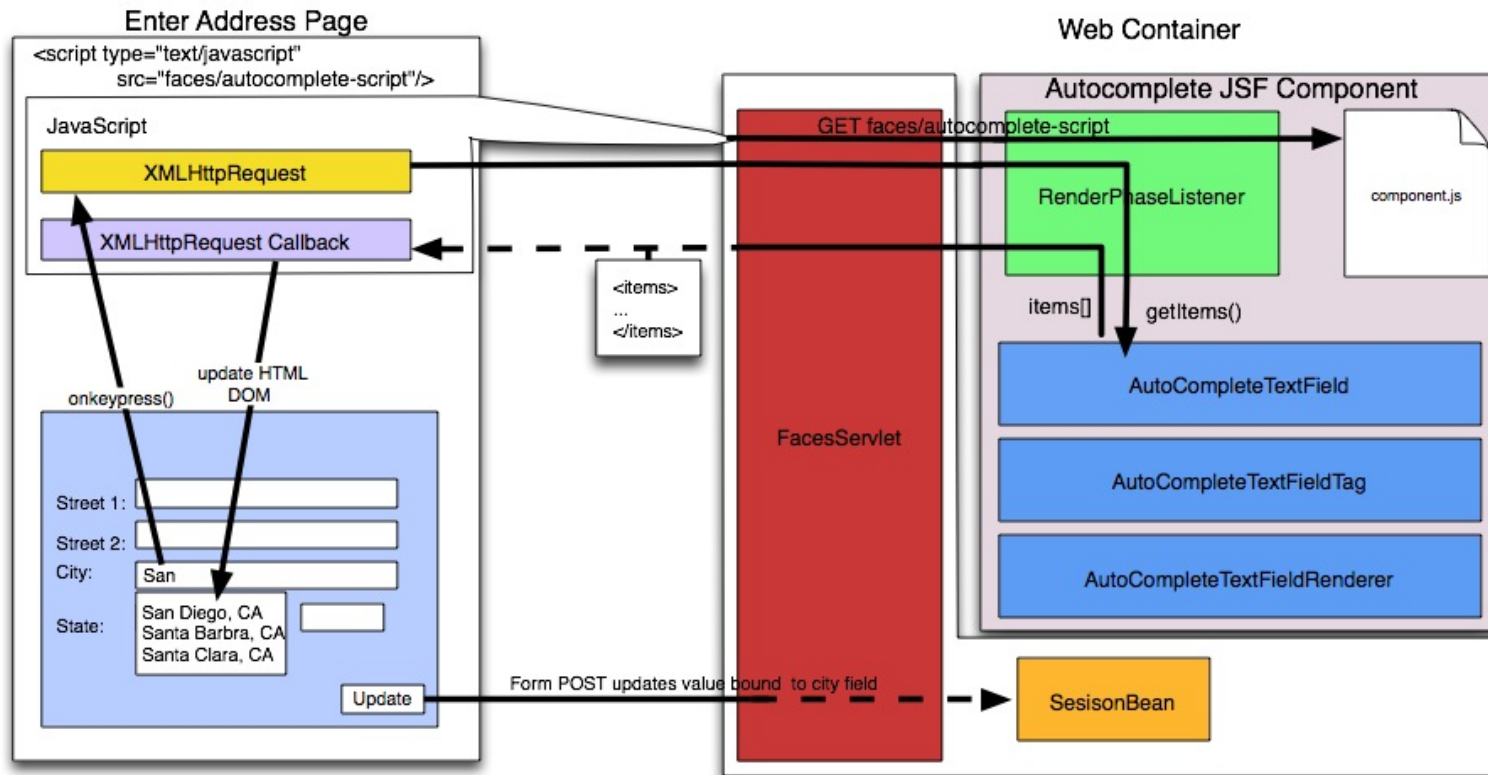
<http://staffdev.henrico.k12.va.us/parents/socnetwork.htm>

- Tagging



- Asynchronous Javascript and XML (AJAX)

Jesse James Garrett in February 2005.

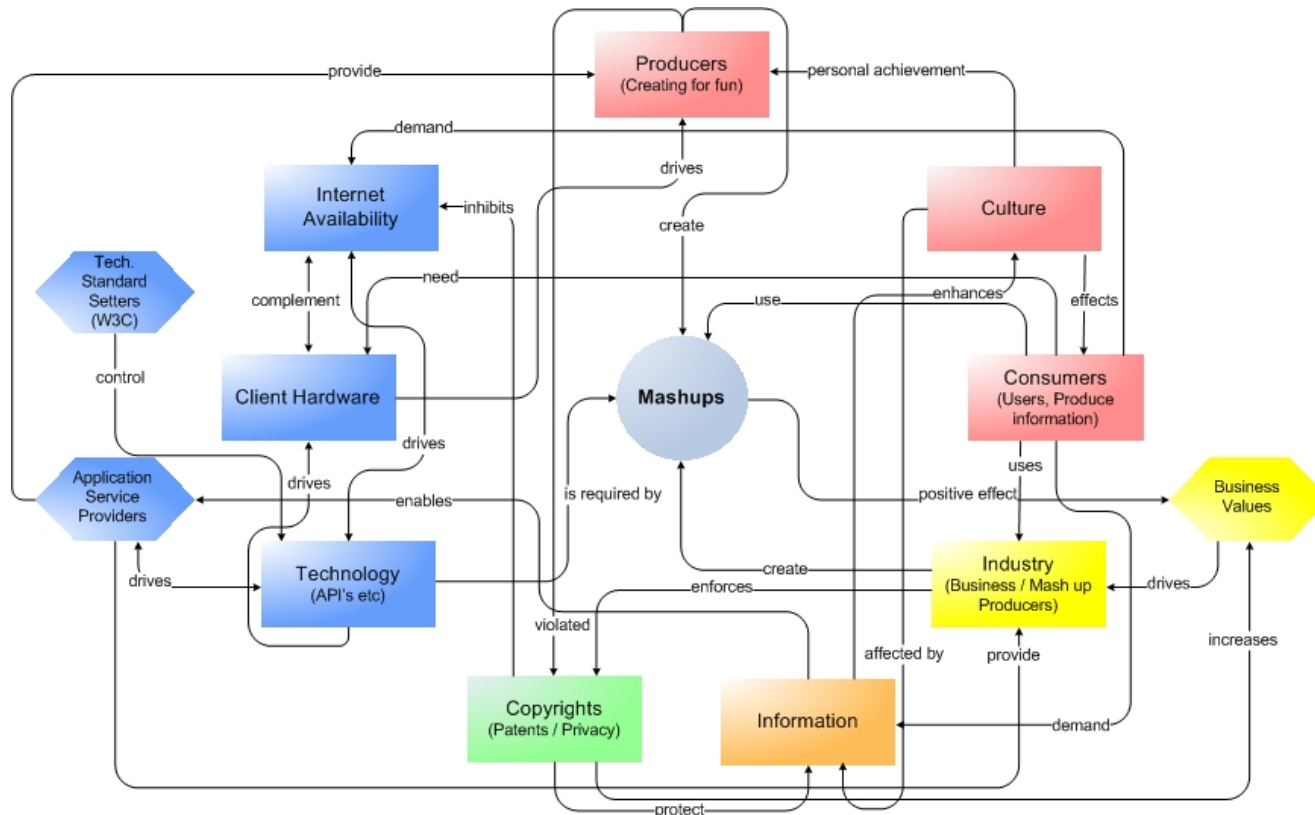


<https://bpcatalog.dev.java.net/ajax/textfield-jsf/design.html>

- Representational State Transfer (REST)
  - principles that outline how resources are defined and addressed
  - looser sense: domain-specific data over HTTP without an additional messaging layer such as SOAP or session tracking via HTTP cookies.

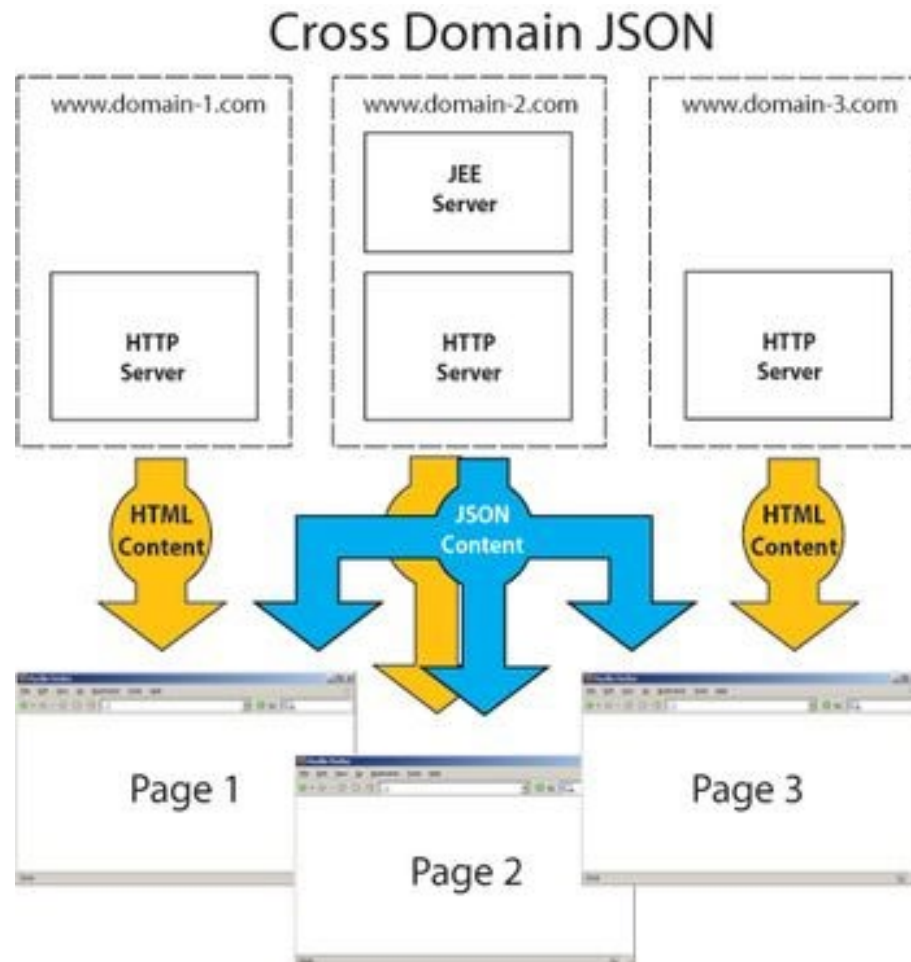
[http://en.wikipedia.org/wiki/Representational\\_State\\_Transfer](http://en.wikipedia.org/wiki/Representational_State_Transfer)

- Application Program Interface (API) and Mash-Ups



<http://scenariothinking.org/wiki/images/b/b6/MashUpSysDiagramV6.0.jpg>

- Javascript  
Object  
Notation  
(JSON)



# Team Creation

- Group Formation
  - Yahoo groups
  - Google Groups
- CMSs, LMSs, etc.
- Social Networks
  - Friendster, LinkedIn, Orkut, MySpace, Facebook, etc.
- Network Formation
  - Ning, Elgg



# Idea Generation

- Brainstorming Tools - <http://oedb.org/library/features/top-25-web20-apps-to-help-you-learn>
- Research and Tracking – del.icio.us and RSS readers <http://www.del.icio.us>
- Concept mapping / mind mapping <http://bubbl.us/>  
<http://www.flowchart.com> <http://www.gliffy.com>
- Storyboarding – web comics  
[http://www.sacredcowdung.com/archives/2006/03/all\\_things\\_web.html](http://www.sacredcowdung.com/archives/2006/03/all_things_web.html)  
<http://www.mainada.net/comics/> <http://www.quicktoons.com>
- Role Play
- *Etc.*

[http://creatingminds.org/tools/tools\\_ideation.htm](http://creatingminds.org/tools/tools_ideation.htm)

# Decision-Making

- = *deciding*
- Slashdot – reputation management  
<http://slashdot.org/>
- Collective Wisdom – Digg –  
<http://www.digg.com>
- Individual actions resulting in collective voice - Wikipedia

<http://www.csuchico.edu/sac/leaders/grpdecision.html>

# Work or Production

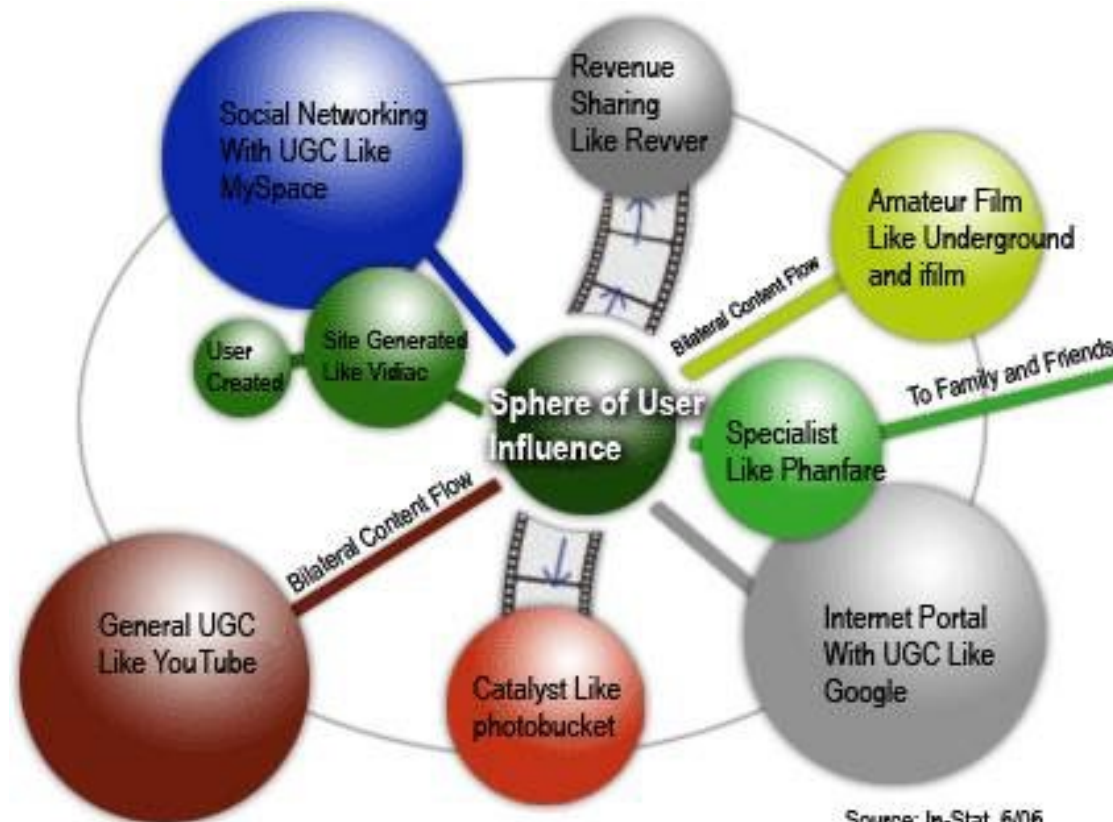
- = *producing*
- SubEthaEdit
- Writely -> Google Docs
- <http://docs.google.com/?pli=1>

# Evaluation or Recap

- = *reflecting*
- [Blogger](#) - [Live Journal](#) - [Movable Type](#) - [Wordpress](#)
- [Educational Blogging](#) – article
- [Educational Weblogs](#) - [Edublogs.org](#)
- [Wikipedia](#) – as [compared to Britannica by Nature](#)

# Trends

# User-Generated Content



Source: In-Stat, 6/06

<http://www.linuxelectronics.com/news/general/user-generated-web-content-will-grow-rapidly-through-2010>

# Multimedia Platforms

- Eg. YouTube – in a way – Second Life
- But esp. on line multimedia editors
- [Flickr](#), [Podcasting](#) - wikipedia
- [iPodder](#) - [Odeo](#) – [Liberated Syndication](#)
- [Youtube](#) - video
- Podcasting in Learning [Ed Tech Talk](#) - [Ed Tech Posse](#) - [FLOSSE Posse](#) [Bob Sprankle](#) - [Education Podcast Network](#)

# Flow

- IM and SMS expanded – Twitter
- Facebook ‘status’ updates – the now
- RSS, podcasting and other content feeds
- Mode – the idea of flow – how do you survive in a world of constant change?  
Stop thinking of things as static
-



# Identity

- The idea: identity as personal, not institutional
- You own your data
- Identity 2.0 – Dick Hardt  
[http://talk.talis.com/archives/2005/10/dick\\_hardt\\_on\\_i.html](http://talk.talis.com/archives/2005/10/dick_hardt_on_i.html)  
<http://identity20.com/media/OSCON2005/>
- OpenID <http://openid.net/>

# No More Walled Gardens

- Social and content networks distributed across services
- But also... importantly... the walls or institutions and corporations are also less important

# Personal Learning Environment

- Aggregate
- Remix
- Repurpose
- Feed Forward

# Un...

- As in, unorganized
- Eg. the Unconference mcintosh

# Philosophies

# The Semantic Principle

# Groups and Networks

“Groups require unity, networks require diversity. Groups require coherence, networks require autonomy. Groups require privacy or segregation, networks require openness. Groups require focus of voice, networks require interaction. ”

<http://www.downes.ca/cgi-bin/page.cgi?post=35839>

# Rethinking Learning



[http://static.flickr.com/109/252157734\\_9e6c29433b\\_b.jpg](http://static.flickr.com/109/252157734_9e6c29433b_b.jpg)

<http://video.google.com/videoplay?docid=-4126240905912531540&hl=en>



# Their Natures

- *A group* is a collection of entities or members according to their nature; what defines a group is the quality members possess and number
- *A network* is an association of entities or members via a set of connections; what defines a network is the extent and nature of this connectivity

# Groups, Schools, Classes

- A group, in other words, is a ***school*** (of thought, of fish...) or a ***class*** of some sort.
- Or: classes and schools are just groups. They are *defined* as groups.
- Can we even think of schools – and of learning – without thinking at the same time of the attributes of groups?

# Elements and Ecologies

- A group is **elemental**, defined by mass and sameness – like an ingot of metal (Aside: democracy is a group phenomenon)
- A network is diverse and changing, defined by interactions – like an **ecosystem**

Can we achieve order, responsibility, identity in an ecosystem? Do we need the iron hand? (Aside: Solon, learning, justice)

# Group Unity

- A group must be *cohesive, united*, “out of many, one”... “*the people, united, will never be defeated...*” The melting pot... the encouragement is to conform, to be like the others
- Group technology appeals to the **mass**: television, radio, newspapers, books
- Internet technology includes: all-staff email, corporate website, portal

# Network Diversity

- A network, by contrast, thrives on *diversity* ... *“to each his own”* ... the salad bowl... the encouragement is to be distinct, to create
- Network technology includes: talking, telephoning, writing letters, personal email
- Internet technology: personal home pages, blogs

# Group Coordination

- Groups require *coordination*, a leader, someone who will show the way... and to be *managed*... a group will often be defined by its *values* (aka the leader's values?) and then a way to get members to follow, to share the *vision*, will define *standards* - members *belong* to a group
- Associated technology includes the Learning Management System, Learning Design, LOM, etc

# Network Autonomy

- Networks require *autonomy*, that is, that each individual operate *independently* according to his or her *own values and interests* – cooperation entails mutual exchange of value rather than follower and leader – members *interact* with a network
- Associated technology: e-portfolios, personal learning environments

# Group Borders or Boundaries

- Groups are *closed* - they require a *boundary* that defines members and non-members – **walls** - membership, logins and passwords, jargon and controlled vocabulary, lock-in (staying on-message, speak as one)
- Technology: enterprise computing, federated search, user IDs and passwords, copyrights, patents, trademarks, assertions of *exclusivity*



# Network Openness

- Networks require that all entities be able to send and receive messages both (a) *in their own way* and (b) *without being impeded*
- In their own way: open source software, platform independence, APIs, RSS, communities of practice
- Without being impeded: Creative Commons and GPL, distributed identity

# Group Centralization

- Groups are *distributive* – knowledge, information, money, etc., flows from the centre – an ‘authority’ and is distributed through to their members

# Networks Connective

- Peer-to-peer
- Conversation
- Distributive
- emergent

# Why Networks?

- Nature of the knower: humans are more like networks than
- Quality of the knowledge: groups are limited by the capacity of the leader
- Nature of the knowledge: group knowledge is *transmitted* and *simple* (cause-effect, yes-no, etc) while network knowledge is *emergent* and *complex*