# Quick Overview of Internet Services 406.424 Internet Applications

Jonghun Park

jonghun@snu.ac.kr

Dept. of Industrial Eng. Seoul National University

9/1/2010



#### **Table of Contents**

- introduction
- content authoring
- content syndication
- content filtering
- social communities
- crowd sourcing
- mashups
- RIA
- enterprise 2.0
- others
- outlook



#### Louis Gray's Media Consumption Workflow

#### My Social Media Consumption Workflow



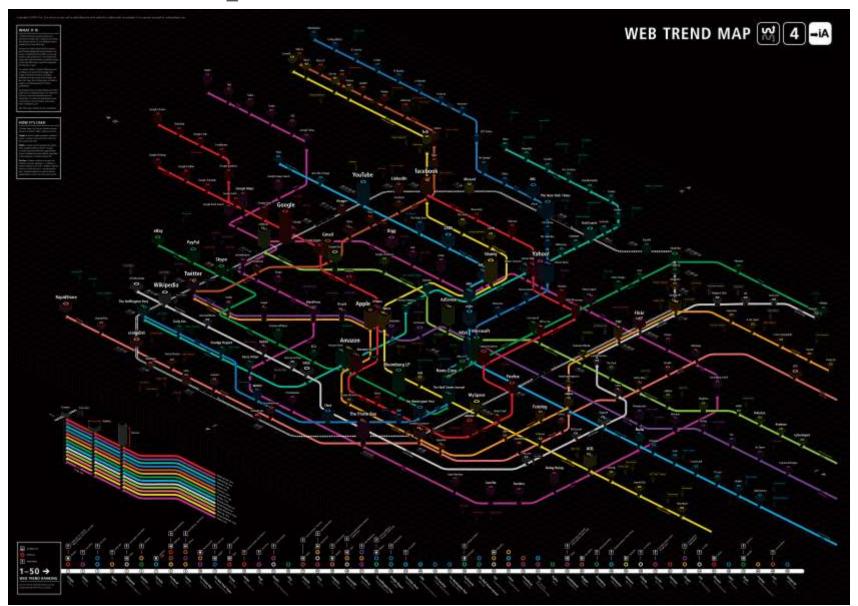
+ blog posting, twitter updates, FF commenting, delicious bookmarking, and trading emails





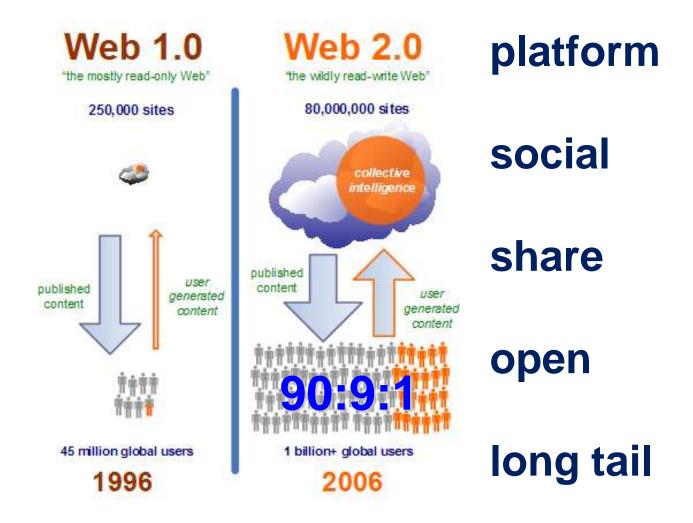


# web trend map: as of 2009





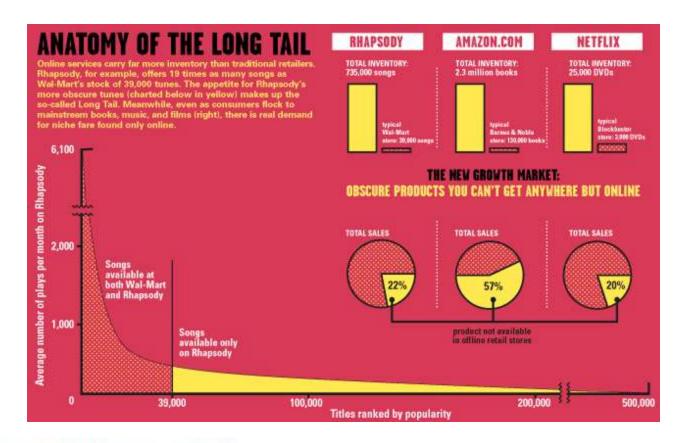
#### Web 2.0: Been There, Done That?





#### long tail

- "Forget squeezing millions from a few megahits at the top of the charts. The future of entertainment is in the **millions of niche markets** at the shallow end of the bitstream" (Chris Anderson)
- what's wrong with Pareto principle?





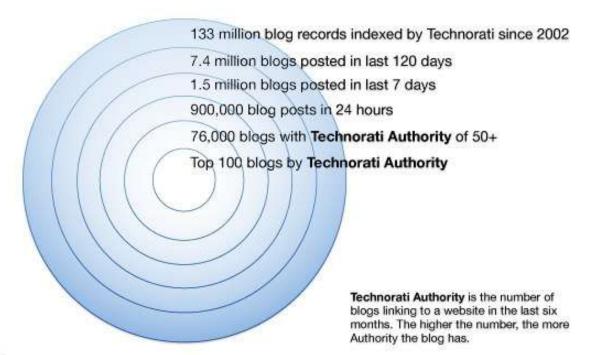






#### Blogs as Media

- chinese actress Xu Jinglei: 50M+ page views
- popular blog languages: japanese (37%), english (31%), chinese (15%)
- mean annual revenue: \$6,000
- \$75K+ for those with 100K+ monthly UV





# **Blogs**

- web log
- reverse chronological
- permanent link
- comments
- trackback / pingback
- meta-blogging
- XHTML / RSS

That's why smart companies like JetBlue and Zappos are legitimately engaging on Twitter. It's becoming a front line for customer service. At a minimum, every consumer facing company should be monitoring the chatter. Even better, participating can cut problems off at the pass or even better foster evangelists. The numbers may never tell this story. For more, see Chris Winfield's mini case study.

Technorati Links • Email this • Twit This! • Digg This! • Save to del.icio.us (30 saves, tagged: twitter socialmedia web2.0) • Sphere: Related Content • Track co.mments

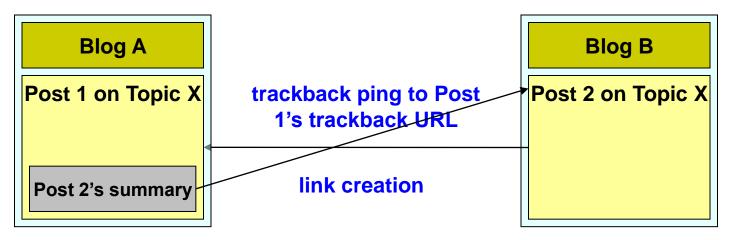
#### TrackBack

TrackBack URL for this entry: http://www.typepad.com/t/trackback/12807/28608460

Listed below are links to weblogs that reference Even if Twitter is Just a Geek Haven, It's Still Very Influential:

- Prada Auctions, Yelp Yelped, Mo Rocca Talks Money, and Love Grows on Trees from Adrants
- Big spenders who can't be ... [Read More]

Tracked on Tuesday, April 29, 2008 at 11:55 PM

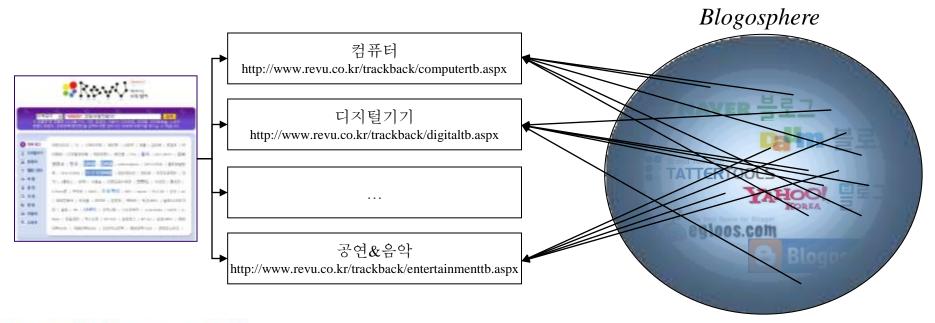


note: link direction is now from "old article" to "new article"



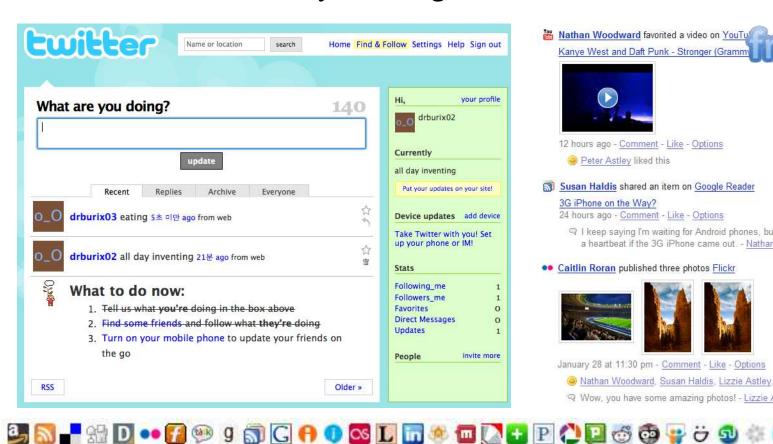
#### application of trackbacks

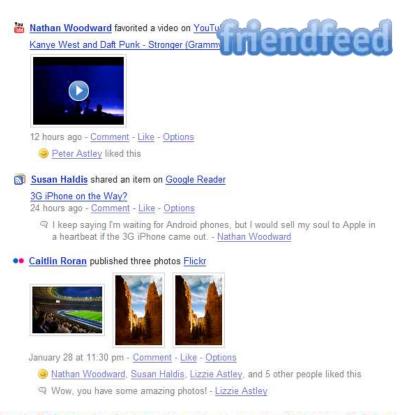
- meta-blogging
  - aggregation of blog posts based on subjects by using trackbacks
- example: revu.com, allblog.net
  - each category has a unique trackback URL



#### Micro-blogging & Life-streaming

- twitter: "what are you doing?"
  - following, RT, #, @, ...
- friendfeed: "what are you doing at social media sites?"





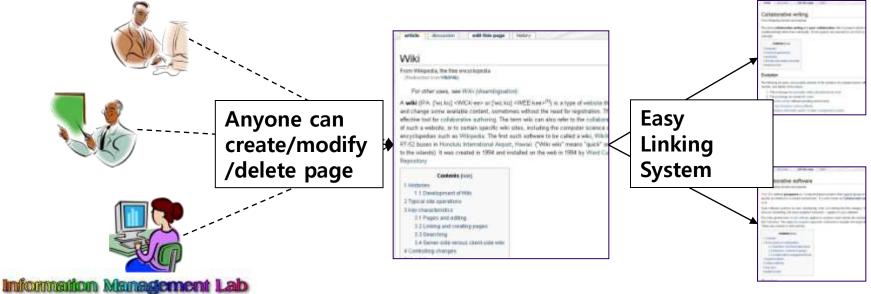




# Wiki: a Tool for Collaborative Authoring



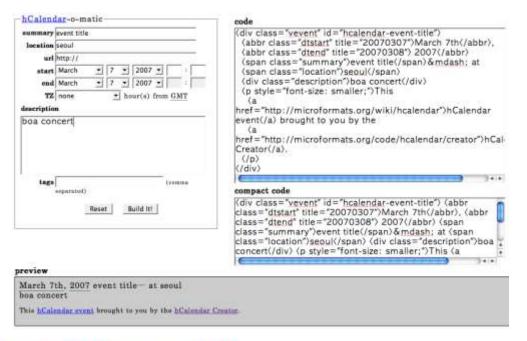


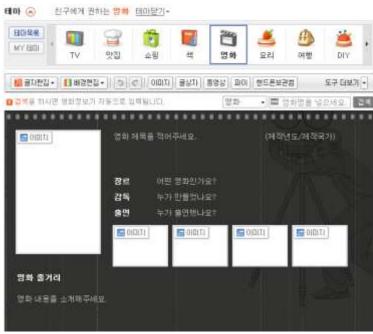




# **Content Structuring**

- microformats.org
  - hCard, hCalendar, hReview, XFN, ...
- structuredblogging.org
- better search results, easier blog posting (?)







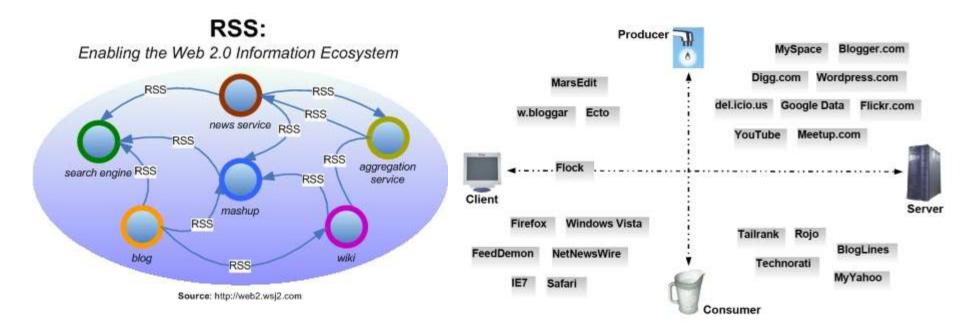


#### RSS



 a family of web feed formats used to publish frequently updated digital content, such as blogs, news feeds or podcasts







#### an example RSS feed











```
<?xml version="1.0" ?>
<rss version="2.0">
 <channel>
  <title>Liftoff News</title>
  k>http://liftoff.msfc.nasa.gov/</link>
  <description>Liftoff to Space Exploration.</description>
  <language>en-us</language>
  <pubDate>Tue, 10 Jun 2003 04:00:00 GMT</pubDate>
  <lastBuildDate>Tue, 10 Jun 2003 09:41:01 GMT</lastBuildDate>
  <docs>http://blogs.law.harvard.edu/tech/rss</docs>
  <generator>Weblog Editor 2.0</generator>
  <managingEditor>editor@example.com</managingEditor>
  <webMaster>webmaster@example.com</webMaster>
  <item>
   <title>Star City</title>
   http://liftoff.msfc.nasa.gov/news/2003/news-starcity.asp</link>
   <description>How do Americans get ready to work with Russians aboard
the International Space Station? They take a crash course in culture, language
and protocol at Russia's <a
href="http://howe.iki.rssi.ru/GCTC/gctc_e.htm">Star City</a>.</description>
   <pubDate>Tue, 03 Jun 2003 09:39:21 GMT</pubDate>
   <guid>http://liftoff.msfc.nasa.gov/2003/06/03.html#item573</guid>
  </item>
  <item>...</item>
  <item>...</item>
 </channel>
</rss>
```

channel (has a unique URL)

item (individual content)



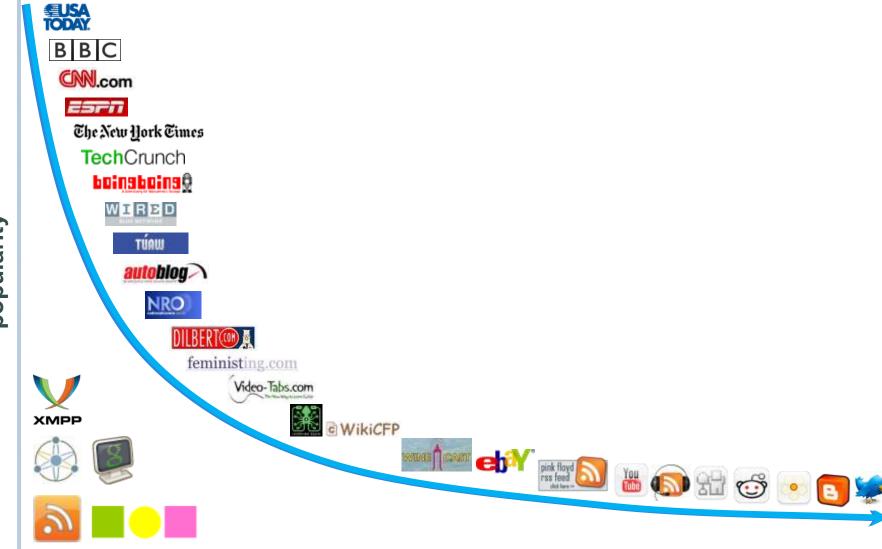
# **Players in Feed Market**

- reader
- aggregator
- filter
- generator
- transformer
- remixer
- search
- recommendation
- promoter





# **Feed Long Tail**





# **Key Characteristics of Feedmil.com**



surprising



# Tags & Folksonomy

- enable classification and social search
- most good people ingore them, but bad people exploit



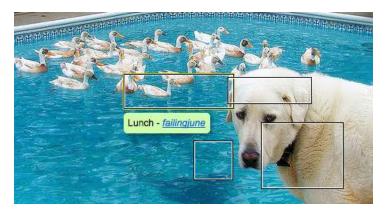










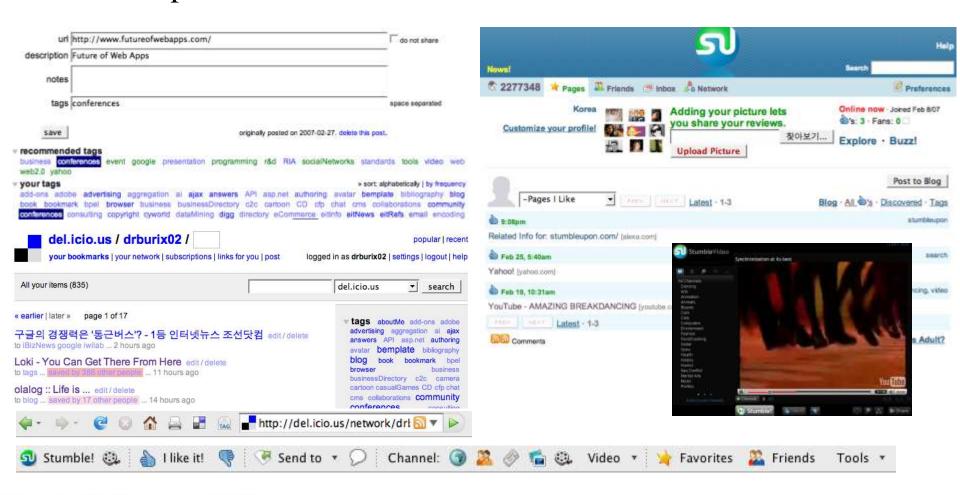


Explore Flickr Through Tags

art australia baby beach birthday blue bw california canada canon cat china christmas city dog england europe family flower flowers food france friends fun germany holiday india italy japan london me mexico music nature new newyork night nikon nyc paris park party people portrait red sanfrancisco sky snow spain summer sunset taiwan tokyo travel trip usa vacation water wedding winter

# **Social Bookmarking**

- del.icio.us: bookmarking, tagging, subscribing
- stumbleupon: recommendation

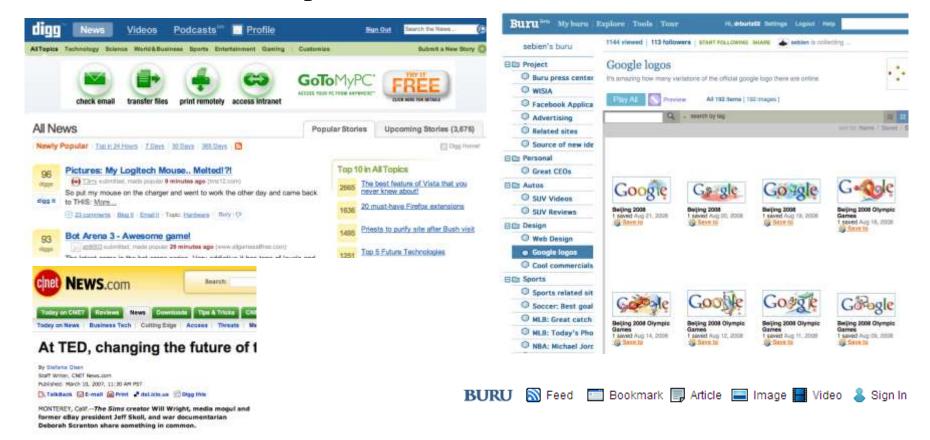






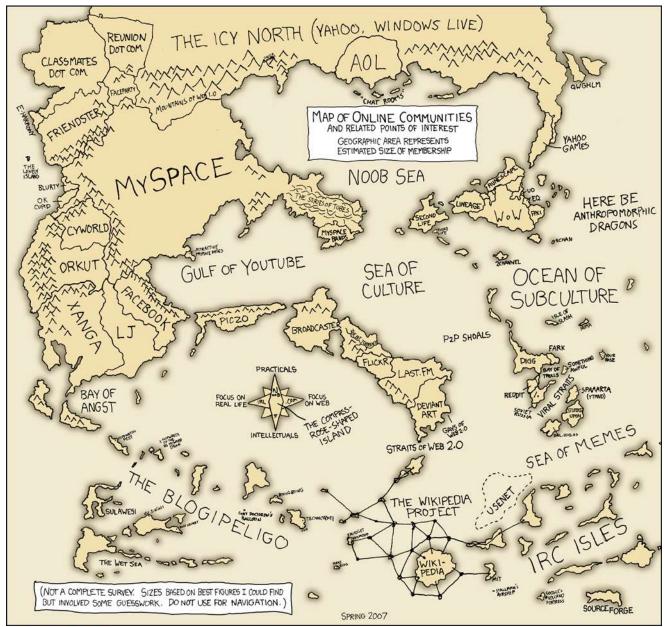
# **Social Filtering**

- digg: user-filtered news via "digg" and "bury"
- buru: evolution of topic focused web collections





#### **Social Networks & Communities**





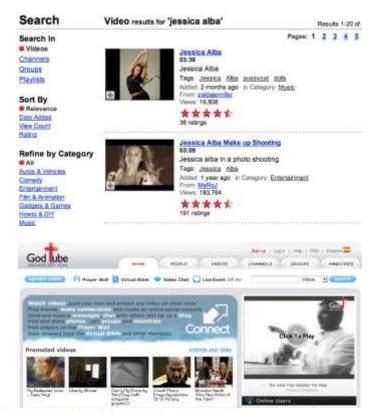
#### **Social Network Services**

- sharing
- friends of friends
- privacy vs. fun of peeping
- facebook application vs. myspace opensocial
- white label social networks



#### **Multimedia Communities**

- video, music, photo
- SNSs are yet strong players
- cold start problem
- IP problems









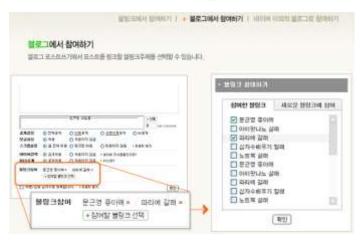
#### Crowdsourcing HOT or NOT.

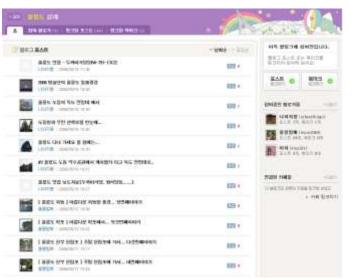


#### Your Account | Moderators | RSS Feeds | FAQ | Jobs - We're Hiring!



#### NAVER 블링크





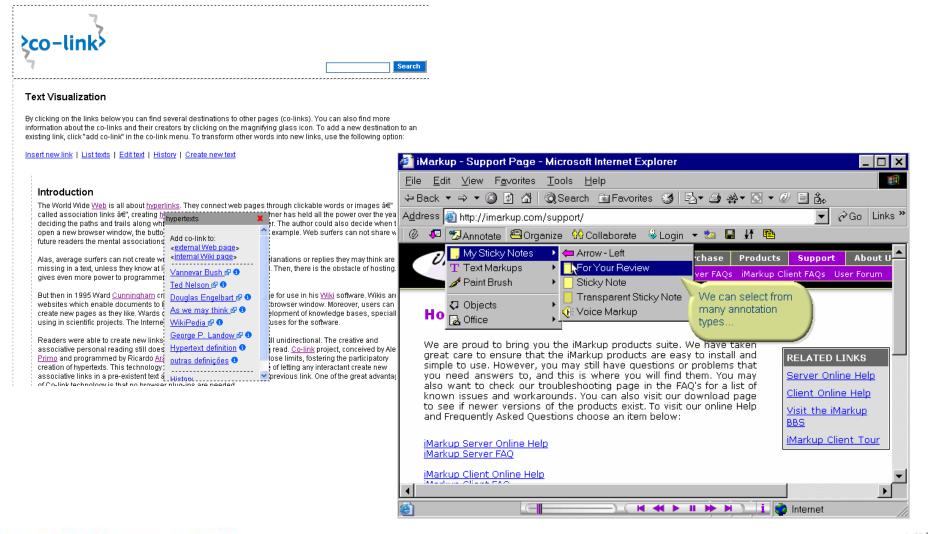
#### NAVER 모자이크 BETA2





#### an effort for "writable" web

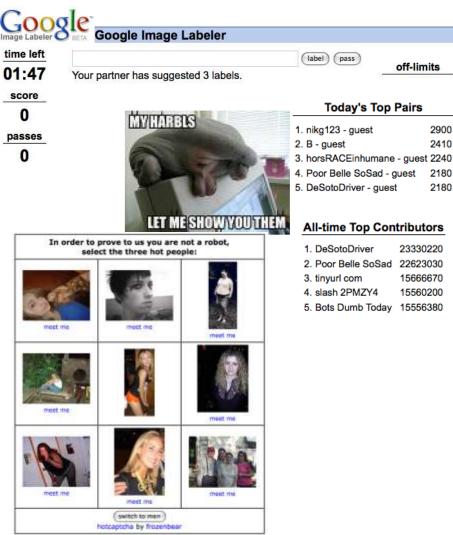
aims to foster the participatory creation of hypertexts



#### **Human Computation**

leveraging human intelligence to solve problems





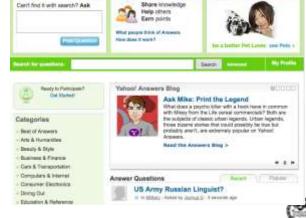
Submit Proof I am Human

# **Q & A Services**

- content creation: producer oriented -> consumer oriented
- motivation for answerers





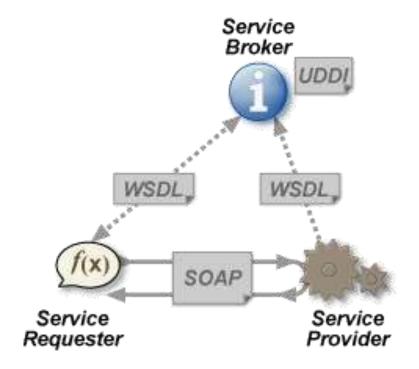


answer.

ask.

#### web services

- software application identified by a URI, whose interfaces and bindings are capable of being defined, described, and discovered as XML artifacts
- web service supports direct interactions with other software agents using XML-based messages exchanged via Internet-based protocols (W3C)



# **REST: REpresentational State Transfer**

- considers the web to comprise hyperlinked resources, which can be any items of interest that are identified by URI
  - nouns instead of verbs
- advocates the use of HTTP methods for manipulating resources
  - HTTP POST (create), HTTP GET (retrieve), HTTP PUT (update), HTTP DELETE (delete)
- "Amazon has both SOAP and REST interfaces to their web services, and 85% of their usage is of the REST interface."

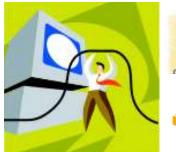
listUsers(); http://example.com/users/
getUser(); http://example.com/users/{user}/
listLocations(); VS. http://example.com/locations/
getLocation(); http://example.com/locations/{location}



1. publish resources as URLs

2. access the resources using HTTP

3. results returned usually in XML

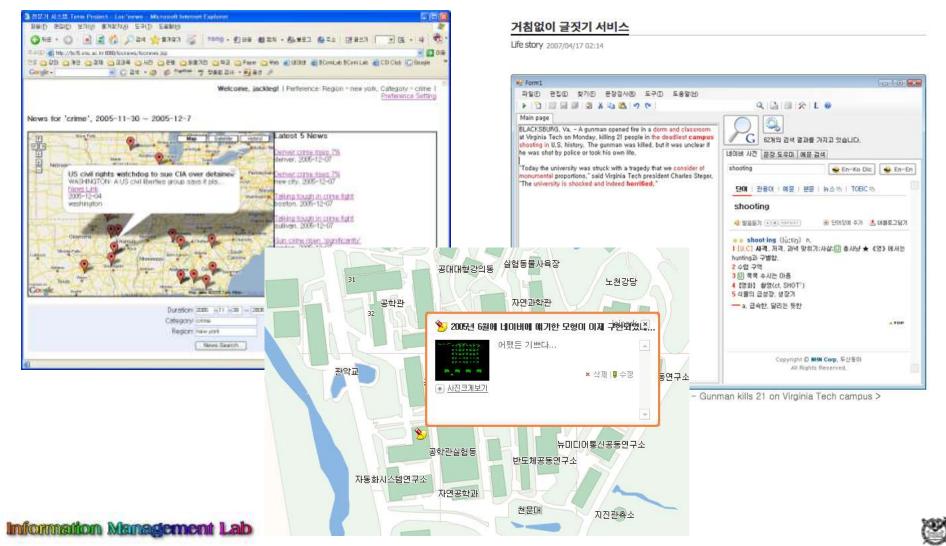






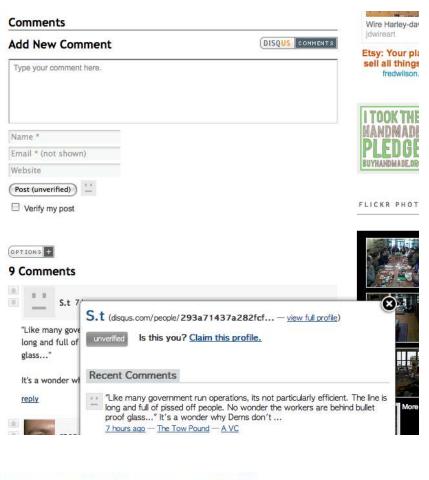
#### mashups

 a website or application that combines content from more than one source into an integrated experience



# SaaS for Reading & Commenting

- disqus: benefits for both commenters and site owners
- mybloglog: tracking recent readers and top links, and gathering statistics

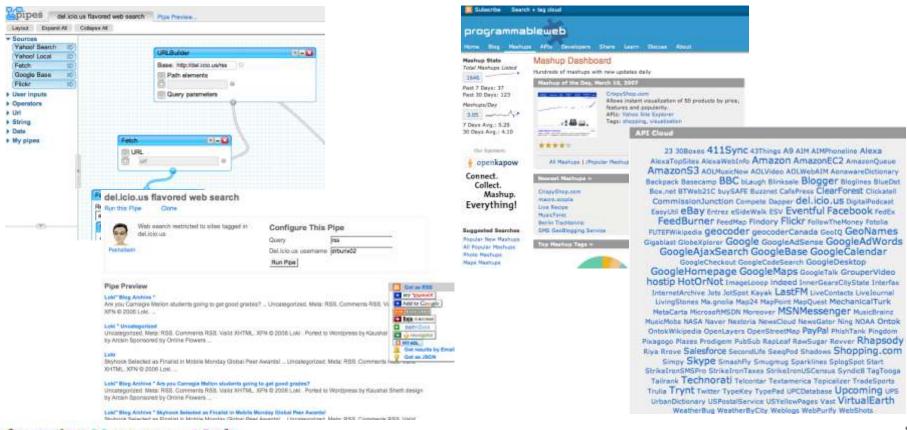






#### platforms for mashup

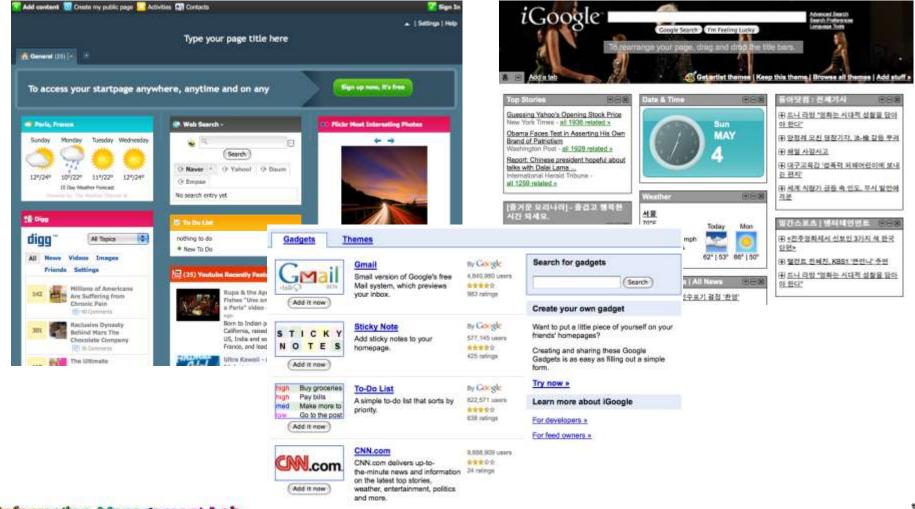
- yahoo pipe
  - an interactive feed aggregator and manipulator
  - example: a pipe for web search restricted to sites tagged in del.icio.us
- programmableweb.com





# **Personalized Aggregation**

- browser within a browser
- personalized page with selected feeds and modules





#### widgets / gadgets

- web widget: a small piece of content (like a game or an ad) that can be placed on a blog or web page
- desktop widget: a component of a graphical user interface that the user interacts with





#### RIA

- Rich Internet Application
- web applications that have the features and functionality of traditional desktop applications
- benefits
  - richer: drag and drop, using a slider to change data,
     ...
  - more responsive: no need to interact with server all the time
  - client / server balance, asynchronous communication, network efficiency
- methods
  - Macromedia's Flash Player & Flex
  - Active X Controls & Silverlight
  - Java applets
  - Java applications
  - User Interface Languages (e.g. XUL)
  - Ajax: asynchronous javascript and xml (XmlHttpRequest)





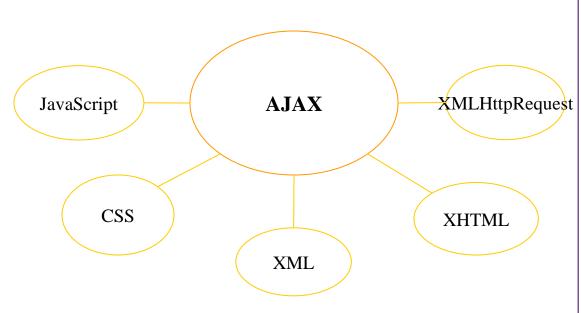
#### **AJAX**

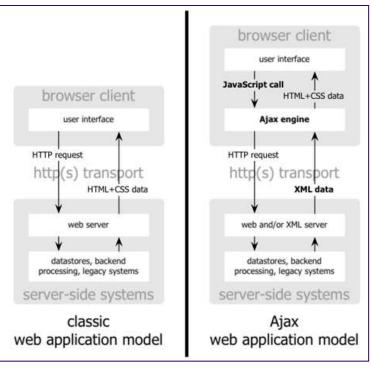
a web development technique for creating interactive web applications

 to make web pages feel more responsive by exchanging small amounts of data with the server behind the scenes

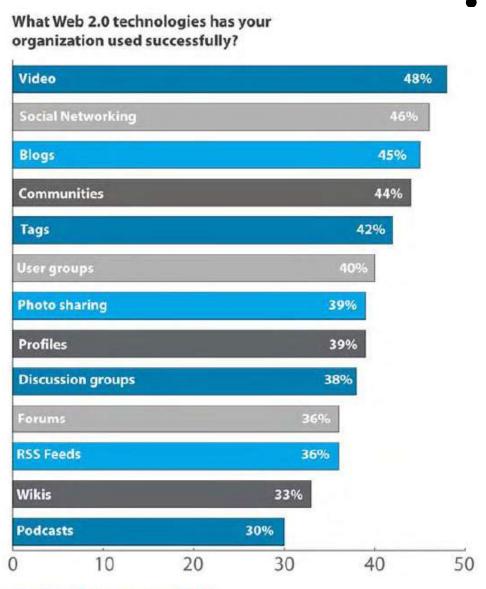
- entire web page does **not have to be reloaded** each time the user

requests a change





## Web 2.0 Techs in Enterprises



• "Enterprise spending on Web 2.0 technologies will grow strongly over the next five years, reaching \$4.6 billion globally by 2013, with social networking, mashups, and RSS capturing the greatest share"

(source:

http://www.forrester.com/Research/Documen t/Excerpt/0,7211,43850,00.html)



# Enterprise 2.0: the first generation

#### collaboration







#### finance





#### wiki





#### project mgmt







#### office 2.0



#### HR / marketing









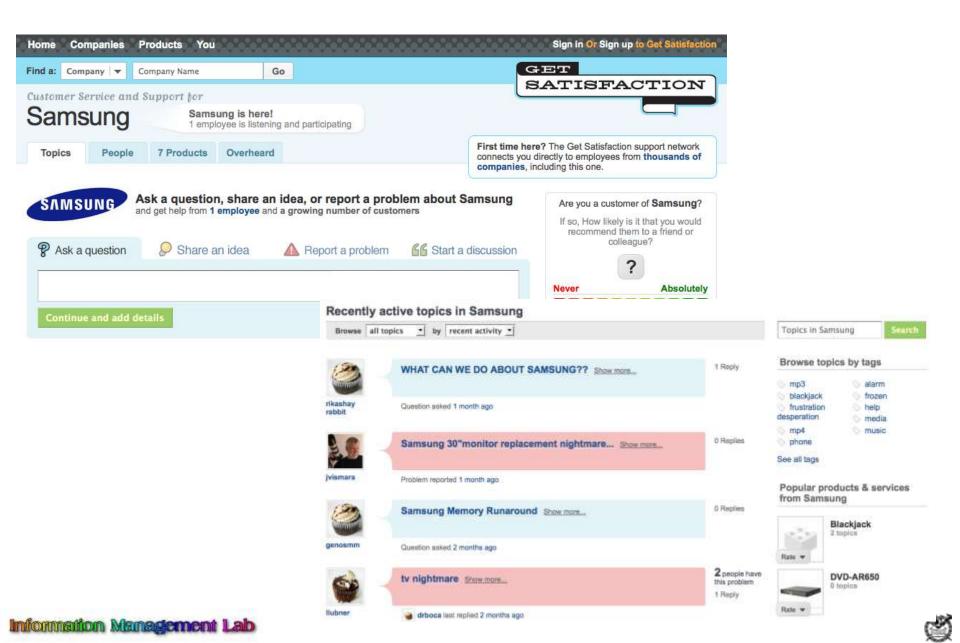
# yammer: twitter for enterprises

Yammer <sup>‡</sup>	Profile   Settings   Invite   Admin   Sign Ou
Snu.ac.kr Home   Members   Tags	find person, tag, message
What are you working on?  Upo	Welcome  john park (edit)
All Following Received Sent  jonghun: preparing a presentation material for LG-CNS so fair 5 seconds ago	reply
dream83 has #joined the snu.ac.kr network.  5 days ago	jonghun: preparing a presentation material for LG-CNS solution fair 5 seconds ago
jonghun has #joined the snu.ac.kr network. 6 days ago 🖾 🏢	reply  Email:  On  Off  Mobile:  On  Off
yammer: Welcome to the snu.ac.kr network on Yammer! started, just post an update. You can use Yammer to keep colleagues, start a discussion, ask a question, or share a li Learn more by taking a tour: www.yammer.com/company/9 days ago	To get oup with link.  Im: on off  On off  Download Desktop App ×
RSS message view threaded view	Network

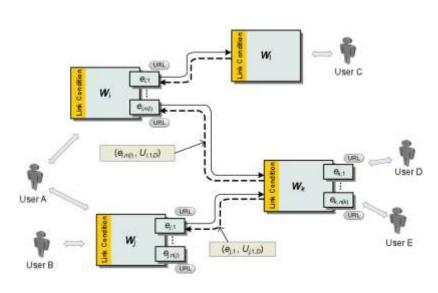


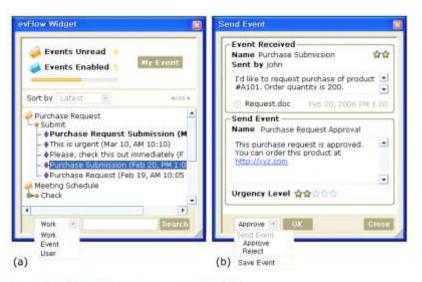


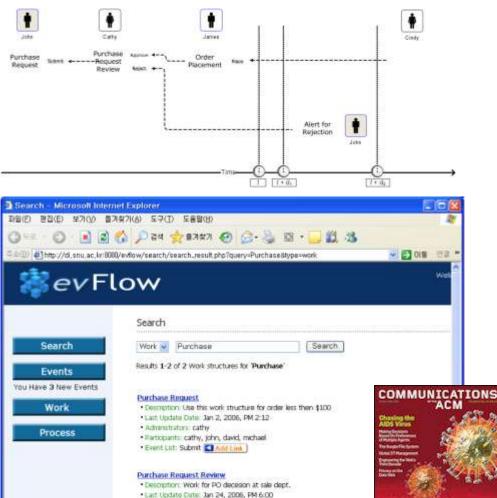
# getsatisfaction: crowdsourcing for EIT



#### evFlow: feeds for workflow







Administrators: cathy
 Participants: cathy

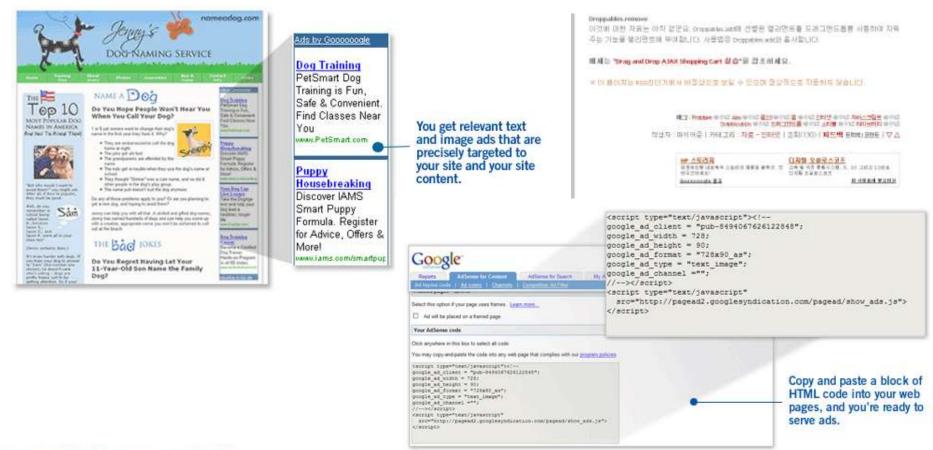
· Event List: Approve I Add Link

Reject Add Link

日共香 和

## google adsense

- program that can give you advertising revenue from each page on your website
- delivers **relevant text and image ads** that are precisely targeted to your site content
- when you add a google search box to your site, AdSense delivers relevant text ads that are targeted to the google search results pages generated by your visitors' search request
- micropayment: can be lucrative for developing countries



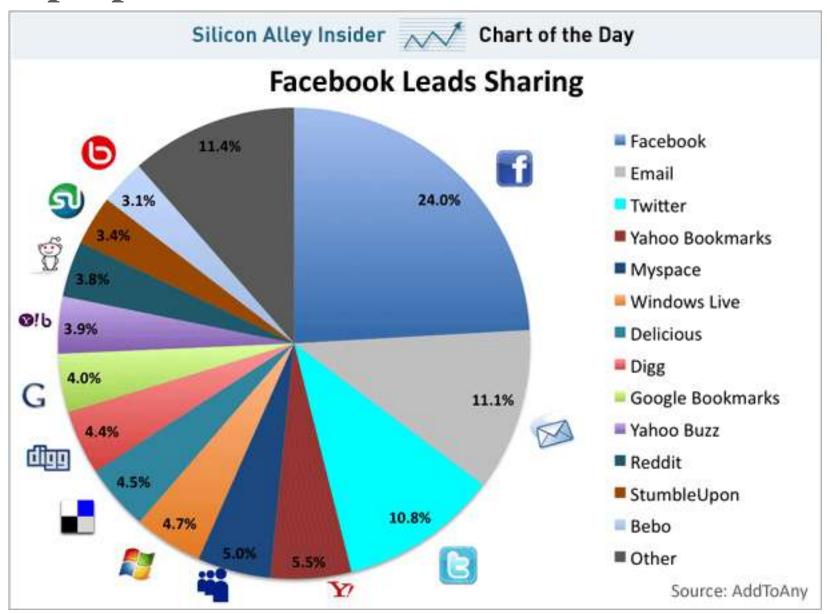


# google adwords & SEO





### how people share content on the web





## key issues in web business development

- problem (mission statement)
- value proposition
  - defines how a company's products or services fulfill the needs of customers
- revenue model
  - describes how the company will earn revenue, generate profits and produce a superior return on invested capital
- market opportunity
  - refers to the company's **intended marketplace** and overall potential financial opportunities available to the company
- market strategy
  - plan that a company puts together that details its intended approach to penetrate a new market and attract new customers
- competitive advantage
  - superior products, higher performance, ...
- management & team: most important



#### critical success factors in web business



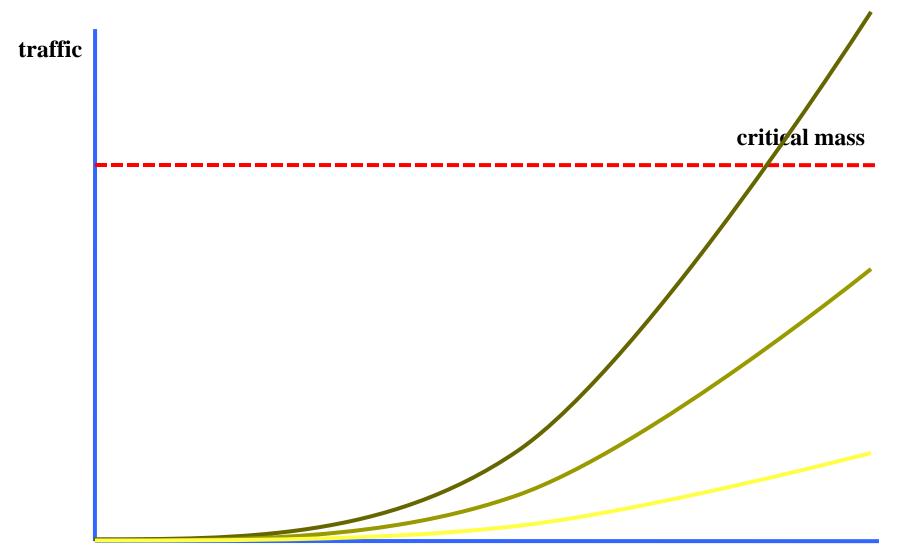








# it's a long road (in most cases)



time



# what's next: from pull web to push web

- 3 REALs: real-time, real-location, real-event
- information filtering
- personalization
- more breakthroughs in stream publishing & consumption











