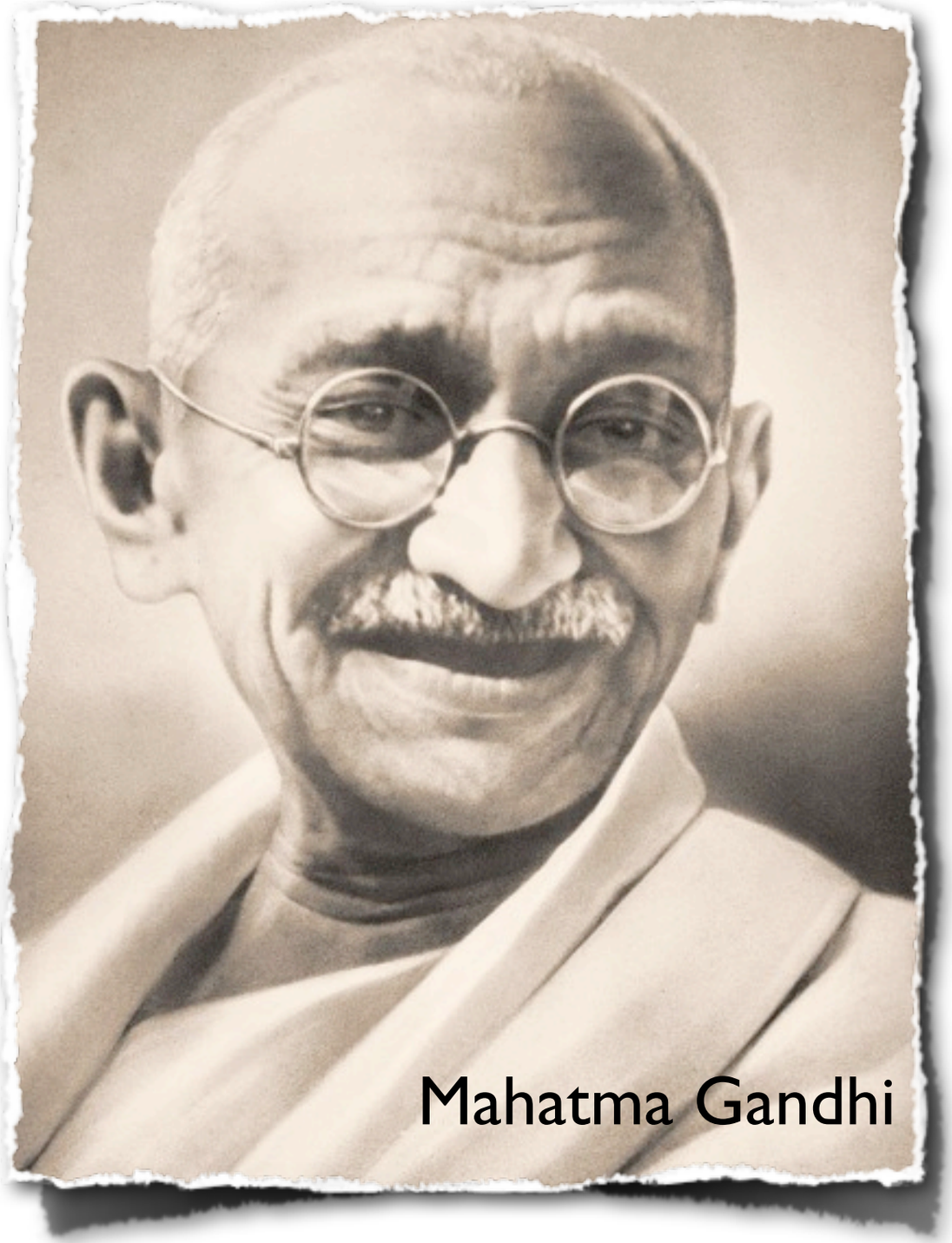
The Era of Social Computing

Irwin King

ATT Labs, Research
&
Department of Computer Science and Engineering
The Chinese University of Hong Kong

king@cse.cuhk.edu.hk
http://www.cse.cuhk.edu.hk/~king

The Era of Social Computing, Irwin King, Technologies and Applications of Artificial Intelligence (TAAI2010), November 18-20, 2010, Hsinchu, Taiwan

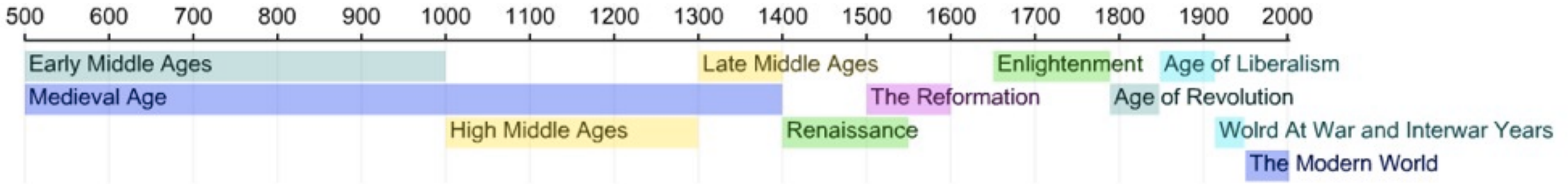


Mahatma Gandhi

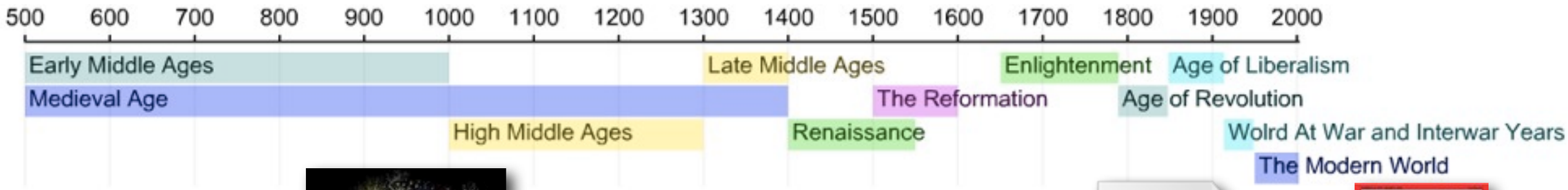
Interdependence is and ought to be as much the ideal of man as self-sufficiency.

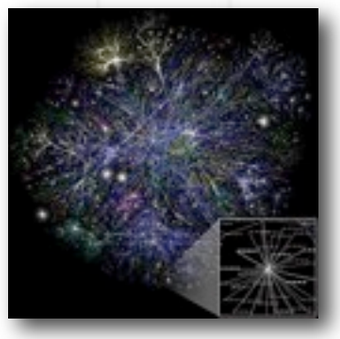
Man is a social being.

A Brief History of the World



A Brief History of the World

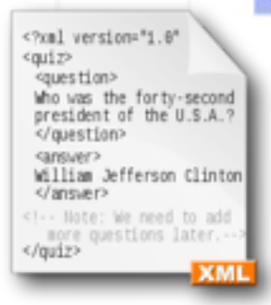




Birth of Internet

IBM Desktop PC

Apple Macintosh



Birth of XML

Time Magazine
Person of the Year

1750 1945 1969 1975 1981 1983 1984 1989 1996 2004 2006

Industrial Revolution | **Information Age** | **Internet Age** | **www Age** | **Attention Age**

ENIAC

The MITS Altair
Apple II

Time Magazine
Person of the Year

Birth of WWW

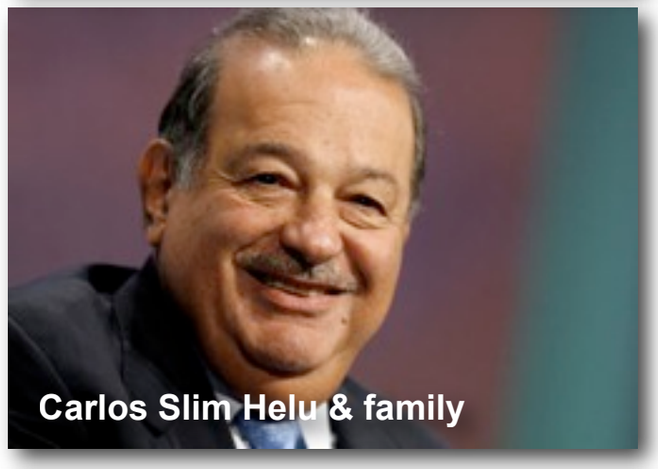
Birth of Web 2.0

The Era of Social Computing, Irwin King, Technologies and Applications of Artificial Intelligence (TAAI2010), November 18-20, 2010, Hsinchu, Taiwan

Billionaires' Shuffle

2007

Facebook in 2004.02



2008

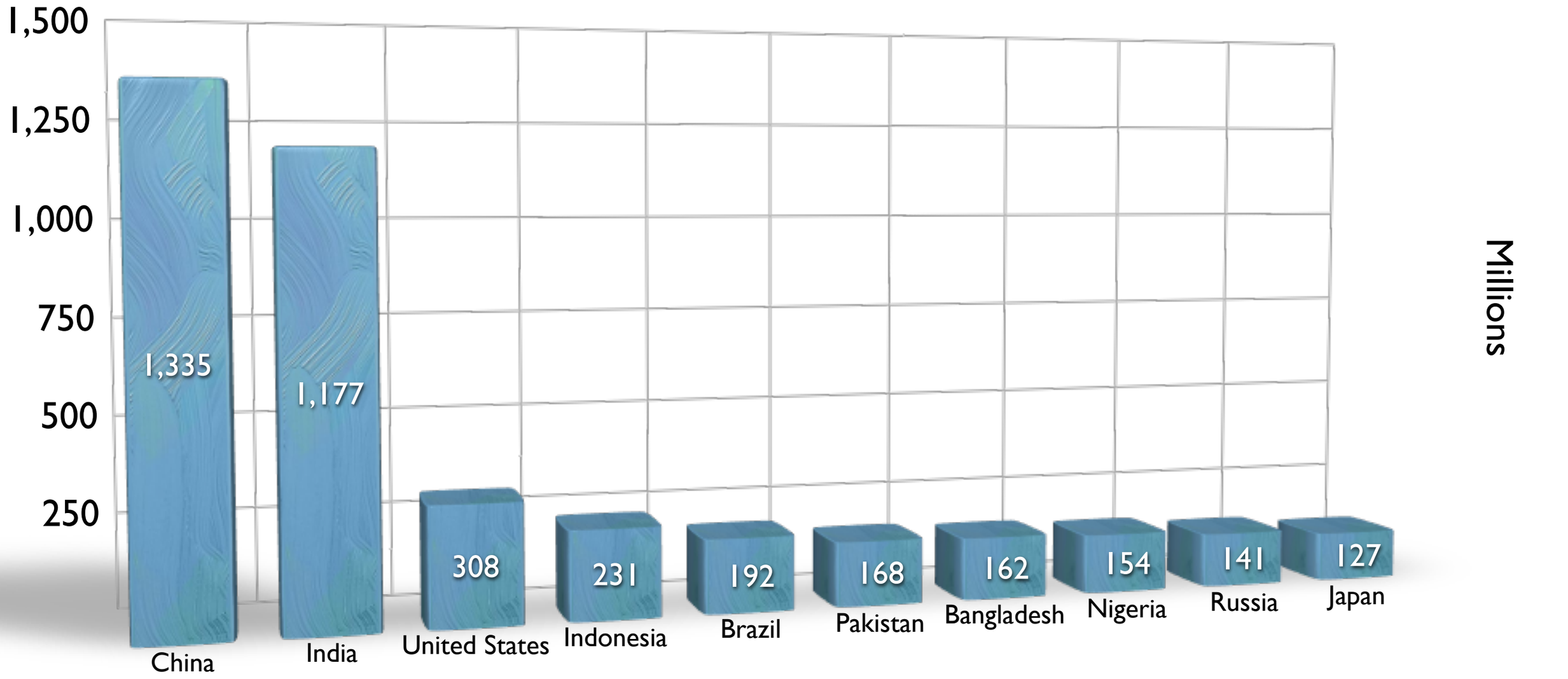
2008

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

(TAAI2010), November 18-20, 2010, Hsinchu, Taiwan

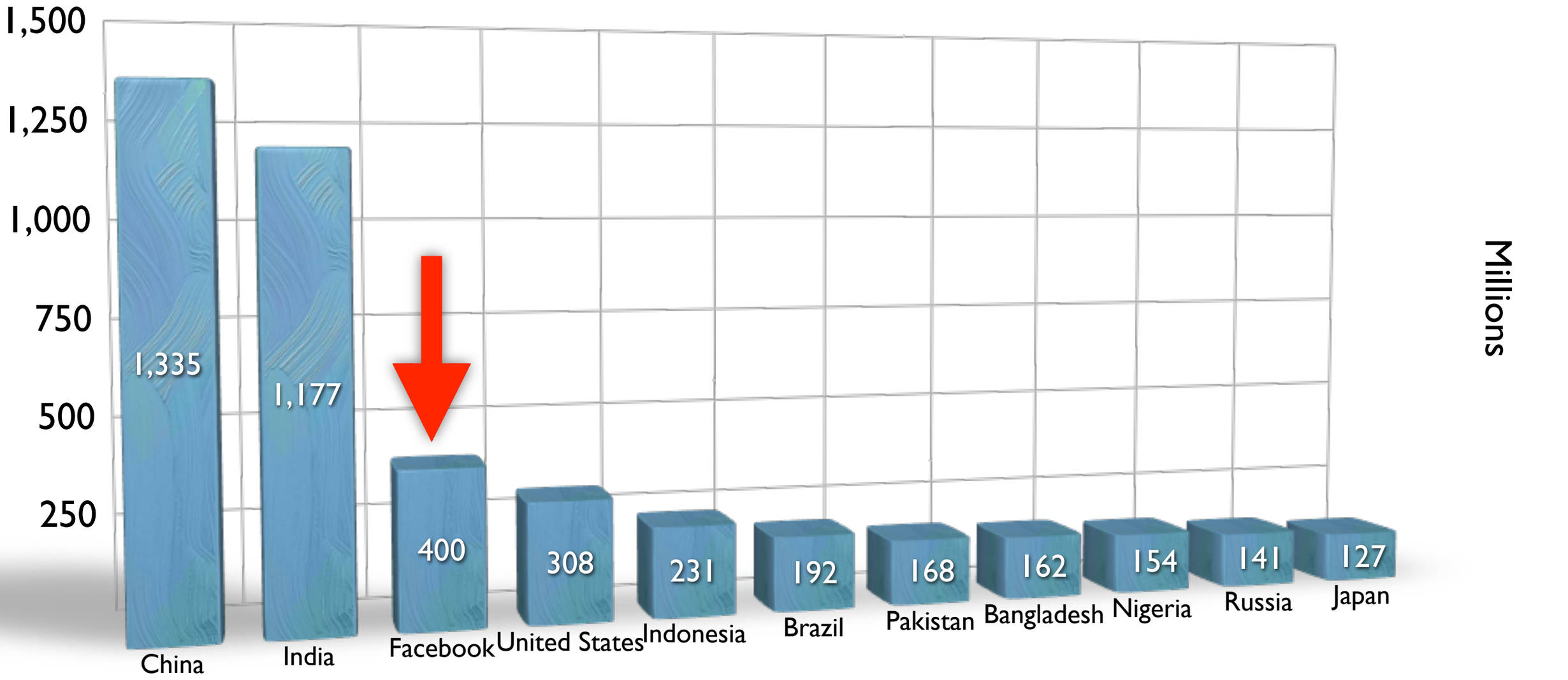
Top 10 Most Populated Countries

as of July 2009



Top 10 Most Populated Countries

as of February 2010



Facebook's Global Audience

Global Audience: 316,402,840

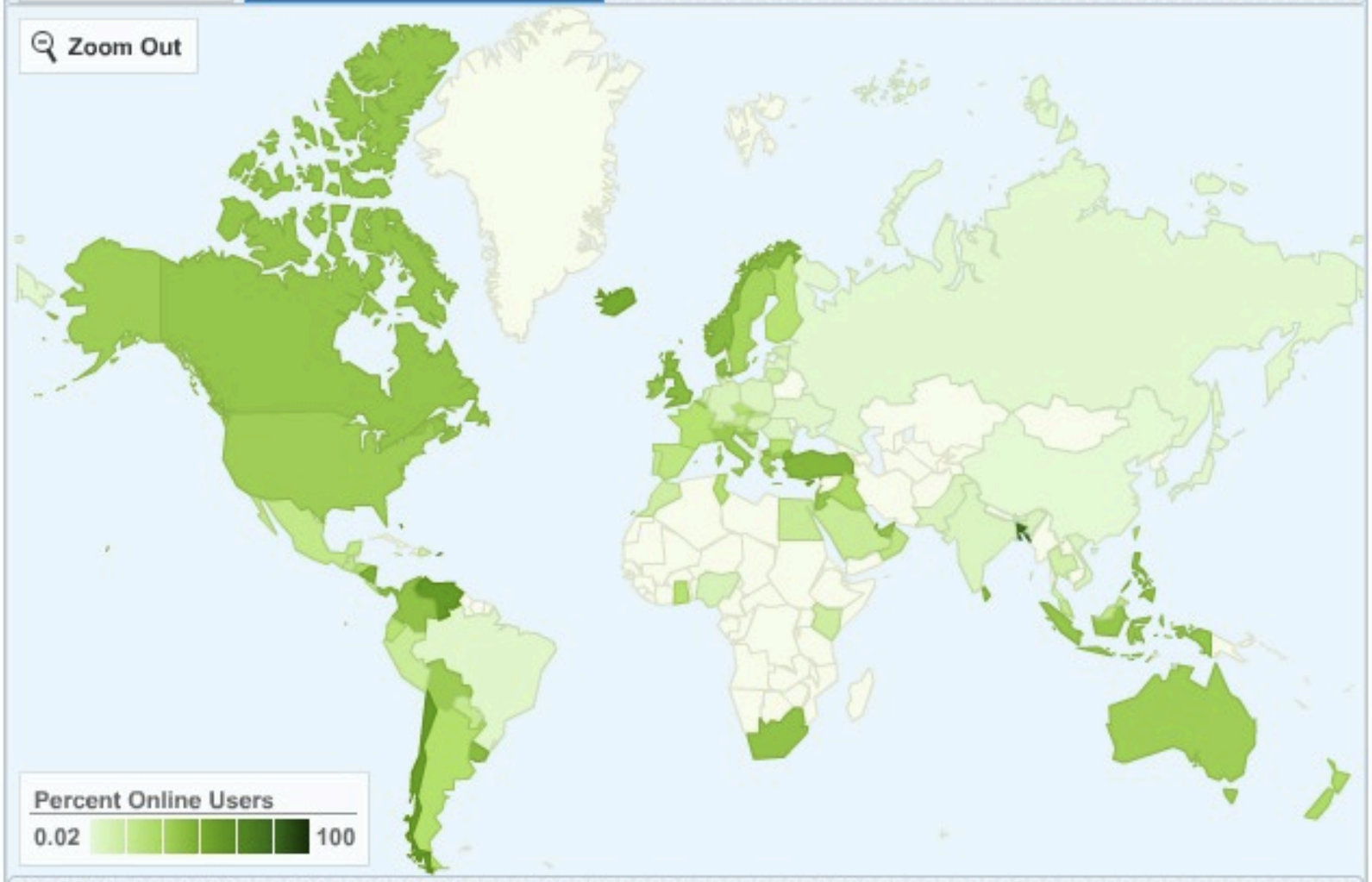
Data for 11/03/2009

About CheckFacebook.com

Ads by Google Facebook Social Search Twitter Blog Marketing

Total Users | % Online Population

Zoom Out



Not Pictured: Hong Kong, Maldives, Palestine, Singapore, Taiwan

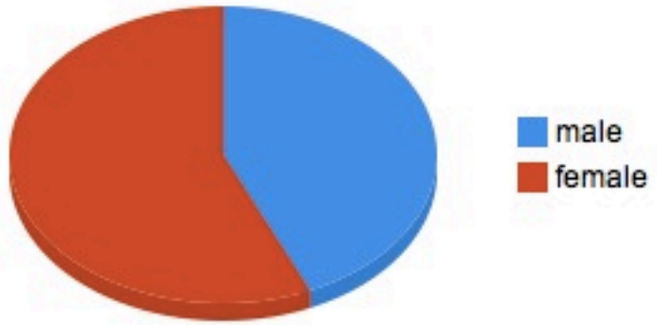
United States

Country Audience: 94,748,820

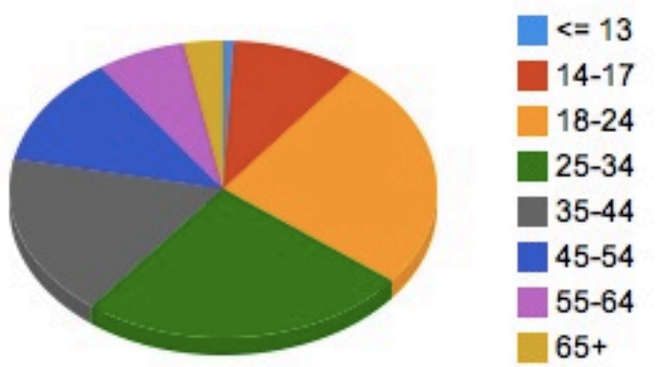
Percent of Global Audience: 29.95%

Share This Site 1543 retweet

United States Male / Female



United States Age Distribution



Facebook's Growth Stats

Statistics

Company Figures

More than 400 million active users

50% of our active users log on to Facebook in any given day

More than 35 million users update their status each day

More than 60 million status updates posted each day

More than 3 billion photos uploaded to the site each month

More than 5 billion pieces of content (web links, news stories, blog posts, notes, photo albums, etc.) shared each week

10 Largest Countries		
1.	United States	94,748,820
2.	United Kingdom	22,261,080
3.	Turkey	14,215,880
4.	France	13,396,760
5.	Canada	13,228,380
6.	Italy	12,581,060
7.	Indonesia	11,759,980
8.	Spain	7,313,160
9.	Australia	7,176,640
10.	Philippines	6,991,040

10 Fastest Growing Over Past Week			
1.	Poland	12.46 %	137,900
2.	Thailand	10.96 %	161,300
3.	Portugal	9.81 %	80,040
4.	South Africa	9.25 %	189,080
5.	Taiwan	7.82 %	367,400
6.	Romania	7.65 %	28,060
7.	Germany	7.54 %	350,240
8.	Malaysia	7.43 %	236,840
9.	Indonesia	6.84 %	752,640
10.	Iraq	6.72 %	6,380

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

Global Internet Traffic

Alexa as of Oct 2010	China	USA	Japan	India	Brazil	Global
1	Baidu	Google	Yahoo.jp	Google.in	Google.br	Google
2	QQ	Facebook	Google.jp	Google	Google	Facebook
3	Taobao	Yahoo!	FC2	Facebook	Orkut.br	YouTube
4	Sina	YouTube	YouTube	Yahoo!	YouTube	Yahoo
5	Google HK	Amazon	Ameblo.jp	YouTube	Universo Online	Windows Live
6	163	Wikipedia	Rakuten	Blogger	Windows Live	Baidu
7	Sohu	Twitter	Google	Orkut.in	Globo	Wikipedia
8	Google	eBay	Livedoor	Wikipedia	Blogger	Blogger
9	Soso	Craigslist	Wikipedia	Twitter	Yahoo!	Twitter
10	Youku	Blogger	mixi	Rediff	Terra	QQ

Topics in Social Computing

- Social Behavior Analysis and Modeling
- Social Media
- Social Network Theory and Models
- Link Analysis/Graph Mining/ Large Graph Algorithms
- Learning to Rank
- Recommender Systems/ Collaborative Filtering
- QA/Sentiment Analysis/ Opinion Mining
- Human Computation/ Crowdsourcing
- Risk, Trust, Security, and Privacy
- Monetization of Social Computing
- Software Tools and Applications
- and many, many more...

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**

The Brave New Words

維基

AVATAR

博客

tag cloud

推特

unfriend

tweet

blogsphere

twitterati

defriend

hashtags

SEXTING

Folksonomy

Twisdom

頭像

Social Analytics/Informatics

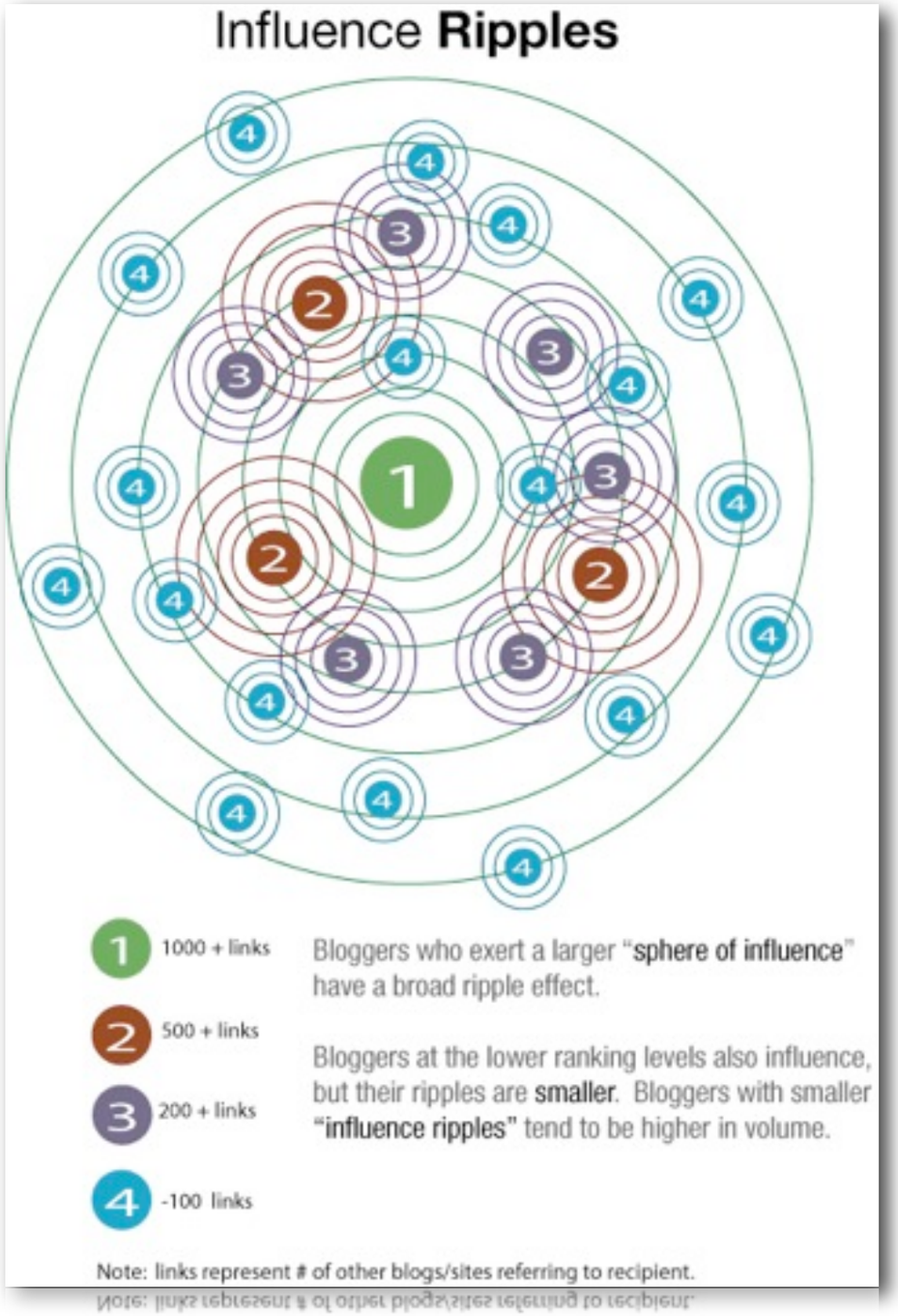
The Era of Social Computing, Irwin King, Technologies and Applications of Artificial Intelligence (TAAI2010), November 18-20, 2010, Hsinchu, Taiwan

Politics


The Washington Times
Subscribe | Times News Services | RSS | Mobile Headlines | e-edition
E-MAIL ALERTS | REGISTER | LOG IN
Front Page Image | Classifieds | Autos | Real Estate | Jobs | Special Sections | Customer Service
Google™ Custom Search
Search
Home
News
Opinion
Sports
Culture
Themes
Communities
Marketplace
Videos
Podcasts
POLITICS
EXCLUSIVE: Pence: Obama's lost focus
LOCAL
Marion Barry in hospital again
POLITICS
Iran sanctions still work in progress
SPORTS
Nats want a lot from a little
Home » Opinion » Editorials
EDITORIAL: Iran's Twitter revolution
Witnessing a new chapter in the quest for freedom
Tuesday, June 16, 2009
Rate this story
Average 0.00
after 0 votes
Login or register to rate this story
Font Size - +
Print
Email
Comment
Tweet this!
Yahoo! Buzz
Share
Article
Comments (1)
Videos
1 of 1
By
The spirit of liberty finally arrived at Tehran's Freedom Square. Hundreds of thousands of Iranians demonstrated Monday against Friday's election, which handed President Mahmoud Ahmadinejad an improbably lopsided victory.
The mass protests followed a weekend of street demonstrations, rioting and other expressions of discontent. These events
MORE EDITORIALS STORIES
Sign up for Email Alerts
REGISTER
SIGN UP NOW
WWW.INTERNAXX.LU
internaxx
OFFSHORE ONLINE BROKER
Top Stories
Most Read
1. Study: Bernanke, Paulson misled

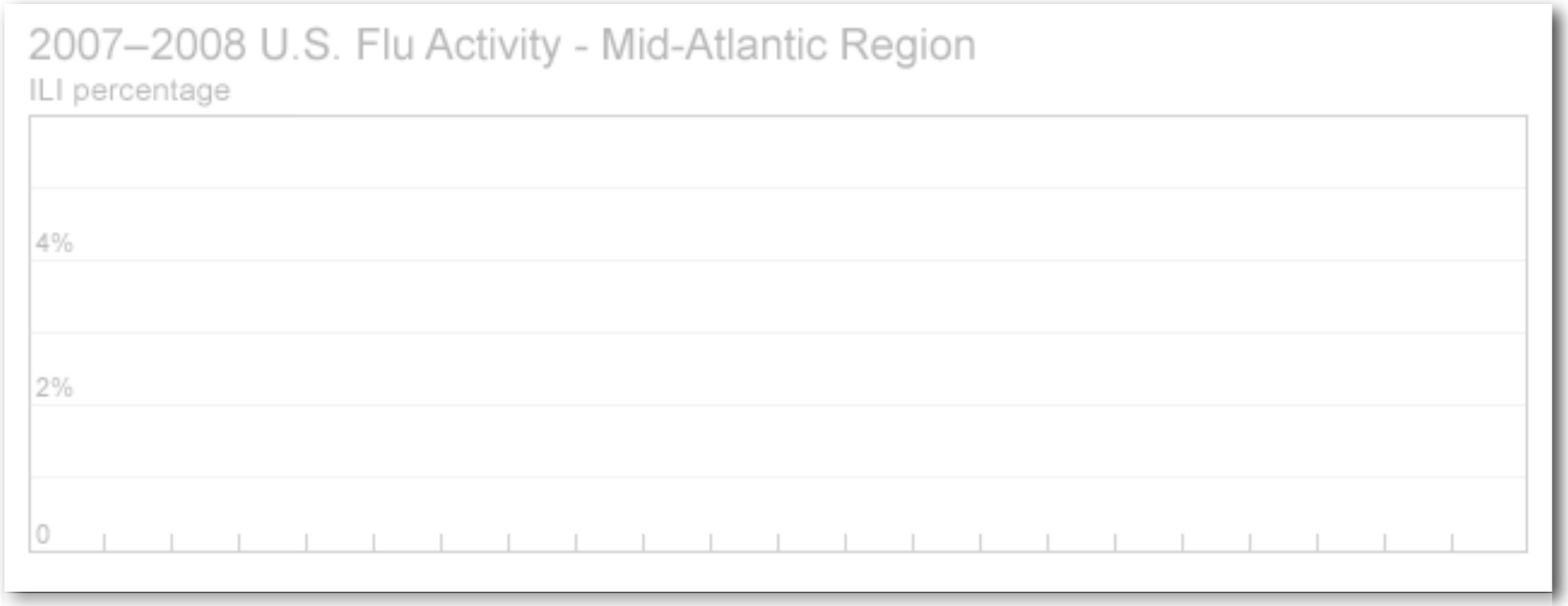
Commerce

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



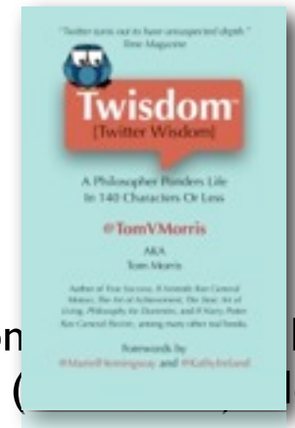
Public Health

- People's behavior can be monitored
- What is on people's mind translates to search queries
- Google predicts flu trends...



Twitter Pop Culture

- Twisdom: Twitter Wisdom
  - A Philosopher Ponders Life in 140 Characters or Less
    - "I don't know the key to success, but the key to failure is trying to please everybody." Bill Cosby Do what you know in your soul is right!
    - It is a miserable state of mind to have few things to desire, and many things to fear. – Francis Bacon
- The Longest Poem In the World-the awesome twitter poem! 956,644 verses this morning and ~4,000 a day!



The Era of Social Con King, Technologie elligence
(lovember 18-20,

The YouTube Generation

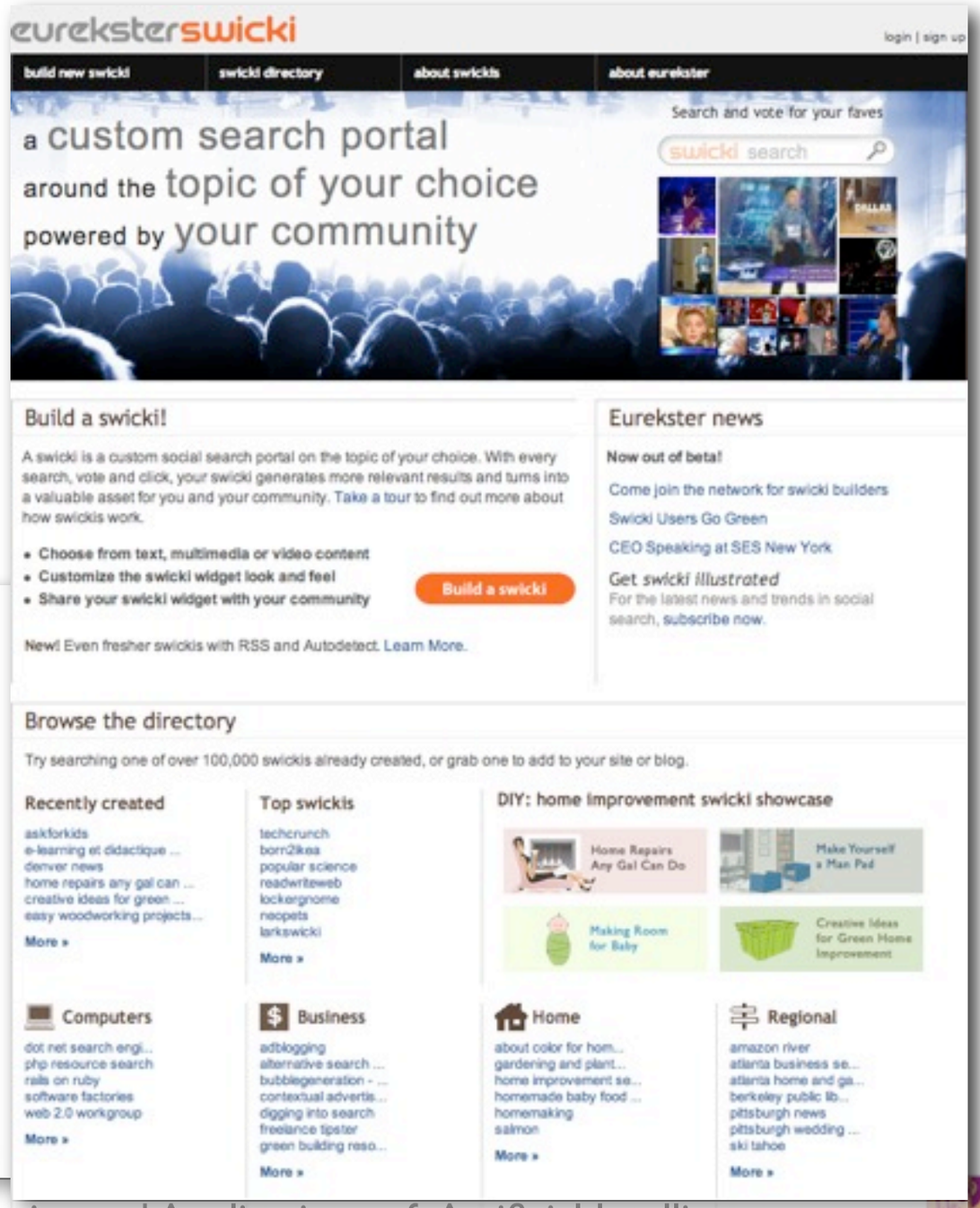
The Age of FaceBook

Social Networking Sites

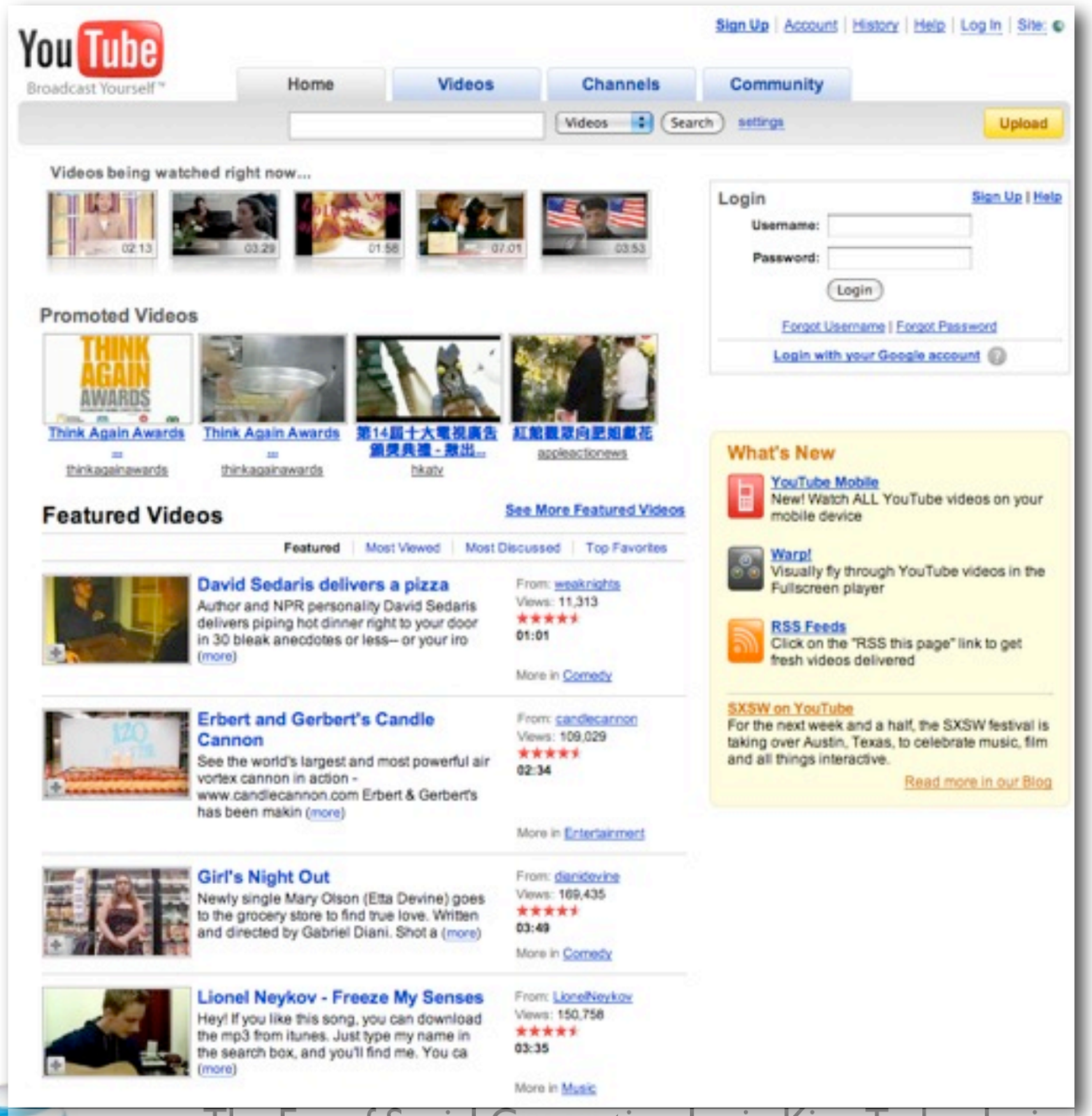
- Example of Social Networking Sites: FaceBook, MySpace, Blogger, QQ, etc.

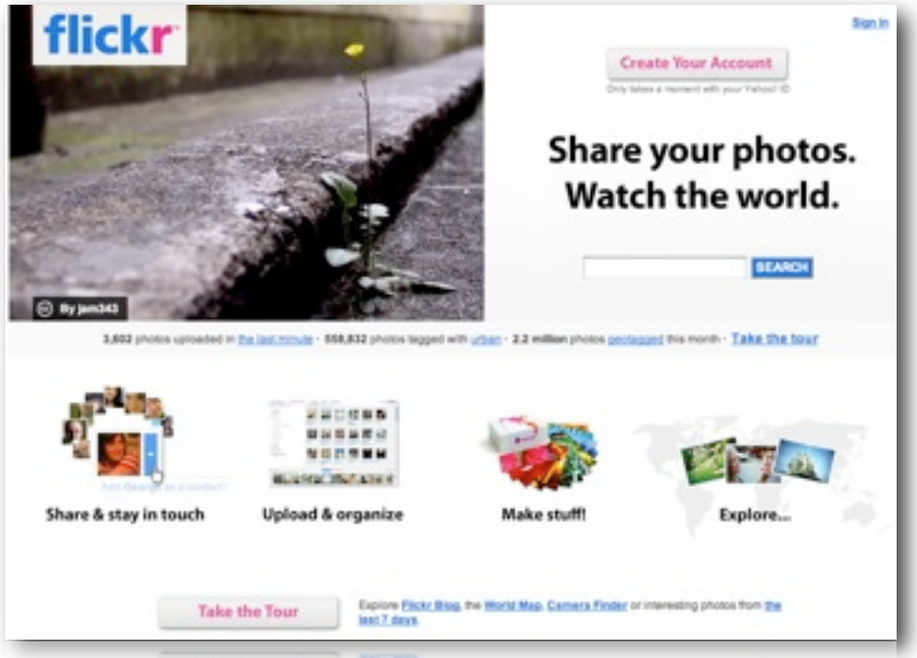
Social Search

- Social Search Engine
- Leveraging your social networks for searching

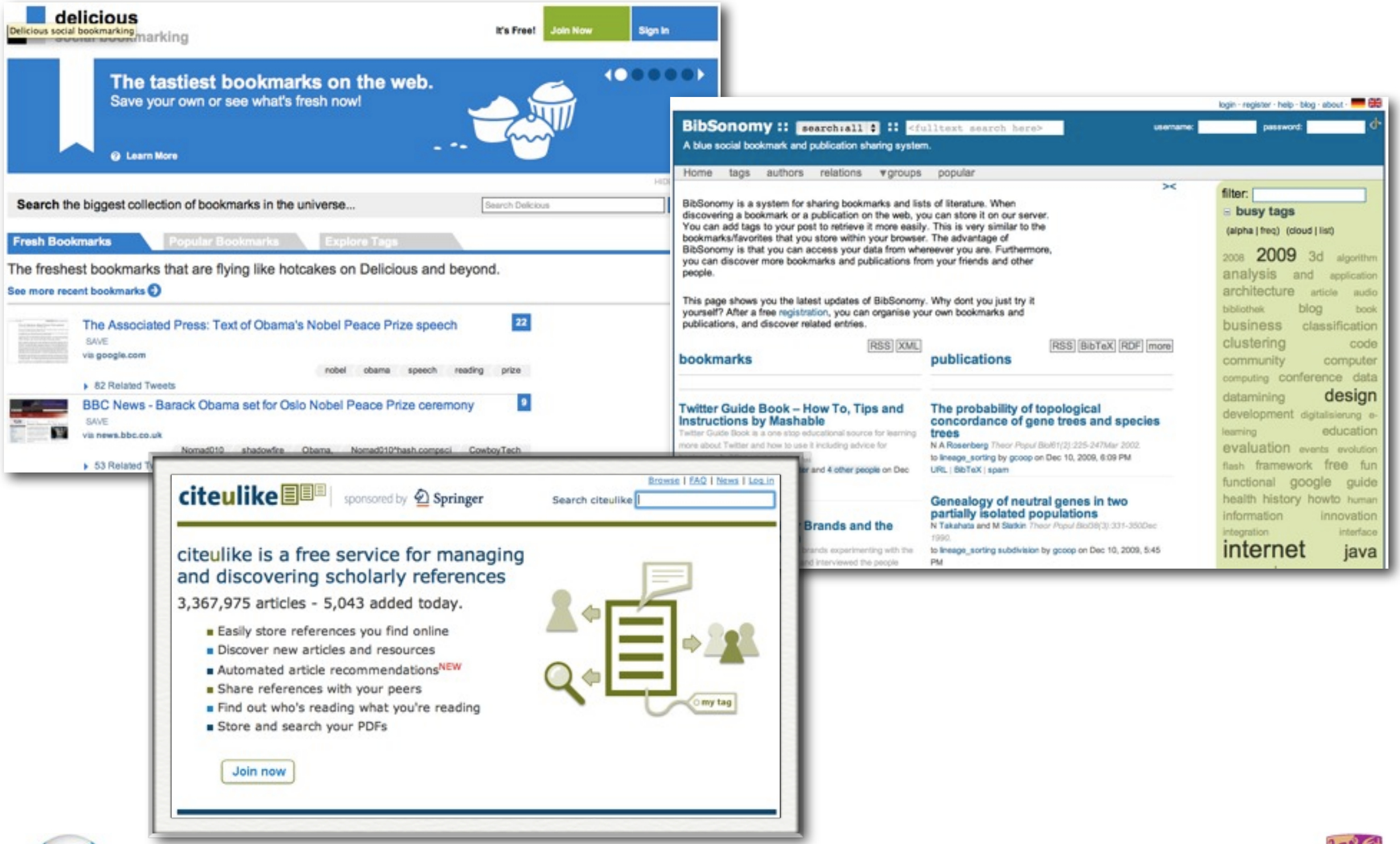


Social Media

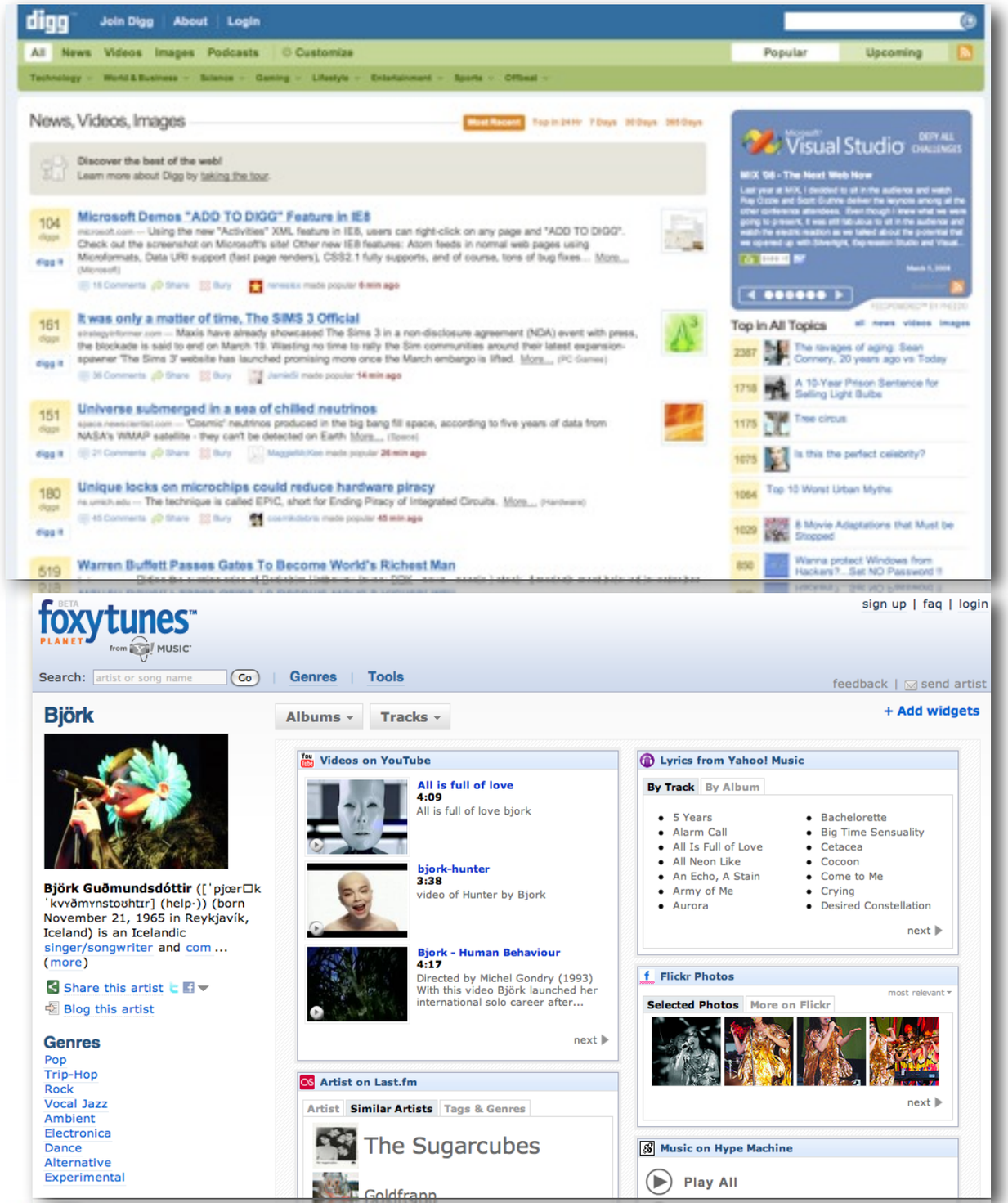




Social Bookmarking

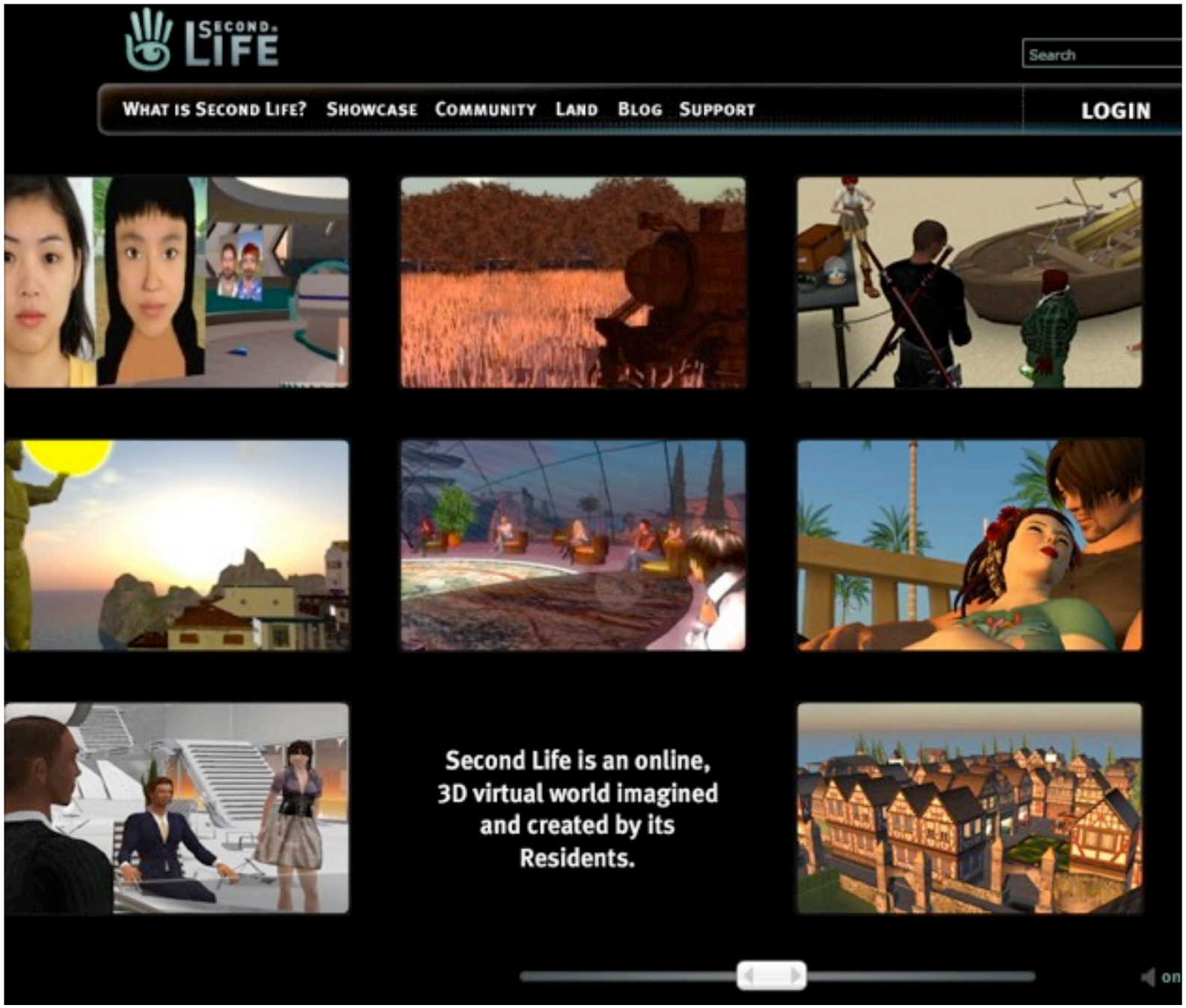


Social News/Mash Up

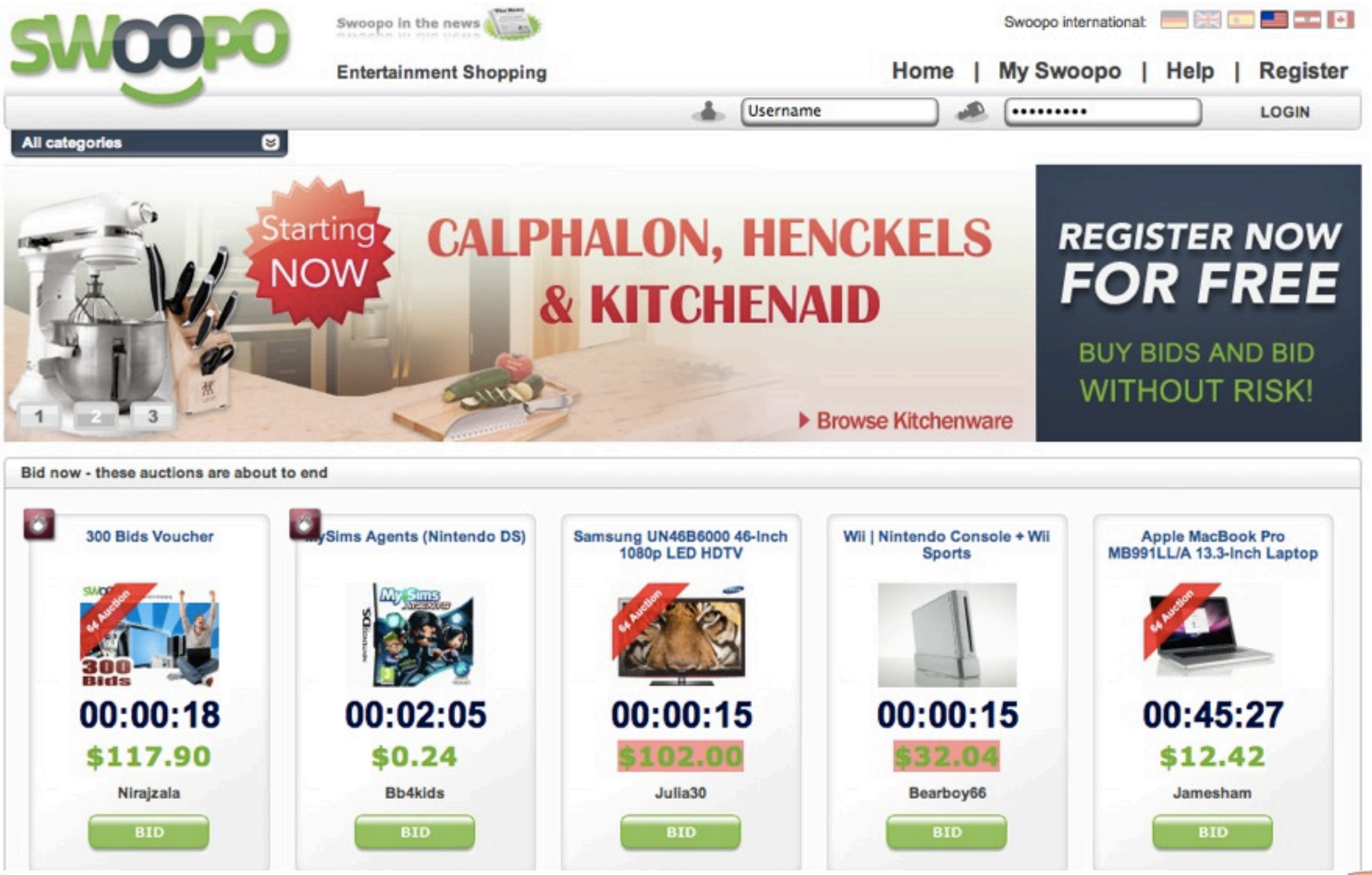


The Era of Social Computing, Irwin King, Technologies and Applications of Artificial Intelligence (TAAI2010), November 18-20, 2010, Hsinchu, Taiwan

On-line Games and Virtual Communities



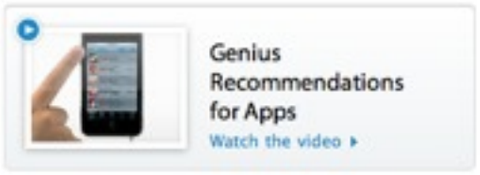
Social Entertainment



Social Recommendations

Genius Recommendations for Apps NEW

There are tens of thousands of apps in the App Store, with more added every day. A new feature of iPod touch makes finding cool new apps even easier. It's Genius for apps, and it works just like Genius for your music. Tap the Genius icon and get recommendations for apps that you might like based on apps you and others have downloaded.



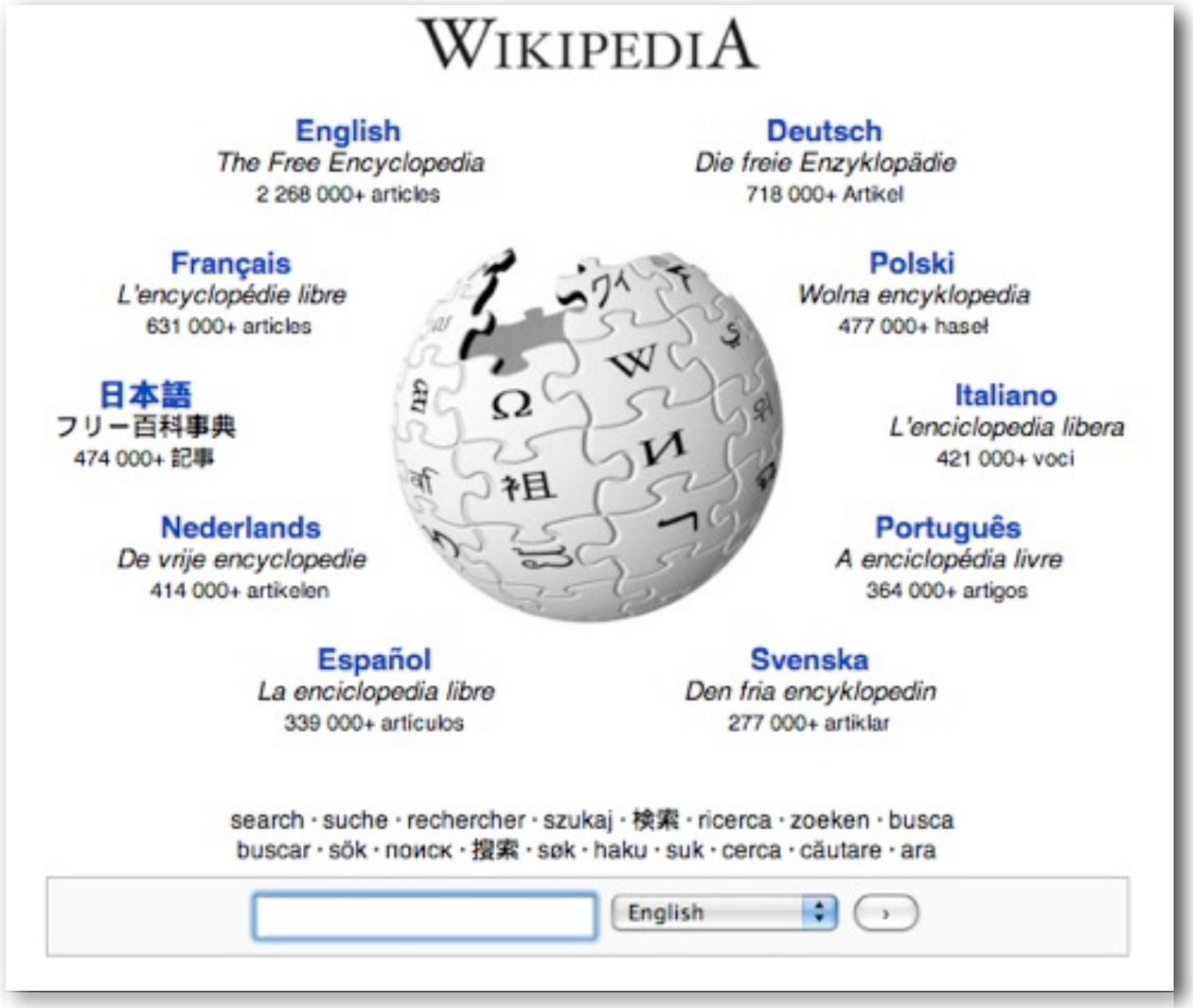
Genius Playlists

Say you're listening to a song you really like and want to hear other tracks that go great with it. The Genius feature finds other songs on your iPod touch that sound great with the one you were listening to and makes a Genius playlist for you. Listen to the playlist right away, save it for later, or even refresh it and give it another go. Count on Genius to create a mix you wouldn't have thought of yourself.

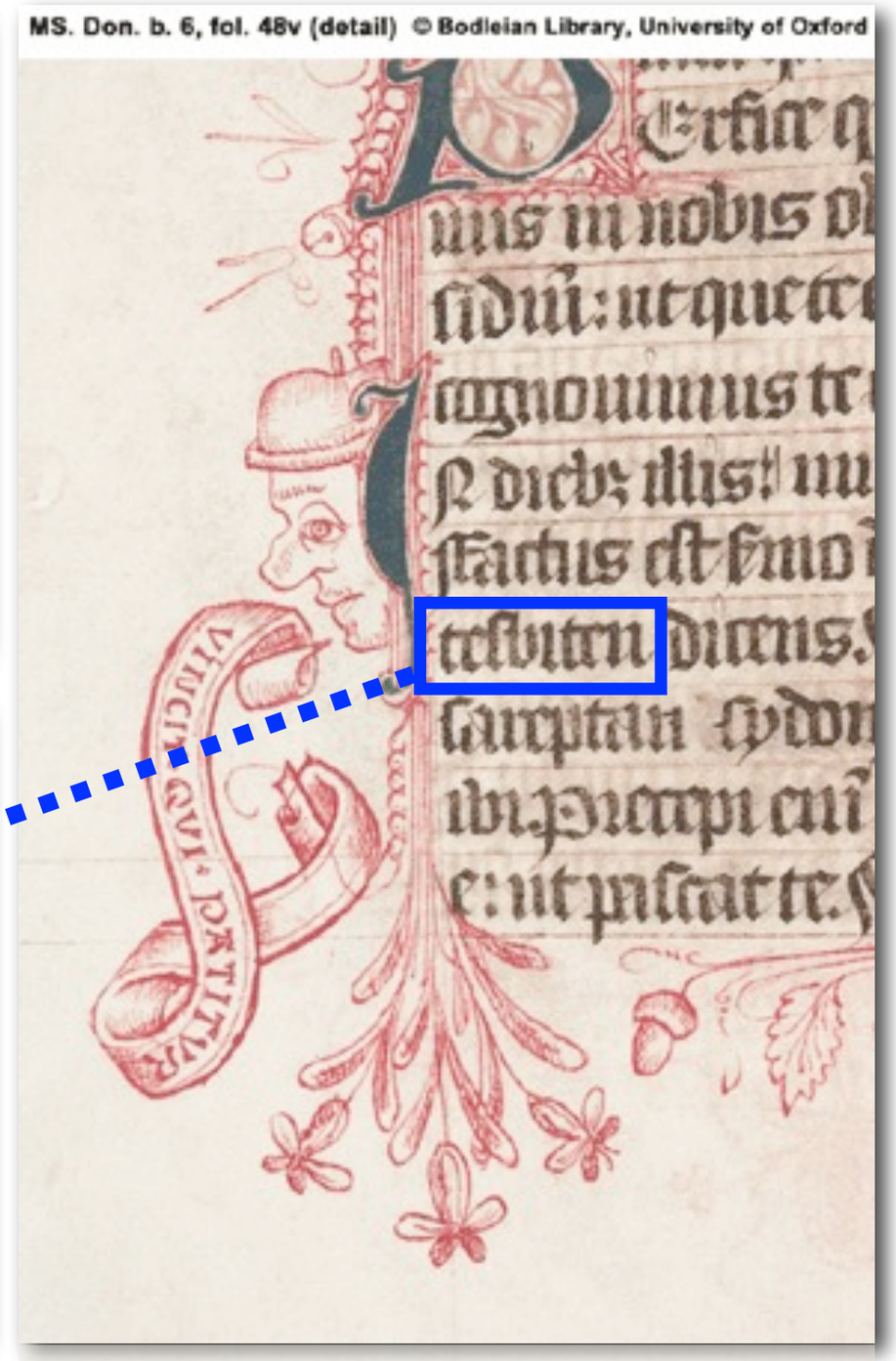
Genius Mixes NEW

Now the Genius feature is even more powerful. Introducing Genius Mixes. All you do is sync iPod touch to iTunes, and Genius automatically searches your library to find songs that sound great together. Then it creates multiple mixes you'll love. These mixes are like channels programmed entirely with your music.

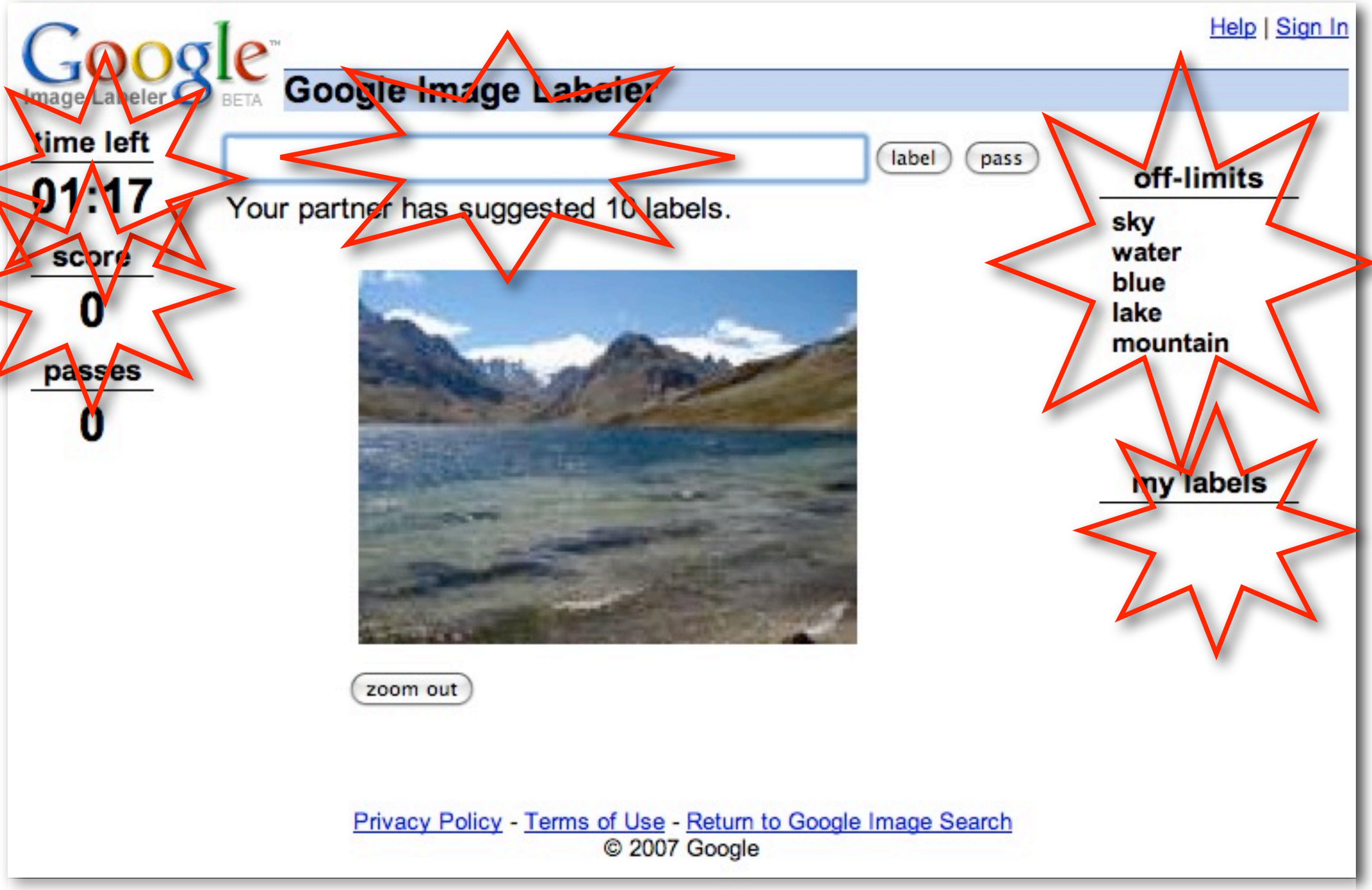
Social Knowledge Sharing



Social/Human Computation



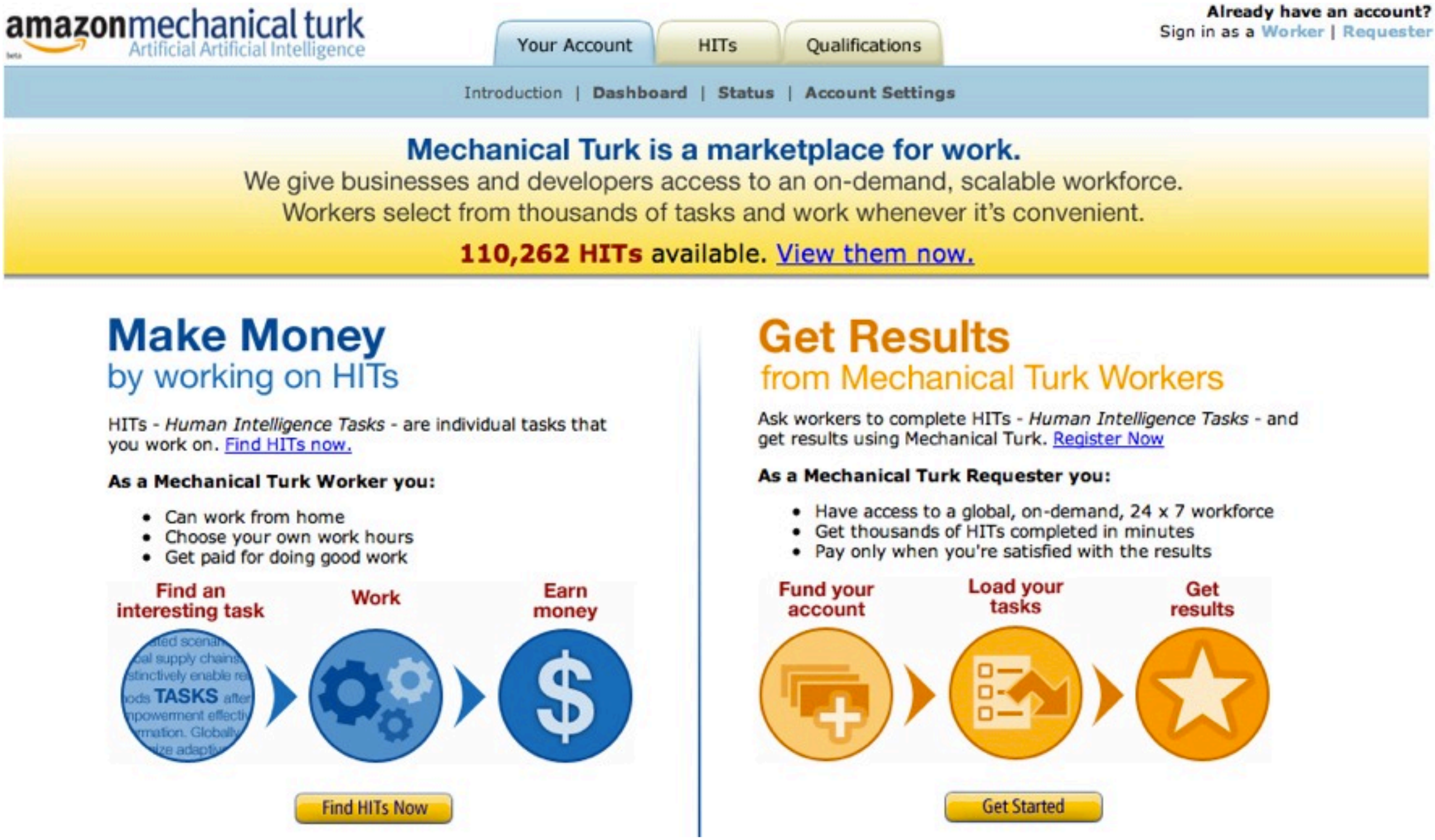
Human Computation



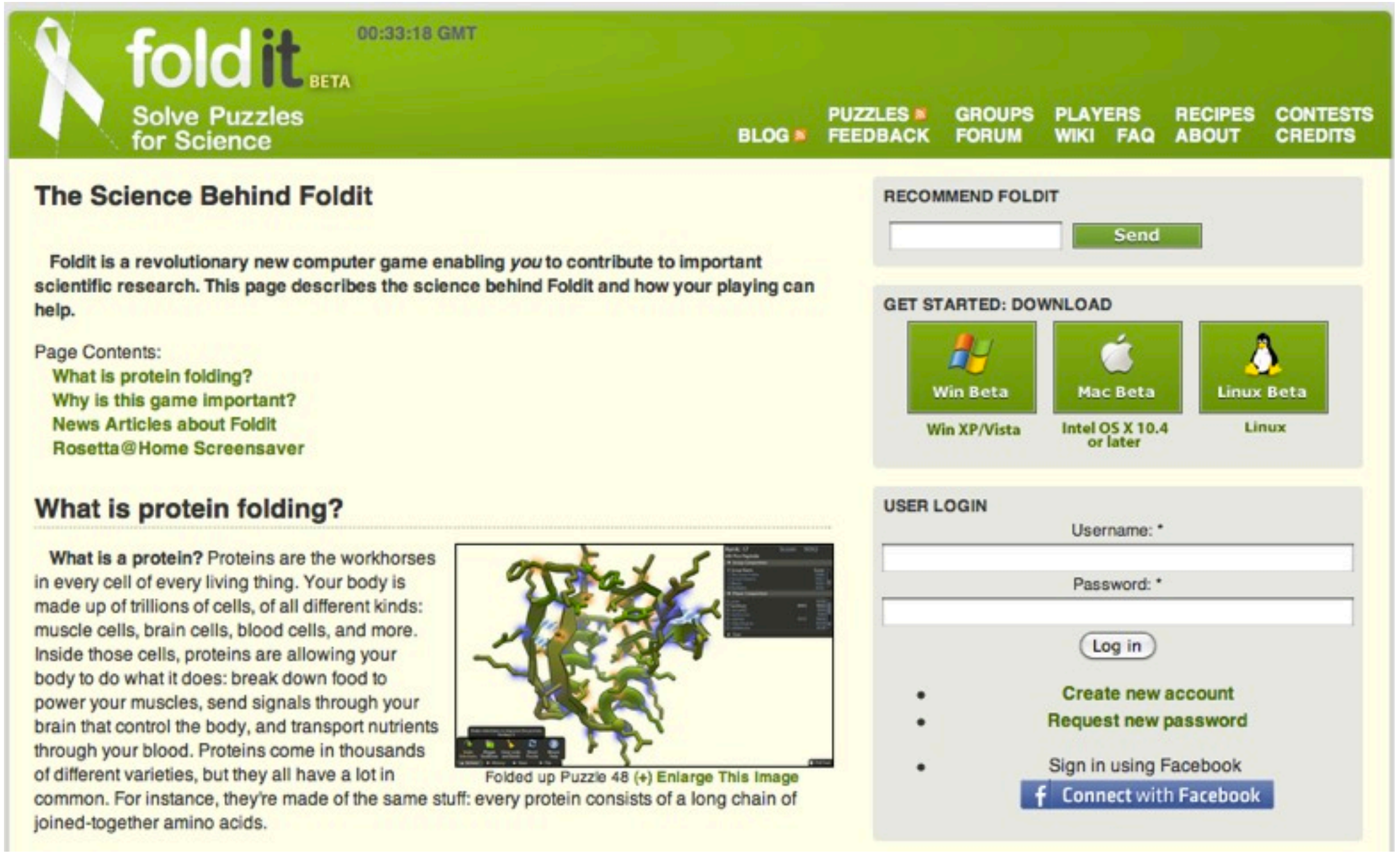
Games With A Purpose (GWAP)

- **ESP**
  - Image tagging
- **Tag a Tune**
  - Song tagging
- **Verbosity**
  - Database of common knowledge description
- **Squigl**
  - Image segmentation
- **Matchin**
  - Image search by aesthetic value
- **FlipIt**
  - Finding similar image pairs
- **PopVideo**
  - Video tagging

Crowdsourcing

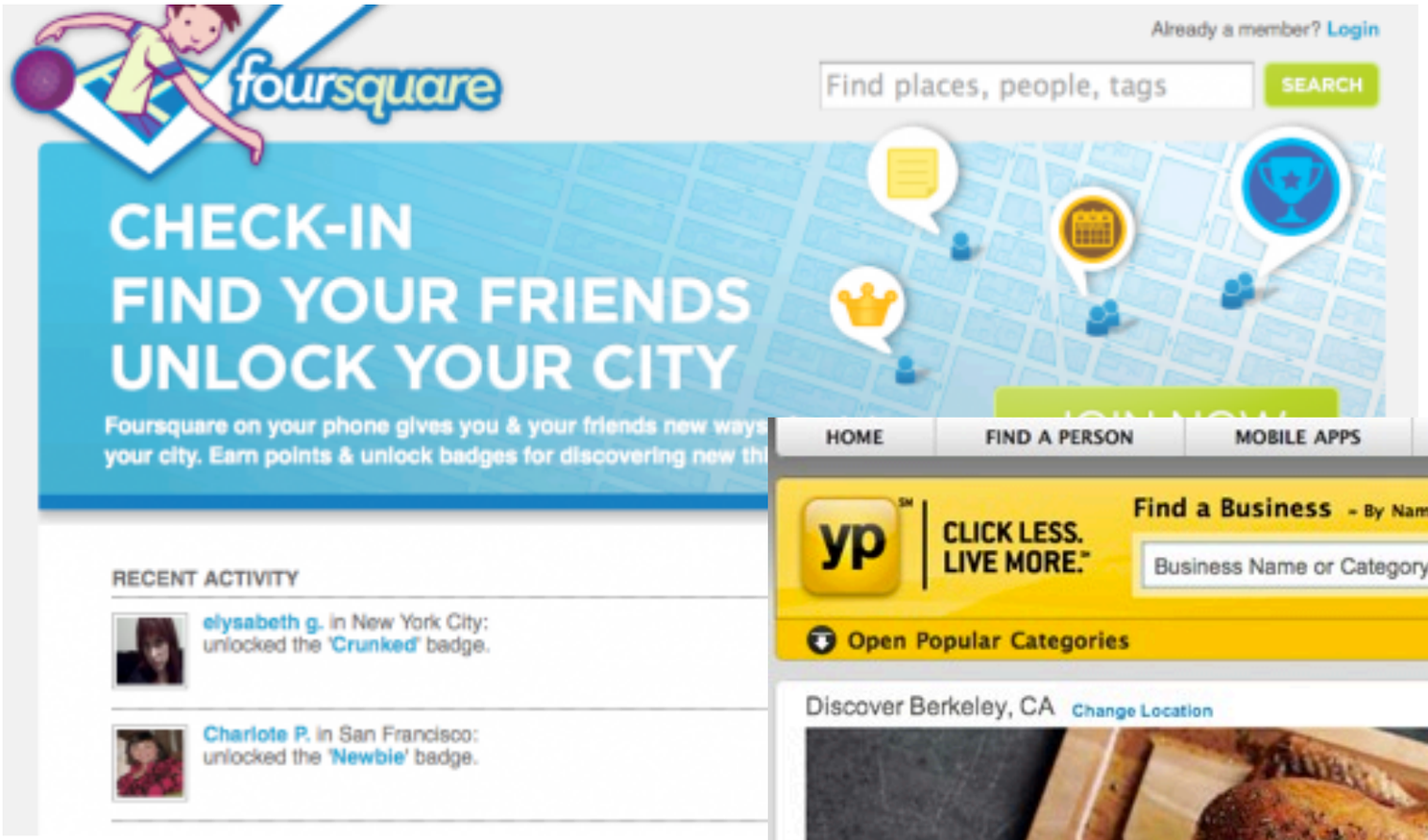


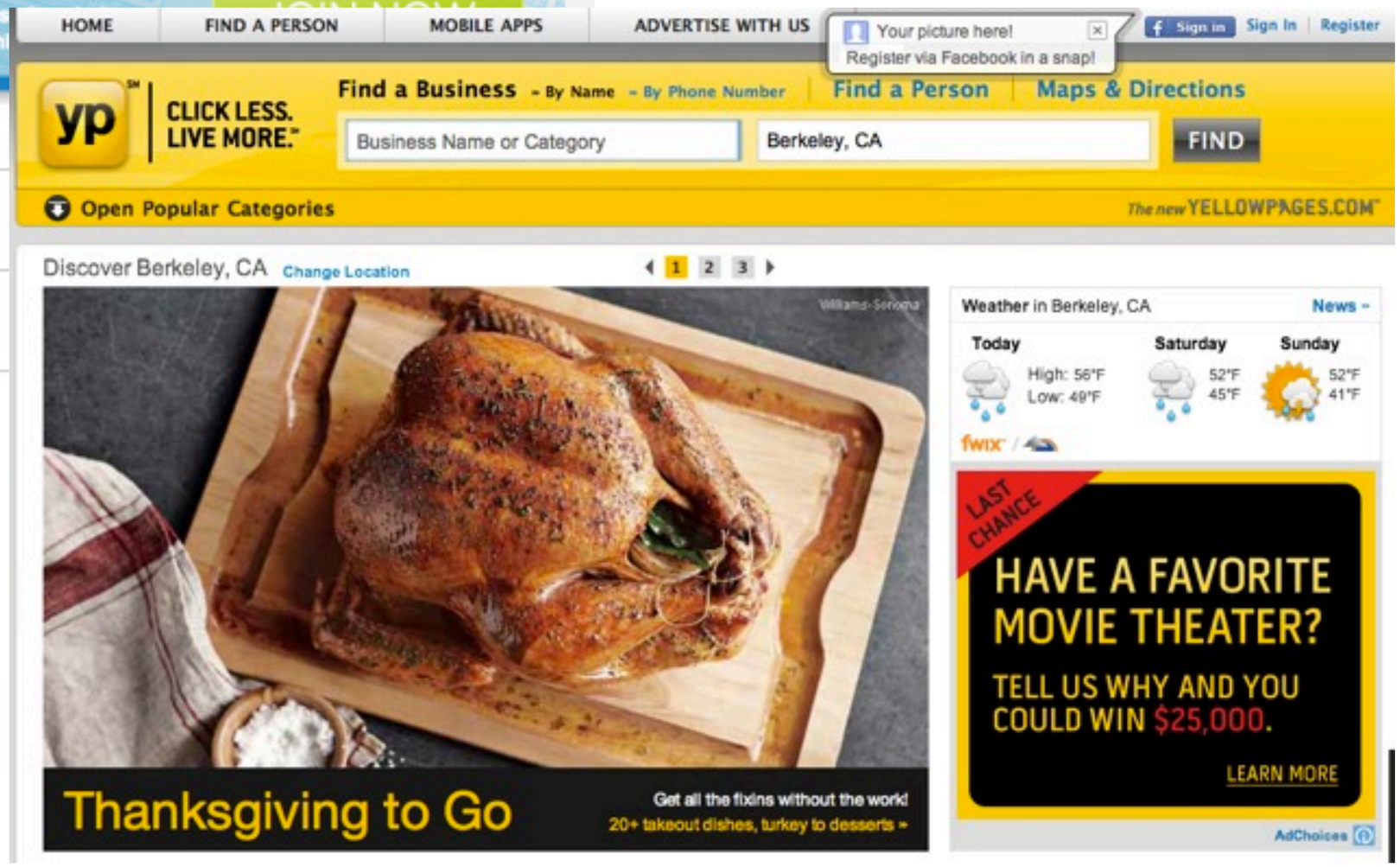
Foldit: Protein Folding Game



[Cooper et al, Nature 466, 756-760 (5 August 2010)]

Social Location-based Services





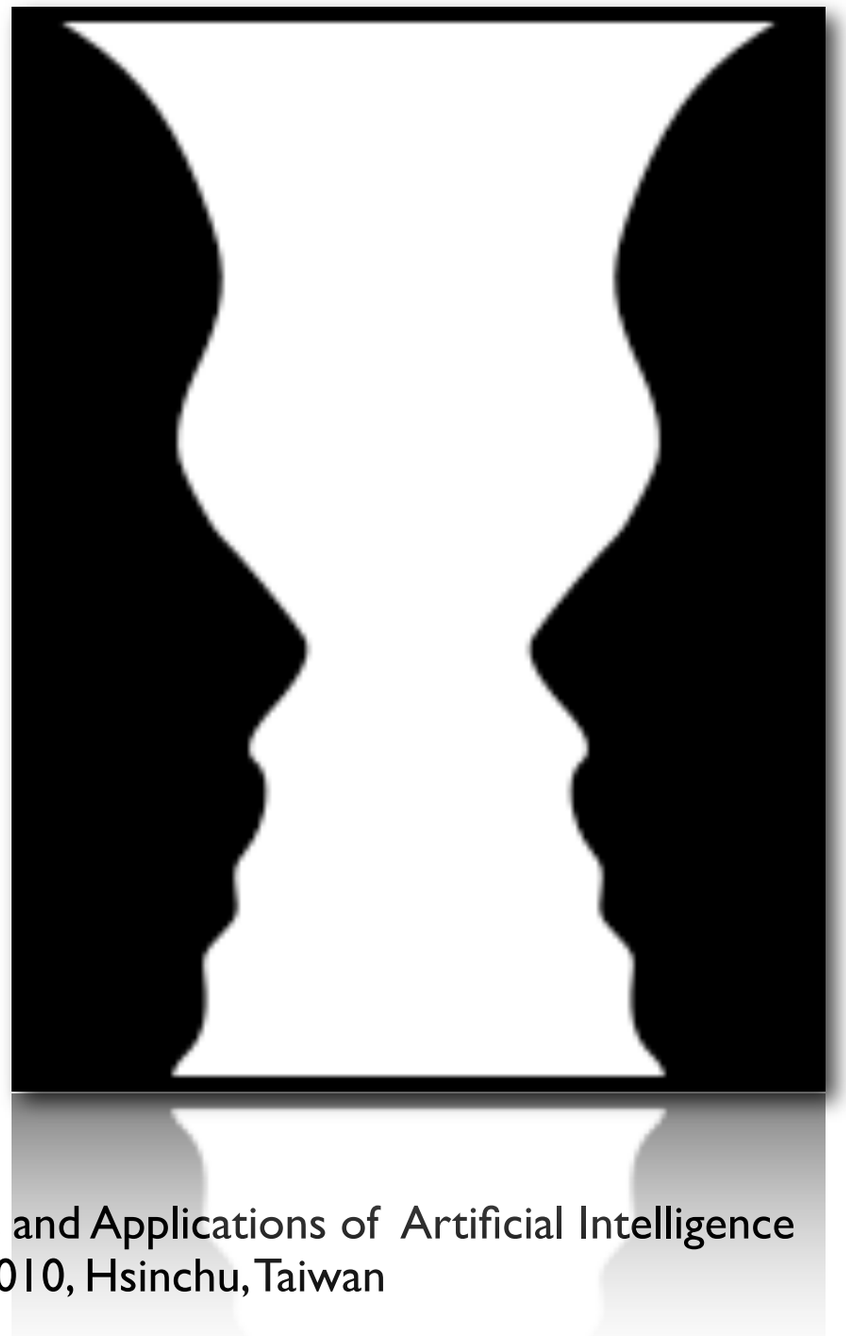
Web 2.0 Revolution

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

  Connectivity

  Collaboration

  Communities



Social Relations

presence

crew

identity

binary

teams

social role

populations

squad

cardinal

reputation

organizations

expertise

integer

cohorts

trust

markets

ownership

real

communities

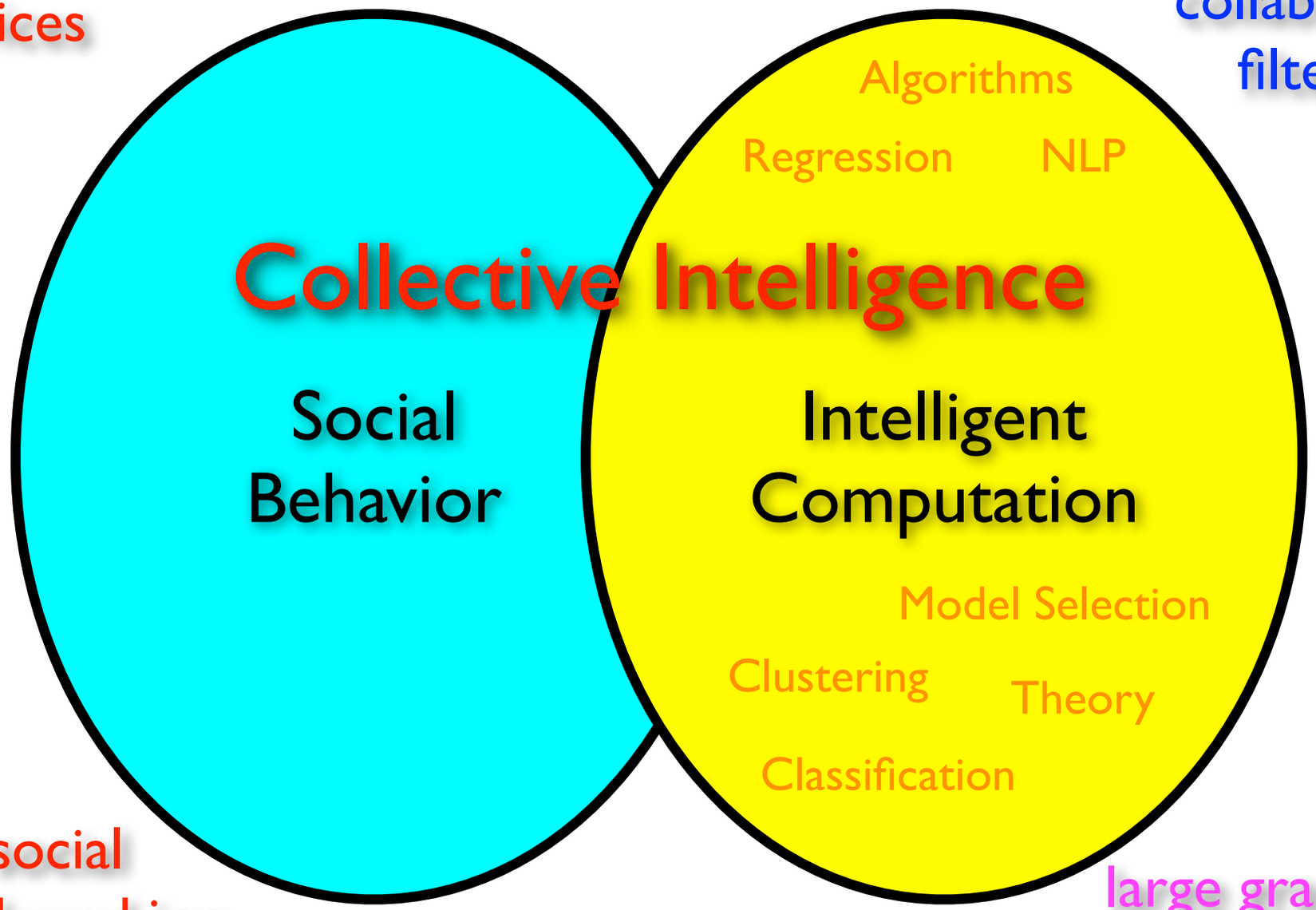
accountability

partners

knowledge

groups

Social Computing



social network services

wikis

blogs

emails

instant messaging

mobile devices

social bookmarking

ranking

tagging

collaborative filtering

Algorithms

Regression

NLP

social marketing

human computation

opinion mining/ sentiment analysis

query logs analysis

Model Selection

Clustering

Theory

Classification

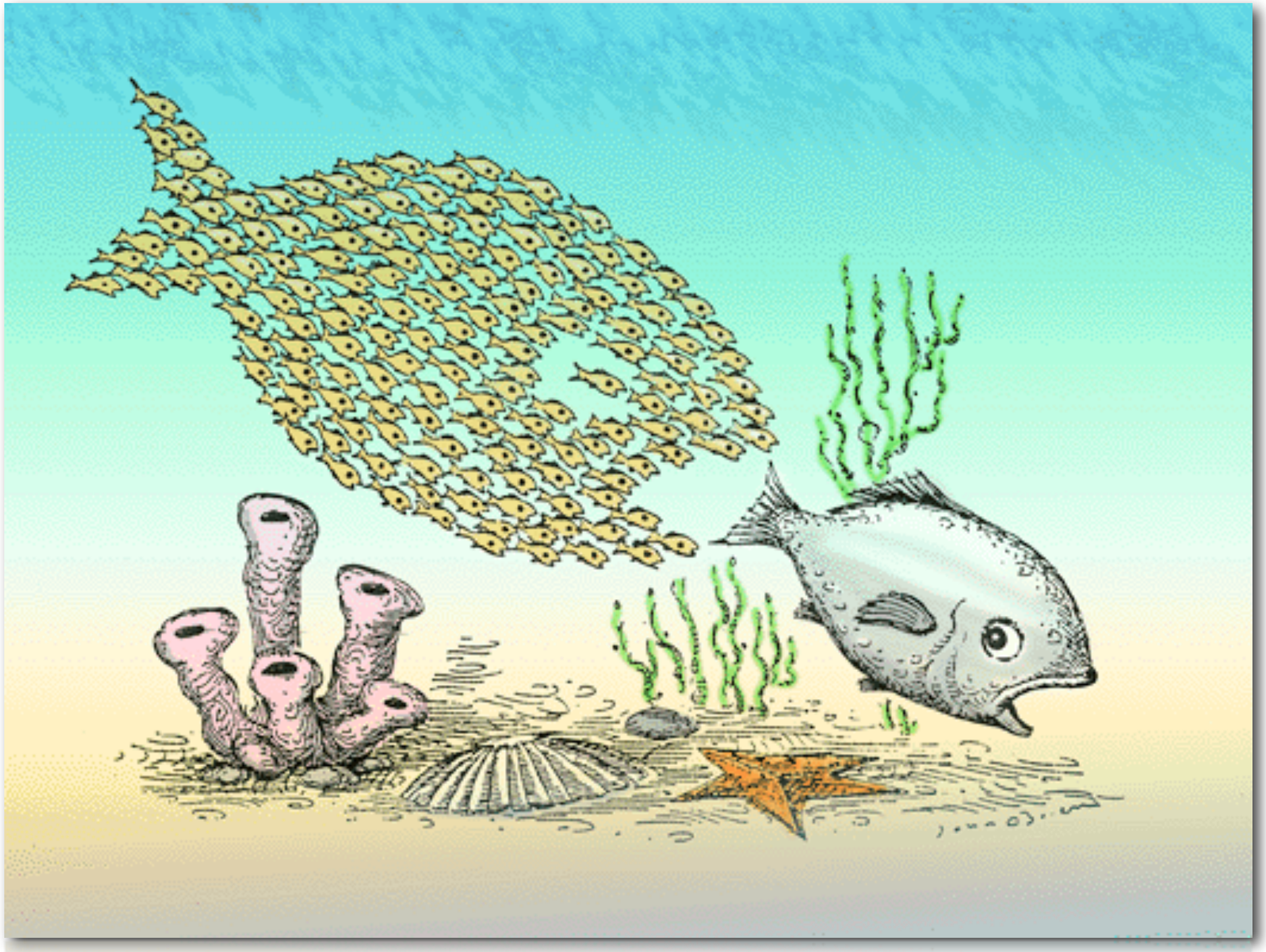
large graph algorithms

security & privacy

The Era of Social Computing, Irwin King, Technologies and Applications of Artificial Intelligence (TAAI2010), November 18-20, 2010, Hsinchu, Taiwan

Definition of Social Computing [wiki]

- 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
  - collaborative filtering, online auctions, prediction markets, reputation systems, tagging, verification games



The Era of Social Computing, Irwin King, Technologies and Applications of Artificial Intelligence (TAAI2010), November 18-20, 2010, Hsinchu, Taiwan

Some of Our Work

- Social Recommendations
- Human Computation
- Query Suggestion
- Expert Finding

Social Recommendations

[Ma, SIGIR2007]

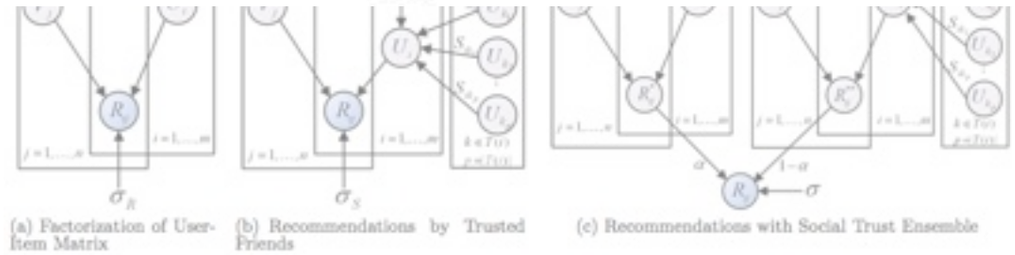
	i_1	i_2	i_3	i_4	i_5	i_6	i_7	i_8	i_9	i_n
u_1	$r_{1,1}$			$r_{1,4}$						
u_2		$r_{2,2}$						$r_{2,8}$		
u_3						$r_{3,6}$				
u_4				$r_{4,4}$						$r_{4,n}$
u_5			$r_{5,3}$				$r_{5,7}$			
u_6									$r_{6,9}$	
u_m			$r_{m,2}$							$r_{m,n}$

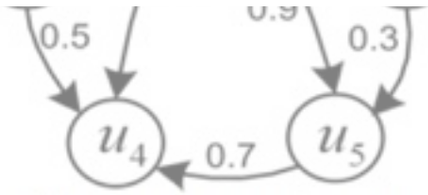
(a)

0.6

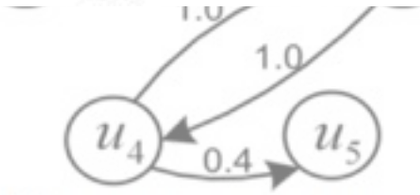
	i_1	i_2	i_3	i_4	i_5	i_6	i_7	i_8	i_9	i_n
u_1	$r_{1,1}$	0	$\hat{r}_{1,3}$	$r_{1,4}$	0	$\hat{r}_{1,6}$	0	$\hat{r}_{1,8}$	$\hat{r}_{1,9}$	0
u_2	0	$r_{2,2}$	0	$\hat{r}_{2,4}$	$\hat{r}_{2,5}$	0	$\hat{r}_{2,7}$	$r_{2,8}$	0	$\hat{r}_{2,n}$
u_3	$\hat{r}_{3,1}$	0	$\hat{r}_{3,3}$	$\hat{r}_{3,4}$	$\hat{r}_{3,5}$	$r_{3,6}$	0	$\hat{r}_{3,8}$	$\hat{r}_{3,9}$	0
u_4	$\hat{r}_{4,1}$	$\hat{r}_{4,2}$	0	$r_{4,4}$	$\hat{r}_{4,5}$	$\hat{r}_{4,6}$	$\hat{r}_{4,7}$	0	$\hat{r}_{4,9}$	$r_{4,n}$
u_5	$\hat{r}_{5,1}$	$\hat{r}_{5,2}$	$r_{5,3}$	0	$\hat{r}_{5,5}$	0	$r_{5,7}$	$\hat{r}_{5,8}$	$\hat{r}_{5,9}$	$\hat{r}_{5,n}$
u_6	$\hat{r}_{6,1}$	$\hat{r}_{6,2}$	0	$\hat{r}_{6,4}$	$\hat{r}_{6,5}$	$\hat{r}_{6,6}$	$\hat{r}_{6,7}$	0	$r_{6,9}$	$\hat{r}_{6,n}$
u_m	$\hat{r}_{m,1}$	0	$r_{m,2}$	$\hat{r}_{m,4}$	0	$\hat{r}_{m,6}$	0	$\hat{r}_{m,8}$	$\hat{r}_{m,9}$	$r_{m,n}$

(b)





(c) User Trust Graph



(d) User Distrust Graph

[Ma, SIGIR2009] [Ma, RecSys2009]

Human Computation Systems

[Yuen, CSE2009]

TABLE I
CATEGORIZATION OF SOCIAL GAMES

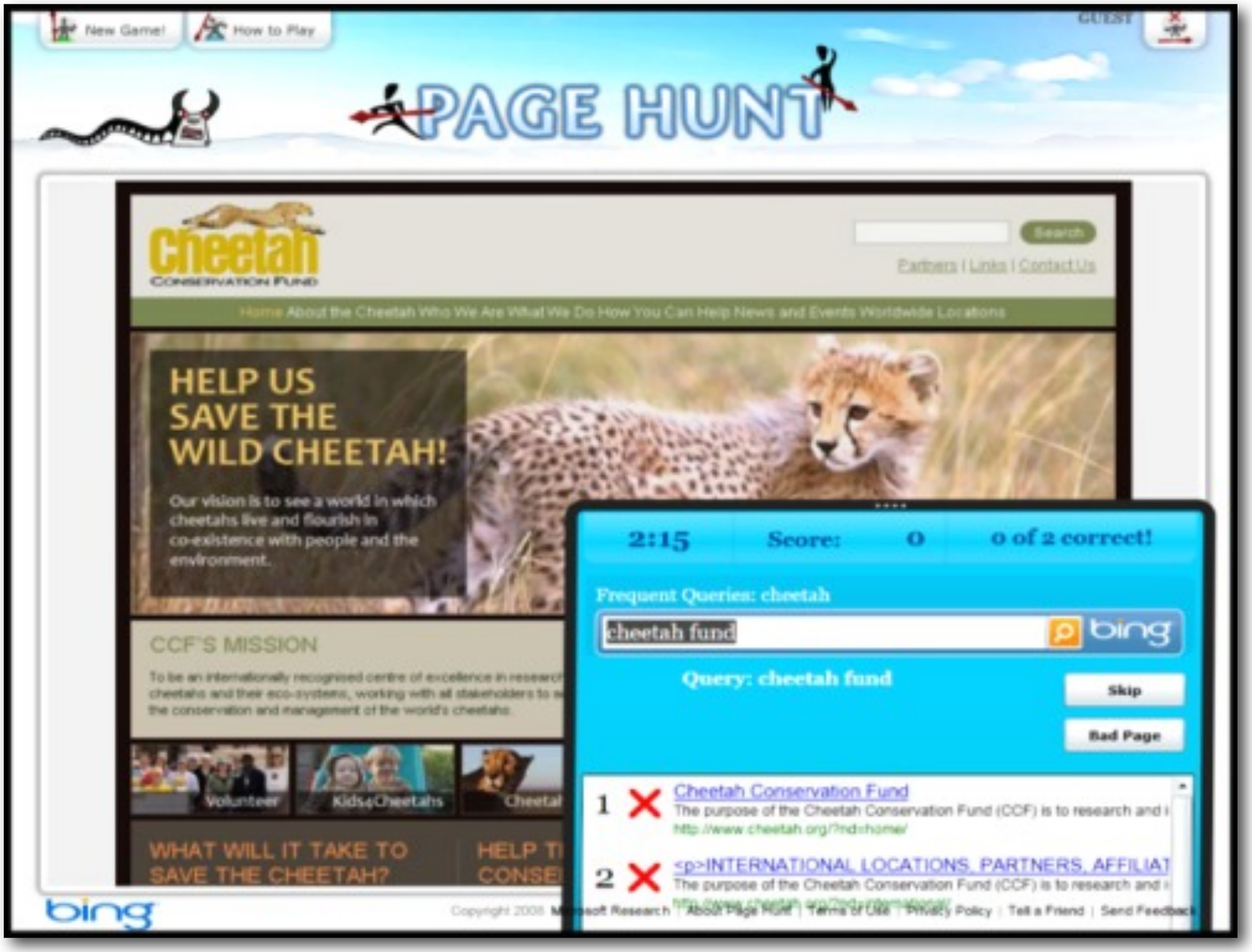
Game Structure	Verification Method	Game Mechanism
Output-agreement	Symmetric	Collaborative or Hybrid
Input-agreement	Symmetric	Collaborative or Hybrid
Inversion-problem	Asymmetric	Collaborative or Competitive or Hybrid
Output-optimization	Symmetric or Asymmetric	Collaborative or Competitive or Hybrid

TABLE II
EXAMPLES OF SOCIAL GAMES

Game Structure	Verification Method	Game Mechanism	Player Requirement		Examples
			Num of Player	Game Play	
Output-agreement	Symmetric	Collaborative	2	Synchronous	ESP, Matchi, Squigl, OntoGame
		Hybrid	Multi-players	Synchronous	Common Consensus, Social Heroes
		Hybrid	Multi-players	Asynchronous	Gopher Game
Input-agreement	Symmetric	Collaborative	2	Synchronous	TagATune
		Hybrid	N/A	N/A	N/A
Inversion-problem	Asymmetric	Collaborative	1 or 2	Synchronous	Peekaboom, Verbosity
		Competitive	2	Asynchronous	Dogear, CyPRESS, CARS
		Hybrid	1 or Multi-players	Synchronous	Phetch
Output-optimization	Symmetric	Collaborative	2	Synchronous	Restaurant Game
		Competitive	N/A	N/A	N/A
		Hybrid	Multi-players	Synchronous	Diplomacy
	Asymmetric	Collaborative	N/A	N/A	N/A
		Competitive	N/A	N/A	N/A
		Hybrid	N/A	N/A	N/A

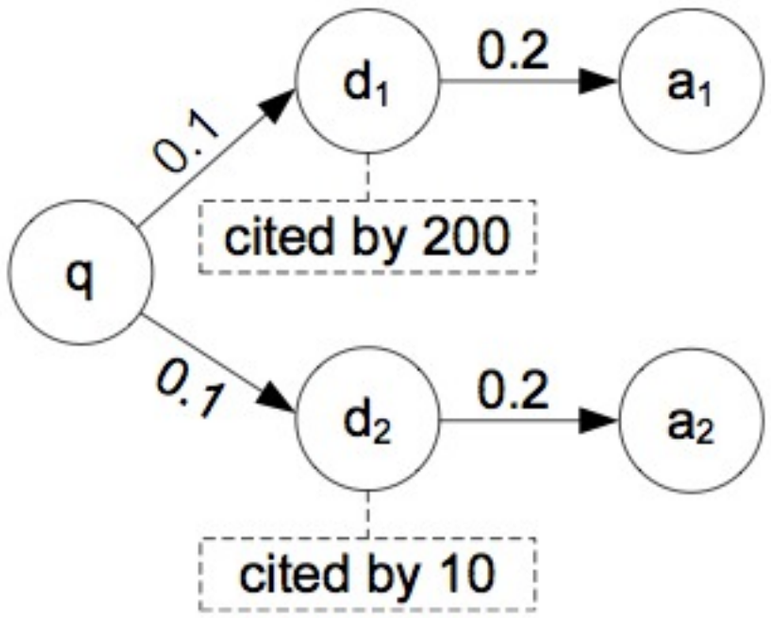
Improving Search Engines with Human Computation

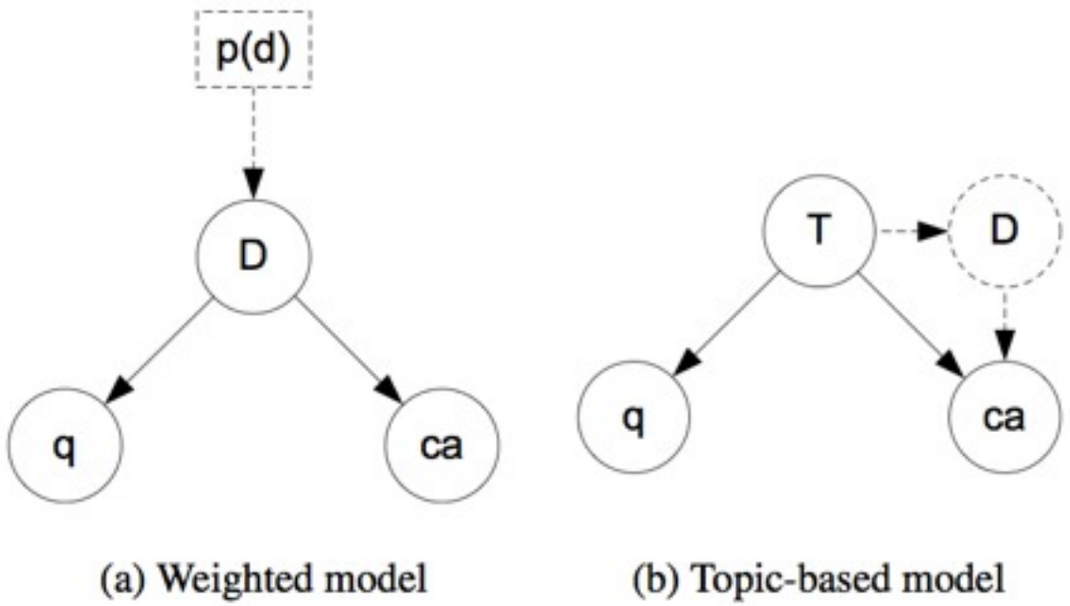
[Ma et al., SIGIR'09, CIKM'09]



Expert Finding Using DBLP

[Deng, ICDM2008]





(a) Weighted model (b) Topic-based model

- Weighted Statistical Language Model
- Topic-based Model
- Hybrid Model

Table 2. Statistics of DBLP and the topic collection.

Property	#of entities
DBLP:no_of_pub	953,774
DBLP:no_of_author	574,369
Topic:no_of_topic	2,498

Table 3. Benchmark dataset of 7 topics.

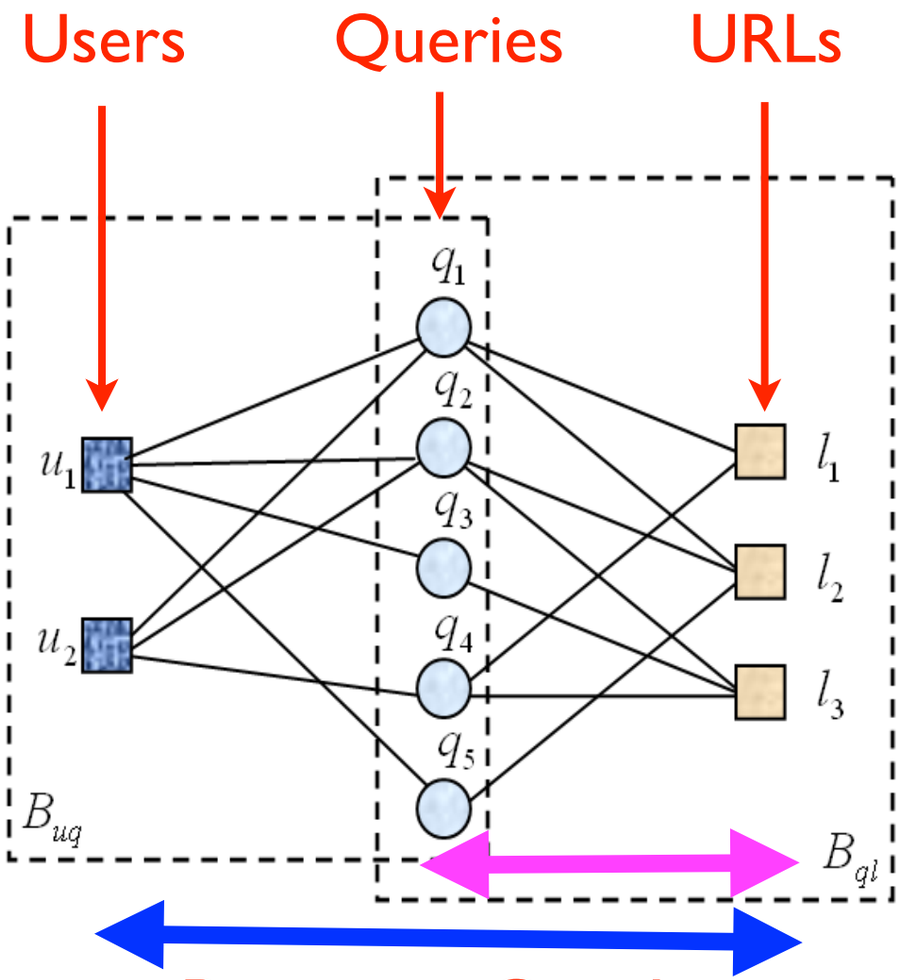
Topic	#Expert
Information Extraction	20
Intelligent Agents	29
Machine Learning	42
Natural Language Processing	43
Planning	34
Semantic Web	45
Support Vector Machine	31

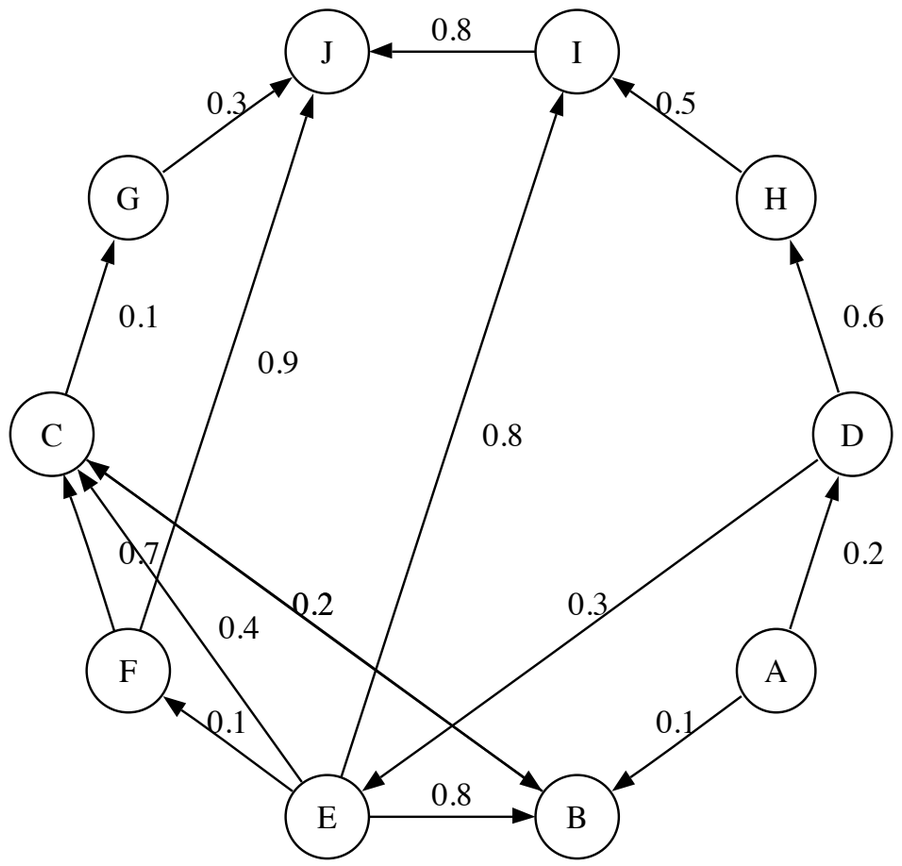
Query Suggestion

[Ma, CIKM2008]

Table 1: Samples of search engine clickthrough data

ID	Query	URL	Rank	Time
358	facebook	http://www.facebook.com	1	2008-01-01 07:17:12
358	facebook	http://en.wikipedia.org/wiki/Facebook	3	2008-01-01 07:19:18
3968	apple iphone	http://www.apple.com/iphone/	1	2008-01-01 07:20:36
...	...	...	...	...





Bipartite Graphs

Query Similarity Graph

Query Suggestions

Table 2: Examples of LSQS Query Suggestion Results ($k = 50$)

Testing Queries	Suggestions				
	$\alpha = 10$			$\alpha = 1000$	
	Top 1	Top 2	Top 3	Top 4	Top 5
michael jordan	michael jordan shoes	michael jordan bio	pictures of michael jordan	nba playoff	nba standings
travel	travel insurance	abc travel	travel companions	hotel tickets	lowest air fare
java	sun java	java script	java search	sun microsystems inc	virtual machine
global services	ibm global services	global technical services	staffing services	temporary agency	manpower professional
walt disney land	world of disney	disney world orlando	disney world theme park	disneyland grand hotel	disneyland in california
intel	intel vs amd	amd vs intel	pentium d	pentium	centrino
job hunt	jobs in maryland	monster job	jobs in mississippi	work from home online	monster board
photography	photography classes	portrait photography	wedding photography	adobe elements	canon lens
internet explorer	ms internet explorer	internet explorer repair	internet explorer upgrade	microsoft com	security update
fitness	fitness magazine	lifestyles family fitness	fitness connection	womens health magazine	family fitness
m schumacher	schumacher	red bull racing	formula one racing	ferrari cars	formula one
solar system	solar system project	solar system facts	solar system planets	planet jupiter	mars facts
sunglasses	replica sunglasses	cheap sunglasses	discount sunglasses	safilo	marhon
search engine	audio search engine	best search engine	search engine optimization	song lyrics search	search by google
disease	grovers disease	liver disease	morgellons disease	colic in babies	oklahoma vital records
pizzahut	pizza hut menu	pizza coupons	pizza hut coupons	papa johns pizza coupon	papa johns
health care	health care proxy	universal health care	free health care	great west healthcare	uhc
flower delivery	global flower delivery	online florist	flowers online	send flowers	virtual flower
wedding	wedding guide	wedding reception ideas	wedding decoration	unity candle	centerpiece ideas
astronomy	astronomy magazine	astronomy pic of the day	star charts	space pictures	comet

Acknowledgments

- Prof. Michael Lyu
- Mr. Patrick Lau
- Mr. Lam Cho Fung
- Mr. Ivan Yau
- Ms. Sara Fok
- Baichuan Li (M.Phil.)
- Zhenjiang Lin (Ph.D.)
- Hao Ma (Postdoc)
- Mingzhe Mo (M.Phil.)
- Dingyan Wang (M.Phil.)
- Wei Wang (M.Phil.)
- Haiqin Yang (Ph.D.)
- Connie Yuen (Ph.D.)
- Xin Xin (Ph.D.)
- Chao Zhou (Ph.D.)
- Yi Zhu (Ph.D.)

On-Going Research

Machine Learning

- Smooth Optimization for Effective Multiple Kernel Learning (AAAI'10)
- Online Learning for Multi-Task Feature Selection (CIKM'10)
- Simple and Efficient Multiple Kernel Learning By Group Lasso (ICML'10)
- Online Learning for Group Lasso (ICML'10)
- Heavy-Tailed Symmetric Stochastic Neighbor Embedding (NIPS'09)
- Adaptive Regularization for Transductive Support Vector Machine (NIPS'09)
- Direct Zero-norm Optimization for Feature Selection (ICDM'08)
- Semi-supervised Learning from General Unlabeled Data (ICDM'08)
- Learning with Consistency between Inductive Functions and Kernels (NIPS'08)
- An Extended Level Method for Efficient Multiple Kernel Learning (NIPS'08)
- Semi-supervised Text Categorization by Active Search (CIKM'08)
- Transductive Support Vector Machine (NIPS'07)
- Global and local learning (ICML'04, JMLR'04)

On-Going Research

Web Intelligence/Information Retrieval

- Routing Questions to Appropriate Answerers in Community Question Answering Services (CIKM'10)
- Diversifying Query Suggestion Results (AAAI'10)
- A Generalized Co-HITS Algorithm and Its Application to Bipartite Graphs (KDD'09)
- Entropy-biased Models for Query Representation on the Click Graph (SIGIR'09)
- Effective Latent Space Graph-based Re-ranking Model with Global Consistency (WSDM'09)
- Formal Models for Expert Finding on DBLP Bibliography Data (ICDM'08)
- Learning Latent Semantic Relations from Query Logs for Query Suggestion (CIKM'08)
- RATE: a Review of Reviewers in a Manuscript Review Process (WI'08)
- MatchSim: link-based web page similarity measurements (WI'07)
- Diffusion rank: Ranking web pages based on heat diffusion equations (SIGIR'07)
- Web text classification (WWW'07)

On-Going Research

Recommender Systems/Collaborative Filtering

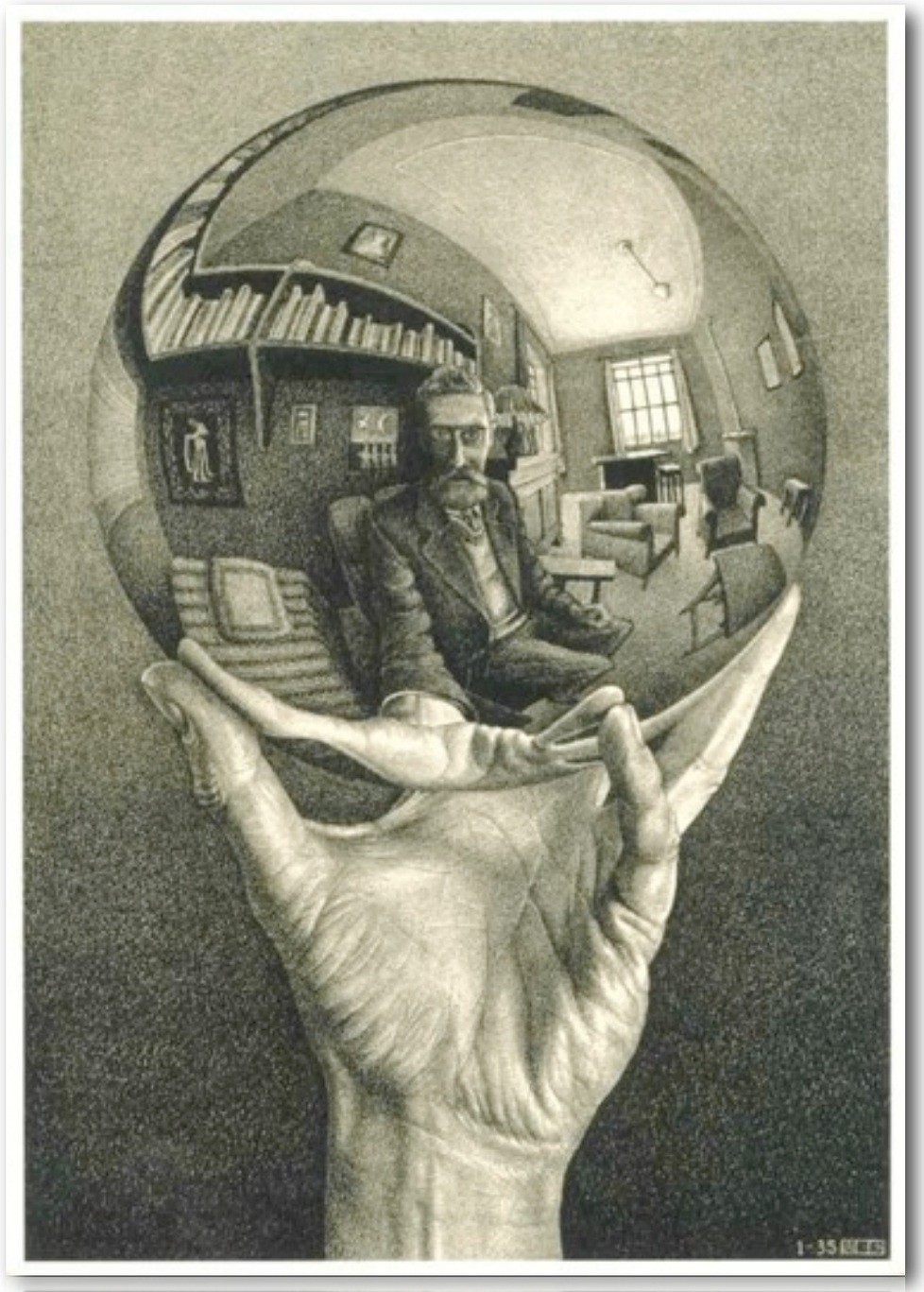
- Recommender Systems with Social Regularization (WSDM'11)
- CMAP: Effective Fusion of Quality and Relevance for Multi-criteria Recommendation (WSDM'11)
- UserRec: A User Recommendation Framework in Social Tagging Systems (AAAI'10)
- Learning to Recommend with Social Trust Ensemble (SIGIR'09)
- Semi-Nonnegative Matrix Factorization with Global Statistical Consistency in Collaborative Filtering (CIKM'09)
- Recommender system: accurate recommendation based on sparse matrix (SIGIR'07)
- SoRec: Social Recommendation Using Probabilistic Matrix Factorization (CIKM'08)

Human Computation

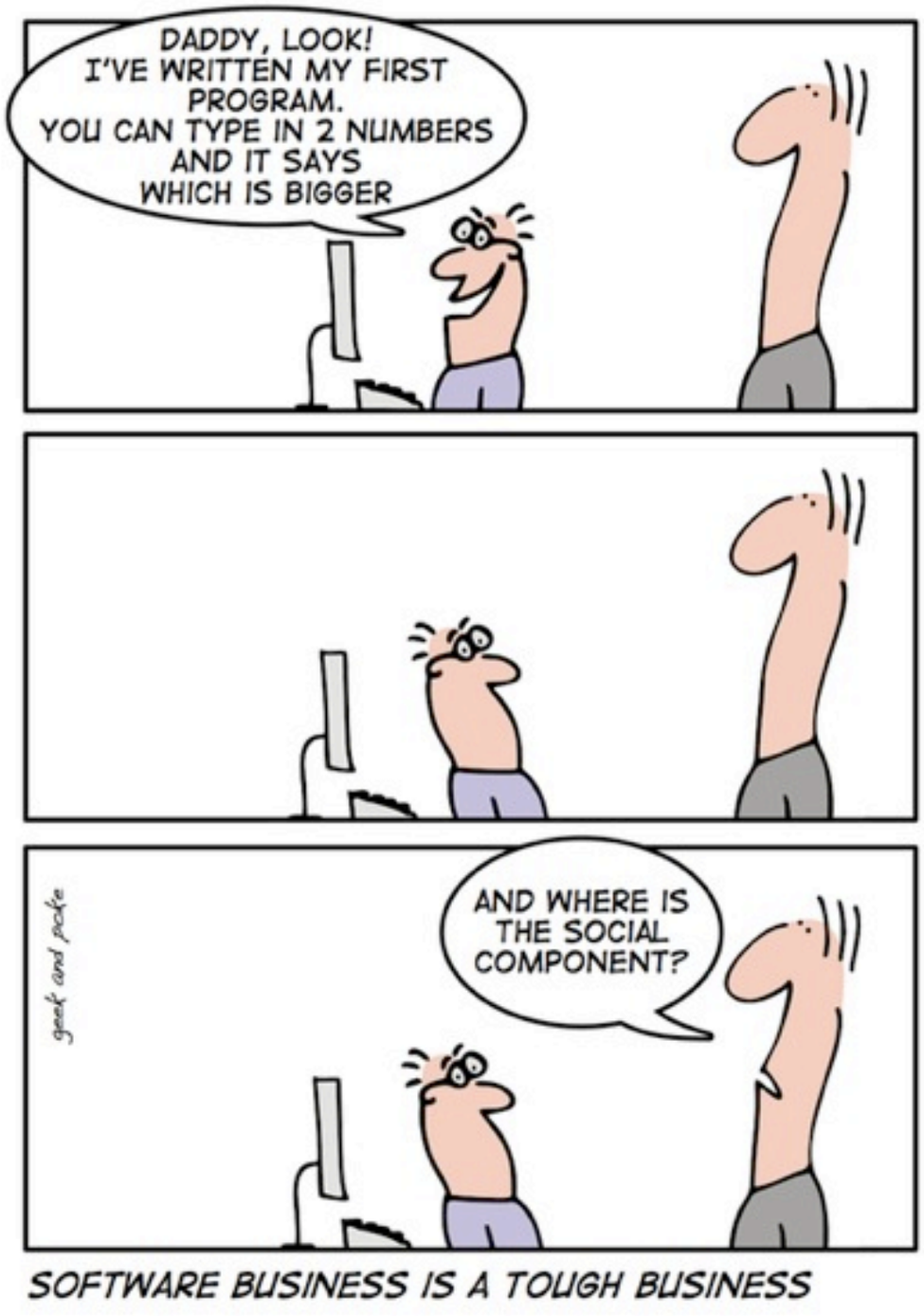
- Collection of User Judgments on Spoken Dialog System with Crowdsourcing (SLT'10)
- A Survey of Human Computation Systems (SCA'09)
- Mathematical Modeling of Social Games (SIAG'09)
- An Analytical Study of Puzzle Selection Strategies for the ESP Game (WI'08)
- An Analytical Approach to Optimizing The Utility of ESP Games (WI'08)

Emerging 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, privacy, trust, and risk issues
- Monetization of social interactions
- Service-based software platforms and development tools



Are You Social Computing Ready?



WSDM2011


Search
Home
About
Committee
Authors
Attendees
Program
Sponsors
wsdm
2011 Hong Kong
Fourth ACM International Conference
on Web Search and Data Mining
9-12 February 2011
Hong Kong
QUICK LINKS
Workshop Information
IMPORTANT DATES
Jul 25 Workshop proposals
Aug 1 Paper submission
Aug 23 Workshop notification
Sep 1 Tutorial proposals
Oct 15 Paper notification
SPONSORS
Platinum Sponsors
Microsoft Research
WSDM2011
WSDM (pronounced "wisdom") is the premier international ACM conference covering research in the areas of search and data mining on the Web. The 4th ACM WSDM Conference will take place in Hong Kong, during February 9-12, 2011.
WSDM publishes original, high quality papers and presentations related to search and data mining on the Web and the Social Web, with an emphasis on practical but principled novel models of search, retrieval and data mining, algorithm design and analysis, economics implications, and in-depth experimental analysis of accuracy and performance.
Breaking News

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

Q & A