

Social Computing in Education

Irwin King

king@cse.cuhk.edu.hk

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

Department of Computer Science & Engineering
The Chinese University of Hong Kong



Billionaires' Shuffle

2007



2008



Facebook in 2004.02

2008

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

Social Computing in Education, Irwin King, IST, Lisbon, Portugal, April 18, 2009



Alexa as of Nov. 2008	USA	CHINA	Global
1	Google	Baidu	Yahoo
2	Yahoo	QQ	Google
3	Myspace	Sina	YouTube
4	YouTube	Google.cn	Windows Live
5	Facebook	Taobao	Facebook
6	Windows Live	163	MSN
7	MSN	Yahoo	Myspace
8	Wikipedia	Google	Wikipedia
9	EBay	Sohu	Blogger
10	AOL	Youku	Yahoo.jp



What's On the Menu?

- Web 2.0 and Social X
- Social Computing
- Social Computing in Education



What's On the Menu?

- Web 2.0 and Social X
- Social Computing
- Social Computing in Education



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**



Social Platforms

- Wikis, blogs, forums, groups, twitters, etc.
- Social Networking
- Social Search
- Social Bookmarking
- Social Media
- Social News/Mashup
- Social Knowledge Sharing
- Social Marketing
- Social Gaming/
Human
Computation



Social Networking

The screenshot shows a Facebook profile for Irwin King. The profile includes a profile picture, a cover photo, and a bio. The bio states: "What are you doing right now?" and lists his networks, sex (Male), hometown (Taipei, Taiwan), and religious views (Christian). The Mini-Feed shows several updates, including a new address at the Department of Computer Science and Engineering, The Chinese University of Hong Kong, and several new friendships with Chi Chung Chan, Tom Hung, and David Shepherd. The Information section lists his contact info, current address, and website. The Education and Work section lists his grad schools: University Of Southern California '88 M.Sc., Computer Science; University Of Southern California '03 Ph.D., Computer Science.

The screenshot shows a Myspace.com profile for drmanhattan. The profile includes a profile picture, a cover photo, and a bio. The bio states: "Like all good first albums should, the debut from drmanhattan is filled with throbbing punk melodies and the kind of lyrics you'll find yourself singing along to on your second listen. Listen to the album now, before it hits stores 3/11, exclusively on MySpace." The profile also features a "MySpace Music" section with a "Listen Now" button and a "MySpace Specials" section with a "Watch It Now!" button. The profile also includes a "Cool New Videos" section with several video thumbnails and a "Cool New People" section with several profile pictures.

Social Computing in Education, Irwin King, IST, Lisbon, Portugal, April 18, 2009



Social Search

- Social Search Engine
- Leveraging your social networks for searching

eurekasterswicki login | sign up

build new swicki | swicki directory | about swickis | about eurekaster

Search and vote for your faves

swicki search

a custom search portal around the topic of your choice powered by your community

Build a swicki!

A swicki is a custom social search portal on the topic of your choice. With every search, vote and click, your swicki generates more relevant results and turns into a valuable asset for you and your community. Take a tour to find out more about how swickis work.

- Choose from text, multimedia or video content
- Customize the swicki widget look and feel
- Share your swicki widget with your community

Build a swicki

New! Even fresher swickis with RSS and Autodetect. [Learn More.](#)

Eurekaster news

Now out of beta!

Come join the network for swicki builders

Swicki Users Go Green

CEO Speaking at SES New York

Get swicki illustrated

For the latest news and trends in social search, subscribe now.

Browse the directory

Try searching one of over 100,000 swickis already created, or grab one to add to your site or blog.

Recently created

- askforkids
- e-learning et didactique ...
- denver news
- home repairs any gal can ...
- creative ideas for green ...
- easy woodworking projects ...

More >

Top swickis

- techrunch
- borr2ikes
- popular science
- readrteweb
- lockergnome
- neopets
- larkswicki

More >

DIY: home improvement swicki showcase

- Home Repairs Any Gal Can Do
- Make Yourself a Man Pad
- Making Room for Baby
- Creative Ideas for Green Home Improvement

Computers

- dot net search engi...
- php resource search
- rails on ruby
- software factories
- web 2.0 workgroup

More >

Business

- adblogging
- alternative search ...
- bubblegeneration - ...
- contextual adverti...
- digging into search
- freelance tipster
- green building reso...

More >

Home

- about color for hom...
- gardening and plant...
- home improvement se...
- homemade baby food ...
- homemaking
- salmon

More >

Regional

- amazon river
- atlanta business se...
- atlanta home and ga...
- berkeley public lib...
- pittsburgh news
- pittsburgh wedding ...
- ski tahoe

More >

delver:: liad agmon edit

My Profile | My Network

Your friends are the best source of information!
Look for information, media and people within your network

(Go)

Noa Rabiner
Noa Rabiner is connected to you directly

- This is me!
- I know this person
- Add as Connection
- Send Message



Social Bookmarking

The screenshot shows the del.icio.us website interface. At the top left is the logo and text "del.icio.us social bookmarking". To the right is a search bar with "del.icio.us" and a "search" button, and links for "login", "register", and "help". Below the logo are three main navigation links: "» all your bookmarks in one place", "» bookmark things for yourself and friends", and "» check out what other people are bookmarking". A "learn more..." link is also present. A "» get started «" link is located at the bottom right of this section.

The main content area is titled "hotlist" with the subtitle "whats hot right now on del.icio.us". It features a "HOT NOW" section with a "see also: popular | recent" link. The list includes several items, each with a thumbnail, title, "save this" link, number of people, and tags. The items are:

- Video: Twitter in Plain English | Common Craft - Explanations In Plain English** (130 people) tags: twitter, video, howto, commoncraft, web2.0
- Home | NotchUp Beta** (212 people) tags: jobs, interview, career, search, job
- PrimeTimeRewind - The TV Cube** (145 people) tags: tv, video, streaming, television, media
- The Simple Dollar » Planning a Kitchen Garden** (133 people) tags: gardening, food, garden, cooking, vegetables
- Office Live Workspace vs Google Docs: Feature-by-Feature Comparison - ReadWriteWeb** (135 people) tags: microsoft, google, office, google_docs, live

On the right side, there is a "Tags" section with a definition: "A tag is simply a word you use to describe a bookmark. Unlike folders, you make up tags when you need them and you can use as many as you like. The result is a better way to organize your bookmarks and a great way to discover interesting things on the Web." Below this is a "tags to watch" section with a "more ..." link. The tags listed are:

- illustration**: karenklassenillustration, Dave Devries's Monster Engine, current work
- family**: Cozi, Comeeko - Creating comic strips from your photos, Let's Have More Teen Pregnancy
- living**: Home - tiny living, Eartheasy homepage, The Simple Dollar » Nourishment on a Desperate Income
- cool**: Browse Goods, rssWheel, Laptop Stand By LapDawg - A Revolutionary, Ergonomic Laptop Holder
- itunes**

At the bottom of the page, there is a footer with the text "Social Computing in Education, Irwin King, IST, Lisbon, Portugal, April 18, 2009" and a small logo on the right.

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.
- Promoted Videos:** Four video thumbnails with titles like "Think Again Awards".
- Featured Videos:** A list of featured videos with details:
 - David Sedaris delivers a pizza:** From *weeknight*, 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 *girlsnite*, 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", "Create Your Account" button, and a search bar.
- Main Content:** A large photo of a small plant growing in a crack in the pavement, with text: "Share your photos. Watch the world." and a "SEARCH" button.
- Footer:** A row of four icons with labels: "Share & stay in touch", "Upload & organize", "Make stuff!", and "Explore...".

The screenshot shows the Second Life website 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 the sky, with text: "Get Started! Membership is FREE!" and "Second Life is an online, 3D virtual world imagined and created entirely by its Residents."
- Footer:** A section titled "Your Organization in Second Life!" with a "Visit Second Life Now!" button.

Social Computing in Education, Irwin King, IST, Lisbon, Portugal, April 18, 2009

A small screenshot of a video player showing a video thumbnail and some text.



Social News/Mash Up

The screenshot displays a social news/mashup website interface. On the left, a Digg news feed lists several articles, including "Microsoft Demos 'ADD TO DIGG' Feature in IE8", "It was only a matter of time, The SIMS 3 Official", "Universe submerged in a sea of chilled neutrinos", "Unique locks on microchips could reduce hardware piracy", and "Warren Buffett Passes Gates To Become World's Richest Man".

The central section features a profile for the artist **Björk**, including a photo of her performing, a search bar, and a list of genres: Pop, Trip-Hop, Rock, Vocal Jazz, Ambient, Electronica, Dance, Alternative, and Experimental. Below the profile are sections for "Videos on YouTube" (featuring "All is full of love", "bjork-hunter", and "Bjork - Human Behaviour") and "Artist on Last.fm" (featuring "The Sugarcubes" and "Goldfrapp").

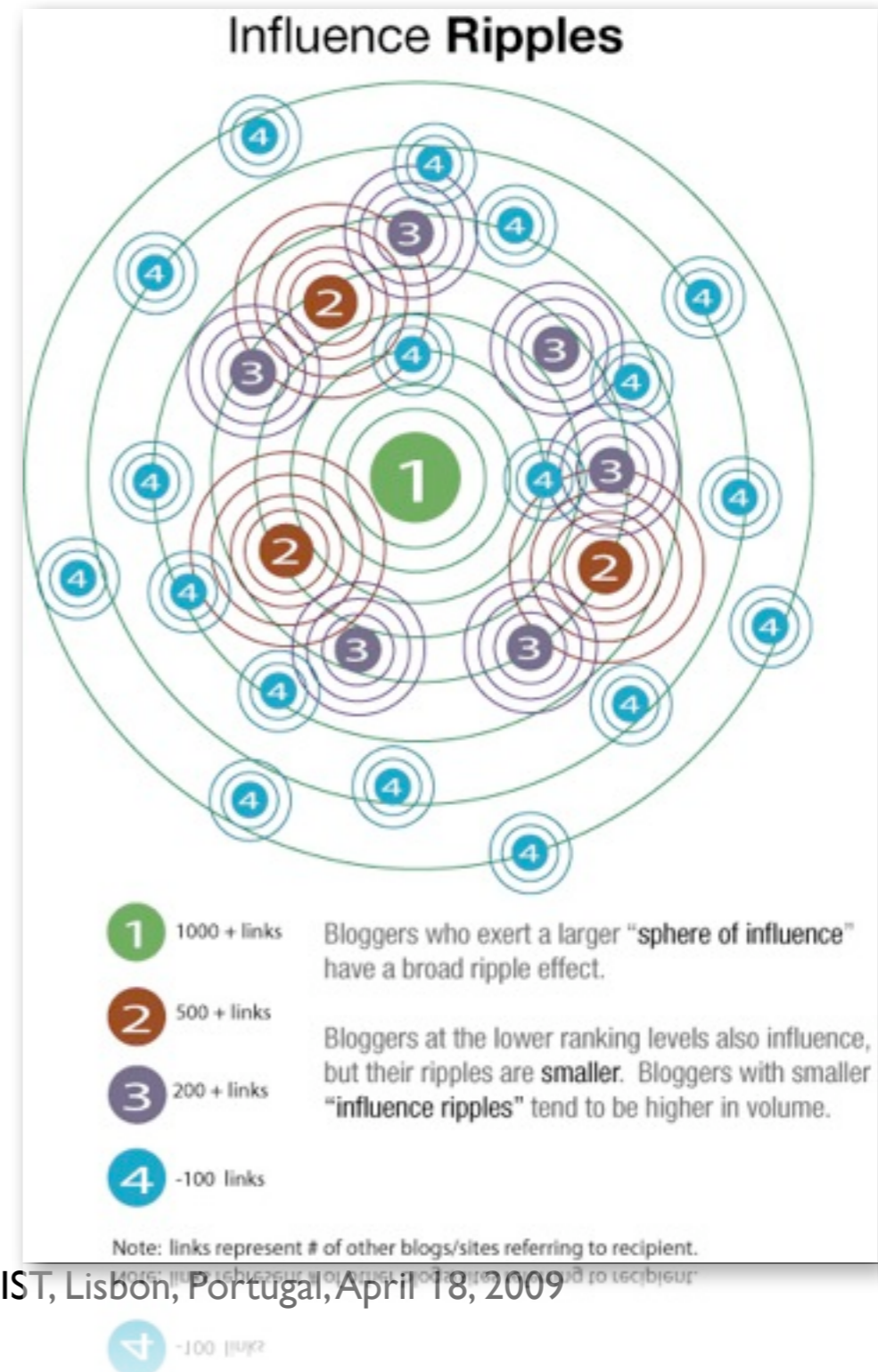
On the right side, there are several widgets: "Lyrics from Yahoo! Music" (listing songs like "5 Years", "Alarm Call", etc.), "Flickr Photos" (showing selected photos), and "Music on Hype Machine" (with a "Play All" button).

Navigation and utility elements include a top menu with "Join Digg", "About", and "Login"; a search bar; and links for "sign up", "faq", "login", "feedback", and "send artist".



Social Marketing

- Viral marketing
- Who are the **brokers**?
- Who can exert the **most influence** on buying/selling?
- How **much** should one advertise?



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](#)

discharge **carolina**

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](#)

discharge **tesbiten**

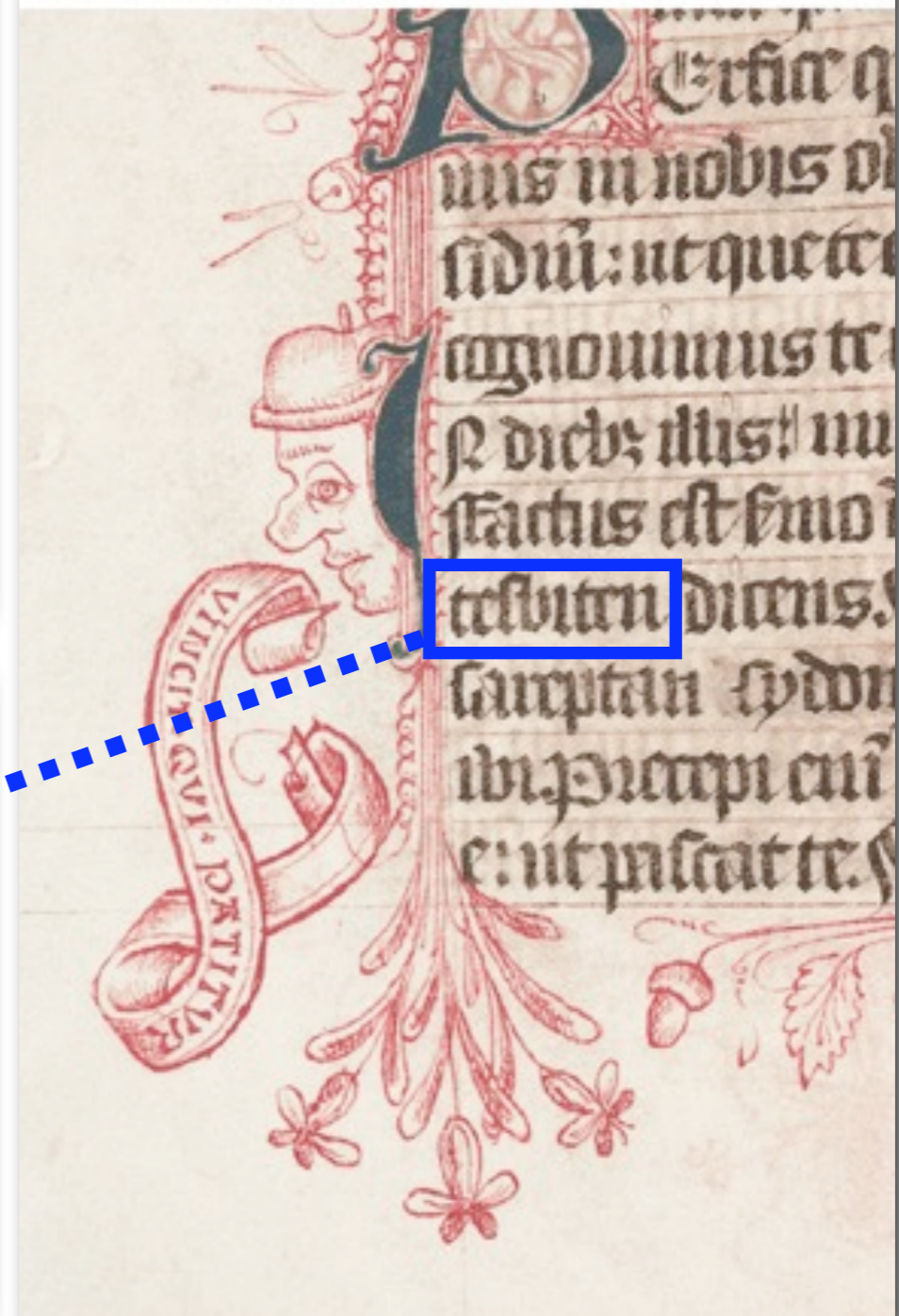
Text in the box:

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



Human Computation

The screenshot shows the Google Image Labeler interface. At the top left is the Google logo with 'Image Labeler BETA' and 'Google Image Labeler' text. On the right are links for 'Help' and 'Sign In'. Below the header, there is a 'time left' section showing '01:17', a 'score' of '0', and 'passes' of '0'. A central text box says 'Your partner has suggested 10 labels.' with 'label' and 'pass' buttons. Below this is a landscape image of a lake and mountains, with a 'zoom out' button underneath. On the right side, there are two starburst annotations: one labeled 'off-limits' containing the list 'sky', 'water', 'blue', 'lake', 'mountain', and another labeled 'my labels'.

© 2007 Google



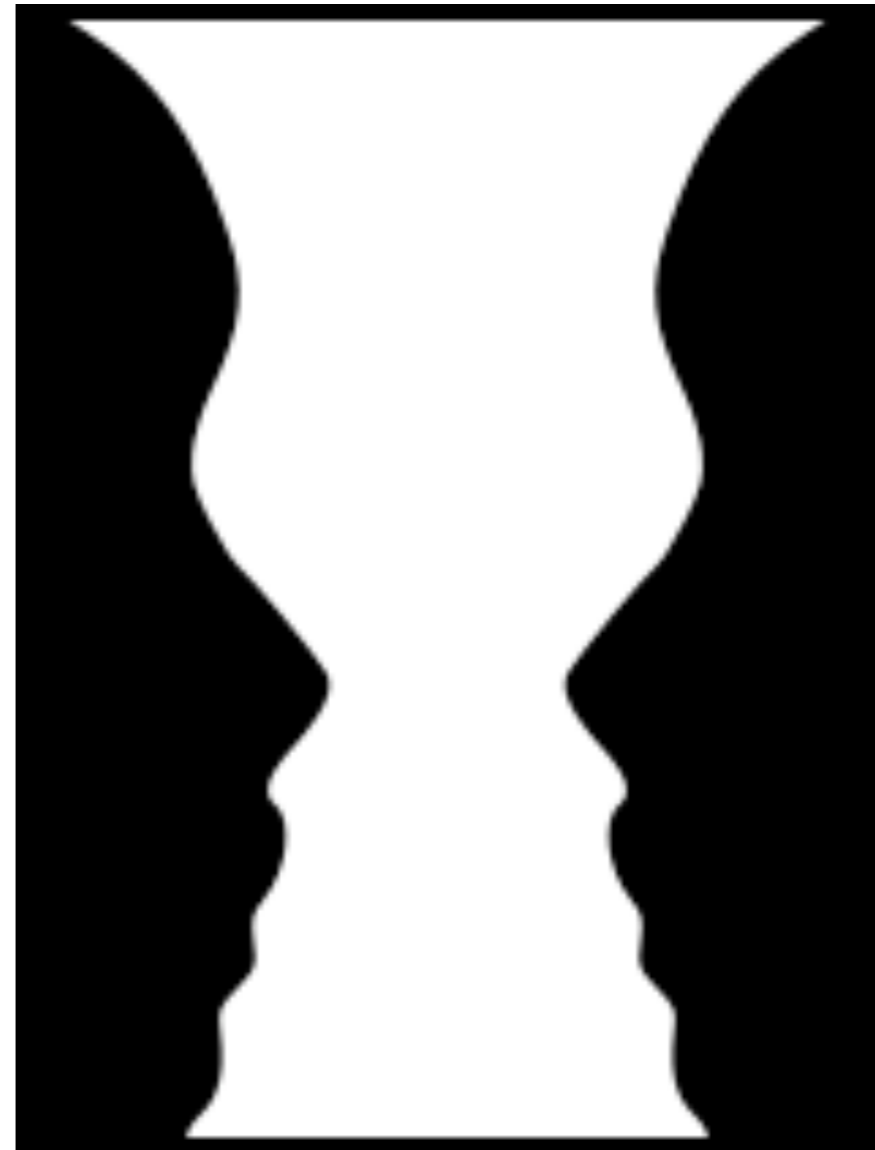
Web 2.0 Revolution

The Three C's

Connectivity

Collaboration

Communities



What's On the Menu?

- Web 2.0 and Social X
- **Social Computing**
- Some Interesting Problems
 - Collaborative Filtering
 - Query Suggestion

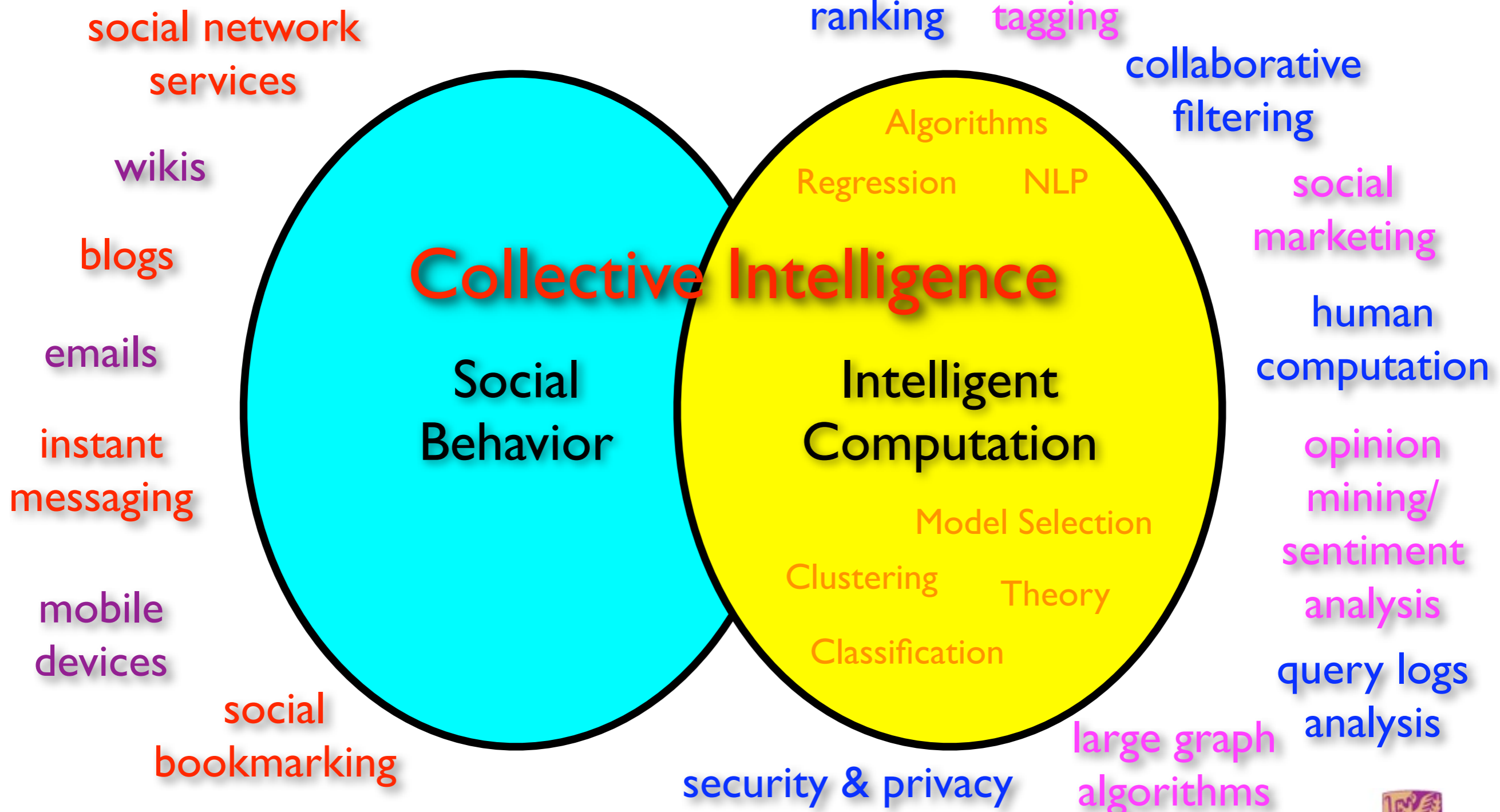


Social Relations

presence
identity
social role
reputation
expertise
trust
ownership
accountability
knowledge
crew
teams
populations
binary
cardinal
integer
real
squad
organizations
cohort
markets
communities
partners
groups



Social Computing



Social Computing (SC)

- Social computing is a general term for an area of computer science that is concerned with the intersection of *social behavior* and *computational systems*.
Wikipedia
- *A social structure in which technology puts power in communities, not institutions.*
Forrester
- *Forms of web services where the value is created by the collective contributions of a user population.*



Issues

- **Theory** and models
- **Search, mining, and ranking** of existing information, e.g., spatial (relations) and temporal (time) domains
- Dealing with **partial** and **incomplete** information, e.g., collaborative filtering, ranking, tagging, etc.
- **Scalability** and algorithmic issues
- **Security** and **privacy** issues
- **Monetization** of social interactions

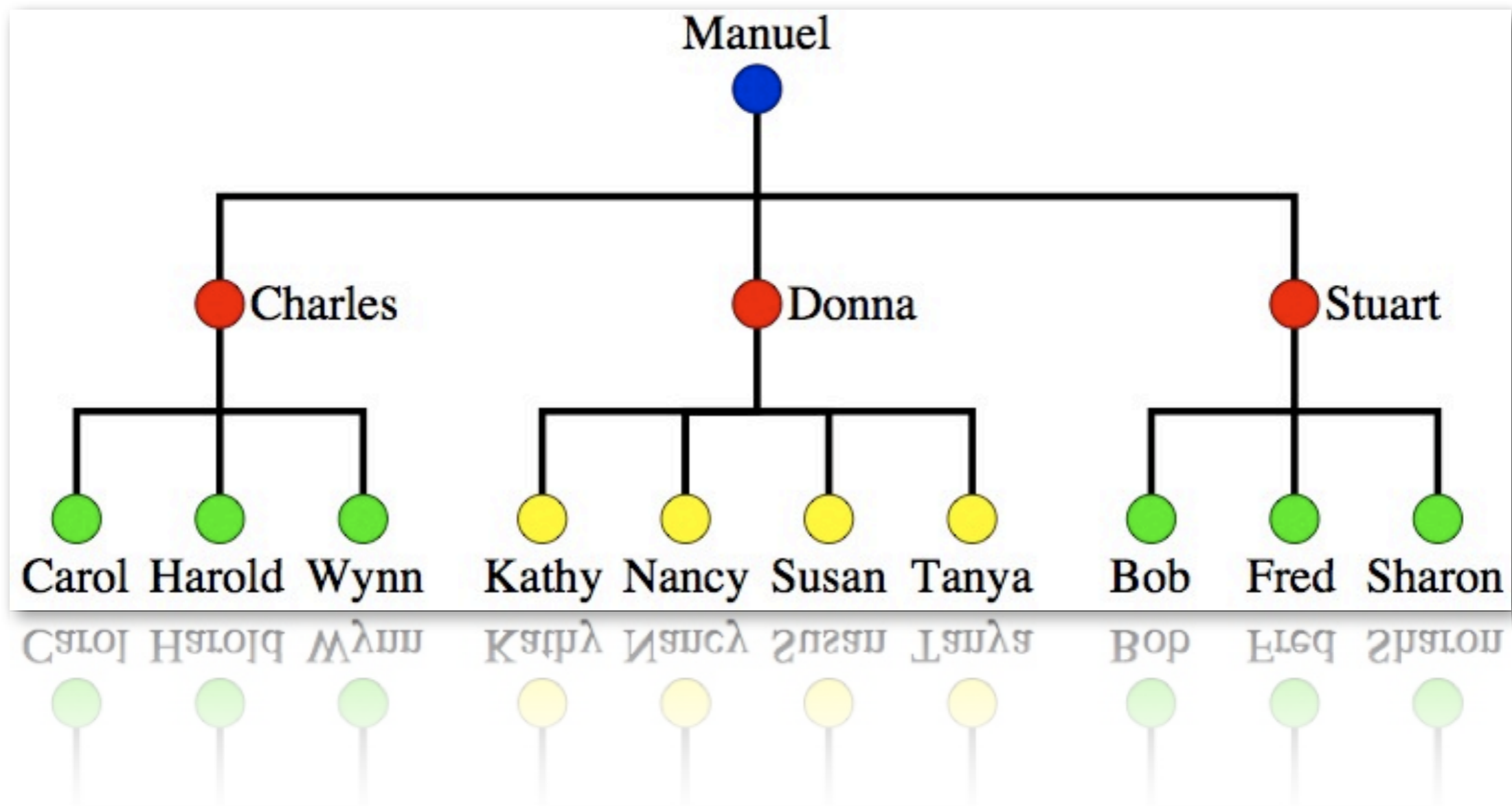


Computational Intelligence

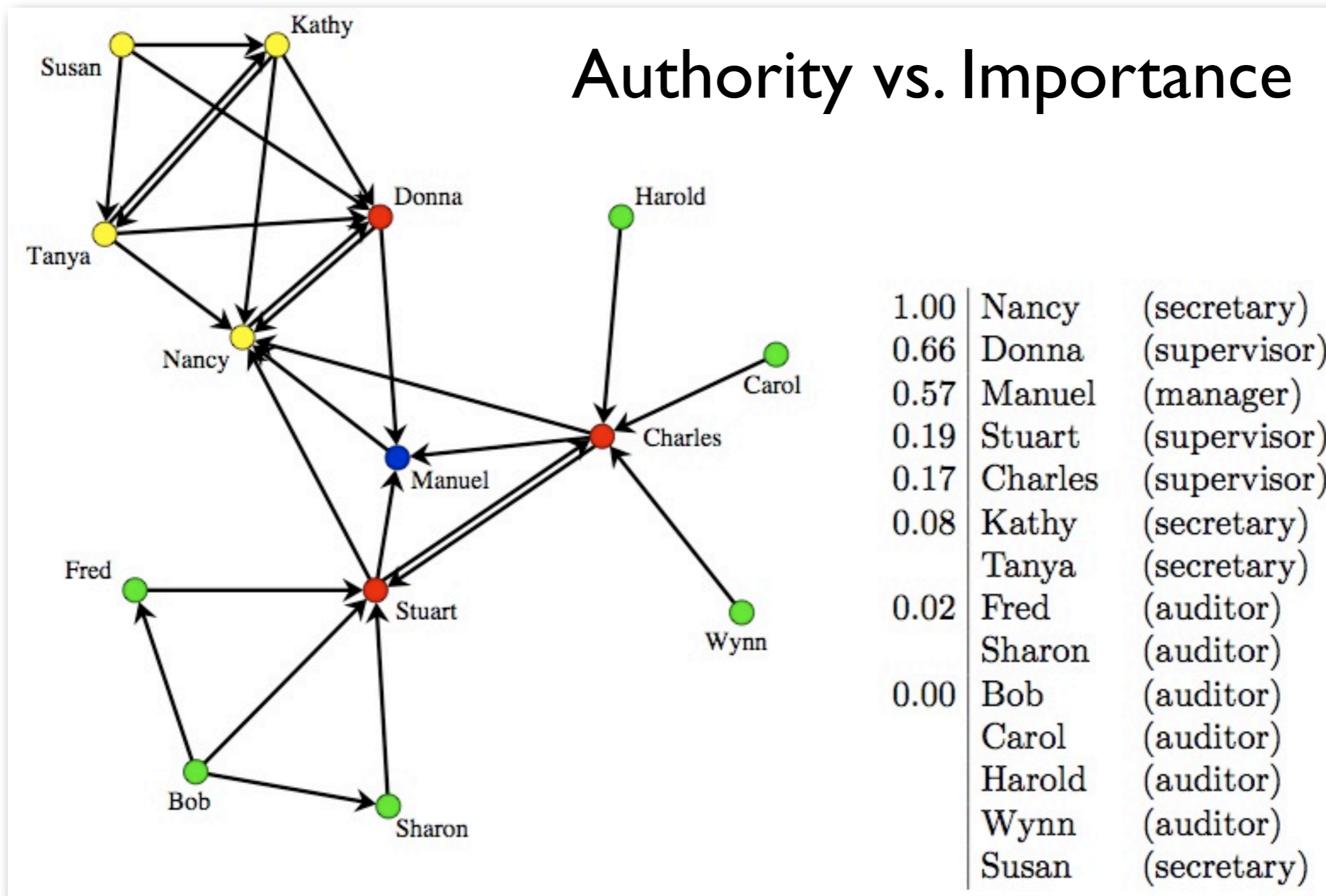
- Classification, clustering, regression, etc.
- New insights on the data
 - Social relations are often **hidden** (latent)
 - Change data from (x, y) to $(x, c_1(x), c_2(x), \dots, y)$
 - $c(x)$ = context in **tags, relations, ratings**, etc.
 - data type = *binary, integer, real, cardinal*, etc.



Organizational Chart



Social Network Chart



What's On the Menu?

- Web 2.0 and Social X
- Social Computing
- Social Computing in Education



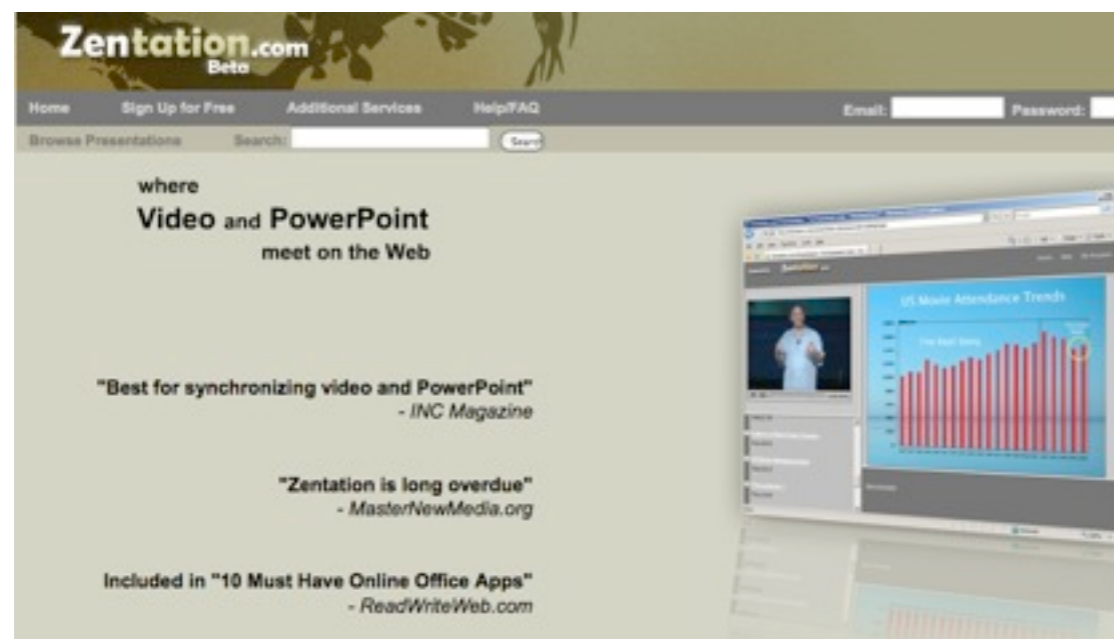
Categories of Educational Activities

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

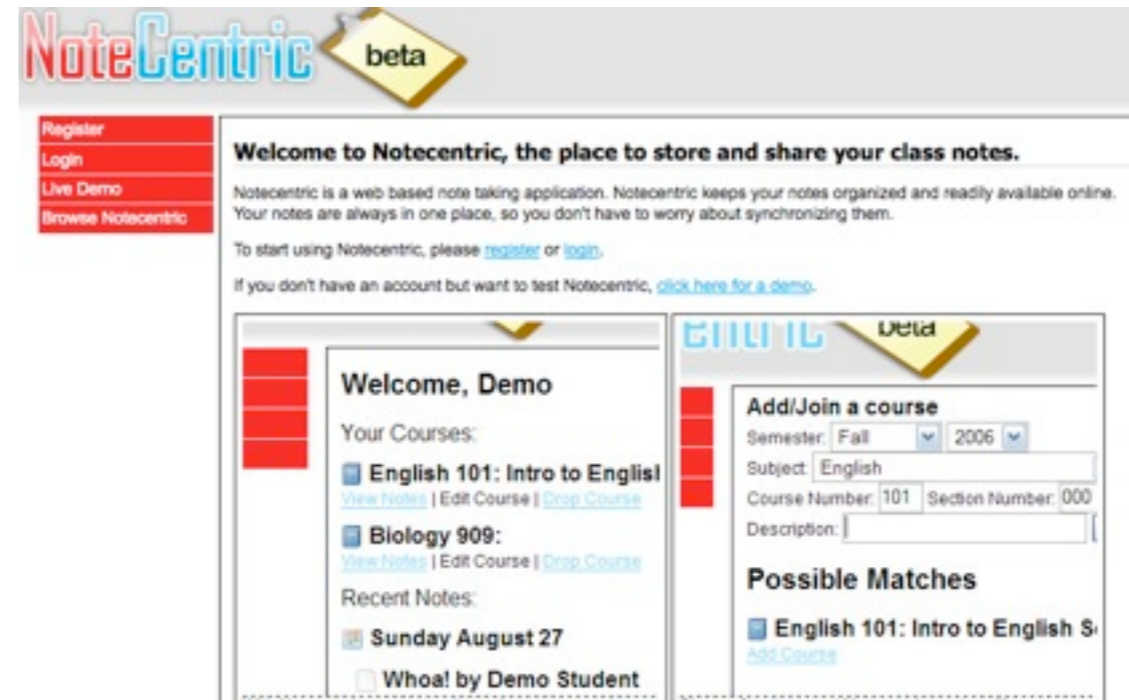


Media Sharing

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

Examples



The screenshot shows a TechCrunch article from March 9, 2006, by Michael Arrington. The article discusses Thumbstacks.com, a web-based application for creating presentations. It mentions that the application uses Flash and Ajax and provides a link to a sample presentation. The article also notes that Zoho is preparing a similar web-based power point application.



- **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



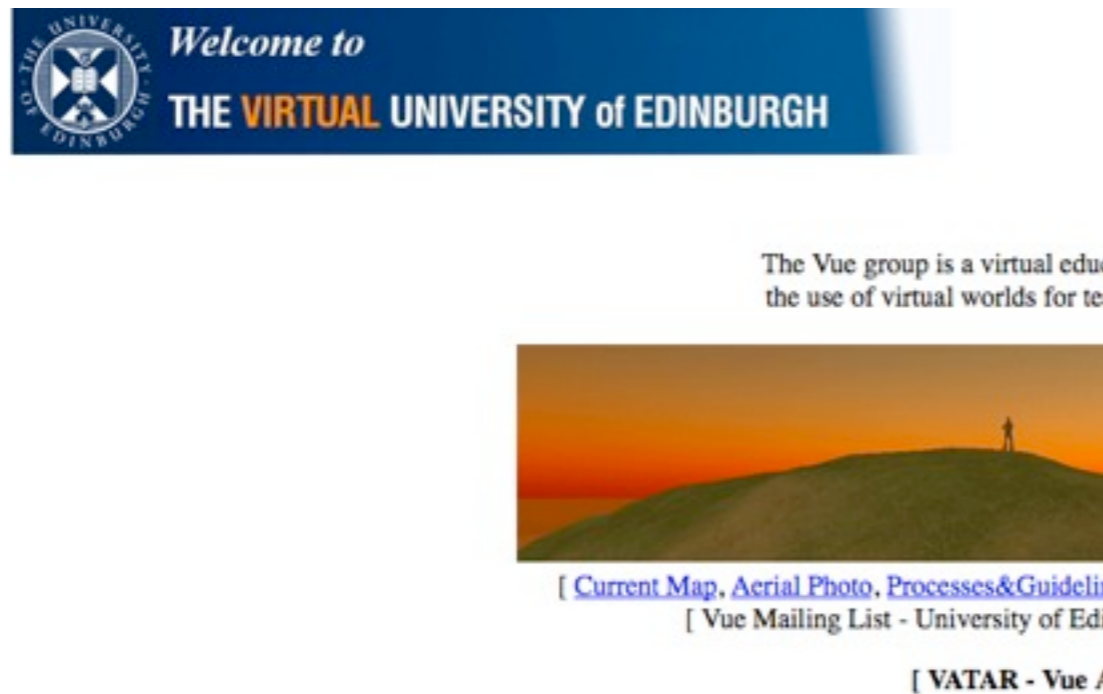
Think: Teachers and students create learning projects, participate in a website competition...


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

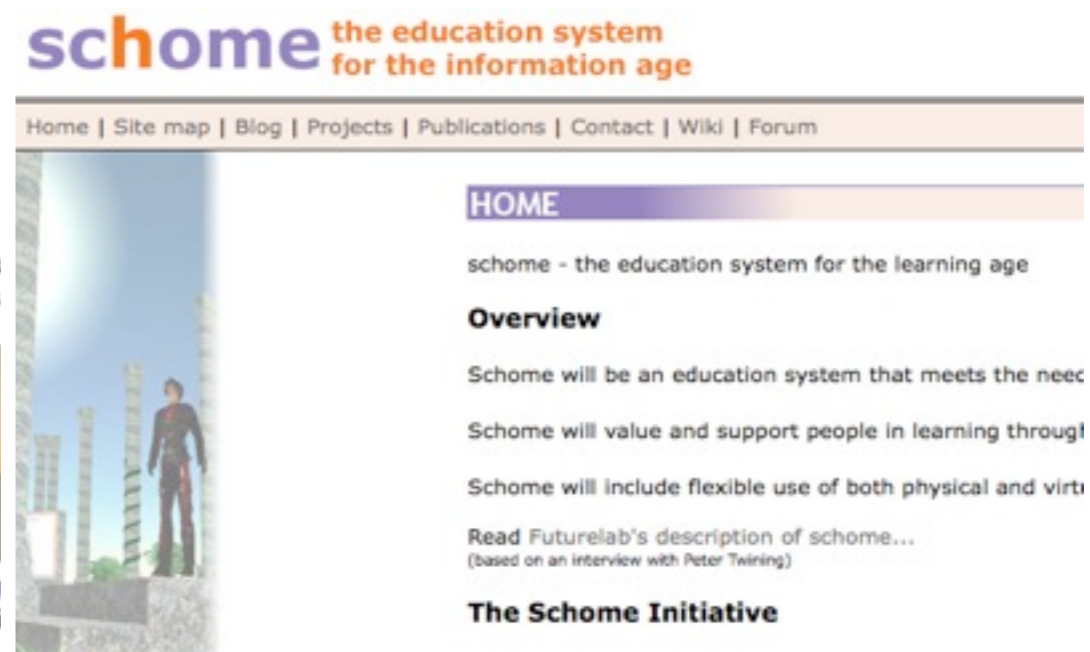
The Vue group is a virtual edu
the use of virtual worlds for te



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

- **Vue:** Provide a virtual educational and research institute

Social Computing in Education, Irwin King, IST, Lisbon, Portugal, April 18, 2009



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

Schome will value and support people in learning through

Schome will include flexible use of both physical and virtual

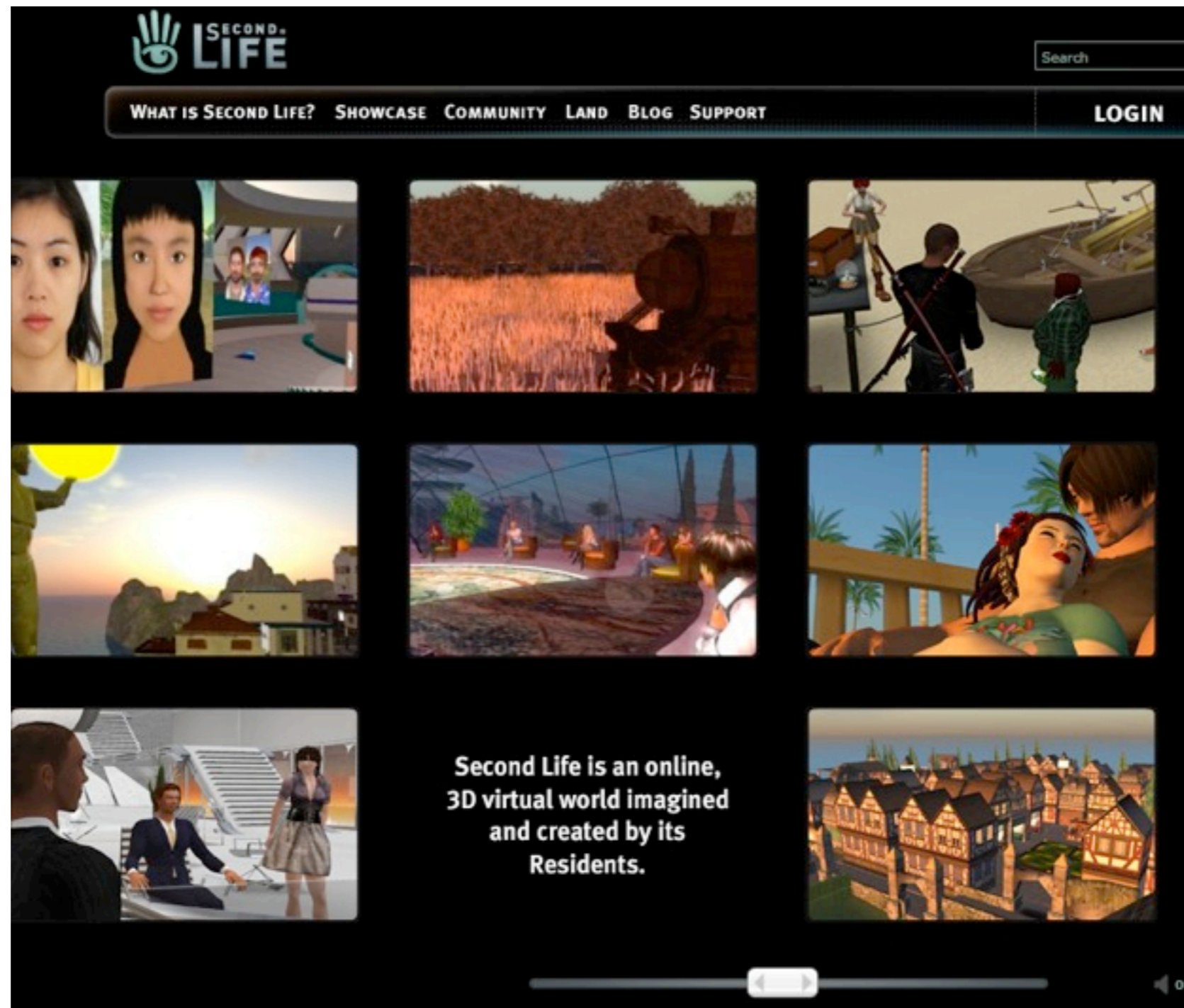
Read Futurelab's description of schome...
(based on an interview with Peter Twining)

The Schome Initiative

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

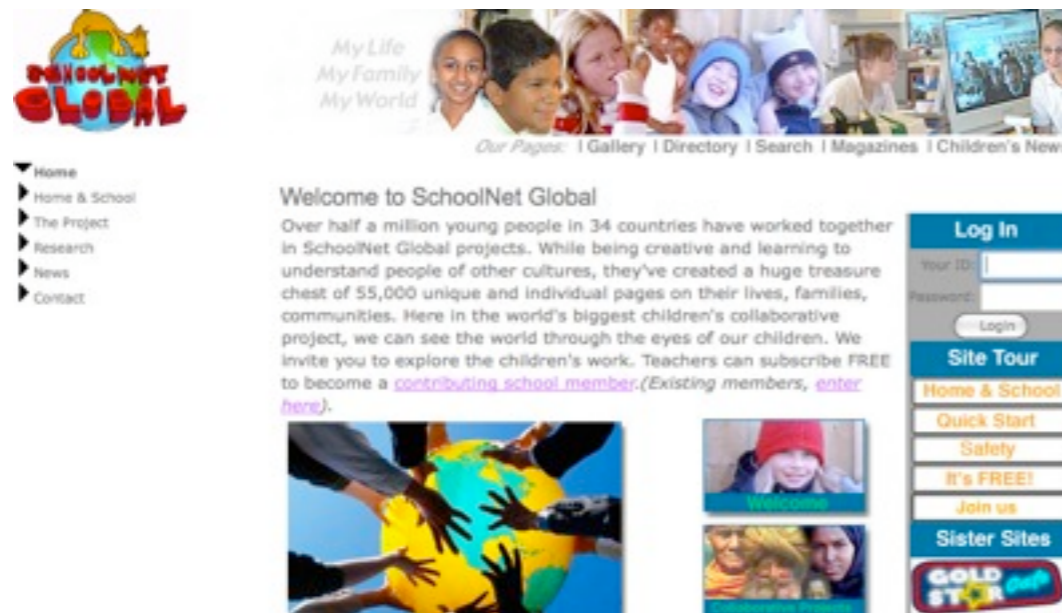


Online Games: Second Life

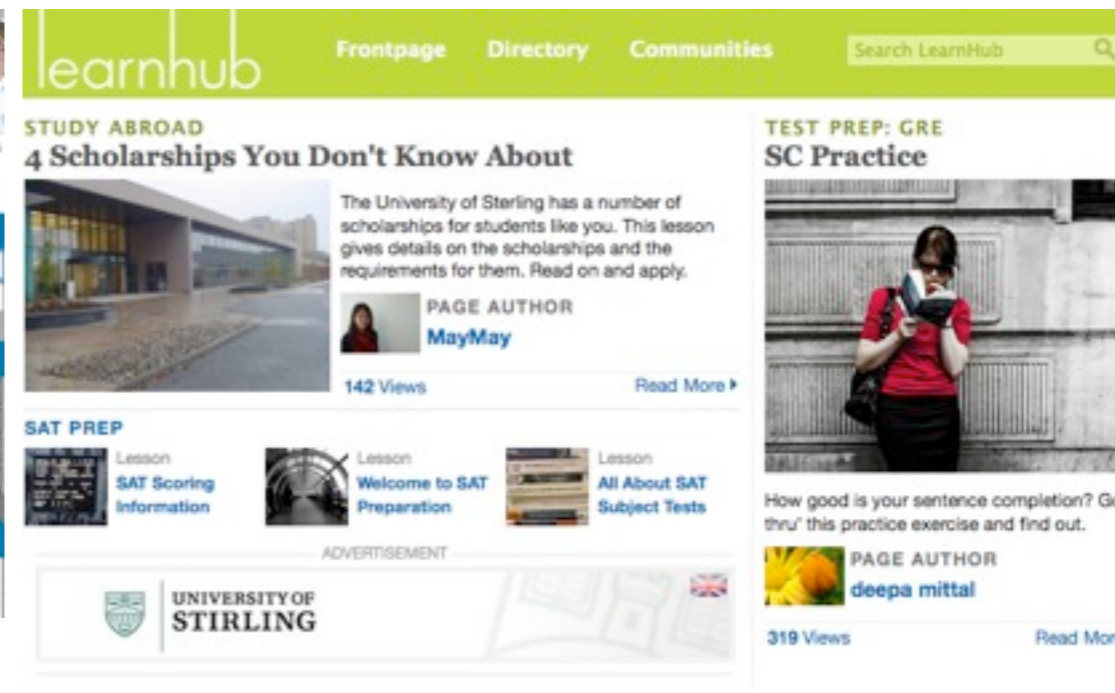


Social Networking

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

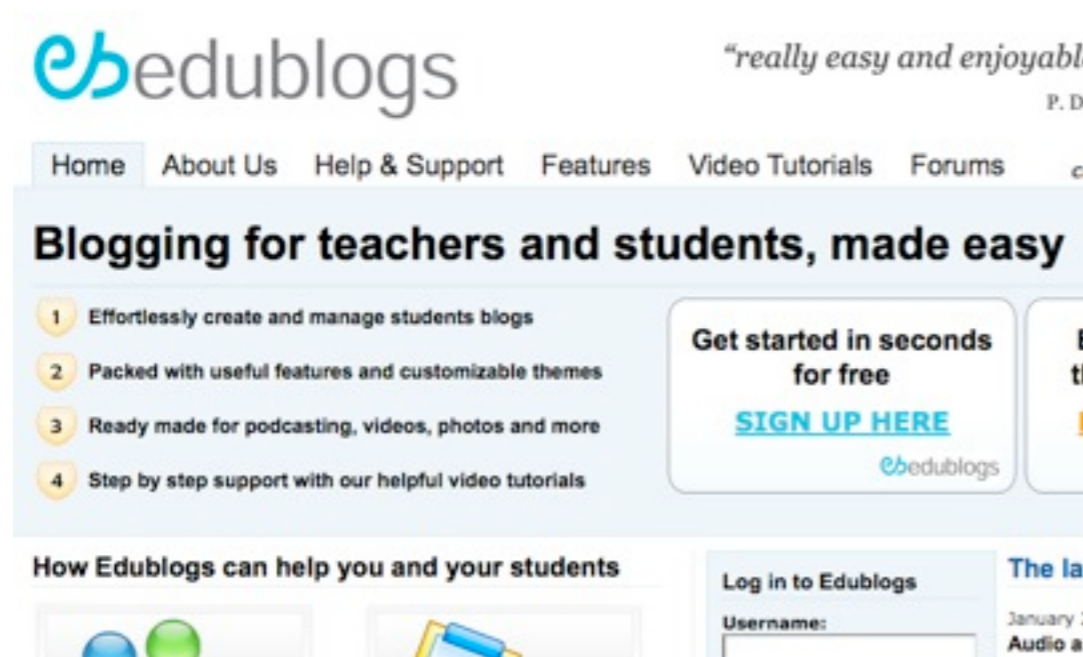


Learnhub: Teachers can create learning communities.



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



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

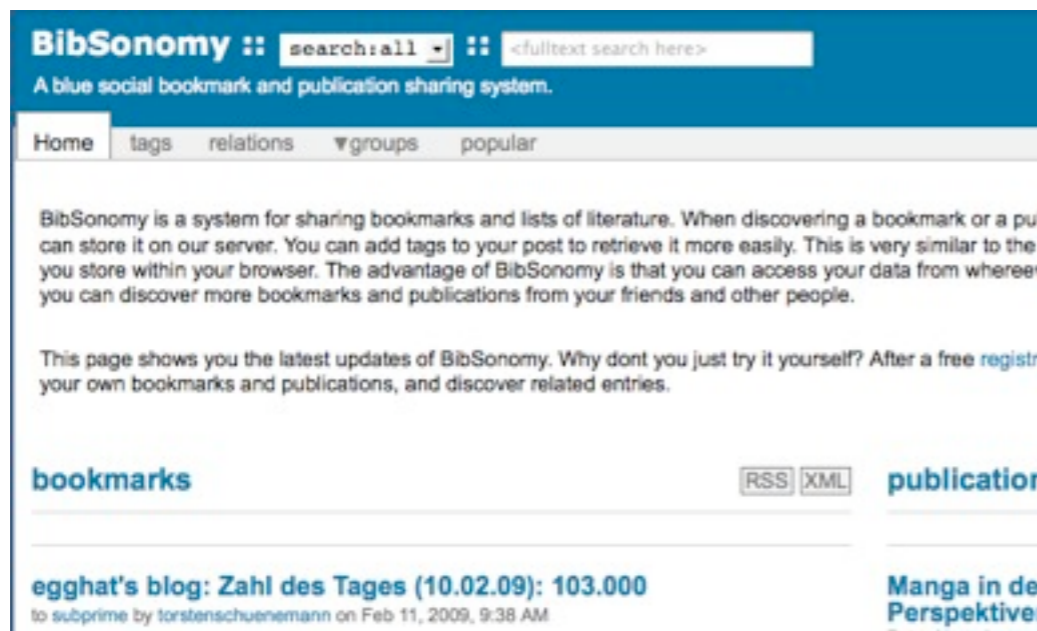


Wikiversity: devoted to learning resources, learning projects, and research for use in all levels, types, and styles of education



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



The screenshot shows the BibSonomy website. At the top, there is a search bar with a dropdown menu set to 'search:all' and a text input field for a fulltext search. Below the search bar, there is a navigation menu with links for 'Home', 'tags', 'relations', 'groups', and 'popular'. The main content area contains a paragraph explaining that BibSonomy is a system for sharing bookmarks and lists of literature, and another paragraph encouraging users to register. At the bottom, there are sections for 'bookmarks' and 'publication', with a 'Join now' button visible.

BibSonomy: A system for sharing bookmarks and list of literature



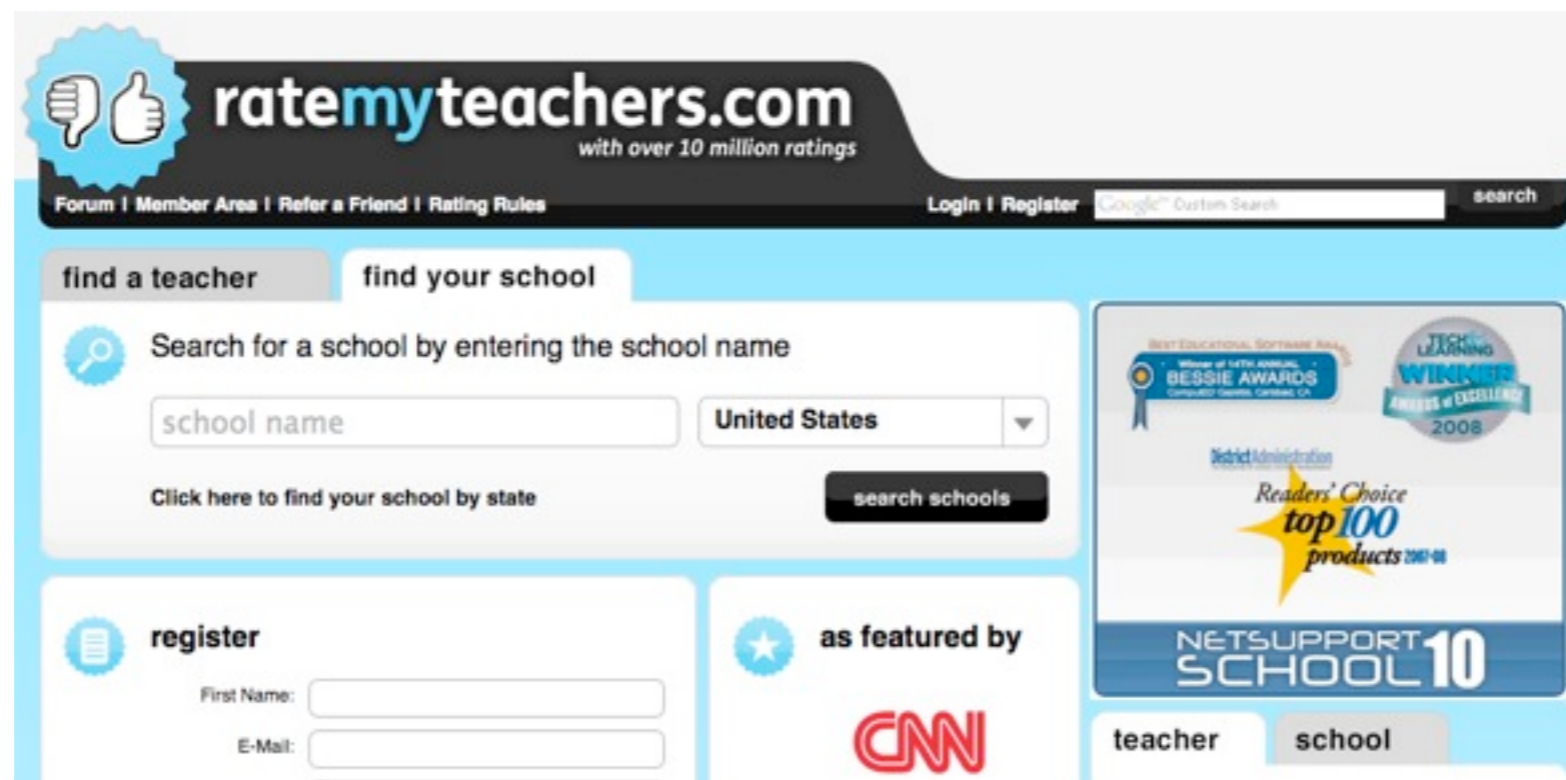
The screenshot shows the Citeulike website. At the top, there is a search bar and a 'Join now' button. The main content area features the text 'citeulike is a free service for managing and discovering scholarly references' and '2,142,311 articles - 3,305 added today'. Below this, there is a list of features: 'Easily store references you find online', 'Discover new articles and resources', 'Share references with your peers', 'Find out who's reading what you're reading', and 'Store and search your PDFs'. An illustration on the right shows a central document icon with arrows pointing to and from user icons, and a magnifying glass icon.

Citeulike: A website for the collecting and sharing research publications



Recommender Systems

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



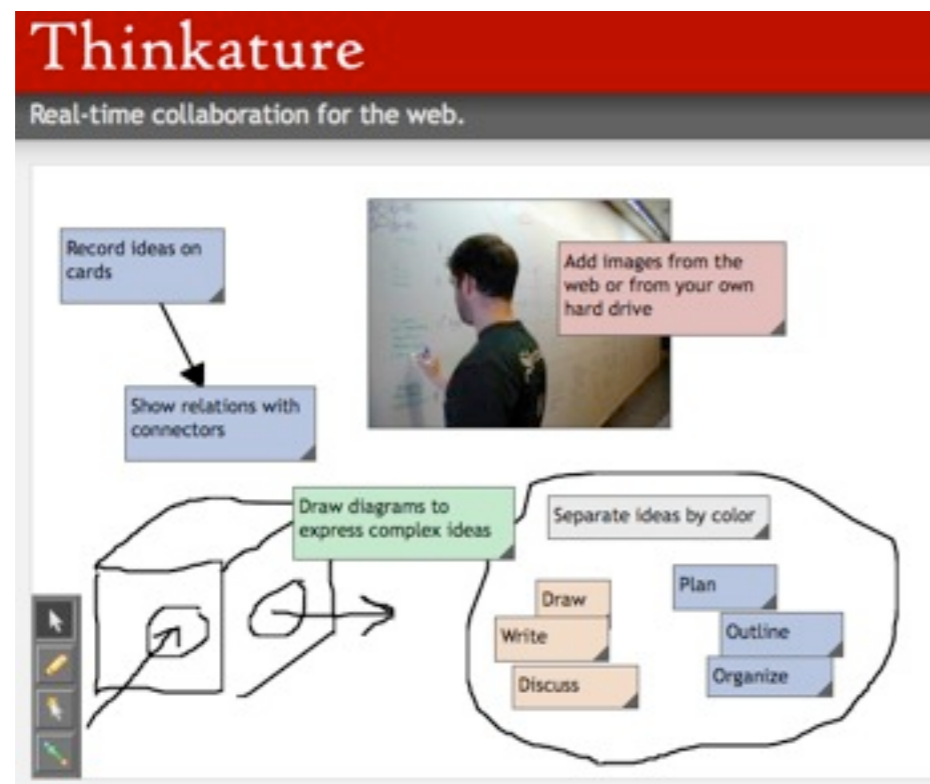
Ratemyteachers: An (infamous) example of recommendation technology in education involves user evaluation of teachers.

Social Computing in Education, Irwin King, IST, Lisbon, Portugal, April 18, 2009



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



Please sign into your account or click to start brainstorming below.

Username

Password

Remember info

Sign In

[Forgot username / password](#)

New Users: click to start a new brainstorming session

**Start
Brainstorming**

Bubbl.us: Some emphasizing mind-maps for brainstorming



Syndication

General	Educational
Users can 'subscribe' to RSS feed enable websites so that they are automatically notified of any changes or updates in content via aggregator	Websites from which students can take advantage of syndicated content



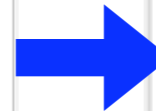
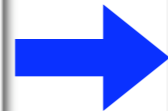
Podcastschool:A website contains podcasts for school students



Stanford:A website contains syndicated material sponsored by Stanford



Evolution of Learning and Training



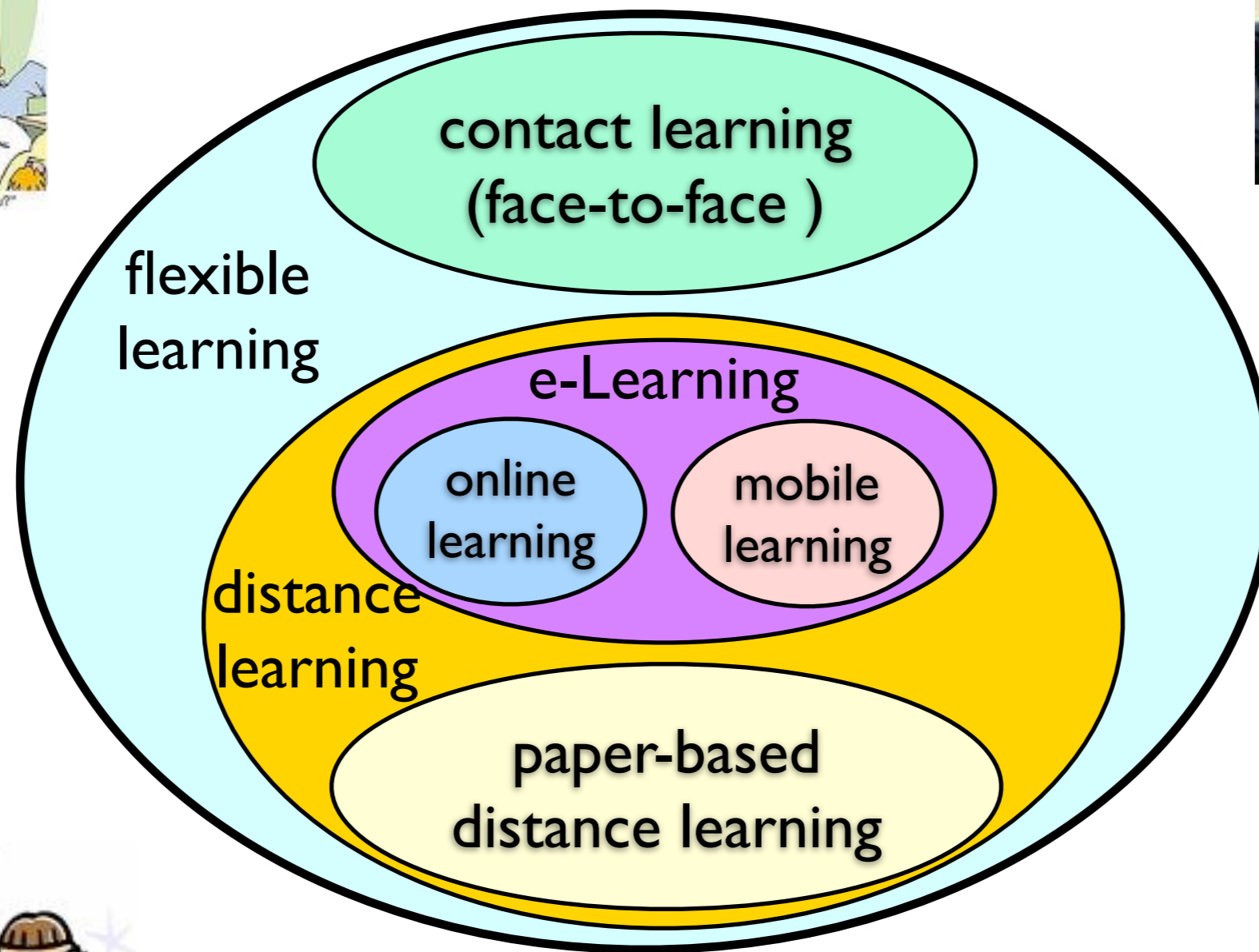
distance learning
d-Learning

electronic learning
e-Learning

mobile 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



The screenshot shows a web browser window with the URL <http://www.universities.com/>. The page title is "Universities.com Distance Learning and On-Campus Colleges and Universities". The main navigation bar includes "Most Visited", "Getting Started", and "Latest Headlines". The site logo "UNIVERSITIES.COM" features a graduation cap over a globe. A search bar with "Google Custom Search" and a "Search" button is present. A photograph of three students is on the right.

Home

DISTANCE LEARNING

- [Associate Degree](#)
- [Bachelor Degree](#)
- [Masters Degree](#)
- [Doctorate Programs](#)

[Certificates](#)

[Continuing Education Degree](#)

[Online Degree Majors](#)

[Online Degree Schools](#)

[Articles](#)

ON CAMPUS

[On Campus colleges and universities](#)

Universities.com
Universities.com has organized the most extensive collection of Post-Secondary distance learning and on-campus colleges and universities.

Distance Learning & Online Education
Browse and search 1164 Distance Learning degrees online.

Our most popular distance learning degrees: [Masters in Education](#), [PhD in Education - Doctor of Education](#), [PhD in Psychology](#), [Bachelor of Business Administration](#), [Masters in Healthcare Administration](#), [Masters in Psychology](#), [Masters in Nursing](#), [MBA Programs Business Administration](#), [Masters in Human Resources](#), [Doctor of Business Administration](#), [PhD in Healthcare Administration](#), [Bachelor in Engineering](#), [Bachelor in Criminal Justice](#), [PhD in Organization and Management -Doctor of Management](#), [Bachelor in Accounting](#), [Bachelor in Information Technology](#), [Bachelor in Healthcare Administration](#), [Masters in Information Technology](#), [PhD in Information Technology](#), [Masters in Criminal Justice](#).

On-Campus
For On-Campus degrees make sure to visit our on-Campus section by clicking on the links on your left under [On-Campus].

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 in teaching and learning
- Mobile implies movement and **mobility**--to learn “**on the go**”



Why m-Learning?

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

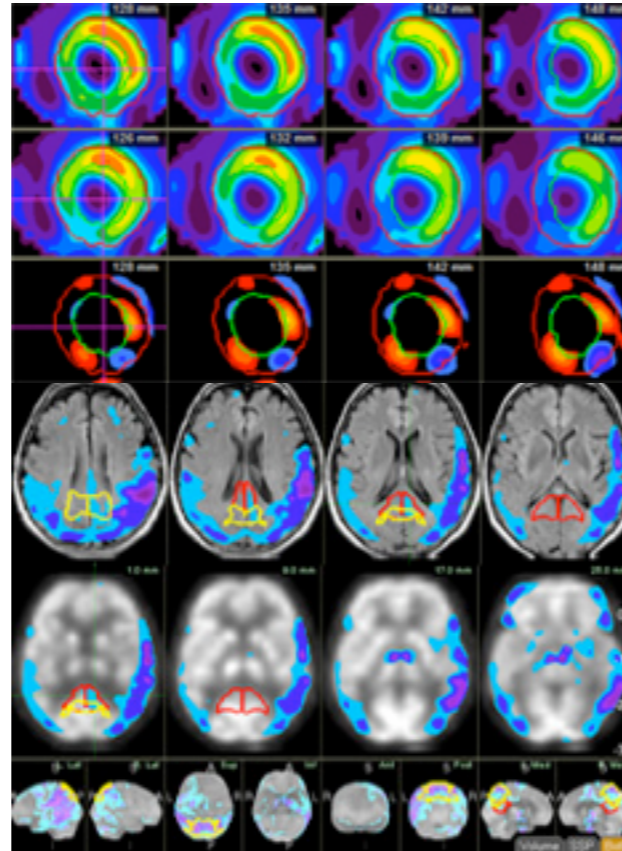


m-Learning Devices

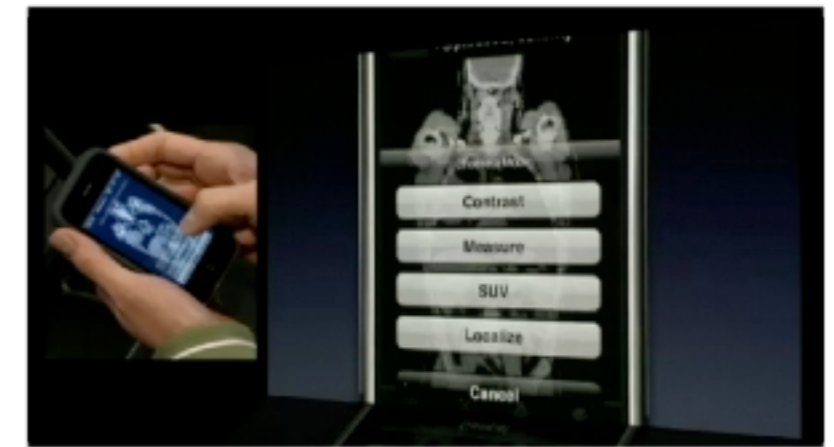
- PDAs
- Tablet PCs
- Mobile phones
- Wearable computers
- Laptop computers
- E-book readers
- Hybrid devices



iPhone in Medicine



Multi-planar
reconstruction data sets



Images



online version

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

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

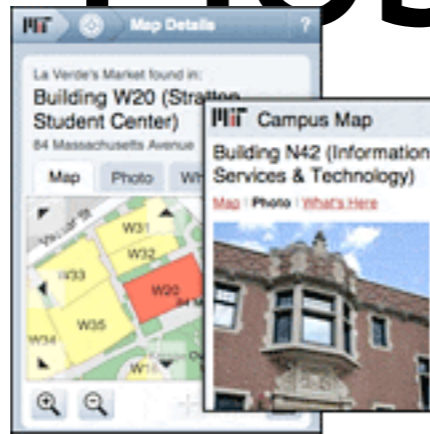
Social Computing in Education, Irwin King, IST, Lisbon, Portugal, April 18, 2009



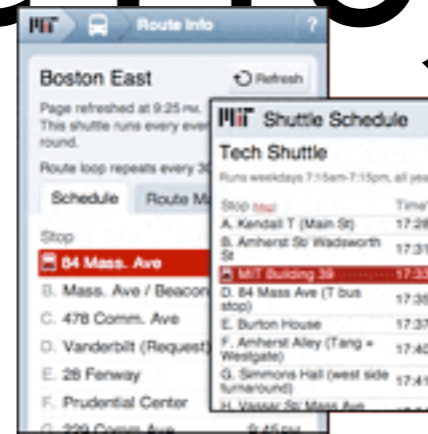
MIT Mobile Project



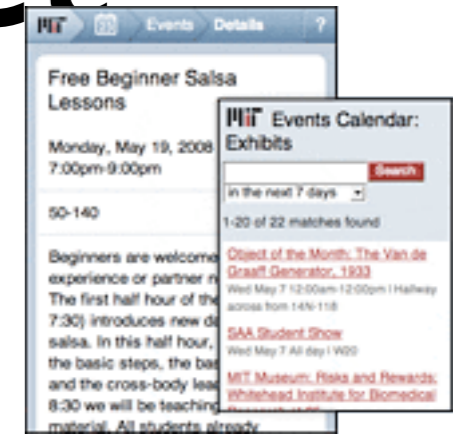
People Directory



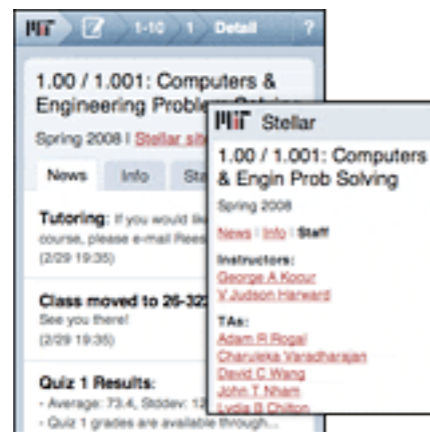
Campus Map



Shuttle Schedule



Events Calendar



Stellar



Emergency Information



3DOWN

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

Social Computing in Education, Irwin King, IST, Lisbon, Portugal, April 18, 2009



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
- Get outdated very quickly
- Security and privacy issues
- Limited bandwidth problems
- Difficulties to upgrade



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

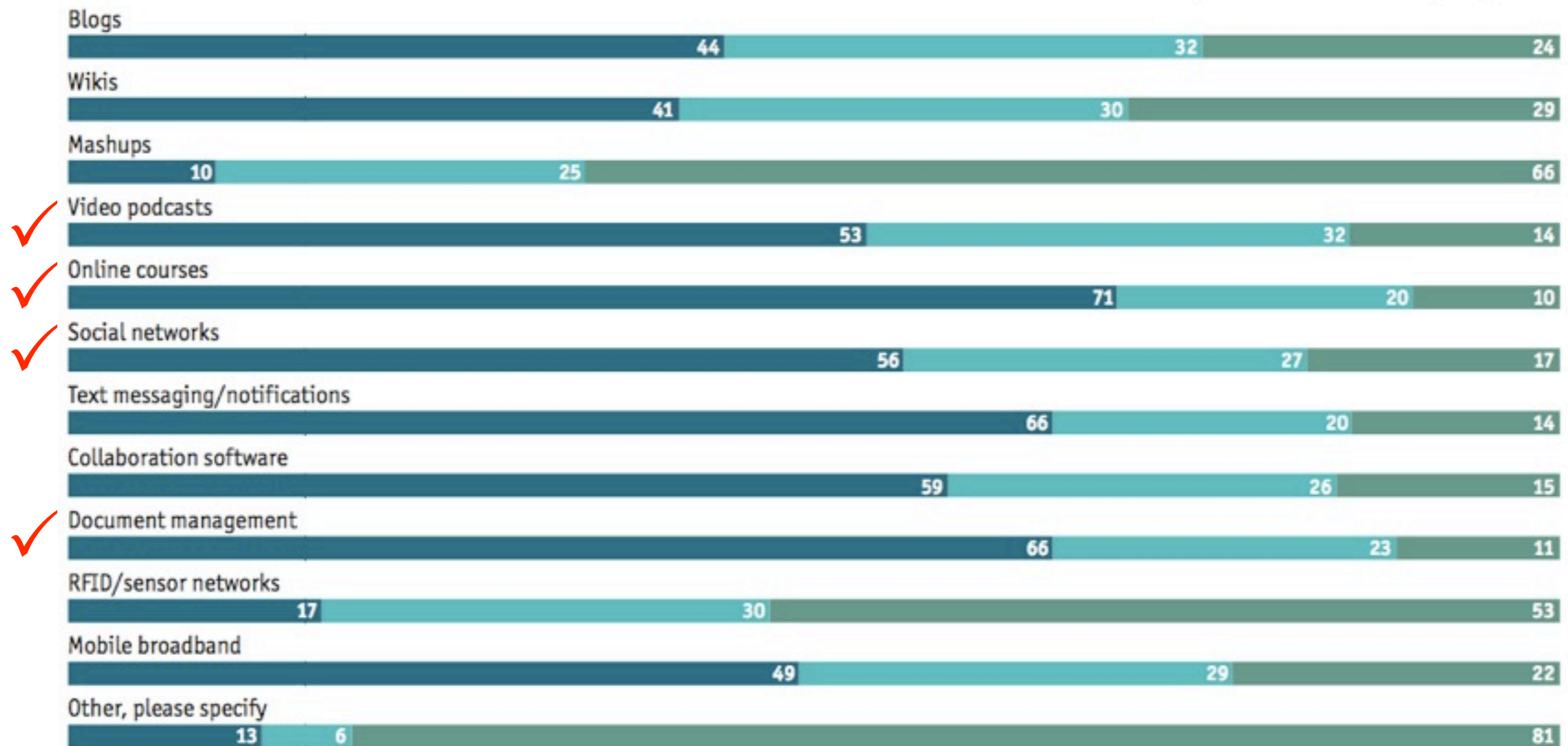


Economist Intelligent Unit 2008

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** both for learners and teachers



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

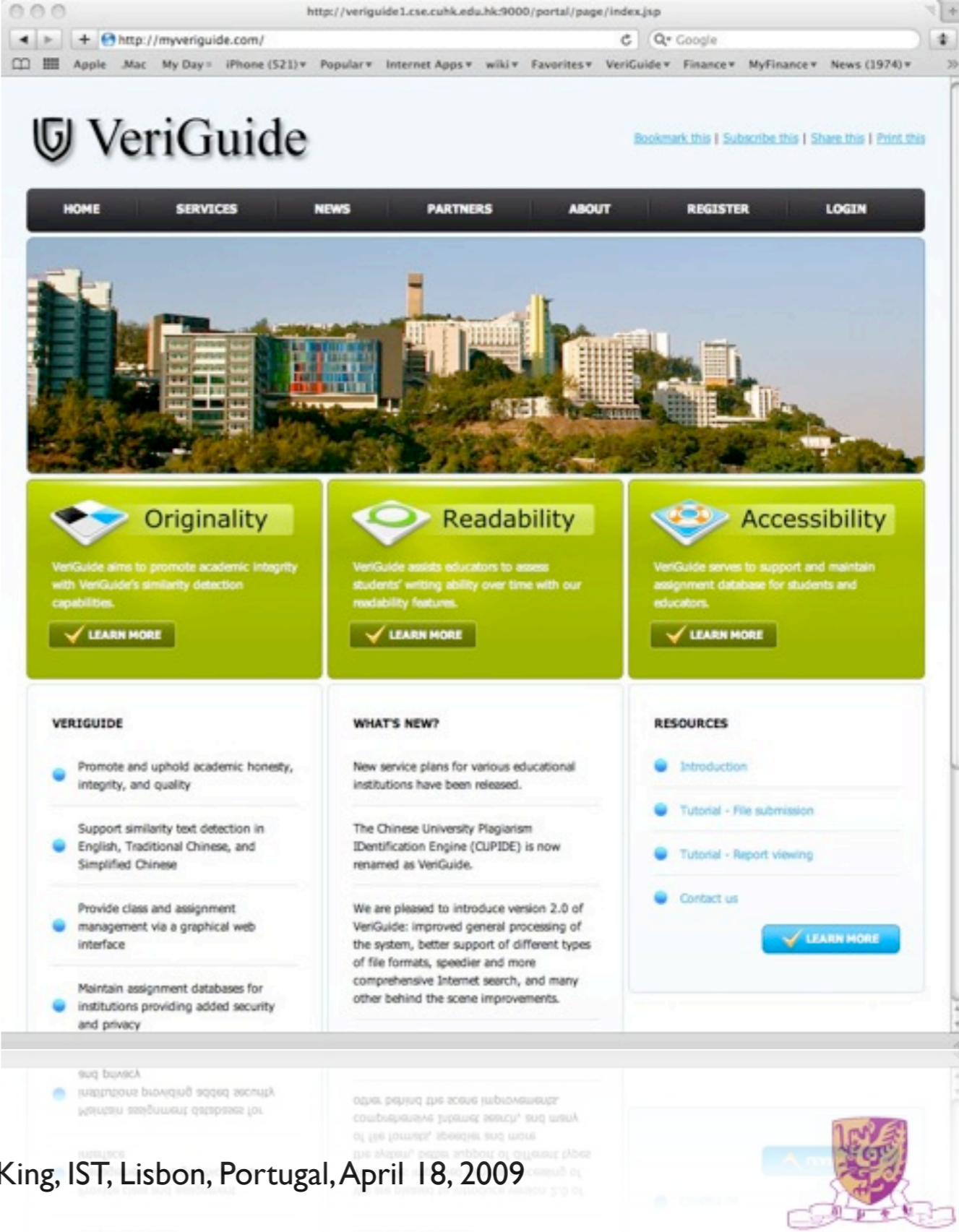
51

Potential increase in student plagiarism



VeriGuide

- **Similarity text** detection system
- Developed at **CUHK**
- Promote and uphold academic **honesty, integrity, and quality**
- Support **English, Traditional and Simplified Chinese**
- Handle **.doc, .txt, .pdf, .html**, etc. file formats
- Generate detailed **originality report** including **readability**



The screenshot shows the VeriGuide website interface. At the top, there is a navigation menu with links for HOME, SERVICES, NEWS, PARTNERS, ABOUT, REGISTER, and LOGIN. Below the menu is a large banner image of a university campus. The main content area is divided into three columns, each with a green header and a 'LEARN MORE' button:

- Originality:** VeriGuide aims to promote academic integrity with VeriGuide's similarity detection capabilities.
- Readability:** VeriGuide assists educators to assess students' writing ability over time with our readability features.
- Accessibility:** VeriGuide serves to support and maintain assignment database for students and educators.

Below these columns are three sections:

- VERIGUIDE:** A list of features including promoting academic honesty, supporting similarity text detection in English, Traditional Chinese, and Simplified Chinese, providing class and assignment management, and maintaining assignment databases.
- WHAT'S NEW?:** News items about new service plans for educational institutions and the renaming of the Chinese University Plagiarism Identification Engine (CUPIDE) to VeriGuide. It also mentions the introduction of version 2.0 of VeriGuide with improved processing and file format support.
- RESOURCES:** Links to Introduction, Tutorial - File submission, Tutorial - Report viewing, and Contact us.

The footer of the page includes the CUHK logo and a 'CONTACT US' button.

<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

- Theory and modeling of social computing in education
- Technology and software of social computing for education
- Social educational system design and architectures
- Case studies, best practices, and demos of social media in education
- Benchmark and experiments on social computing in education
- Mobile learning applications for social computing
- Semantic web standards for e-learning
- Software for social learning and collaborative learning
- Life long social learning network
- Quality and reliability of information and resources
- Privacy, risk and security issues in education using social media
- Virtual space for leaning communities
- Ubiquitous, distributed, and collaborative learning
- Integration of social learning spaces
- Social computing in education trend analysis
- Web 2.0 and social computing for learning (media sharing, media manipulation, conversational arenas, online games, virtual worlds, social networking, blogging, social bookmarking, recommender systems, collaborative editing, wikis, syndication, etc.)

Social Computing in Education, Irwin King, IST, Lisbon, Portugal, April 18, 2009



Acknowledgments

- Prof. Michael R. Lyu
- Prof. Jimmy Lee
- Dr. Kaizhu Huang
- Dr. Haixuan Yang
- Dr. Zenglin Xu (Ph.D.)
- Hongbo Deng (Ph.D.)
- Zhenjiang Lin (Ph.D.)
- Hao Ma (Ph.D.)
- Haiqin Yang (Ph.D.)
- Xin Xin (Ph.D.)
- Thomas Chan (M.Phil)
- Chao Zhou (Ph.D.)



Q & A

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

