

Education in the Age of Social Computing

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Billionaires' Shuffle

2008



Facebook in 2004.02

2008
at **23** and \$ **1.5** billion later...



2009



Global Internet Traffic

Alexa as of May 2009	China	USA	Japan	India	Brazil	Global
1	Baidu	Google	Yahoo.jp	Google.in	Google	Google
2	QQ	Yahoo	FC2	Google	Orkut.br	Yahoo
3	Sina	Facebook	Google.jp	Yahoo	Windows Live	YouTube
4	Google.cn	YouTube	YouTube	Orkut.in	Universo Online	Facebook
5	Taobao	Myspace	Rakuten	YouTube	YouTube	Windows Live
6	163	MSN	Livedoor	Blogger	Globo	MSN
7	Google	Windows Live	Ameblo.jp	Rediff	MSN	Wikipedia
8	Sohu	Wikipedia	mixi	Facebook	Google	Blogger
9	Youku	Craigslist	Wikipedia	Wikipedia	Yahoo	Baidu
10	Yahoo	EBay	Google	Windows Live	Terra	Myspace

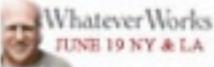


China's Great Firewall

HOME PAGE TODAY'S PAPER VIDEO MOST POPULAR TIMES TOPICS

The New York Times
Friday, June 19, 2009

News

Search All NYTimes.com Go 

WORLD U.S. N.Y. / REGION BUSINESS TECHNOLOGY SCIENCE HEALTH SPORTS OPINION ARTS STYLE TRAVEL JOBS REAL ESTATE AUTOS

The Lede

The New York Times News Blog

June 2, 2009, 7:05 PM

China's Great Firewall Blocks Twitter

By ROBERT MACKEY



Catherine Henriette/Agence France-Presse — Getty Images

Search This Blog Search

Previous Post: [Bloggers Ponder Last Message From Missing Jet's Computer](#)

Next Post: [Punditry From Bin Laden and Zawahiri on Obama's Trip to the Middle East](#)

Recent Posts

June 18 (38 comments) **Latest Updates on Iran's Disputed Election**
To supplement reporting from New York Times correspondents inside Iran on Thursday, The Lede will continue to track the aftermath of Iran's disputed presidential election online.

June 17 (129 comments) **Wednesday: Latest Updates on Iran's Disputed Election**
On Wednesday, The Lede will continue to track the aftermath of Iran's disputed presidential election online, to supplement reporting from New York Times correspondents inside Iran.

June 16 (198 comments) **Tuesday: Latest Updates on Iran's Disputed Election**
To supplement reporting from New York Times correspondents inside Iran, The Lede



Twitter in Iran's Revolution



Login Join Twitter!

Rallying Iran: Time Tempers a Challenger Forged in Revolution

<http://bit.ly/epfBT>

5:45 PM Jun 17th from web



nytimes
The New York Times

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Road Map

- Social Computing
- Web 2.0 and Social Computing for Education
- Categories of Educational Activities
- Examples of Social Computing for Education
 - Mashup, Twitter, facebook, VeriGuide
- Case Studies for Education
- M-learning
- Future Research and Challenges
- Conclusions



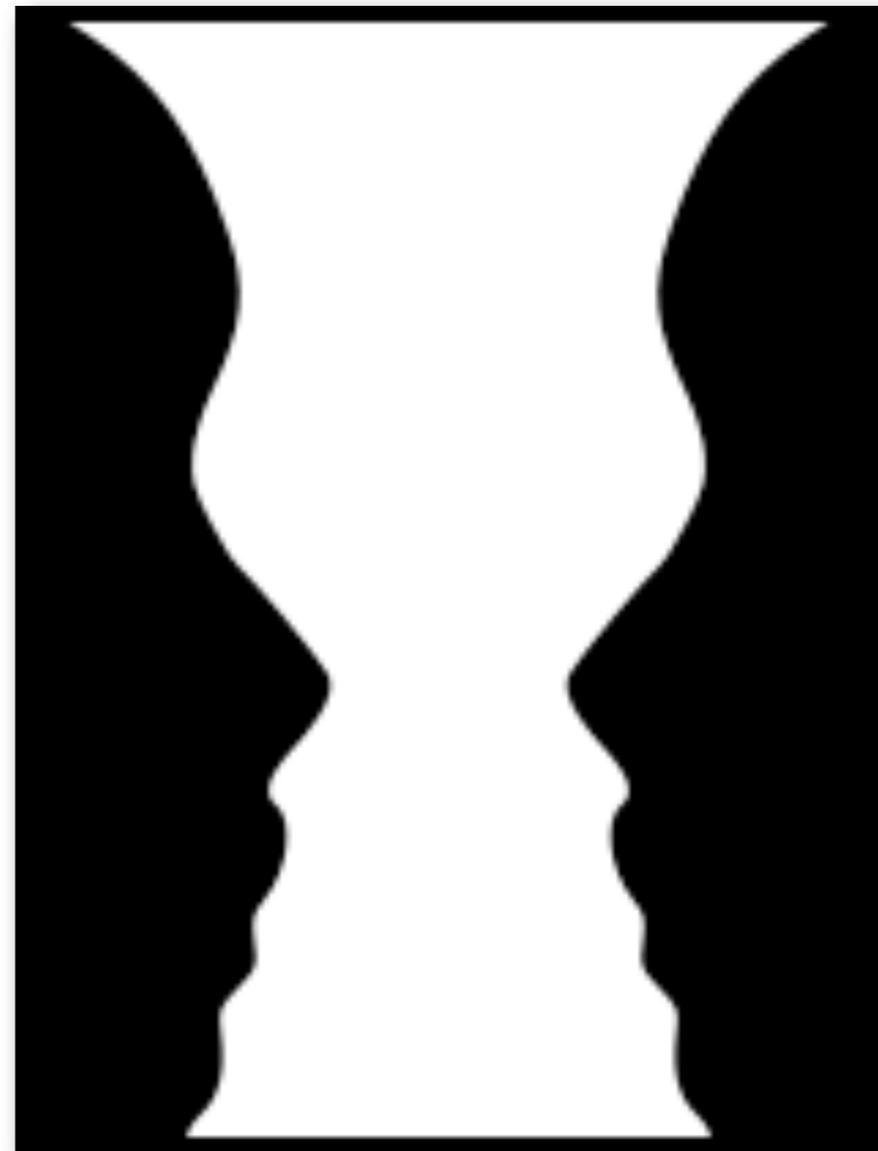
Web 2.0

- Web as a medium vs. **Web as a platform**
- Read-Only Web vs. **Read-and-Write Web**
- Static vs. **Dynamic**
- Restrictive vs. **Freedom & Empowerment**
- Technology-centric vs. **User-centric**
- Limited vs. **Rich User Experience**
- Individualistic vs. **Group/Collective Behavior**
- Consumer vs. **Producer**
- Transactional vs. **Relational**
- Top-down vs. **Bottom-up**
- People-to-Machine vs. **People-to-People**
- Search & browse vs. **Publish & Subscribe**
- Closed application vs. **Service-oriented Services**
- Functionality vs. **Utility**
- Data vs. **Value**



Web 2.0 Revolution

- **Glocalization**-think globally and act locally!
- **Weblication**-Web is the application!
- Three C's
 - **Connectivity**
 - **Collaboration**
 - **Communities**

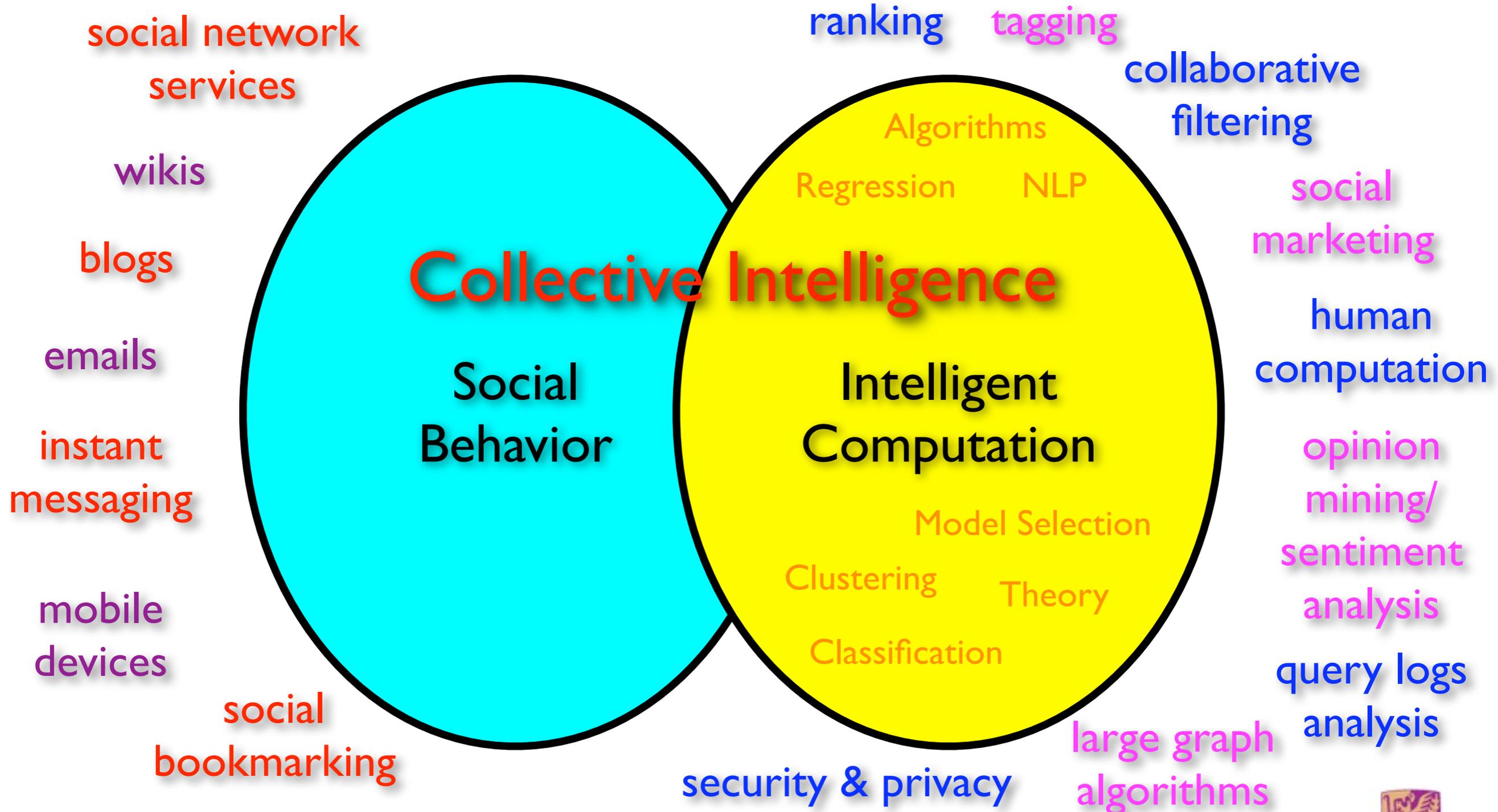


Definition of Social Computing

- Any Computer-mediated communication and interaction
- In the weaker sense: **supporting any sort of social behavior**
 - blogs, email, instant messaging, wiki, social network services, social bookmarking
- In the stronger sense: **supporting “computations” that are carried out by a group of people**
 - recommender systems, online auctions, prediction markets, reputation systems, tagging, verification games



Social Computing



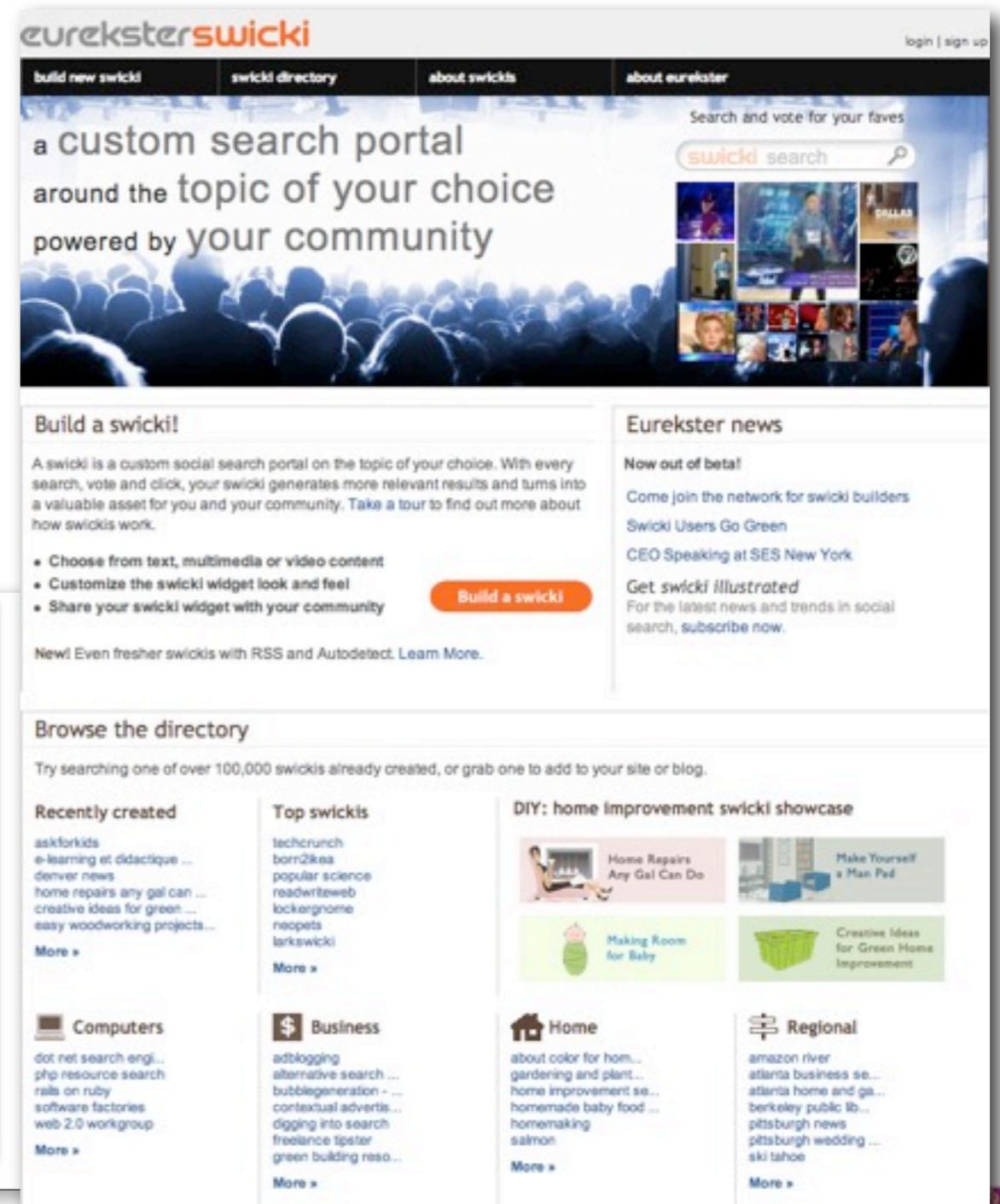
Social Networking Sites

- Example of Social Networking Sites: FaceBook, MySpace, Blogger, QQ, etc.



Social Search

- Social Search Engine
- Leveraging your social networks for searching



Social Media

The screenshot shows the YouTube homepage with the following elements:

- Header:** YouTube logo, "Broadcast Yourself™", navigation tabs (Home, Videos, Channels, Community), search bar, and "Upload" button.
- Videos being watched right now...:** A row of five video thumbnails with durations (02:13, 03:29, 01:58, 07:01, 03:53).
- Promoted Videos:** Four video thumbnails with titles like "Think Again Awards" and "第14屆十大電視廣告頒獎典禮 - 飛出...".
- Featured Videos:** A list of featured videos with titles and view counts:
 - David Sedaris delivers a pizza:** From [weaknights](#), Views: 11,313, 5 stars, 01:01. More in [Comedy](#).
 - Erbert and Gerbert's Candle Cannon:** From [candlecannon](#), Views: 109,029, 5 stars, 02:34. More in [Entertainment](#).
 - Girl's Night Out:** From [danidovine](#), Views: 169,435, 5 stars, 03:49. More in [Comedy](#).
 - Lionel Neykov - Freeze My Senses:** From [LionelNeykov](#), Views: 150,758, 5 stars, 03:35. More in [Music](#).
- What's New:** A yellow box containing:
 - YouTube Mobile:** New! Watch ALL YouTube videos on your mobile device.
 - Warp!** Visually fly through YouTube videos in the Fullscreen player.
 - RSS Feeds:** Click on the "RSS this page" link to get fresh videos delivered.
 - SXSW on YouTube:** For the next week and a half, the SXSW festival is taking over Austin, Texas, to celebrate music, film and all things interactive. [Read more in our Blog](#).

The screenshot shows the Flickr homepage with the following elements:

- Header:** Flickr logo, "Sign In", and "Create Your Account" button.
- Main Content:** A large photo of a small plant growing in a crack in the pavement. Text reads: "Share your photos. Watch the world." Below is a search bar and a "SEARCH" button.
- Statistics:** "3,802 photos uploaded in the last minute · 558,832 photos tagged with urban · 2.2 million photos uploaded this month · [Take the tour](#)".
- Navigation:** Four icons with labels: "Share & stay in touch", "Upload & organize", "Make stuff!", and "Explore...".
- Footer:** "Take the Tour" button and text: "Explore Flickr Blog, the World Map, Camera Finder or interesting photos from the last 7 days."

The screenshot shows the Second Life homepage with the following elements:

- Header:** "SECOND LIFE" logo, "Your World. Your Imagination.", and navigation tabs (What is Second Life?, Showcase, Community, Blog, Support).
- Main Content:** A large image of a man and a woman flying through a blue sky. Text reads: "Get Started! Membership is FREE! Second Life is an online, 3D virtual world imagined and created entirely by its Residents." Below is a button: "Discover a whole new world of friends, fashion, music, videos and fun! Explore the best of Second Life >>".
- Footer:** "Your Organization in Second Life!" section with text: "Find out why your business, school or nonprofit organization should get its own virtual world presence." and a "Visit Second Life Now!" button.

Social Knowledge Sharing

WIKIPEDIA

<p>English <i>The Free Encyclopedia</i> 2 268 000+ articles</p>	<p>Deutsch <i>Die freie Enzyklopädie</i> 718 000+ Artikel</p>	<p>Polski <i>Wolna encyklopedia</i> 477 000+ hasel</p>
<p>Français <i>L'encyclopédie libre</i> 631 000+ articles</p>	<p>Italiano <i>L'enciclopedia libera</i> 421 000+ voci</p>	<p>Português <i>A enciclopédia livre</i> 364 000+ artigos</p>
<p>日本語 フリー百科事典 474 000+ 記事</p>	<p>Español <i>La enciclopedia libre</i> 339 000+ artículos</p>	<p>Svenska <i>Den fria encyklopedin</i> 277 000+ artiklar</p>

search · suche · rechercher · szukaj · 検索 · ricerca · zoeken · busca
 buscar · sök · поиск · 搜索 · søk · haku · suk · cerca · căutare · ara

English ▼ ▶

KNOL™
BETA

Welcome to Knol

Share what you know

Write and post a knol (nōl) — a unit of knowledge.



Create
easy to write and manage



Search
searchable through popular search engines



Control
each knol is owned by you, the author

English ▼ ▶

ρησασ · σοκ · поиск · 搜索 · sök · haku · suk · cerca · căutare · ara
 buscar · sök · поиск · 搜索 · søk · haku · suk · cerca · căutare · ara

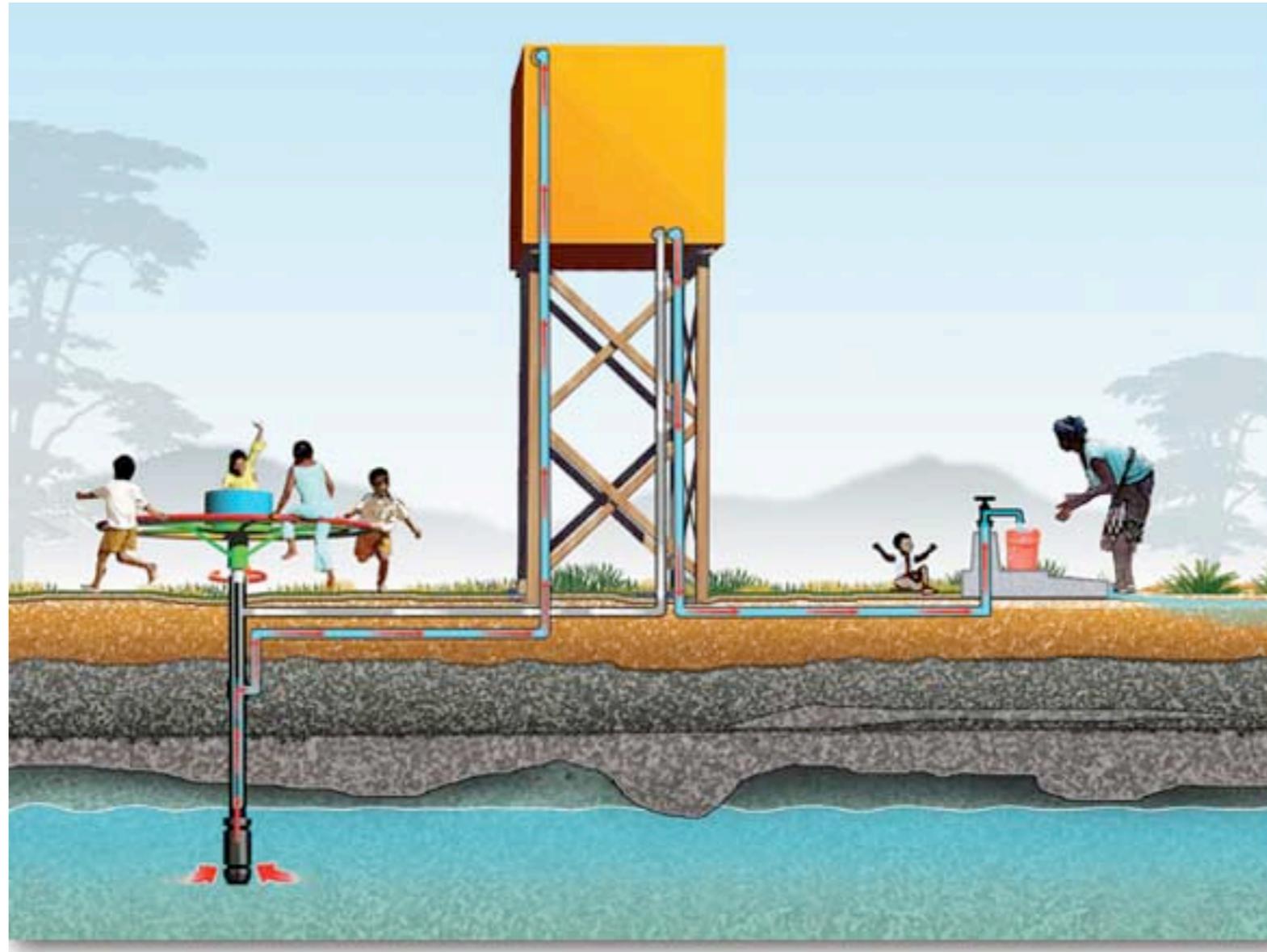
ημε εμφοι
 εαση κνοι ιε ομμερ ρλ λοπ'
COUFOI



Social Gaming



Idea of Human Computation

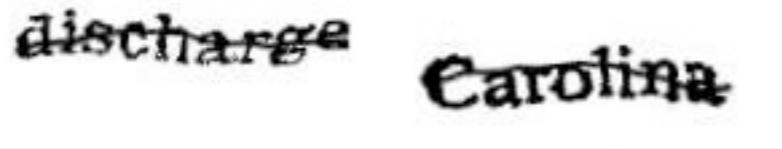


- Take advantage of people's desire to be entertained and perform useful tasks as a side effect



Social/Human Computation

Security Check: Enter both words below, separated by a space. What's This?
Can't read this? Try another.
[Try an audio captcha](#)



Text in the box:

I have read and agree to the [Terms of Use and Privacy Policy](#)

[Sign Up](#)

[Problems signing up? Check out our help pages](#)

Security Check: Enter both words below, separated by a space. What's This?
Can't read this? Try another.
[Try an audio captcha](#)



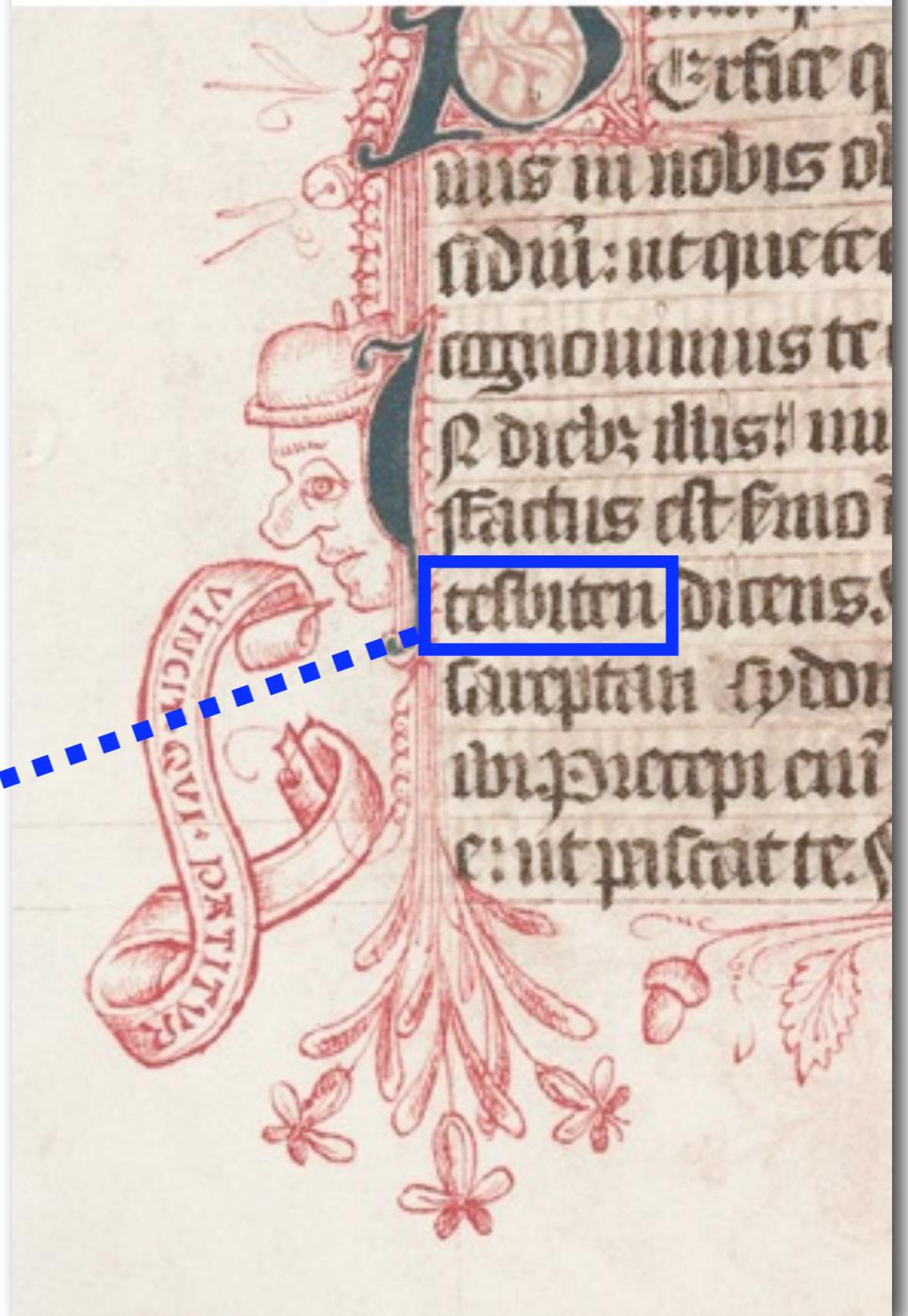
Text in the box:

I have read and agree to the [Terms of Use and Privacy Policy](#)

[Sign Up](#)

[Problems signing up? Check out our help pages](#)

MS. Don. b. 6, fol. 48v (detail) © Bodleian Library, University of Oxford



[Problems signing up? Check out our help pages](#)

[Sign Up](#)



Human Computation

The screenshot shows the Google Image Labeler interface. At the top left is the Google logo and 'Image Labeler BETA'. The main title is 'Google Image Labeler'. On the left, there is a scorecard with 'time left' at 01:17, 'score' at 0, and 'passes' at 0. In the center, there is a text input field with a red starburst over it, and the text 'Your partner has suggested 10 labels.' Below this is a photograph of a lake and mountains. To the right of the photo are 'label' and 'pass' buttons. Further right, there are two more red starbursts: one over the text 'off-limits' and a list of labels ('sky', 'water', 'blue', 'lake', 'mountain'), and another over the text 'my labels'. At the bottom, there are links for 'Privacy Policy', 'Terms of Use', and 'Return to Google Image Search', along with a '© 2007 Google' copyright notice.



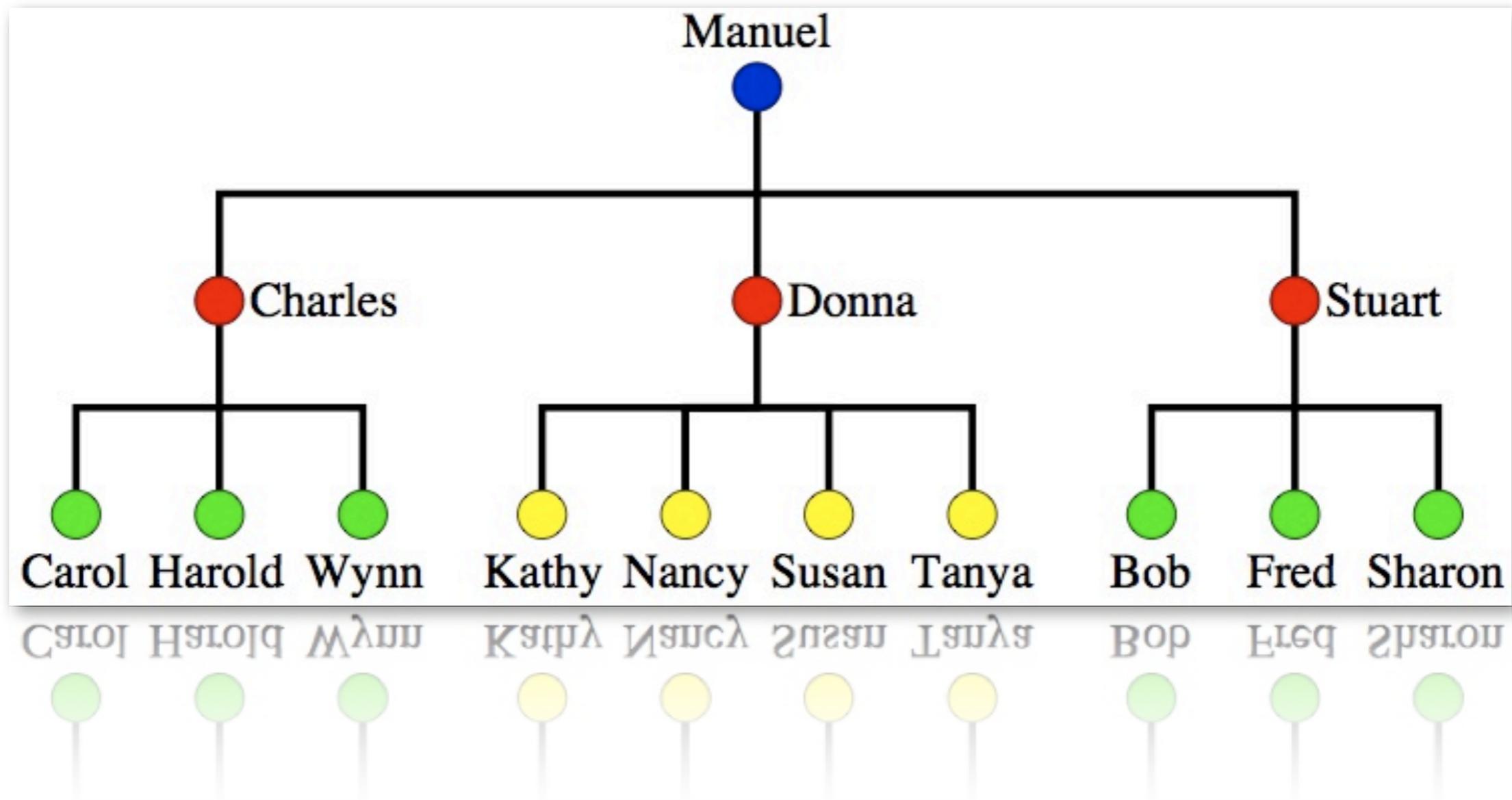
Games With A Purpose



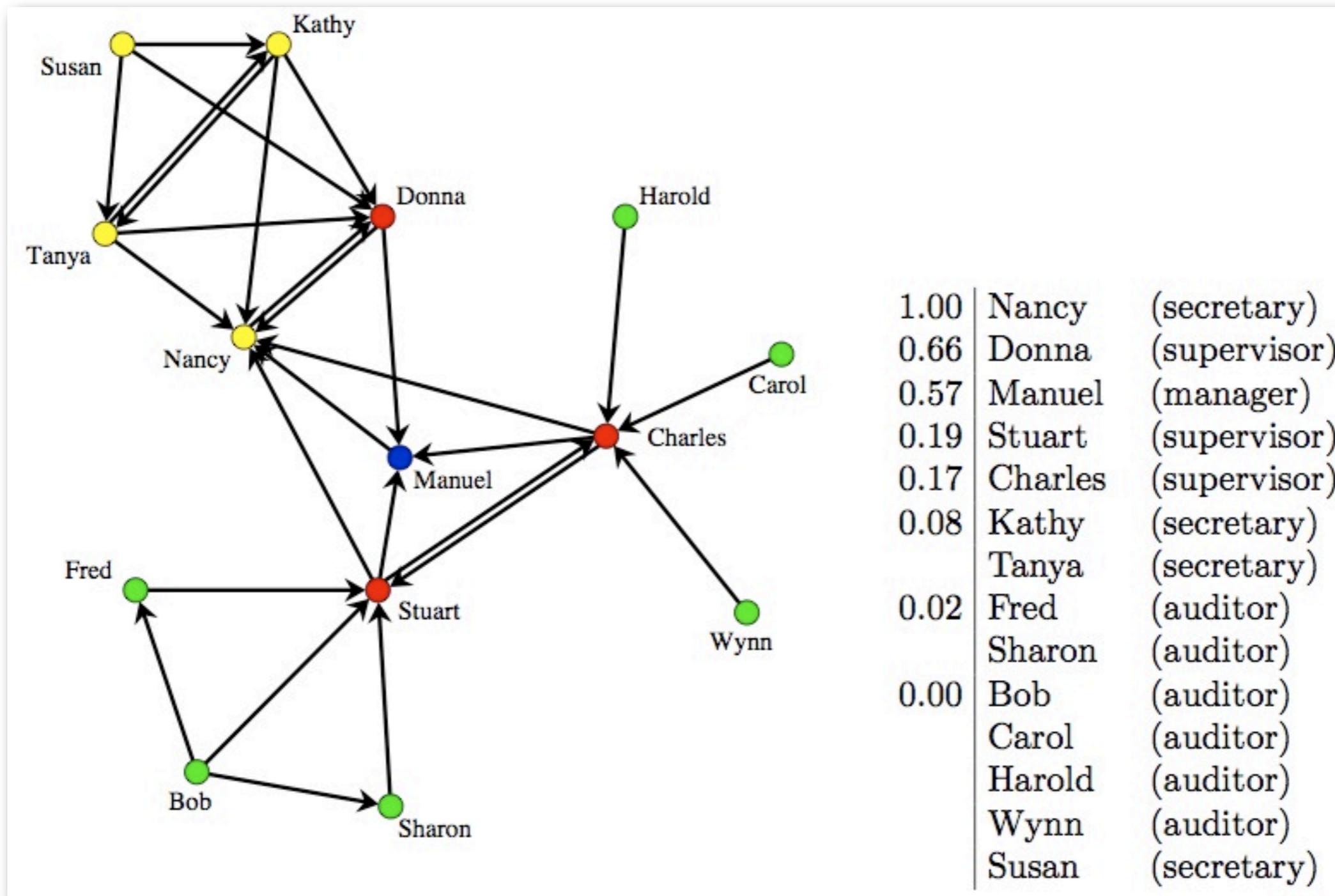
- **Matchin**
 - Image search by aesthetic value
- **Babble**
 - Translate foreign language into English
- **InTune**
 - Tags songs with description text
- **Squigl**
 - Image segmentation
- **Verbosity**
 - Database of common knowledge description



Organizational Chart



Social Network Chart



Social Computing for Education

- They can be useful for collaborative learning, self-assessment, constructivist activities, personal expression, and project-based work.
- Example: Web 2.0

It's the second generation of Internet-based services that let people **collaborate** and **share** information online in previously unavailable ways.

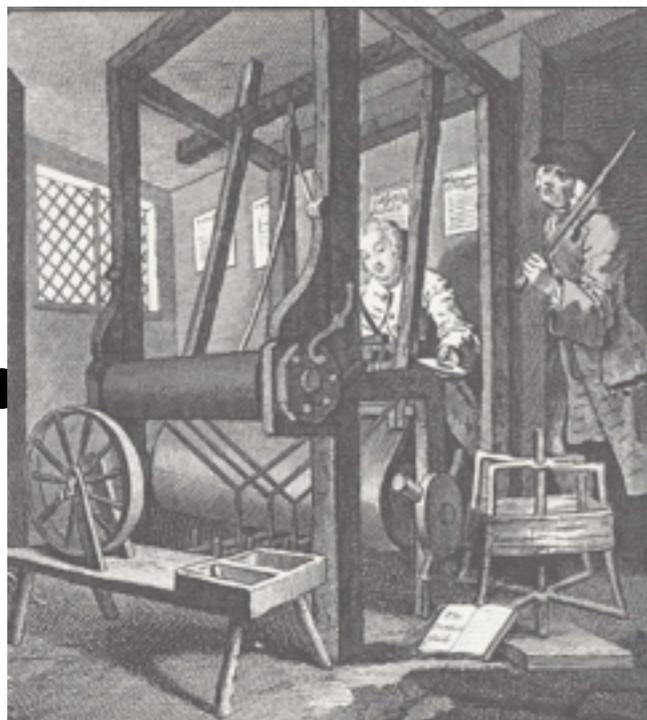


“Web 2.0 is an attitude, not a technology” - Ian Davis



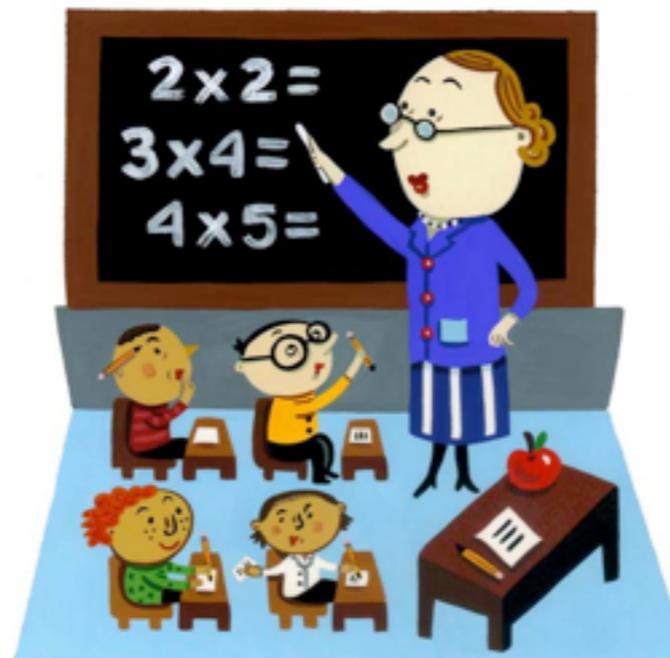
Why Social Learning?

Before 1900's



I:I

1900's



I:many

After 2000



many:many



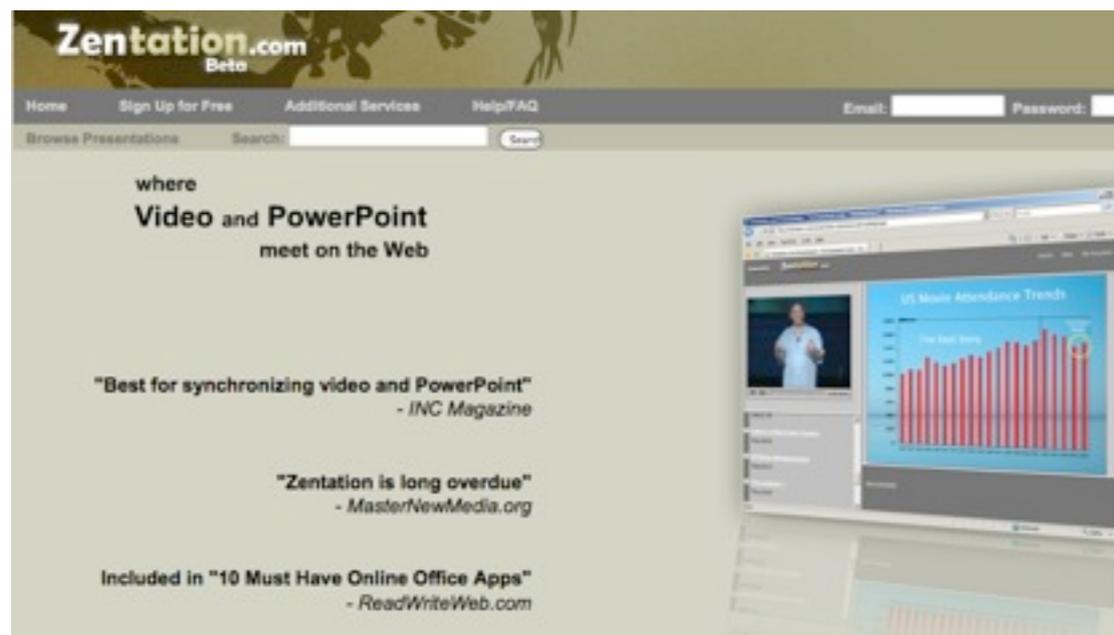
Categories of Educational Activities

- Media sharing
- Media manipulation
- Conversational arenas
- Online games and virtual worlds
- Social networking
- Blogging
- Social bookmarking
- Recommender systems
- Collaborative editing
- Wikis
- Syndication

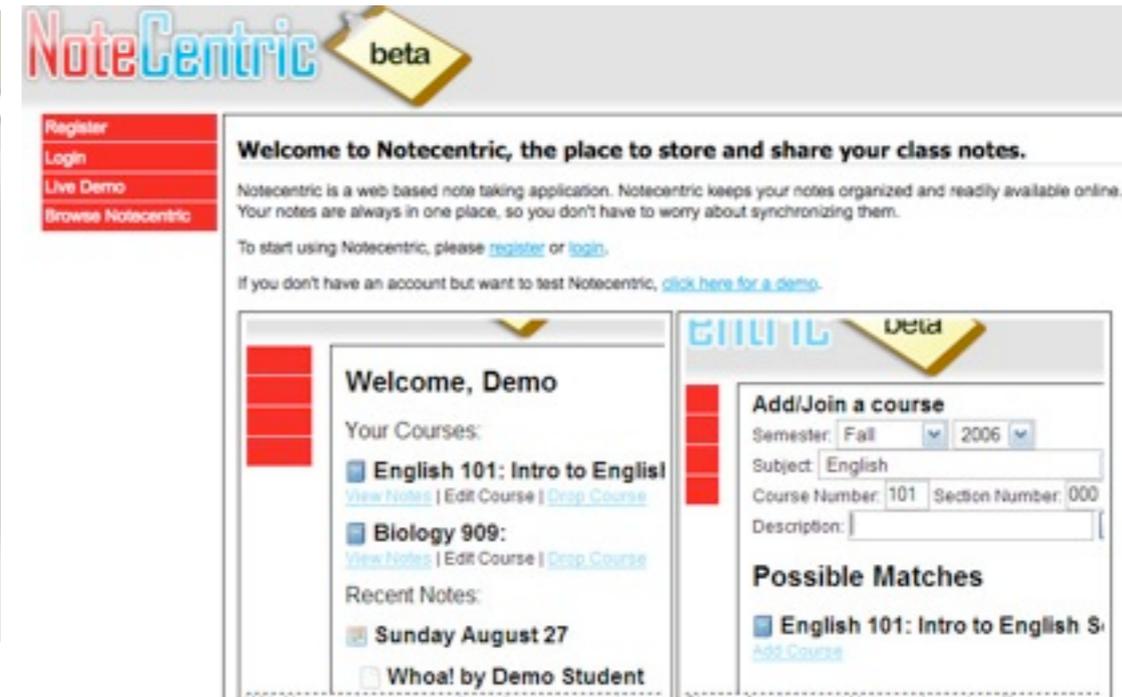


Media Sharing

General	Educational
Uploading and downloading media files for audience or exchange	Sites have emerged that welcome creative digital material organized by educators



Zentation: Share video and powerpoint



NoteCentric: Share university class notes



Media Manipulation

General	Educational
Use web-accessible tools to design and edit digital media files	Provide graphical representations education materials



TechCrunch **Le MERIDIEN Discovery**

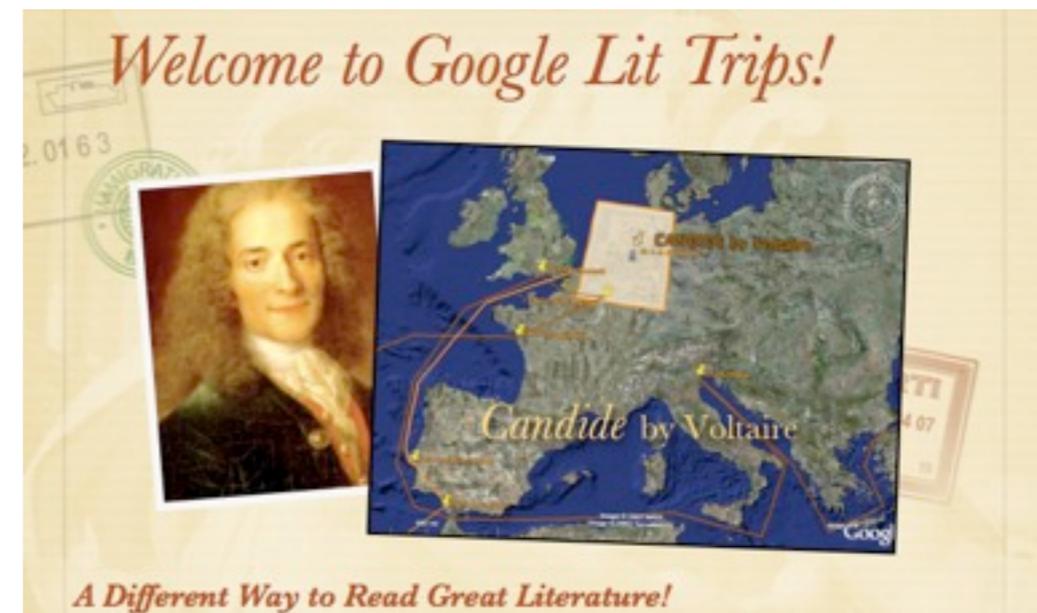
About Advertise Archives Company Index Contact Jobs MashLogic Subsc

Thumbstacks - Ajax/Flash Web PowerPoint

by Michael Arrington on March 9, 2006 54 Comments

New York-based **Thumbstacks** is a bare bones but functional application that allows users to build presentations online and present them via a permanent URL. It uses both Flash and Ajax - it uses Flash if its installed, and defaults to Ajax if not. [Click here](#) to see a sample presentation. **Note:** **Zoho** is preparing a web based power point application as well - I should get a demo in the next week.

Thumbstacks.com!



Welcome to Google Lit Trips!

Candide by Voltaire

A Different Way to Read Great Literature!

Thumbstacks: Allow presentations to be built and played online

Googlelittrips: Link literature to places or maps



Conversational Arenas

General	Educational
One-to-one or one-to-many conversations between internet users	Support educational conversations by a variety of tools



Think: Teachers and students create learning projects, participate in a website competition...

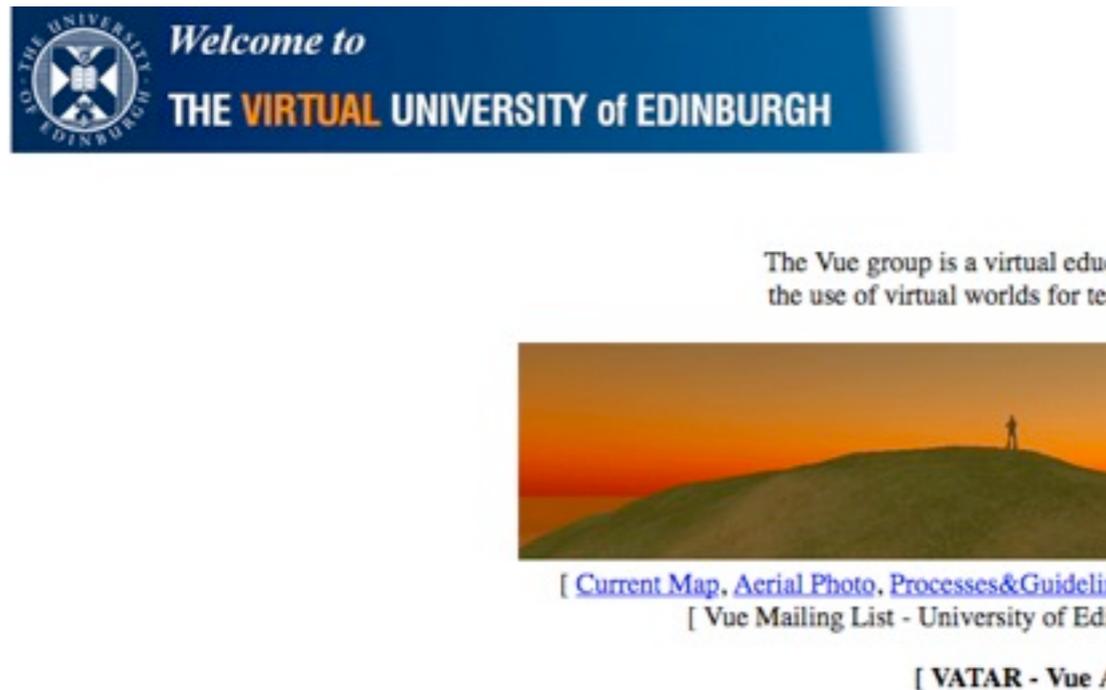


Chatmaker: Users can create chat rooms for personal websites, blogs, newsgroups...



Online Games and Virtual Worlds

General	Educational
Rule-governed games or themed environments that invite live interaction with other users	Develop multi-player online games for educational purpose

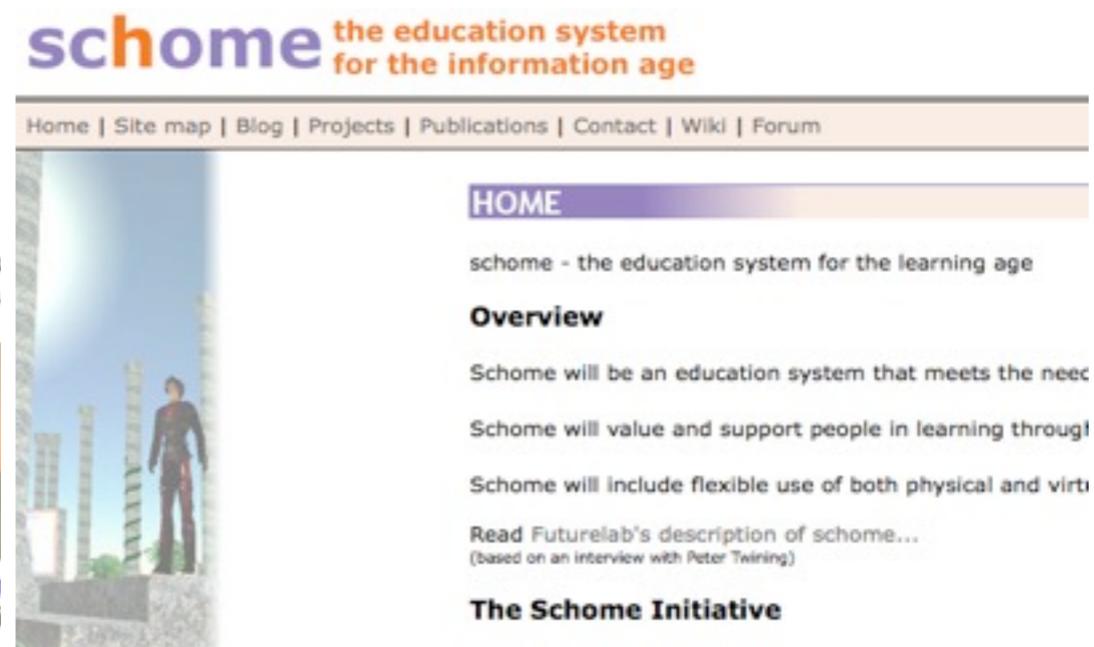


Welcome to
THE VIRTUAL UNIVERSITY of EDINBURGH

The Vue group is a virtual educational and research institute the use of virtual worlds for teaching and learning

[[Current Map](#), [Aerial Photo](#), [Processes&Guidelines](#)]
[[Vue Mailing List - University of Edinburgh](#)]
[[VATAR - Vue /](#)

Vue: Provide a virtual educational and research institute



schome the education system for the information age

Home | Site map | Blog | Projects | Publications | Contact | Wiki | Forum

HOME

schome - the education system for the learning age

Overview

Schome will be an education system that meets the need for learning throughout life

Schome will value and support people in learning throughout their lives

Schome will include flexible use of both physical and virtual worlds

Read Futurelab's description of schome...
(based on an interview with Peter Twining)

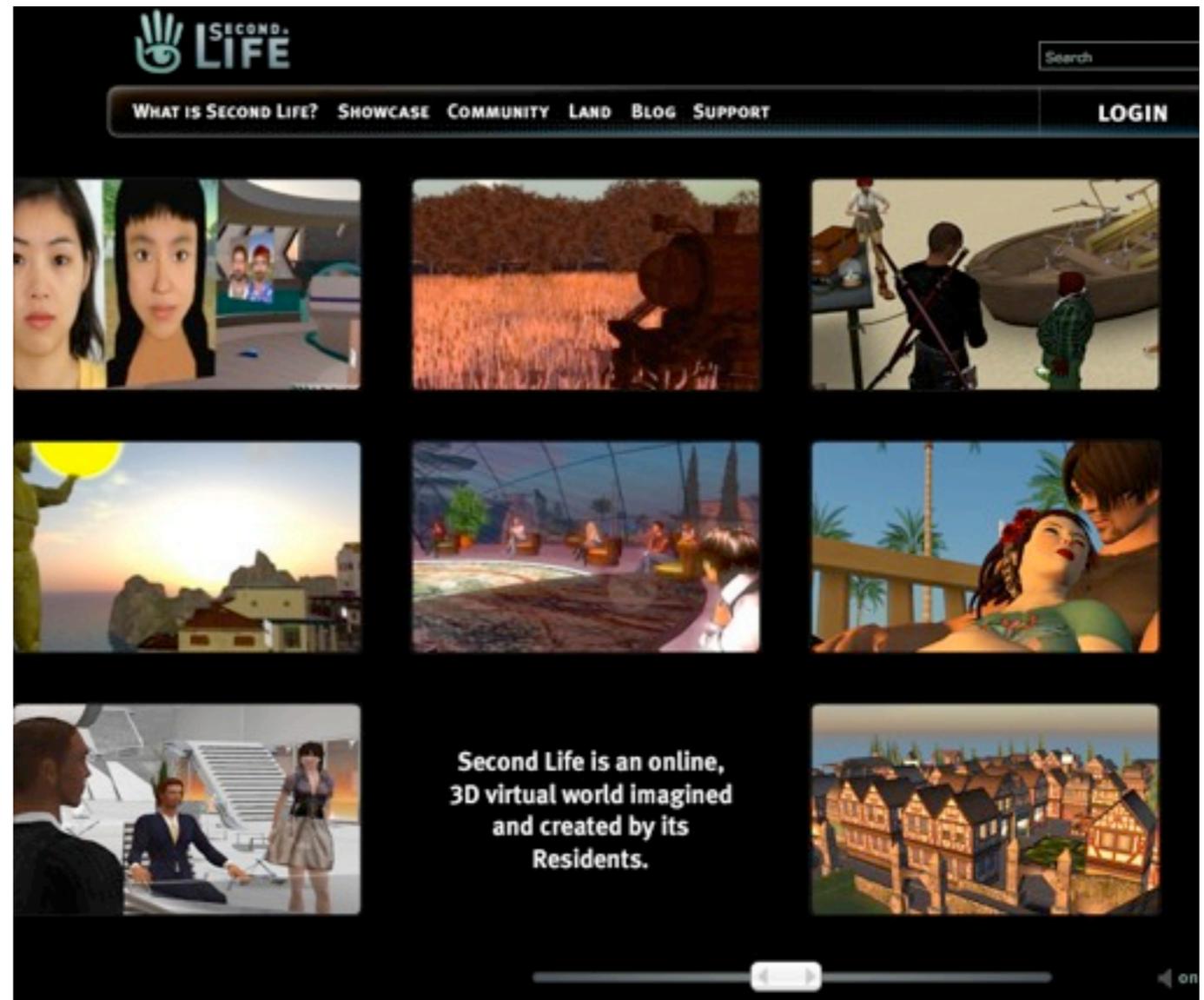
The Schome Initiative

Schome: An education system to support people in learning throughout their lives



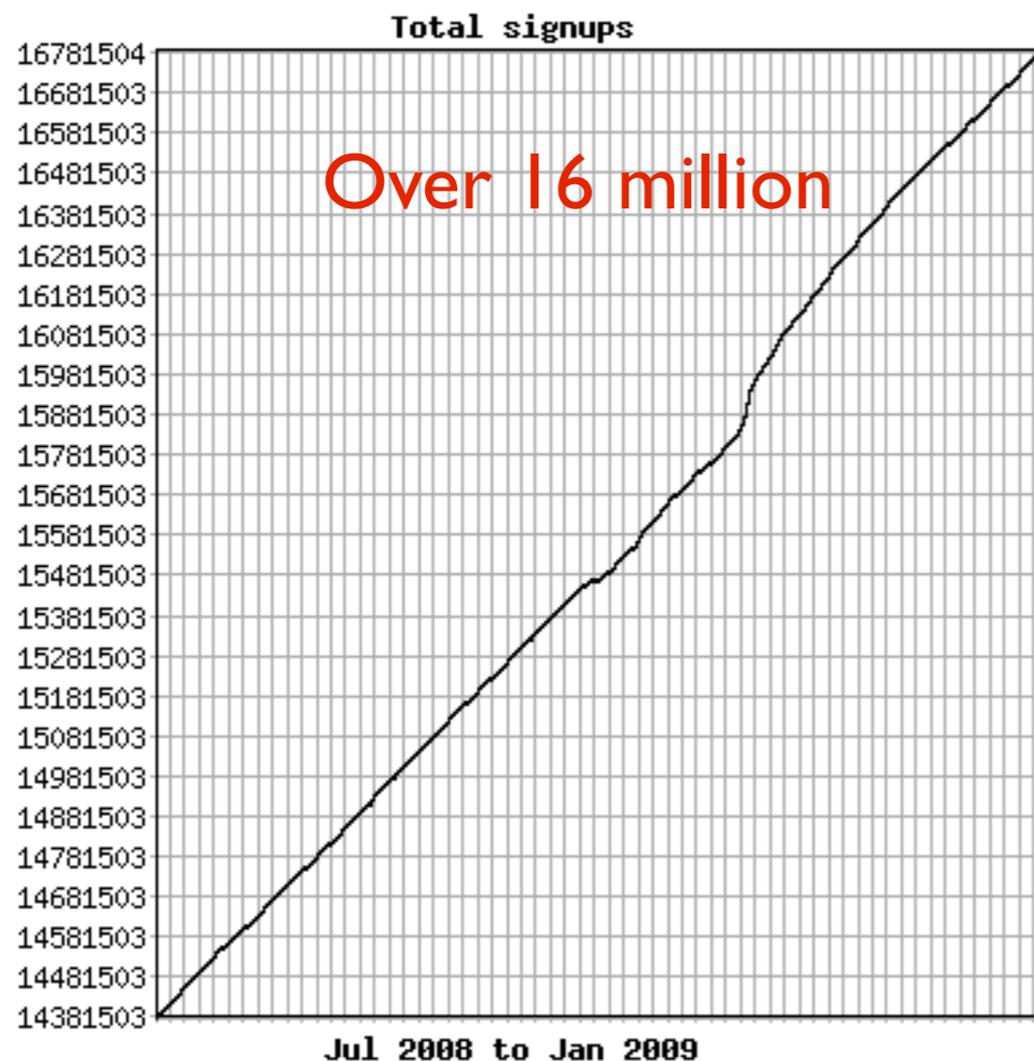
Online Games: Second Life

- Second Life: The Second Life Grid platform provides a powerful platform for interactive experiences
- Use it for **classes, research, learning and projects**
- University have set up virtual campuses where students can **meet, attend classes, and create content together**

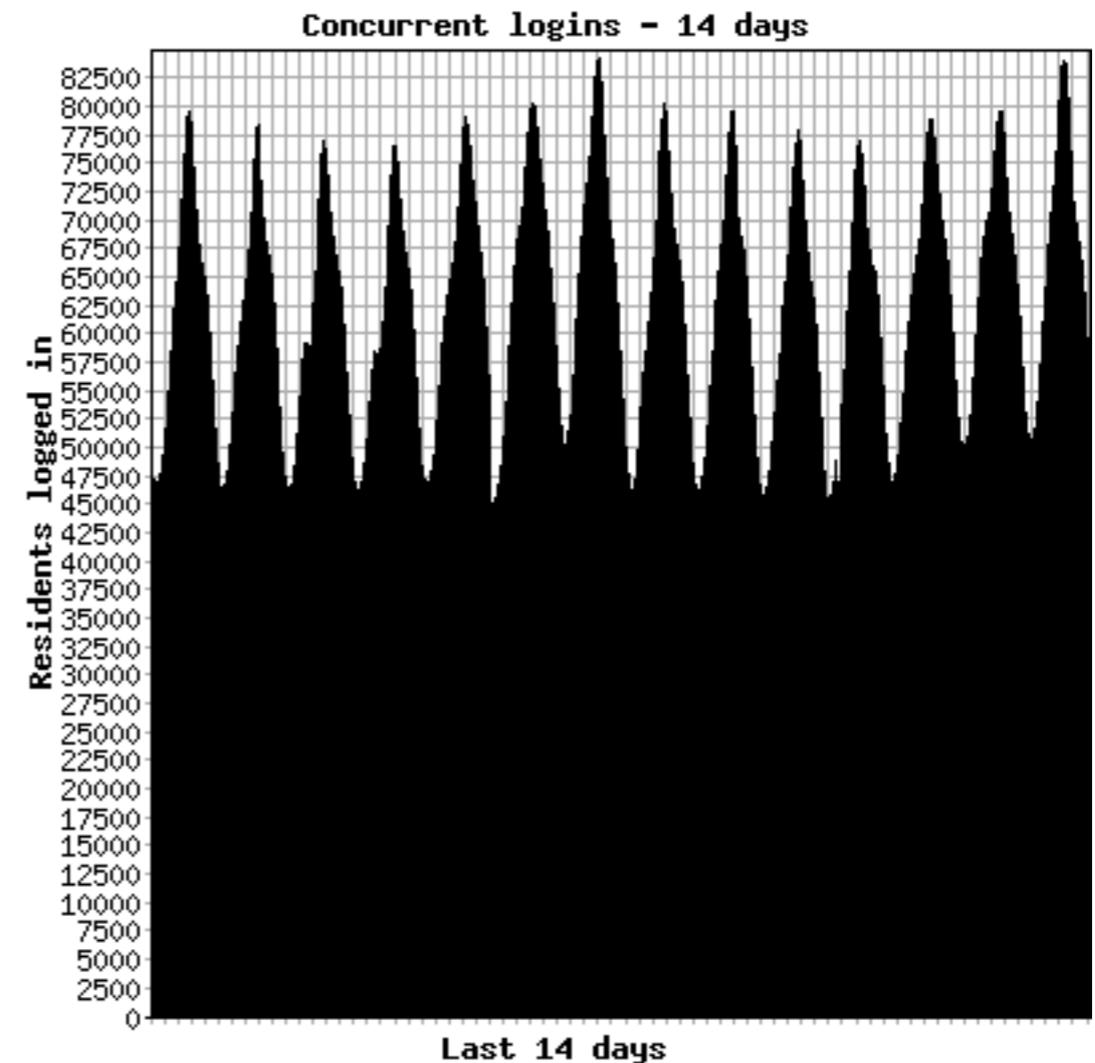


Online Games: Second Life

- Linden Lab statistical feeds for signups and active users on 14 Jan 2009



Total signups from July 2008 to Jan 2009

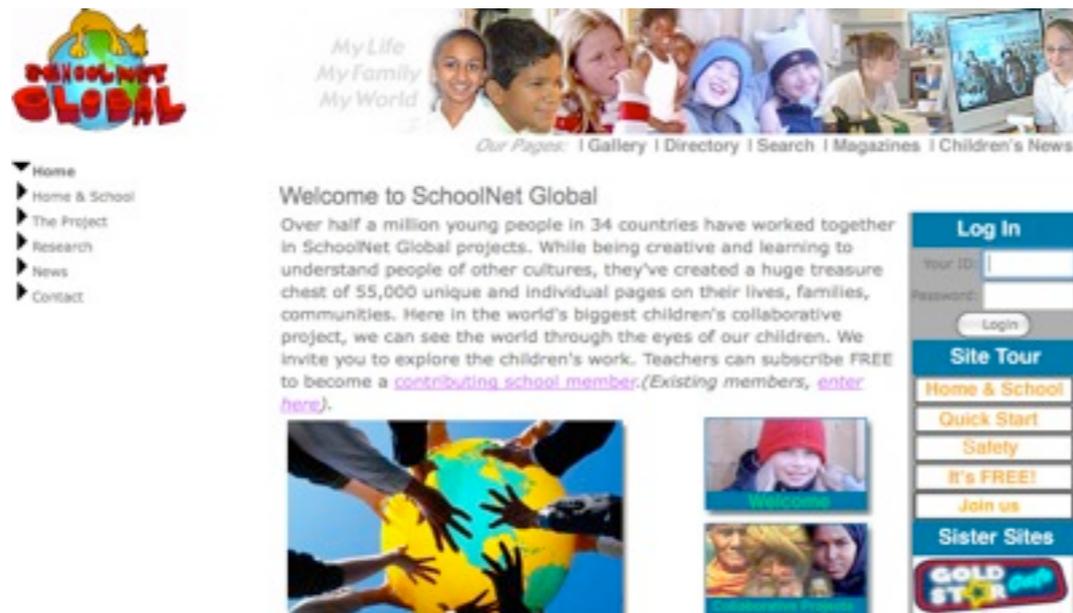


Concurrent online users in the last 14 days

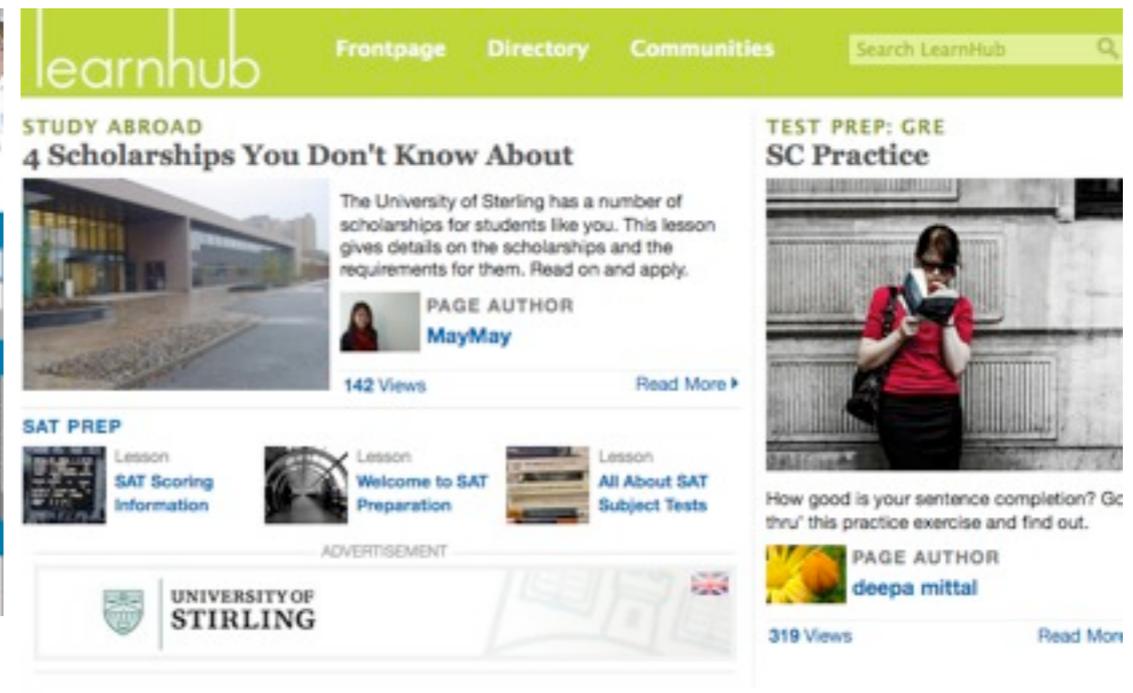


Social Networking

General	Educational
Websites that structure social interaction between members who form subgroups of 'friends'	Typically include education-oriented friendship groups



Schoolnetglobal: Provides a child-oriented design and security service for cross-site collaboration

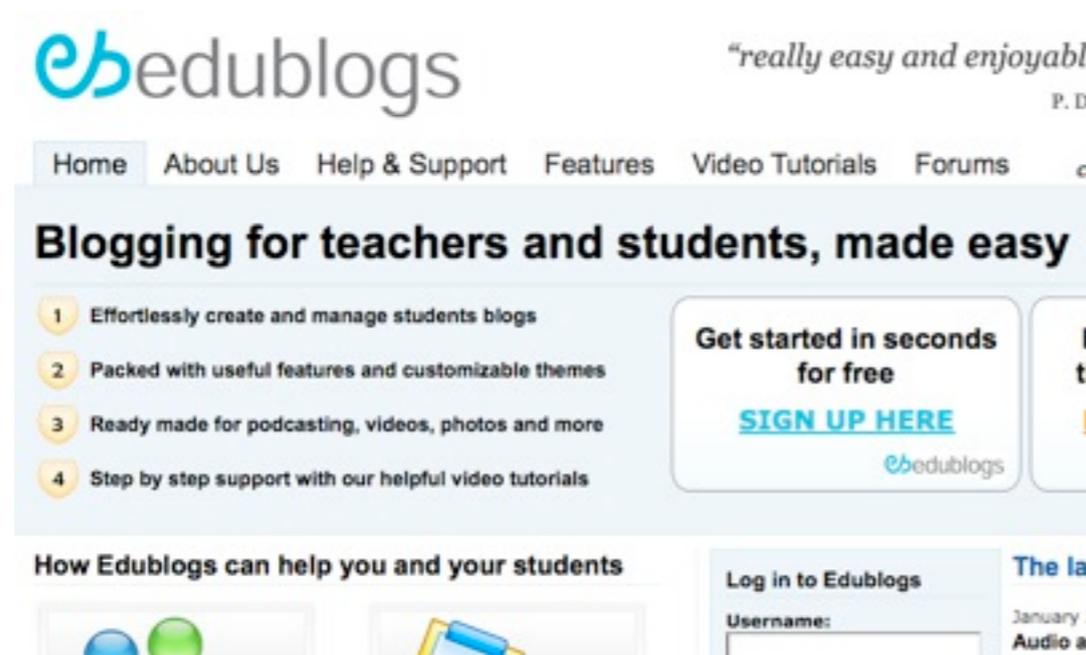


Learnhub: Teachers can create learning communities.



Blogging

General	Educational
An on-line journal or diary in which a user can post text and digital material while others can view and comment	Blog sites exist especially for students and teachers



Edublogs: Blogging for teachers and students



Nature: Encourages scientific authors to blog around their findings



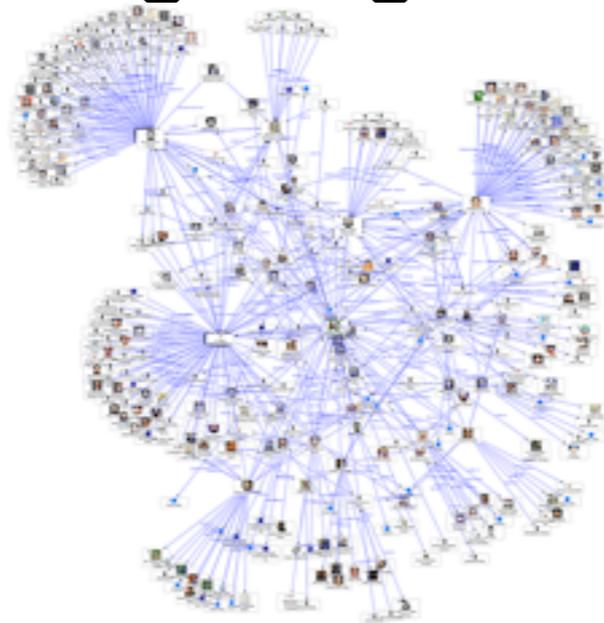
Blogs and Risk

- What's so great about blogs?
 - Tool for personal reflection
 - Citizen journalism
 - Forum for publishing your views or expertise
 - Reader feedback
- Blogging and risk avoidance
 - Services are advertising to high school and younger audiences who are not savvy about personal security: MySpace, AOL, Xanga, Facebook
 - Posting personal info: names, birthdays, towns, dorms, etc.
 - Harassment and bullying via blog postings; libel suits



Blogging and Anonymity

- They only seem anonymous
- Identities of bloggers can be traced
- Police departments now look for blogs, Yahoo group postings, etc. when investigating crimes (recent cases in high schools north of Boston)
- High schools beginning to have blogging policies for students



Wikis

General	Educational
Web-based services allow users unrestricted access to create, edit and link pages	Sites that allow students and teachers to establish their own wiki with an educational slant



-  Share and collaborate on files
-  Built-in accountability: See changes, reverse them instantly.
-  Connect teachers, students, and parents

Pbwiki: students and teacher can create their own wiki

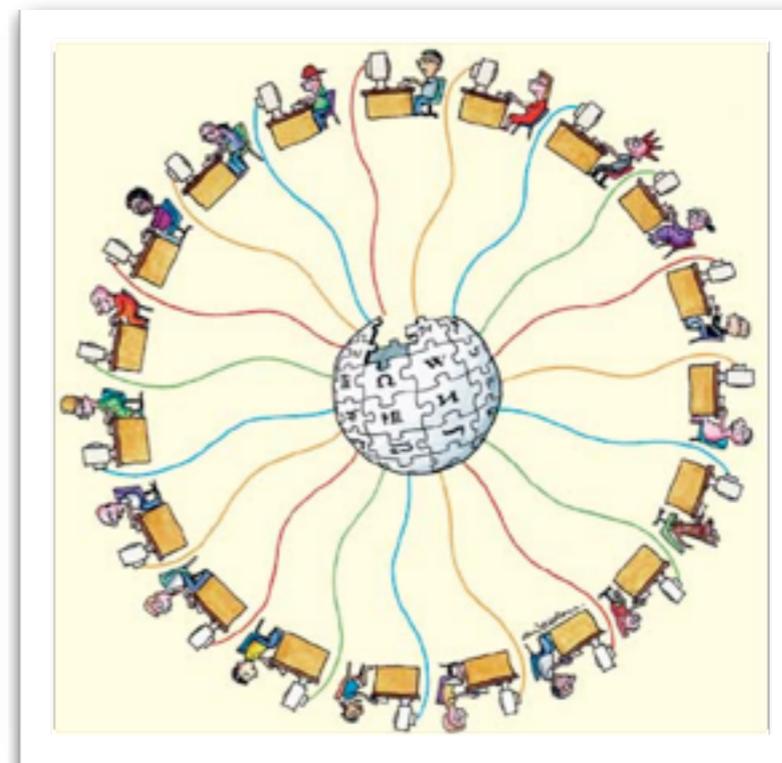
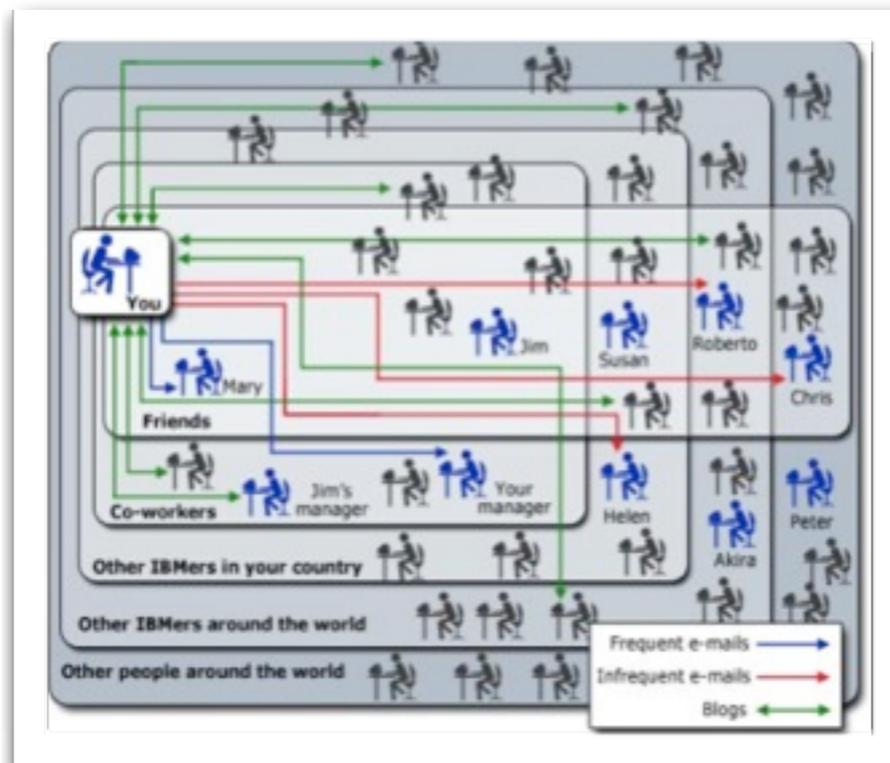


Wikiversity: devoted to learning resources, learning projects, and research for use in all levels, types, and styles of education



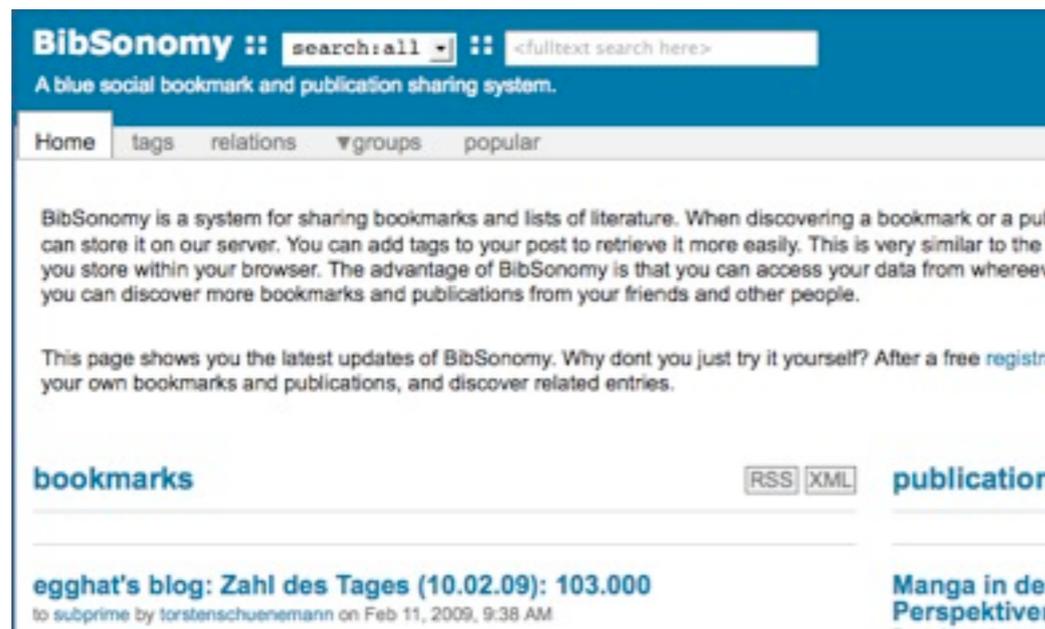
Blogs vs. Wikis

- Blogs generally have a topical element and a single author (but not always)
- Wikis are designed to be easy to use collaboration spaces for storage of shared material.
- Blogs are more like journals; Wikis are shared reference sites



Social Bookmarking

General	Educational
Allow users to submit their bookmarked web pages to a central site where they can be tagged and found by others	Bookmarks sharing systems designed for research and education users



BibSonomy: A system for sharing bookmarks and list of literature



Citeulike: A website for the collecting and sharing research publications



Social Bookmarking Enabling...

- **Save and tag** bookmarks and searches
- **Share** resources among peers and colleagues
- **Find** relevant, reliable resources more easily
- **Evaluate** the quality of the resources
- **Update** courses automatically with dynamic content feeds
- **Contribute** to course collections, both students and instructors

 Netvouz

 Diigo

 Segnalo

 RawSugar

 Shadows

 Magnolia

 Blue Dot

 Tailrank

 BlinkList

 Suggest a Service



Recommender Systems

General	Educational
Websites aggregate and tag user preferences to make novel recommendations	Recommender systems designed for research and education users

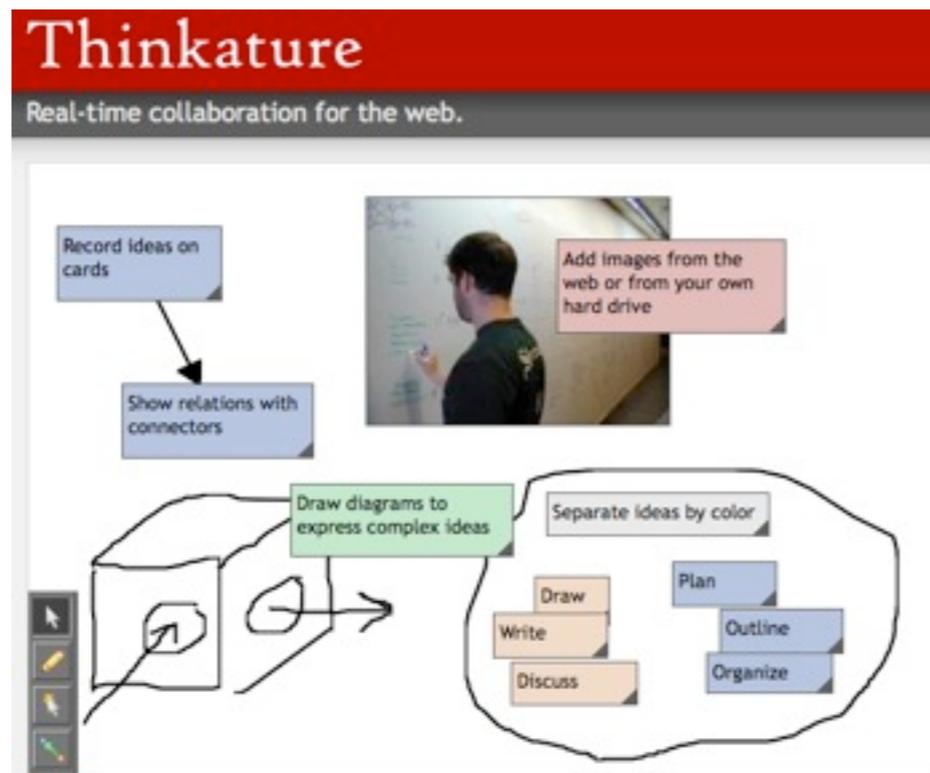


Ratemyteachers: An (infamous) example of recommendation technology in education involves user evaluation of teachers.



Collaborative Editing

General	Educational
Web tools used collaboratively to design, construct and distribute digital product	Text, spreadsheets and other documents can be stored centrally and permit collaborative editing



Thinkature: Websites incorporate more visual tools for collaborative pages



Bubbl.us: Some emphasizing mind-maps for brainstorming



Syndication

General

Users can 'subscribe' to RSS feed enable websites so that they are automatically notified of any changes or updates in content via aggregator

Educational

Websites from which students can take advantage of syndicated content



Podcastschool: A website contains podcasts for school students



Stanford: A website contains syndicated material sponsored by Stanford



Mashup

- A **mashup** is a Web application that combines data or functionality from two or more sources into a single integrated application
- **Prominent mashup genres**
 - Mapping mashups
 - Video and photo mashups
 - Search and shopping mashups
 - News mashups



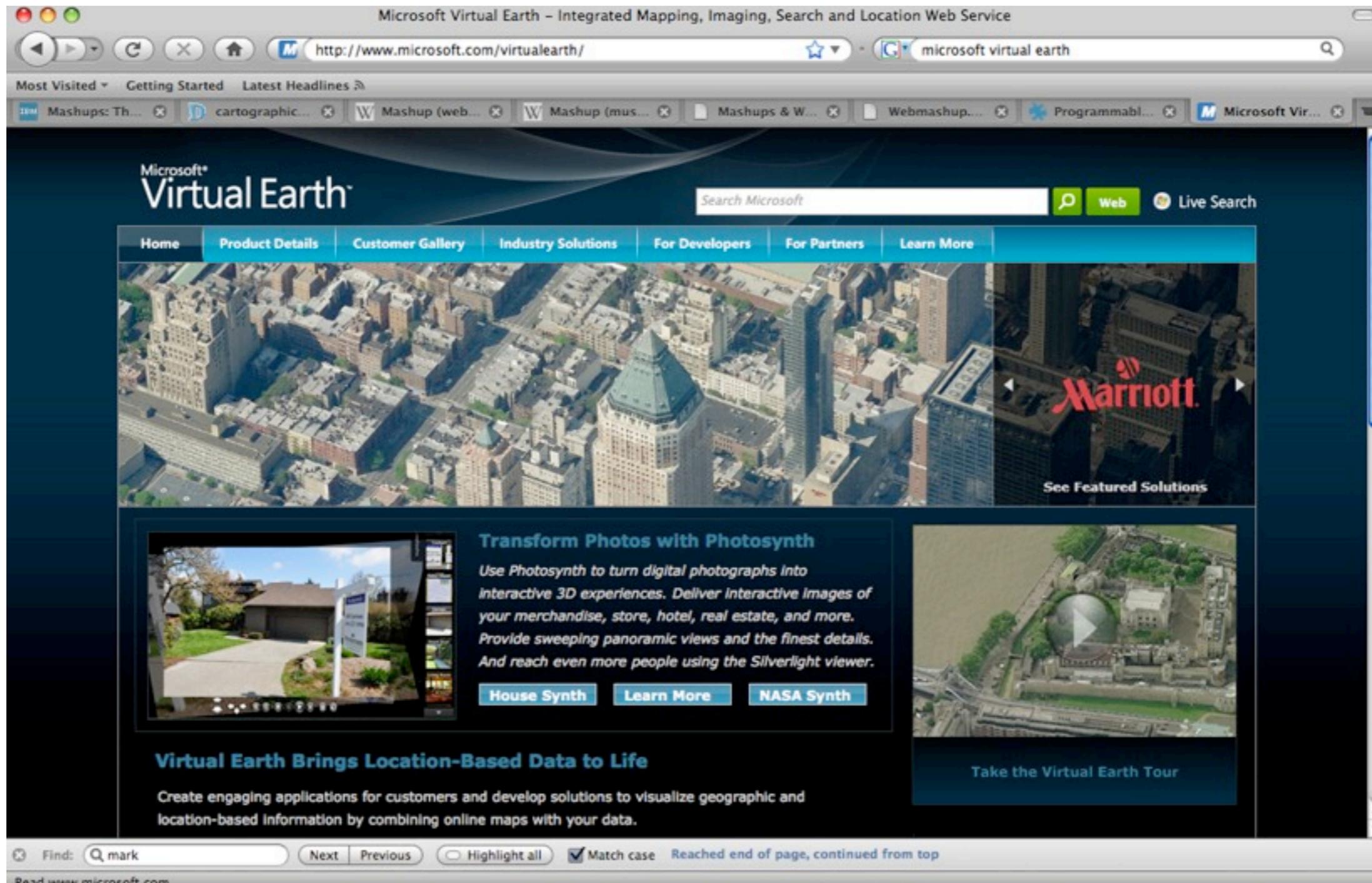
Mapping Mashups

The screenshot shows a web browser window displaying the ChicagoCrime.org website. The page title is "News in Albany Park | EveryBlock Chicago". The address bar shows the URL "http://chicago.everyblock.com/locations/neighborhoods/albany-park". The browser's address bar also shows "ChicagoCrime.org". The page features a green navigation bar with "Browse: Public records - Articles - More" and "Explore: Neighborhoods". A search bar is present with the text "Find: Address, ZIP or neighborhood". The main content area is titled "Albany Park" and includes a map of the neighborhood with orange circular markers indicating crime incidents. The markers are numbered, with the highest count being 14. The map shows streets such as W Lawrence Ave, N Pulaski Rd, and N Irving Park Rd. Below the map, there is a section for "NEW ON EVERYBLOCK TODAY" with a date of "MAY 26, 2009" and a listing for "1 real estate listing". A sidebar on the right contains a link to "Have an iPhone? Check out the free EveryBlock app." The browser's search bar at the bottom shows the search term "mark" and various search options like "Next", "Previous", "Highlight all", and "Match case".

ChicagoCrime.org



Mapping Mashups



Microsoft Virtual Earth



Video and Photo Mashups

The screenshot shows the Flickr website's navigation menu with the 'Maps' tab highlighted. Below the menu, the 'Maps' section is titled 'Great shot - where'd you take that?' and includes a brief description of Flickr's location-based search capabilities. The main content area features a map of San Francisco with several red location pins. A pop-up window for a photo titled 'Mustache Kitten' is displayed over the map, showing a person with a mustache and a kitten with a mustache. The pop-up also includes a 'Show detail' button, a close button, and a page indicator '10 of 49'.

Flickr Maps: exploring photos and videos by places



Search and Shopping Mashups

Home News Mashups APIs Topics How-To Contests Members Jobs

Dashboard Directory **Newest** Most Popular Mashup Matrix Tag Cloud Random

Dashboard > Directory > Mashup Profile 1489 of 3997 Mashups by Date ◀ Previous Next ▶

Amazon Shopping Mashup

Summary Comments (0) [Track this mashup](#)

top54u.com shopping COMPARE BUY & SAVE

Home MP3 Downloads DVDs Jewelry & Watches Kids & Toys

Books, DVDs & Music
Books
ClassicalMusic
DVD
Magazines
MP3 Downloads
Music
VHS

Clothing & Accessories
Apparel
Jewelry&Watches

Computer & Office
Computers
EverythingElse
OfficeProducts
Software

Consumer Electronics
Electronics
Camera & Photo

amazon widget

the office

The Office
The Depositor
No customer re
Sue crazy in t
himself betwe
when Jan sues
Michael is dep

Plays on
Shop now o
Buy the

No preview available

Amazon widget

★★★★★
Click stars to vote

Description
Amazon shopping mashup built using amazon eCommerce widgets.

APIs [Amazon EC2](#) + [Amazon eCommerce](#) + [Google AdSense](#) + [Google Custom Search](#)

Tags [search](#), [shopping](#), [widgets](#)

Added 21 Nov 2007

Who [top54u \[Profile\]](#)

URL <http://shopping.top54u.com/>

Amazon shopping mashup



News Mashups



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17 new stories since your last visit

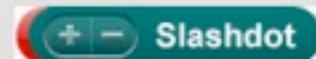
[0 read](#)

new [Canonical Demos Early Stage Android-On-Ubuntu](#)

source: [slashdot](#)

posted: Wed May 27, 2009

An anonymous reader notes Ars Technica's report from the Ubuntu Developer Summit in Barcelona, where Canonical has unveiled a prototype Android execution environment that will allow Android applications to run on Ubuntu and "potentially other conventional Linux distributions." "Android uses the Linux kernel, but it isn't really a Linux platform. It offers its own totally unique environment that is built on Google's custom Java runtime. There is no glide path for porting conventional desktop Linux applications to Android. Similarly, Java applications that are written for Android can't run in regular Java virtual machine implementations or in standard Java ME environments. This makes Android a somewhat insular platform. Canonical is creating a specialized Android execution environment that could make it possible for Android applications to run on Ubuntu desktops in Xorg alongside regular Linux applications. The execution environment would function like a simulator, providing the infrastructure that is needed to make the applications run. Some technical details about the Android execution environment were presented by Canonical developer Michael Casadevall... They successfully compiled it against Ubuntu's libc instead of Android's custom libc and they are running it on a regular Ubuntu kernel."

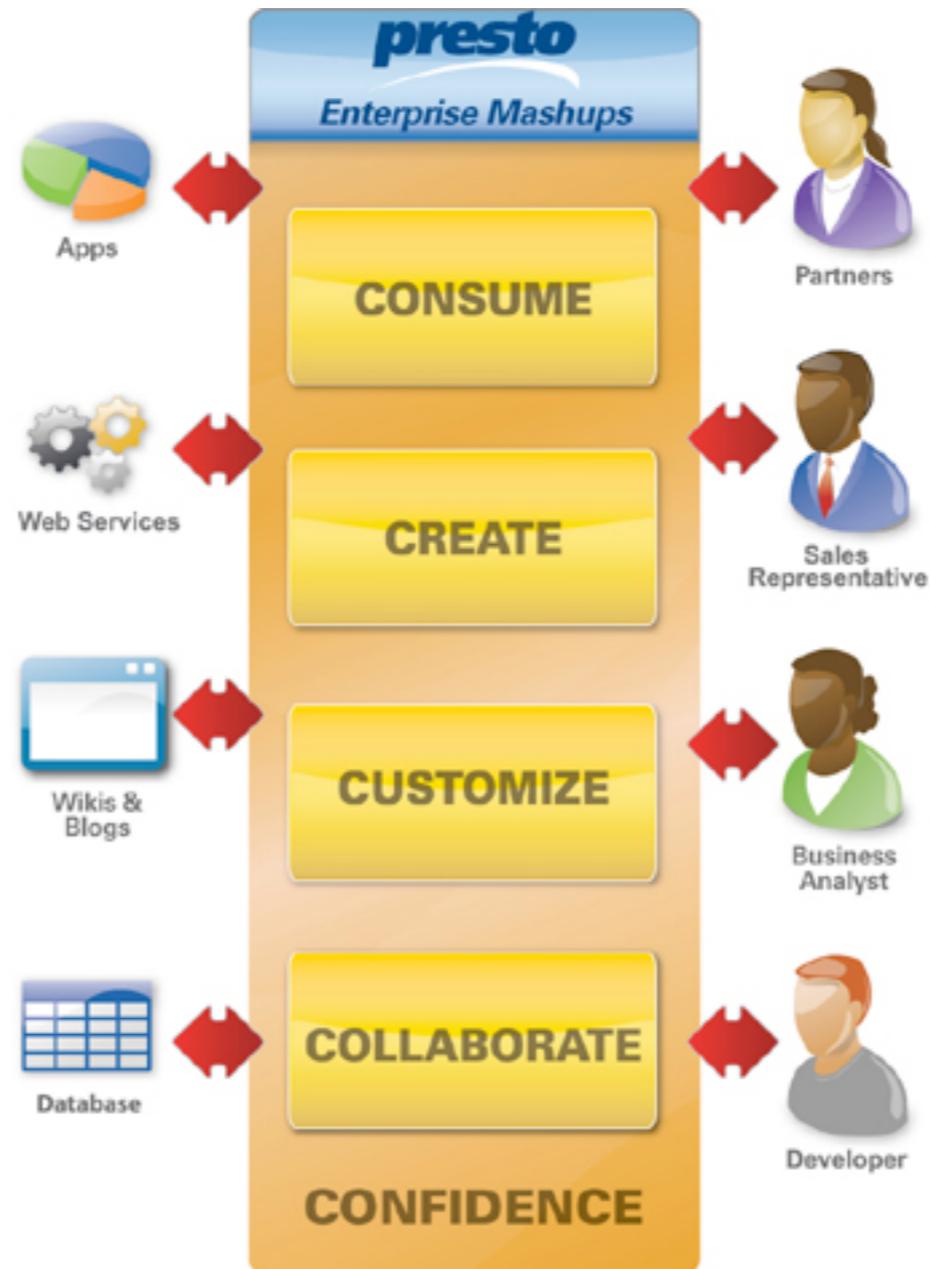


[Read more of this story](#) at Slashdot.

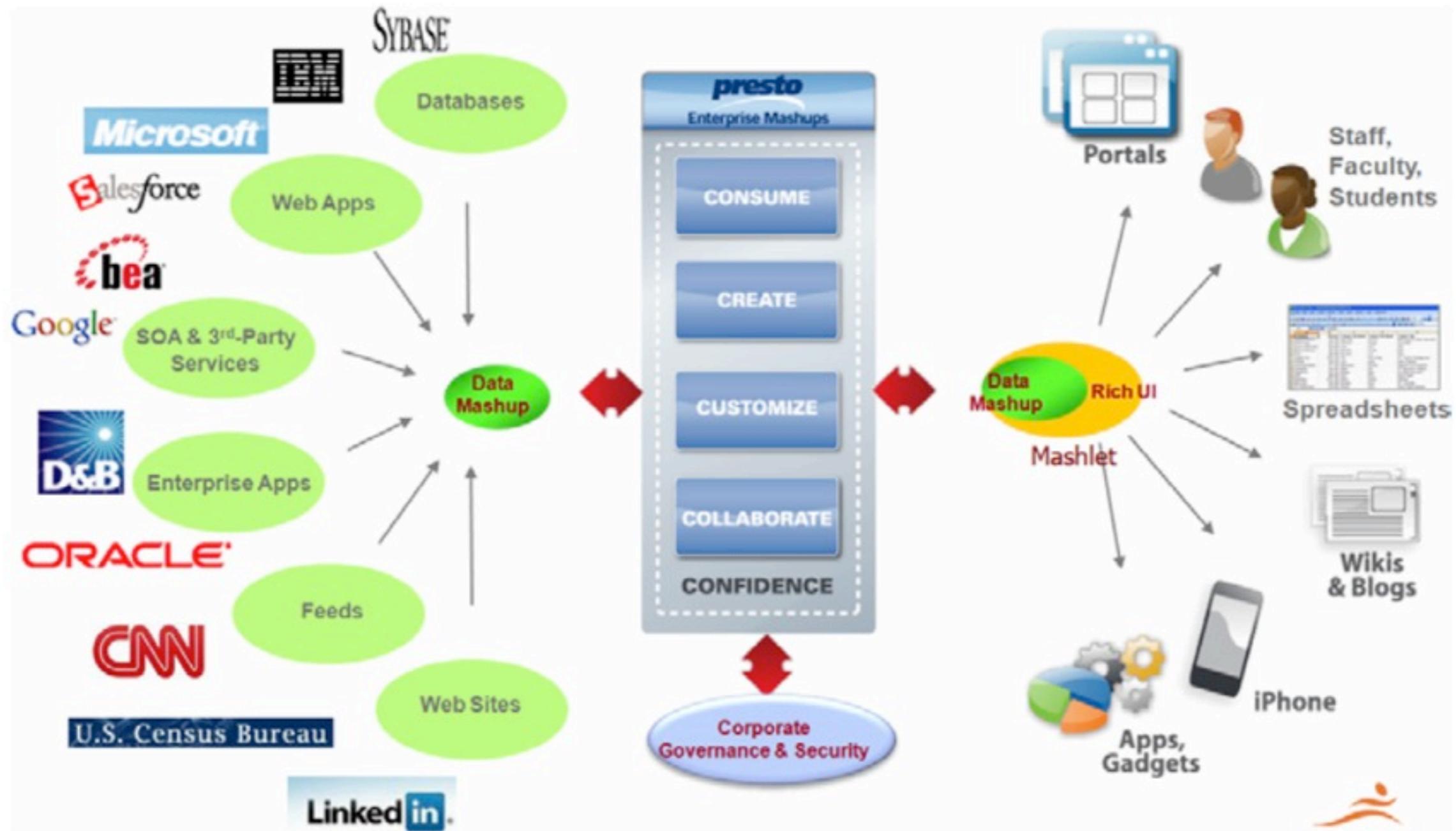
Doggdot.us: combines Digg.com, Slashdot.org, and Del.icio.us



Presto Mashup Overview



Mashups for Higher Education



Mashups for Higher Education

- **Research & Collaboration**

- Enterprise Mashups can allow individuals to quickly research, define and share ideas across different networks

- **Budgets and Forecasting**

- Enterprise Mashups can provide university administrators with real time data to make faster more cost effective decisions

- **Social Mashups**

- Enterprise Mashups can bring dynamic personalized information to university students offering an improved campus and academic experiences



Twitter



The image is a screenshot of the Twitter homepage as it appeared in 2009. At the top left is the Twitter logo in its signature blue font. To the right of the logo is a language selection dropdown menu labeled "Select Language ...". Below the logo, the main heading "What is Twitter?" is displayed in a large, bold, black font. To the right of this heading are three buttons: "What?", "Why?", and "How?". The "What?" button is solid, while "Why?" and "How?" are dashed. To the right of these buttons is a prominent red button with a play icon and the text "Watch a video!". Below the heading and buttons is a large graphic featuring a yellow bird perched on a brown branch with decorative swirls. To the right of the bird is a vertical stack of three tweet cards. The first tweet is from "Ev" about waiting for PG&E. The second is from "Maggie" about landing in LA. The third is from "mollydotcom" about recovering from trauma. Below the graphic is a paragraph of text explaining Twitter's purpose: "Twitter is a service for friends, family, and co-workers to communicate and stay connected through the exchange of quick, frequent answers to one simple question: **What are you doing?**". Below this text is a green button that says "Get Started—Join!". To the right of the main content area is a sign-in section titled "Please sign in". It includes a label "user name or email address:" followed by a text input field, a label "password:" followed by another text input field, a checkbox labeled "Remember me", and a "Sign In »" button. Below the sign-in fields is a link for "Forgot password? Click here." and a green box containing the text "Already using Twitter from your phone? Click here."



Twitter as Learning Tool

- Collect immediate feedback on courses
- Support relationship among learners
- Post tips, questions, assignments
- Build professional networks (other “like minded” people)
- Broadcast messages
- Offer collaborative file sharing
- Offer mind mapping



Facebook Learning



A terrific parody of what **Abraham Lincoln's Facebook** page might look like

Includes **popular, and lesser-known facts,** about Lincoln



Facebook Learning

 Joshua Speed uploaded a new video. 10:59pm



I got a crush on Honest Abe
5:25 Added 15 hours ago

A friend of Lincoln



Harriet Tubman wrote at 10:35pm

God won't let master Lincoln beat the South
'til he does the right thing.

[Wall-to-Wall - Write on Harriet's Wall](#)

Lincoln's unwillingness
to emancipate the slaves

 Abe is depressed and having a hard time getting out of
bed today. 10:55pm - [Comment](#)

Lincoln's depression



Facebook Classroom

- **For students**

- Books iRead, DoResearch4me, Flashcards, Wikiseek Search, SkoolPool, Rate My Professors, JSTOR Search, Notely, Study Groups, Get Homework Help, SwapRoll, Notecentric, Class Notes

- **For teachers and administrators**

- BookTag, Webinaria Screencast Recorder, Mathematical Formulas, SlideShare

- **For Everyone**

- Calendar, To-Do List, Zoho Online Office, Courses, Files, WorldCat, HeyMAth!, CourseFeed

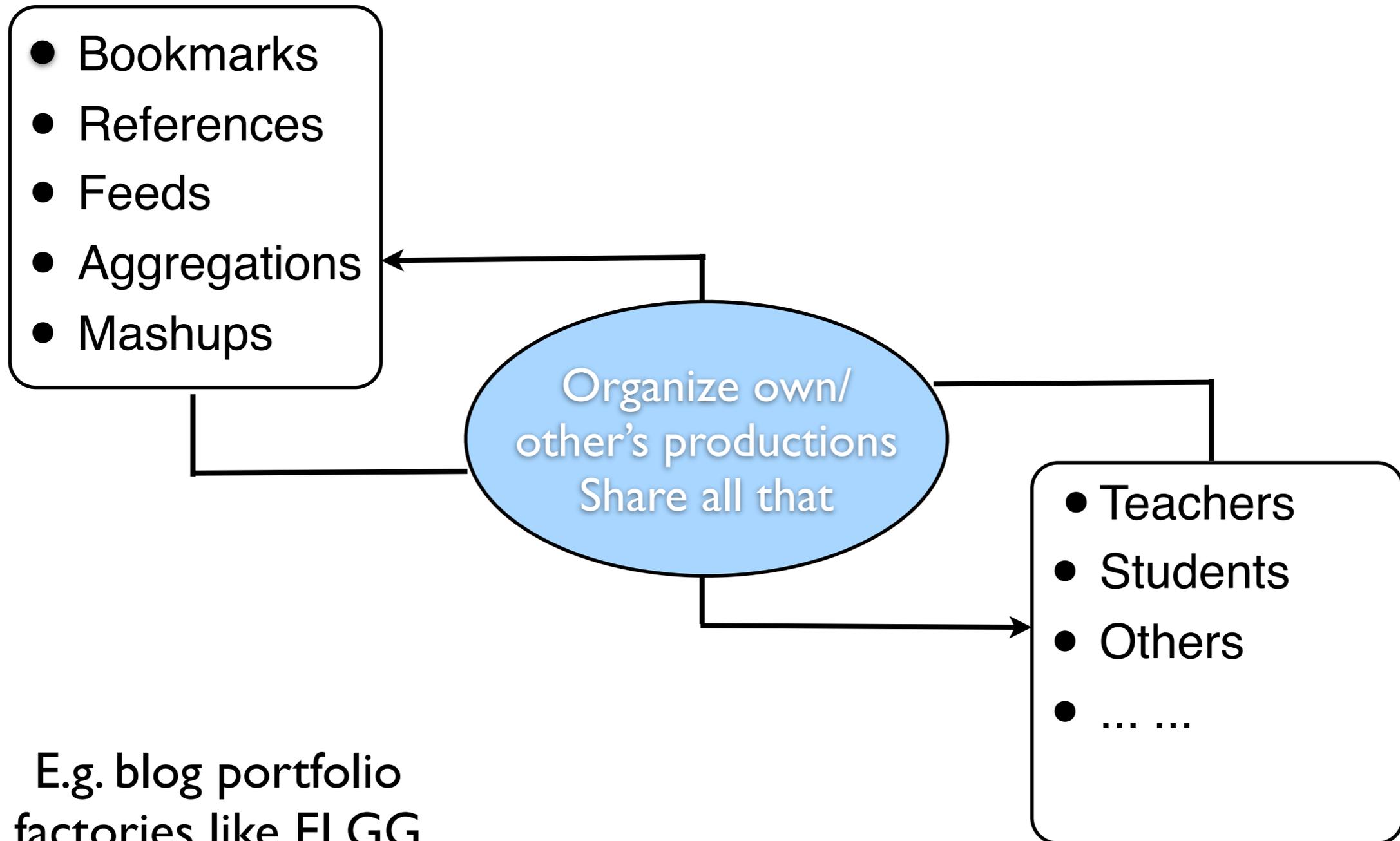


Case Studies for Education

- Manage the information space
- Write to the information space
- Computer enhanced project-oriented learning
- Personal learning environments
- Integrated authoring and management of activities
- Microlearning
- ... more



Manage the Information Space



E.g. blog portfolio
factories like ELGG



Write to the Information Space

- Digital story telling
 - “Be there” with (multimedia) stories
 - Connect them to other stories, to resources, ..
 - Kids to it all the time, some teachers do it too
 - MySpace, YouTube, Blogs,
- Contribute to expertise
 - Add articles to wikis, post podcasts to YouTube, upload slides to Furl, ...
 - Fix / comment productions
 - Link ideas, remix productions

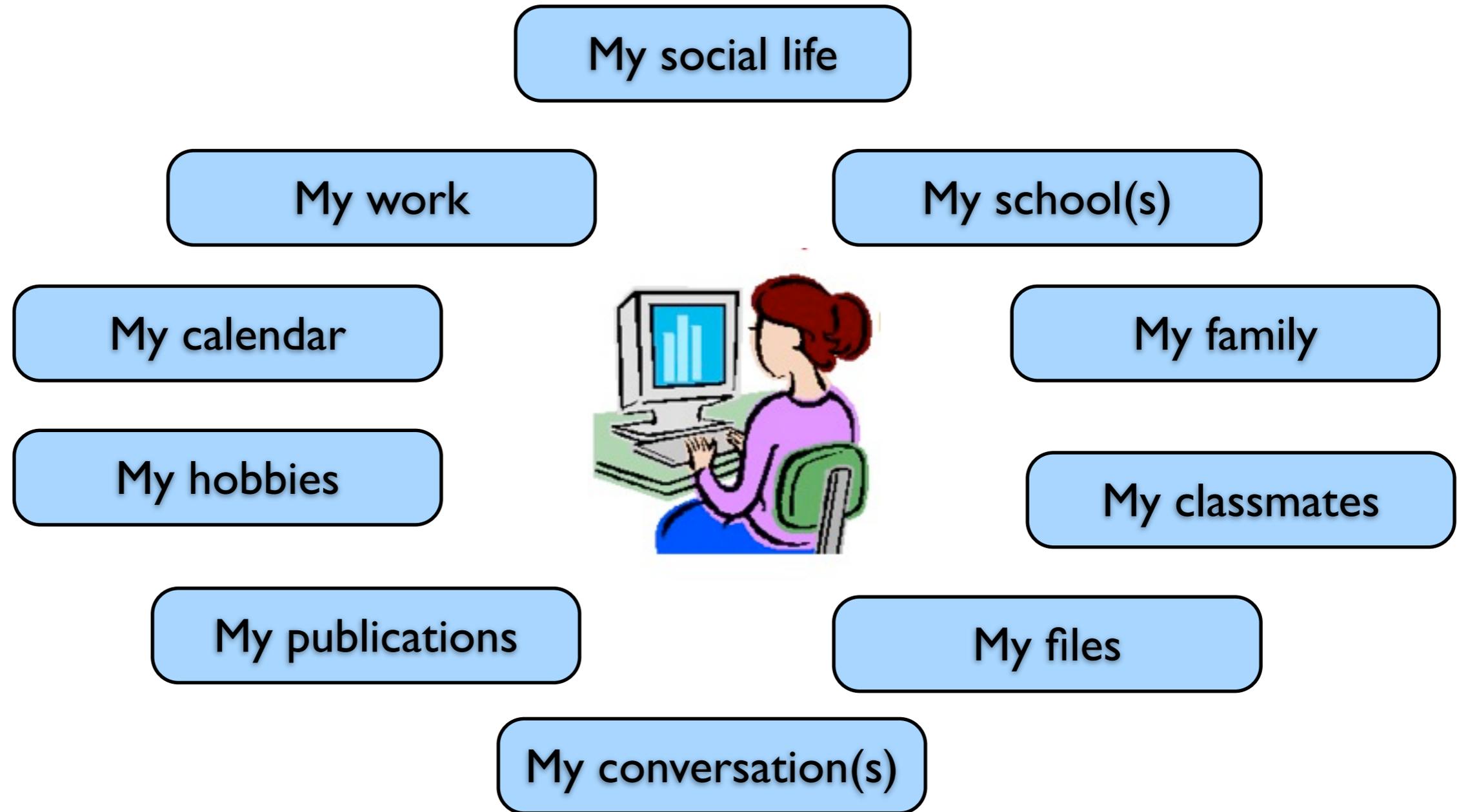


Project-Oriented Learning

- Organizing and augmenting the information space does not guarantee formal learning ...
- Teachers have to engage in storyboarding:
 - Orchestrate
 - Monitor
 - Scaffold (Tutor)
- Levels of cooperation between learners:
 - Individual, group
 - Class, school (social environments!)
 - Virtual community, world (social environments!)



Personal Learning Environment



Learners do have an environment, and school is part of it
But they **organize** it ...

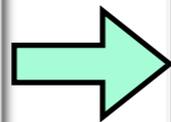


Status of Learning

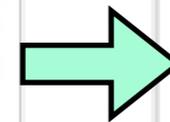
- The evolution in education and training at a distance can be characterized as move from distance learning (d-Learning) to electronic learning (e-Learning) to mobile learning (m-Learning).



d-Learning(paper-based)



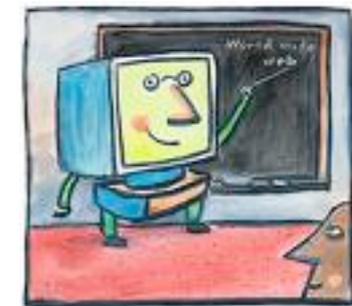
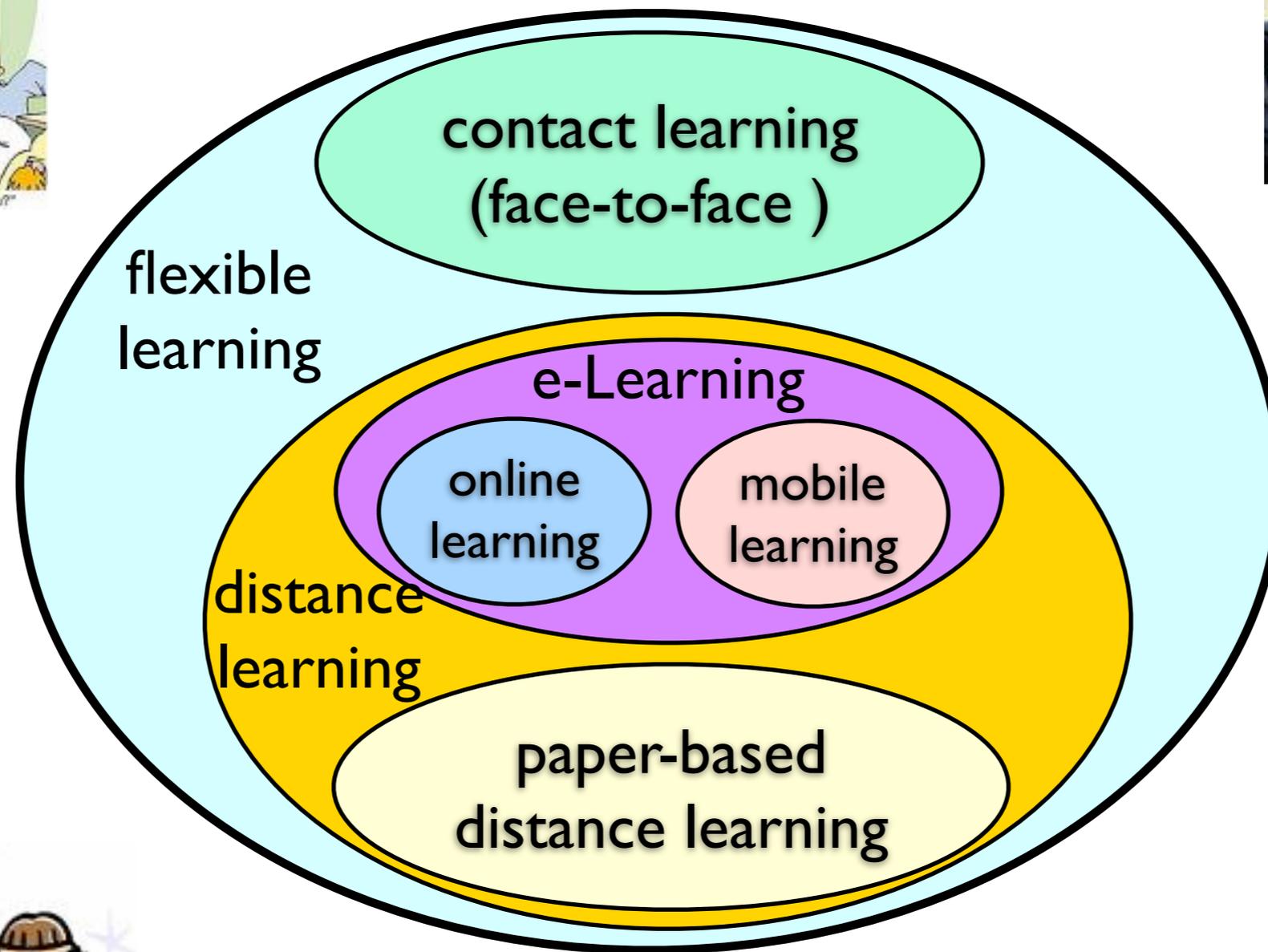
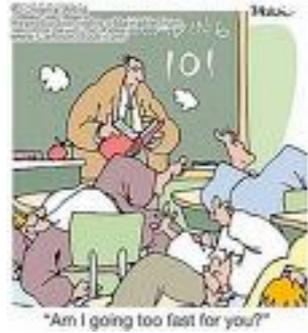
e-Learning



m-Learning



Categories of Learning



e-Learning

- A subset of technology-based training and encompasses all learning activities conducted on the internet
- Can be “live” (also known as “**synchronous**”) learning, meaning students communicate with peers and instructors in real-time, or it can be completely self-paced, which is known as “**asynchronous**” learning
- Covers a set of applications and processes, including
 - Computer-based training
 - Web-based learning
 - Virtual classroom
 - Digital collaboration



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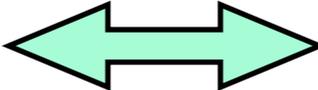
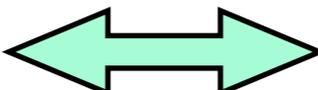
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Done

UNIVERSITIES.COM: The most extensive collection of distance learning



What is m-Learning?

New Learning Paradigms		Mobile Technologies
Individual/Learner centered		Personalized Services
Collaborative learning		Networked/Wireless
Situated learning		Mobile awareness
Contextual learning		Context awareness
Ubiquitous learning		Ubiquitous
Life long		Durable



What is m-Learning?

- Refers to the use of mobile and handheld devices, such as PDAs, mobile phones, smart phones, laptops, and tablet PCs, in teaching and learning
- Learn “on the go”!



Why m-Learning?

- Enhance learner success
 - Real world skills
 - Access your learning materials from anywhere
 - Just-in-time learning / reference tool for quick access to data in the field
 - Interact with others
 - Collaborate learning



m-Learning Devices

- PDAs
- Tablet PCs
- Mobile phones
- Wearable computers
- Laptop computers
- E-book readers
- Hybrid devices



Limitation of m-Learning Devices

- Small screen size and limited storage capabilities
- Batteries require regular charging
- Lack of common platform
- More easily lost or stolen
- Much less robust than desktops
- Out of date very quickly
- Security issues
- Bandwidth problems
- More difficult to upgrade

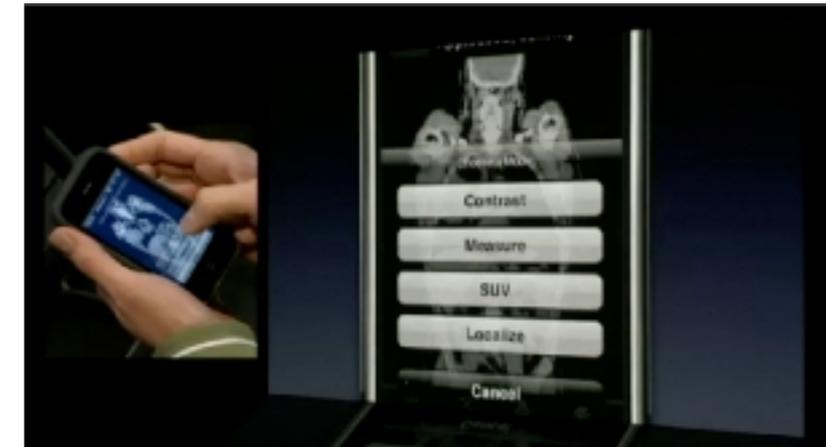
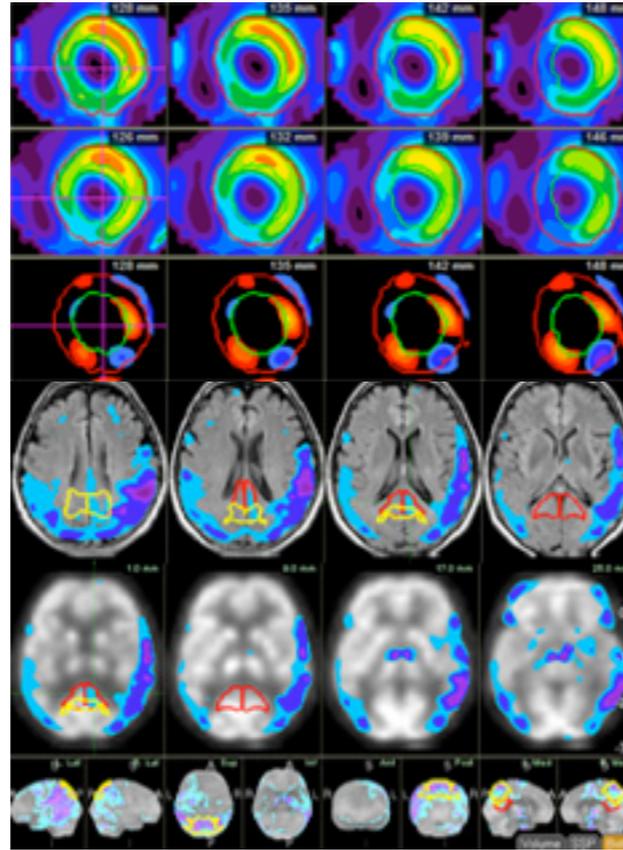


The Horizon Project

- iPhone in Medicine
- Mobile MAAP
- Mobile Initiatives at Seton Hall University
- MIT Mobile Project



iPhone in Medicine



Images

Multi-planar
reconstruction data sets

Medical resources developed for the iPhone
can be used by students and practitioners



online version

<http://jeffreyleow.wordpress.com/2008/06/10/iphone-in-medical-education/>

Education in the Age of Social Computing, Irwin King, IWMTE2009, June 26, 2009, Taipei, Taiwan



Mobile MAAAP



MAAAP

Explore these locations:

A

- Abolitionist Place
- Abyssinian Baptist Church
- African Burial Ground
- African Free School
- African Grove Theater
- African Society for Mutual Relief
- Audubon Ballroom

B

- Bedford-Stuyvesant
- Black Brigades
- Bridge Street AWME Church

C

- Catherine Ferguson's Home

Locations

View location on map:

Listen to Podcast

In September of 2007, Duffield Street in downtown New York City threatened to continue the struggle against slavery on the streets and docks. In the 1800s the harbor neighborhood was their own freedom. Other runaways were brought to the neighborhood where they were given food and clothing collected by the community.

It is known that Thomas and Harriet Truesdell, who lived on Duffield Street AWME Church, the first African American church in the neighborhood, were active in the Underground Railroad. Abraham Lincoln once visited the neighborhood a hotbed of antislavery activity.

Mapping the African American Past (MAAAP) illustrates places and moments that have shaped the long history of African Americans in New York City.

<http://maap.columbia.edu/m/index.html>

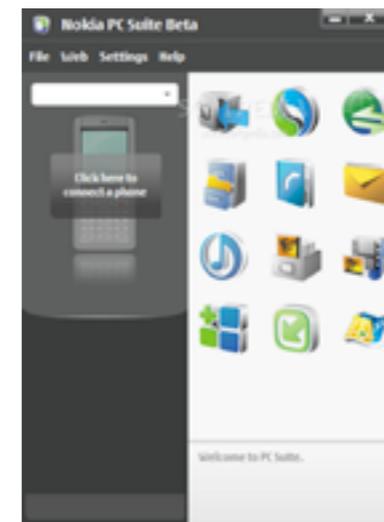


Mobile Initiatives at Seton Hall University

- Seton Hall University is committed to providing a unique and advanced technological environment for students, faculty, administrators and other community members.
- SHUmobile Blogs



Editing Video on the Nokia N95



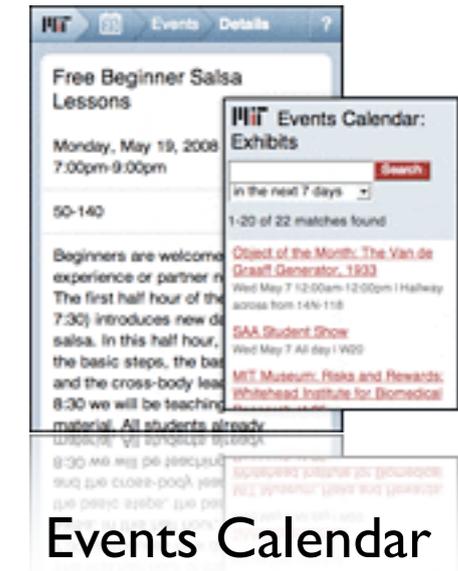
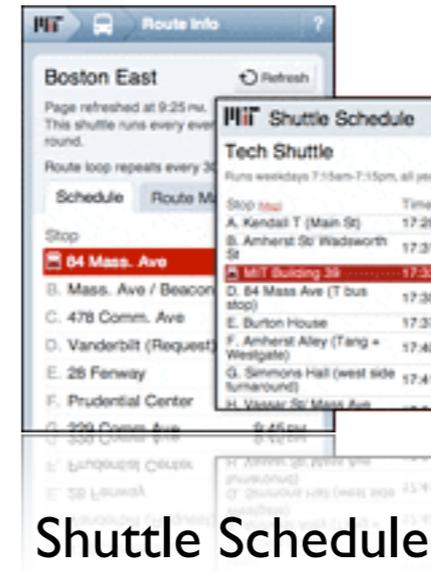
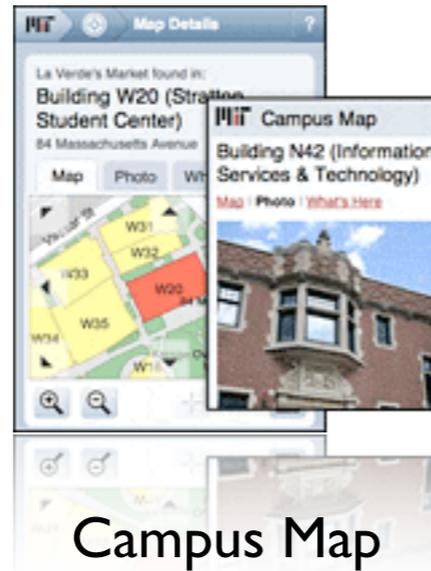
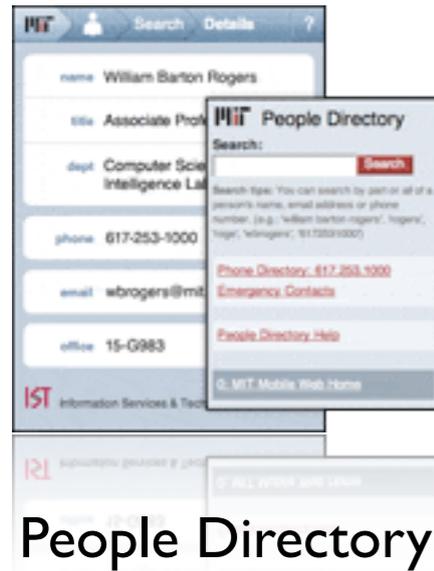
PC Suite Download Information

- SHUmobile Forum
- SHUmobile Wiki

<http://tltc.shu.edu/mobile/>



MIT Mobile Project

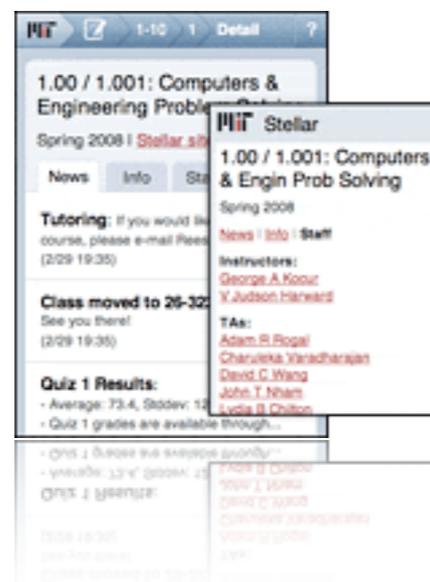


People Directory

Campus Map

Shuttle Schedule

Events Calendar



Stellar



Emergency Information



3DOWN

<http://mobi.mit.edu/>



Tensions and Areas for Further Research

- Teaching **vs.** learning
- Walled garden **vs.** open arena
- Private learning **vs.** collaborative learning
- Digital native **vs.** digital immigrant
- Social networking **vs.** anti-social networking
- Rip-mix-burn **vs.** cut-tweak-paste
- Transitory marks **vs.** persistent marks
- Print literacy **vs.** digital literacy
- Serial processing **vs.** parallel processing

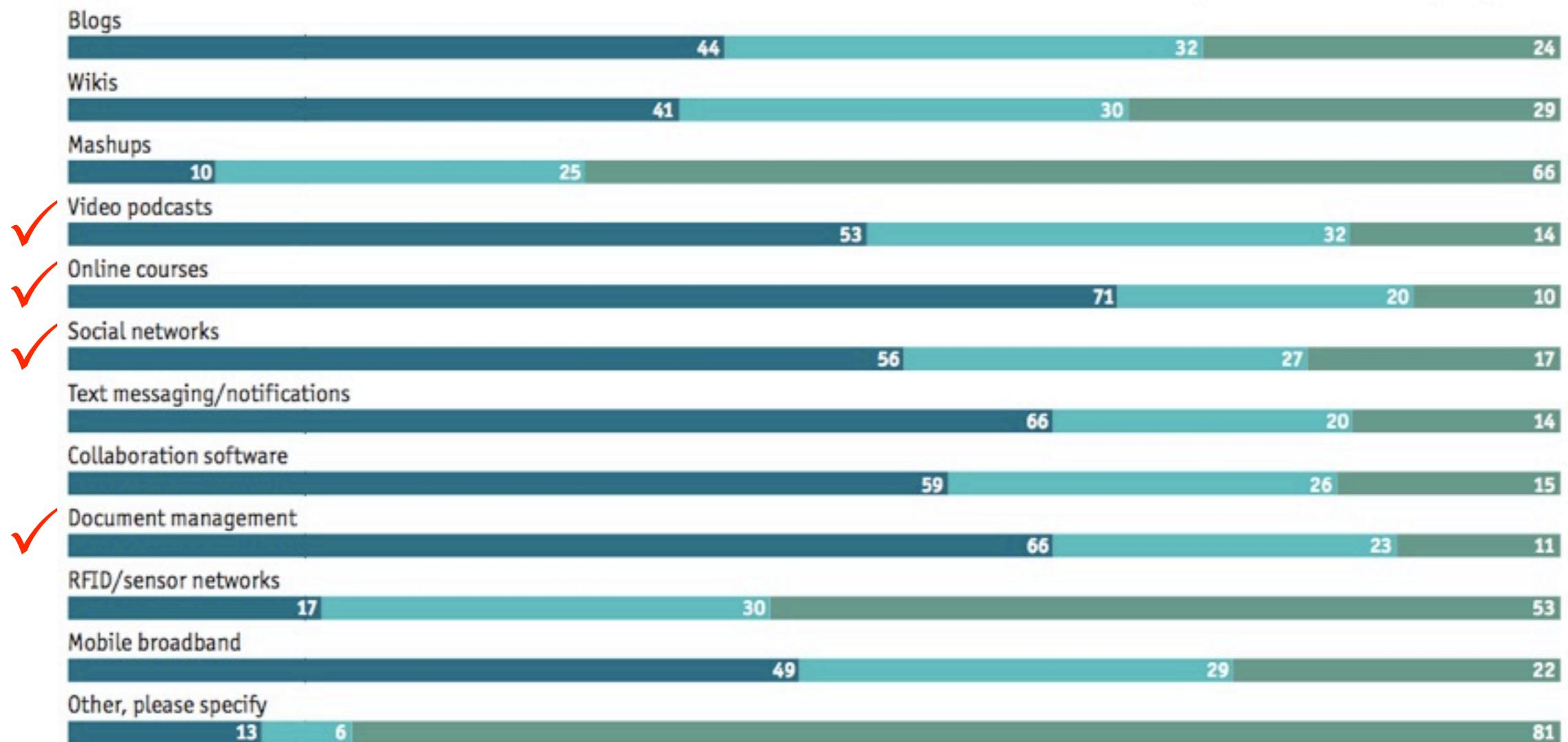


Economist Intelligent Unit 2008

Which tools does your institution currently use, and which do you think will be used within five years?

(% respondents)

■ Use now ■ Within five years ■ Don't know/Not applicable



New Challenges

- Quality and reliability of information and resources
- Responsibility and awareness of security and privacy issues
- Ethical questions, e.g. <http://www.ratemyprofessors.com/>, and cyberbullying
- Need for new skills (danger of new digital divides) -- both for learners and teachers



Summary

- New availability of resources for learning
 - Easy access to **free** and a variety of information resources
 - Education providers pressured to open up their resources to show their **quality**
- New learner empowerment and networks
 - New empowerment in **choosing** the learning provider
 - New means to **express** and show one's skills
- New participation in learning processes
 - Digital natives expect to use **participative** approaches



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- Prof. Michael R. Lyu
- Prof. Jimmy Lee
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- Dr. Zhirong Yang
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- Hongbo Deng (Ph.D.)
- Zhenjiang Lin (Ph.D.)
- Hao Ma (Ph.D.)
- Haiqin Yang (Ph.D.)
- Xin Xin (Ph.D.)
- Chao Zhou (Ph.D.)



<http://groups.google.com/group/WSCE2009>

Call for Papers



Workshop on Social Computing in Education (WSCE2009)
in conjunction with SocialComp-09, August 29-31, 2009, Vancouver, Canada

Welcome to the workshop on Social Computing in Education (SCE2009). The workshop is held in conjunction with the [SocialComp-09](#), Vancouver, Canada from August 29-31, 2009.

With the advent of Web 2.0 and related technologies, Social Computing has become a new paradigm in ways we communicate, learn, and educate. Social platforms such as wikis, blogs, twitters, forums, groups, podcasts, mashups, virtual worlds, and sites for social networking, recommender systems, social bookmarking, social news, knowledge sharing, etc. are generating novel ways we acquire, access, manipulate, process, retrieve, present, and visualize information in the teaching and learning space. The social media for education has become dynamic, ubiquitous, distributed, real-time, collaborative, bottom-up, many-to-many, value-based, and personalized. This workshop solicits contributions on using Social Computing and related technologies for education, the emerging applications of Web 2.0 as an educational platform, as well as privacy, risk, security, and policy issues associated in Social Computing for Education 2.0.



Irwin King
Ricardo Baeza-Yates (Eds.)

King · Baeza-Yates (Eds.)



Weaving Services and People
on the World Wide Web

Weaving Services and People on the World Wide Web

King · Baeza-Yates (Eds.)
**Weaving Services and People
on the World Wide Web**

Ever since its inception, the Web has changed the landscape of human experiences on how we interact with one another and data through service infrastructures via various computing devices. This interweaving environment is now becoming ever more embedded into devices and systems that integrate seamlessly on how we live, both in our working or leisure time.

For this volume, King and Baeza-Yates selected some pioneering and cutting-edge research work that is pointing to the future of the Web. Based on the Workshop Track of the 17th International World Wide Web Conference (WWW2008) in Beijing, they selected the top contributions and asked the authors to resubmit their work with a minimum of one third of additional material from their original workshop manuscripts to be considered for this volume. After a second-round of reviews and selection, 16 contributions were finally accepted.

The work within this volume represents the tip of an iceberg of the many exciting advancements on the WWW. It covers topics like semantic web services, location-based and mobile applications, personalized and context-dependent user interfaces, social networks, and folksonomies. The presentations aim at researchers in academia and industry by showcasing latest research findings. Overall they deliver an excellent picture of the current state-of-the-art, and will also serve as the basis for ongoing research discussions and point to new directions.

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Education in the Age of Social Computing, Irwin King, IWMTE2009, June 26, 2009, Taipei, Taiwan

國立交通大學



Economist Intelligent Unit 2008

In what ways do new technologies pose the greatest challenges and risks to colleges and universities? Select up to three.
(% of respondents)

Potential increase in student plagiarism

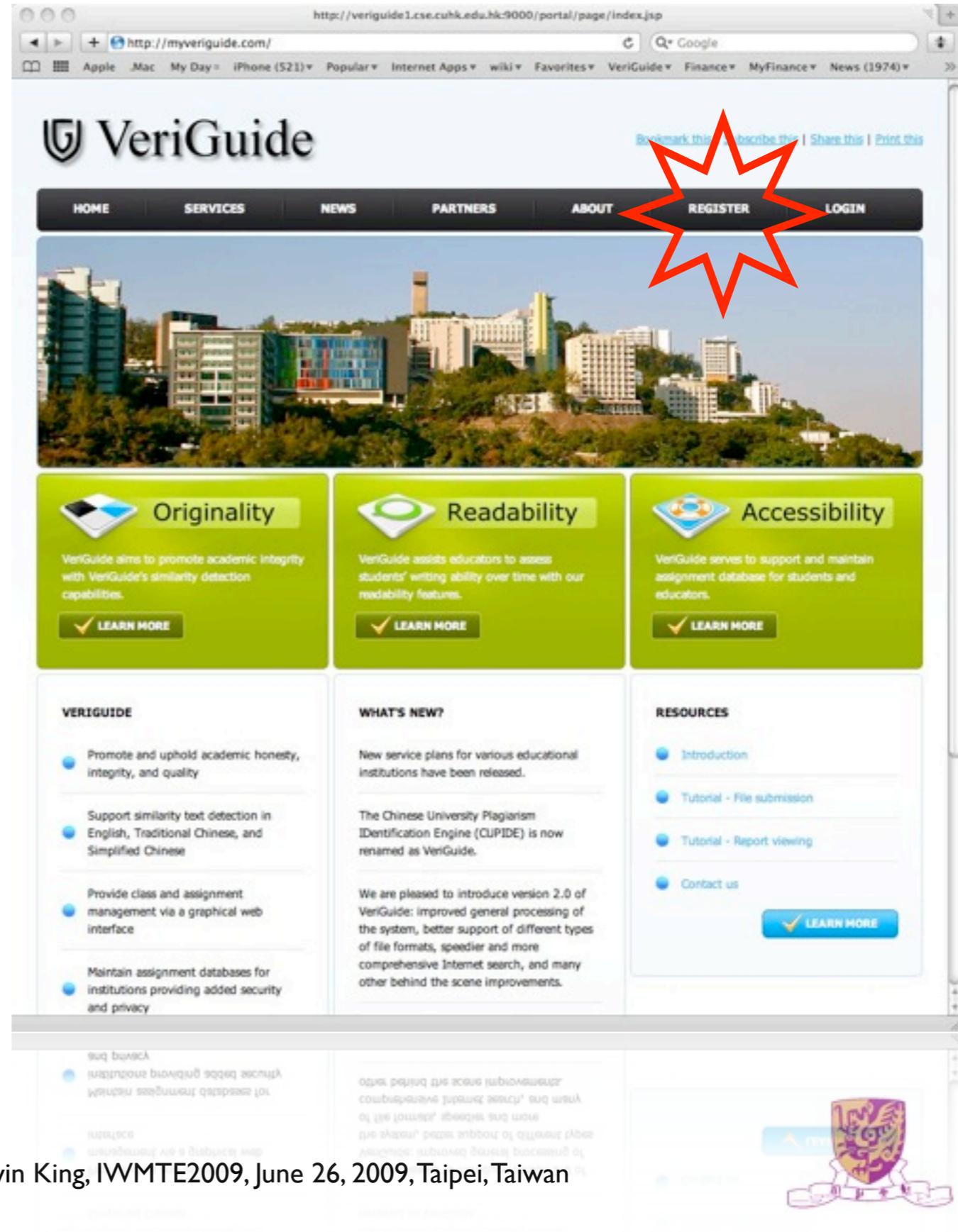
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Potential increase in student plagiarism



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The screenshot shows a website for Irwin King at the Web Intelligence & Social Computing Lab (WISC Lab). The page includes a navigation menu, a profile picture, and a detailed list of his professional activities and research interests. A red starburst graphic with a 'G' logo is overlaid on the right side of the page.

IRWIN KING @ WEB INTELLIGENCE & SOCIAL COMPUTING LAB

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You are here: [home](#)

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Irwin King (金國慶), WISC Lab

Associate Professor, B.Sc. (Caltech), M.Sc., Ph.D. (USC)
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- Associate Editor of IEEE Transactions on Neural Networks (IEEE TNN)
- Associate Editor of IEEE Computational Intelligence Magazine (IEEE CIM)
- Vice-President and Board Member of Asia Pacific Neural Network Assembly (APNNA)
- Chair, Task Force on the Future Directions of Neural Networks (IEEE CIS)
- Chair, SIG and Regional Chapters Committee for Asia and the Pacific, (INNS)
- Director of International Programmes, Faculty of Engineering (ERGIP)
- Member of RGC Engineering Panel, The Hong Kong SAR Government
- Co-Founder, Co-Principal Investigator and Chief Technologist, The VeriGuide Project
- General Co-Chair, Workshop on Social Computing in Education (WSCE2009), in conjunction with SocialComp'09
- General Co-Chair, Workshop on Social Web Search and Mining, in conjunction with CIKM2009
- Program Co-Chair, The first SIGMM Workshop on Social Media (WSM2009) in conjunction with ACM Multimedia 2009 (ACM MM'09), October 19-24, 2009, Beijing China

Research interests: Machine learning, social computing, web intelligence, information retrieval, multimedia information processing

Caltech's motto, "...the truth shall set you free."

News

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<http://www.cse.cuhk.edu.hk/~king>

IWMTE2009

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