

Social Technology

Marti A. Hearst
UC Berkeley

Social Technology:

Technology used by groups of people.

How society is being changed by technology-mediated interactions.

Talk Structure

- Examples of social (uses of) technology.
- Consequences.
- What makes social systems work?
- Implications for IT research.

Social Technology Categories

- Recruiting Outside Expertise
- Crowdsourcing
- Shared Data
- Shared World / Platform
- Collaborative Creation
- Social Networks
- Idea Markets
- Implicit Contributions

Recruiting Outside Expertise: The Goldcorp Challenge

GoldCorp Challenge

- Rob McEwen was stuck for ideas about how to decide where to drill in Ontario.
- Went to a meeting at MIT in 1999, heard about open source programming.
- Decided to try it with gold prospecting!
 - Ran a contest
 - Predictions both confirmed their geologists' predictions and produced new sites.



Recruiting Outside Expertise: Innocentive

INNOCENTIVE[®]



Companies contract with InnoCentive as "Seekers" to post R&D challenges. Scientists register as "Solvers" to review challenges and submit solutions online. The Seeker company reviews submissions and selects the best solution. InnoCentive issues the award amount to the winning scientist/Solver.

	AWARDED	CHALLENGE	
	Winner: Jayashree Mirji Award Issued on: Mar 03, 2009 Read Bio	Mar 03, 2009 INNOCENTIVE 7672675 High Refractive Index Polycarbonate	
	Winner: Susan Lewinson Award Issued on: Mar 02, 2009 Read Bio	Mar 02, 2009 INNOCENTIVE 7273006 Novel approaches/incentives for biomarker research and qualification	
	Winner: Steve Donoho Award Issued on: Mar 02, 2009 Read Bio	Mar 02, 2009 INNOCENTIVE 7273006 Novel approaches/incentives for biomarker research and qualification	
	Winner: Nikolay Barashkov Award Issued on: Feb 24, 2009 Read Bio	Feb 24, 2009 INNOCENTIVE 7550166 #name Release	

- Products
- Seekers
- Solvers
- Marketplace

Disciplines

- Business and Entrepreneurship
- Chemistry
- Computer Science and IT
- Engineering and Design
- Food Science
- Life Sciences
- Mathematics and Statistics
- Physical Sciences
- Requests for Partners/Suppliers

Pavilions

- SAP Innovation & Technology
- The Rockefeller Foundation
- Clean Tech and Renewable Energy
- Global Health
- Public Policy and Citizens in Action

- FAQ
- My InnoCentive
- Refer-A-Friend
- Blog
- News and Events
- About Us

Computer Science/Information Technology : Human Interface

Search Challenges:

 [Summary](#)



View By Category:

Sort By:

List By:

Showing 7 out of 7

Polestar Innovation Challenge

Challenge Reward: **\$20,000 USD** Challenge Type: **Ideation** INNOCENTIVE **8041758**



SAP has recently created the Polestar OnDemand Preview, this is a cloud version of their current SAP BusinessObjects Polestar technology. This Ideation Challenge will pay the winning developer(s) \$20,000 for creating novel, creative new ways of leveraging this exciting, new technology. The winning Solver(s) will be highlighted on the SAP Community Network and may be highlighted at upcoming [Sapphire](#) and [SAP TechE](#)
[Read More](#)

 DEADLINE: **Apr 05, 2009**

 248 Project Rooms

 Challenge Posted: Ma

Branchless Banking All-In-One Device

Challenge Reward: **\$10,000 USD** Challenge Type: **Ideation** INNOCENTIVE **7982292**



The Seeker, a globally operating not-for-profit, is looking to streamline the suite of information technologies field agents that work in the financial industry in the developing world. This is an Ideation Challenge so Solv only offer high-level pen-and-paper solutions. [Read More](#)

Recruiting Outside Expertise: Key Points

- One organization can't be employing all the necessary expertise to solve hard problems.
- The connectivity of the Internet makes it possible like never before to find the missing expertise puzzle pieces.
- The Long Tail of personal expertise.

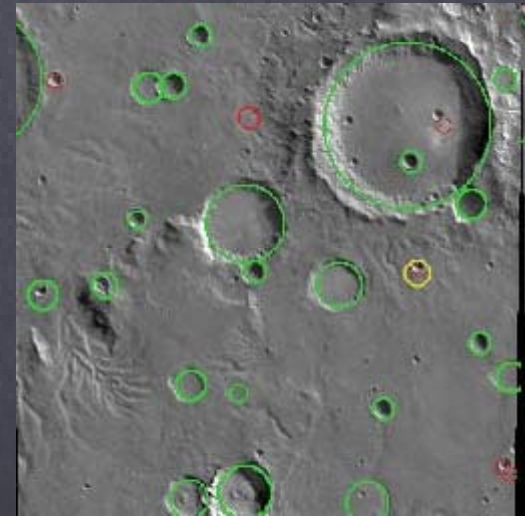
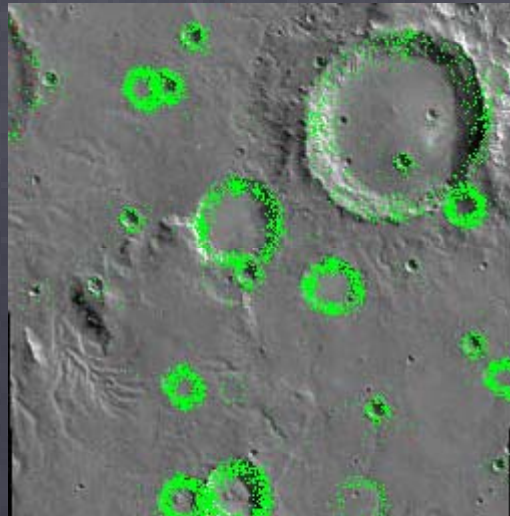
Crowdsourcing

Crowdsourcing: Amazon's Mechanical Turk

- A pool of thousands of people
- Small tasks, small pay
 - Many people do it for entertainment + pay
- Careful modularization required
- Already a research tool
 - Relevance judgements for search
 - NLP assessments
 - User Interface assessments

Crowdsourcing: NASA Clickworkers

Early experiment, in 2001
Mars images from Viking Orbiter
Citizen Science in action



Crowdsourcing: More Examples

- Stork's OpenMind Initiative (1999)
 - Including a game: shoot zeros vs. O's
- HotOrNot (2000)
- vonAhn's ESP game (2004)
- KittenWar! (~2005)

winningest kittens
losingest kittens
newest kittens
add your kitten
facebook group
kittenwar myspace

faq
e-mail us

kitten search:

t-shirts and stuff

RESULTS



← WIN LOSE →



CLICK PICS FOR STATS

61% of people
agree that Barnum
& Bailey is cuter



kittenwar



Rock And Gem

VS.



O-dog

Click the cutest kitten picture!

Can't decide? [Refresh the page](#) for a draw.

[Give Your Cat The Best](#)

Get \$2.00 Off On Your Next Purchase of
Worlds Best Cat Litter



[Meet Rich, Wealthy Poeples](#)

Successful, Attractive Personal Ads Elite
Internet Dating At Its Best!

Ads by Google

Crowdsourcing: Key Points

- Little to no expertise needed.
- The connectivity of the Internet makes it possible like never before to find enough people with the time and willingness to do these tasks.

Publicly Shared Data

Shared Data: Augmenting Information Objects

Bookmarks

Tags

Favorites

Comments

Reviews

Ratings

Shared Data: Mashups



Report data last published by Oakland Police: 4 days ago

Home

Map

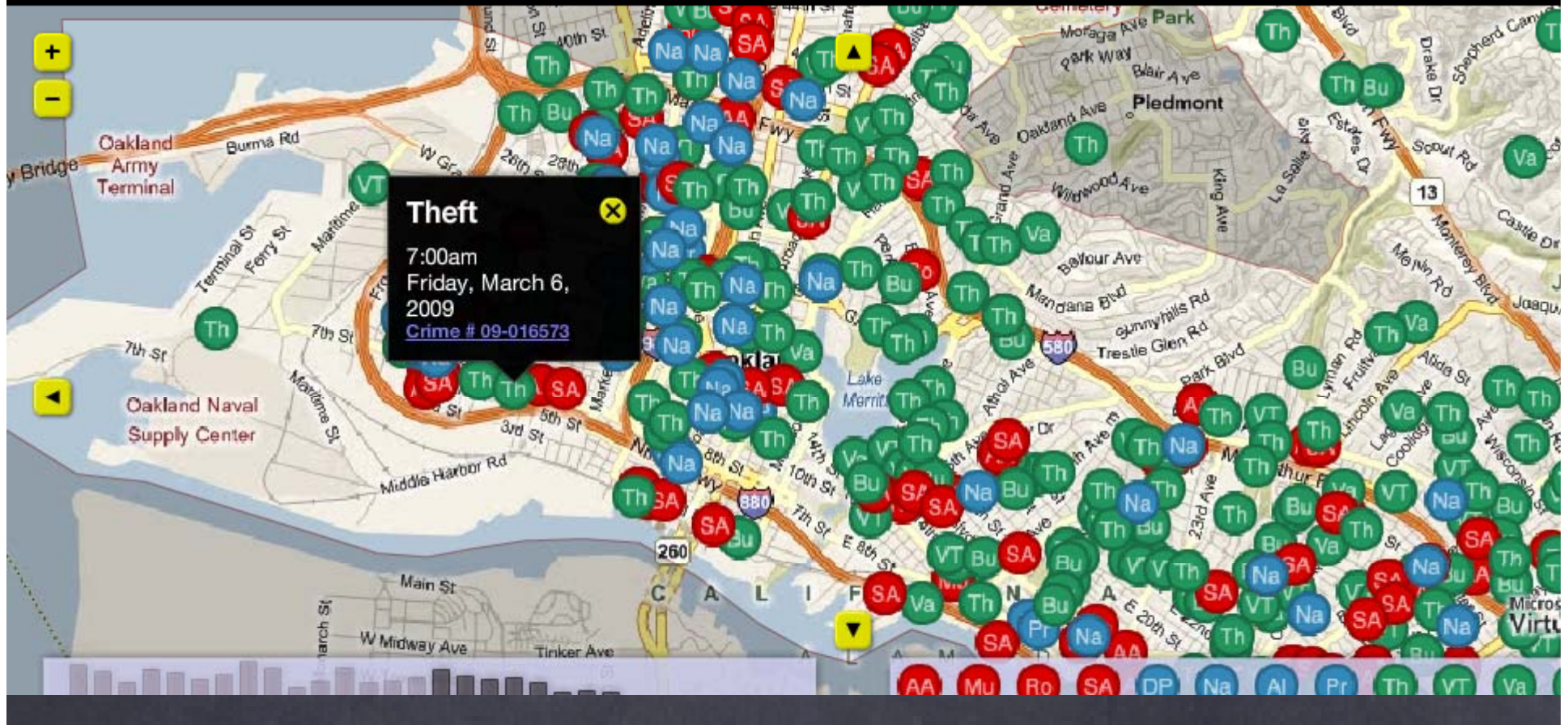
Crime Reports

Police Beats

Alerts

About

Feedback



Shared Data: Influencing Outcomes by Voting

- American Idol
- Kitchen Democracy

Kitchen Democracy Experiment



Kitchen Democracy
CONNECTING CITIZENS AND CITY HALL

[Home](#)

[How It Works](#)

[About Us](#)

[Donate](#)

[Privacy](#)



Citizens

Too busy for City Hall tonight?

Say it now on Kitchen Democracy.

[How to connect with City Hall](#)



Find Your City

- » [Alameda](#)
- » [Berkeley](#)
- » [Kensington](#)
- » [Oakland](#)
- » [Santa Clara](#)

» [more...](#)



City Hall

Can't talk with every resident?

Connect with them on Kitchen Democracy.

[How to connect with citizens](#)

[Home](#)

[How It Works](#)

[About Us](#)

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[Terms of Service](#)

Kitchen Democracy Experiment

The screenshot displays the Kitchen Democracy website, which features a header with a stylized American flag and the text "Kitchen Democracy CONNECTING CITIZENS AND CITY HALL". A navigation bar includes links for Home, How It Works, About Us, Donate, and Privacy. On the left, a sidebar lists cities: Alameda, Berkeley, Kensington, Oakland, and Santa Clara. The main content area is titled "The Berkeley Kitchen Forum (30 Topics)" and is divided into "Open Topics" (currently empty) and "Closed Topics". The "Closed Topics" section lists several discussion topics:

- Bus-Only Lanes**: Should Berkeley support AC Transit's plan for bus-only lanes on Telegraph Ave?
- Rent Control Reform**: Is it time to reform Berkeley's rent control laws?
- Protect Speech & Assembly**: Should Berkeley City Council Affirm that Free Speech & Assembly rights apply to U.S. Military Recruiters?
- Reduce and Recycle**: Should we sort ALL trash, reducing disposal costs and generating revenue from the sale of...

Kitchen Democracy Experiment

The screenshot displays the Kitchen Democracy website interface. At the top, the logo features a stylized kitchen sink icon and the text "Kitchen Democracy" in a script font, with the tagline "CONNECTING CITIZENS AND CITY HALL" below it. A navigation menu includes links for Home, How It Works, About Us, Donate, and Privacy. The main content area shows a forum post titled "Protect Speech & Assembly" with the question: "Should Berkeley City Council Affirm that Free Speech & Assembly rights apply to U.S. Milita Recruiters?". The post is by Donald Morgan, dated August 29, 2008. A horizontal bar chart shows the poll results: Yes (approximately 80%), No (approximately 15%), Neutral (approximately 3%), and Maybe (approximately 2%). The user's response is "I say yes", followed by their statement: "Opposition the Iraq war is not a valid reason to prevent the armed forces from maintaining readiness through recruitment, even in Berkeley. In fact, I cannot think of ANY valid reason denying free speech rights to any group in the home of the Free Speech Movement."

Forum Home

[Home](#) [How It Works](#) [About Us](#) [Donate](#) [Privacy](#)

City

- [Alameda](#)
- [Berkeley](#)
- [Kensington](#)
- [Oakland](#)
- [Santa Clara](#)

Protect Speech & Assembly

Should Berkeley City Council Affirm that Free Speech & Assembly rights apply to U.S. Milita Recruiters?

[Search](#) [Download](#)

Statements

Click bars or numbers to select statements

Yes	80%
No	15%
Neutral	3%
Maybe	2%

Total: **August 29, 2008**

Donald Morgan

I say yes

Opposition the Iraq war is not a valid reason to prevent the armed forces from maintaining readiness through recruitment, even in Berkeley. In fact, I cannot think of ANY valid reason denying free speech rights to any group in the home of the Free Speech Movement.

Shared Data: Crimefighting



Home About AMW John Walsh Widgets Show Archive Contact Us Search

SAT 9/8c FOX

AMERICA'S MOST WANTED

CALL 1-800-CRIME-TV
TO REPORT A TIP

AMBER ALERT 

* AMBER Alert: Michigan |
More AMBER Alerts *

ABOUT JOHN WALSH ▶
PHOTO GALLERY ▶

Fugitives **TOP STORY** **BEHIND THE SCENES**

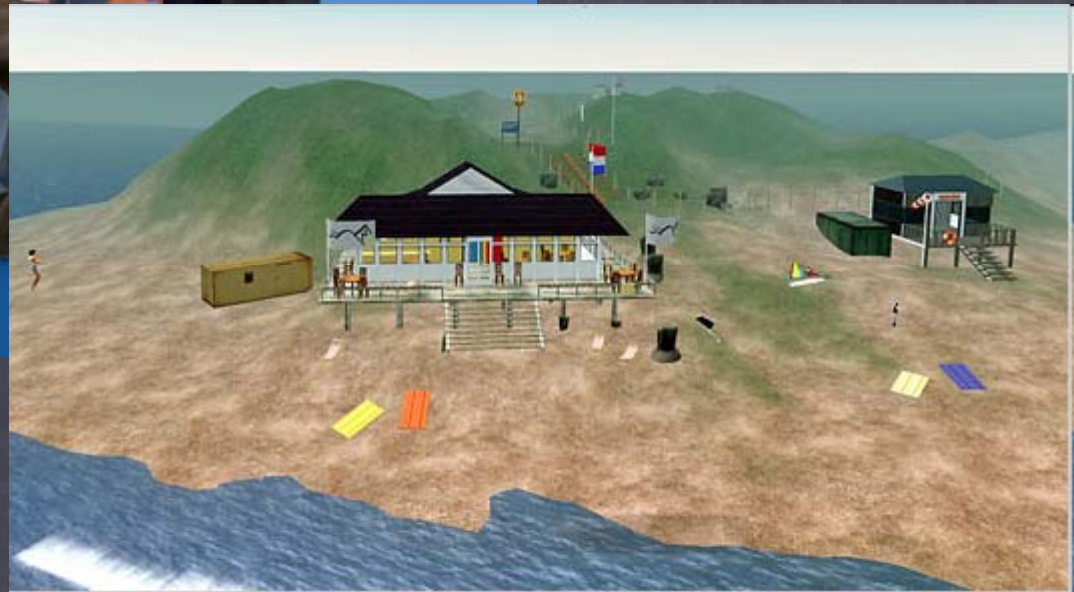
Shared Data: Key Points

- Easy to participate, but requires some expertise or specialized access (have bought and used product, read the book, have an opinion about the legislation).
- Not a project with a coordinated goal; rather people are contributing to specific data items that they choose themselves.
- Being able to see and search the entire set of user-augmented data creates value for everyone.

Shared World / Platform

Inspiring People to Create

Shared World / Platform: Participatory Games



Shared World / Platform: Third Party iPhone and Facebook Apps



Shared World / Platform: Key Points

- Requires people to have some skill or creativity; only a subset contribute.
- Long tail contributions, not to a coherent whole, not for a goal.
- The massive exposure and participation levels make it worthwhile to make these creations.

Large-Scale Collaborations

- Open source software
- Top Coder
- Wikipedia
- Peer 2 Patent

Peer 2 Patent

Collaborative Patent Review

COMMUNITY PATENT REVIEW

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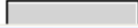
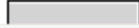

[Home](#) > [Application List](#)

Active Patent Applications

Archived Applications

Please click on the name of an application to view that application.

Graph Style: [Bar Chart](#) | [Line Chart](#) | [Scale](#) [Subscribe](#) 

Patent Application Title	Community	Discussion	Prior Art	Annotations	Days Remaining
User-created metadata for managing interface resources on a user interface	14 	6 	5 	1	10 
Platform for loyalty services	5 	3 	2 	0	31 
Market-based continuous quality function deployment tool and method of use	2 	0 	0 	0	31 
Techniques for project lifecycle staged-based access control	4 	0 	0 	0	31 
Advertisement approval based on training data	1 	0 	1 	0	31 

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Home > [Application](#)

[Active Patent App](#)

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Patent Application Tr

User-created metadata interface

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Market-based contin of use

Techniques for proje

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Peer-to-Patent opens the patent examination process to public participation for the first time. Become part of this historic program. Help the USPTO find the information relevant to assessing the claims of pending patent applications. Become a community reviewer and improve the quality of patents.





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- [Learn more about how Peer-to-Patent works here](#)

New Applications

Most Active Teams

Applications In Need

News

-  14 [User-created metadata for managing interface re...](#)
-  7 **New!** [Risk assessment company](#)
-  5 [Platform for loyalty services](#)
-  5 [Smart, secured remote patient registration work...](#)

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The Peer-to-Patent project will review up to 400 applications classified in any of U.S. classificati 380, 700, 703, 705 through 715, 717, 718, 719, c These cover Computer Architecture, Software an Information Security, Business Methods and E-Commerce). Eligible applications will be gran expedited review by the USPTO.

[Click to apply](#)

WHAT KIND OF PATENTS CAN I HELP TO REVIEW

policy issuance Computerized insurance INSURANCE POLICY property and casualty insurance insurance premium quantitative ri underwriting automobile insurance prem insurance decision eligibility criteria data m

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Home > Application

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[New Applications](#) | [Most Active Teams](#) | [Applications](#)

	14	User-created metadata for managing
	7	New! Risk assessment company
	5	Platform for loyalty services
	5	Smart, secured remote patient registra

PATENT APPLICATION PRIOR ARTIST AWARDS



These contributors submitted prior art or annotations used by the USPTO in making the determination of patentability.

Name	Type	Patent Application
Alexandre Eichenberger	Prior Art	Method and apparatus for an inductive doubling arch...
Gabriel Gomez	Prior Art	Image inversion
Sharat Mendu	Prior Art	Computer compliance system and method
Charles Peck	Prior Art	System and method for implementing a multi objectiv...
Jeff Morrill	Prior Art	Method of obtaining data samples from a data stream...
Christian Seifert	Prior Art	Honey monkey network exploration
Steven Pearson	Prior Art	Method and apparatus for selectively executing diff...
Susan Murray	Prior Art	Methods of enhancing media content narrative
Kathy Wang	Prior Art	Honey monkey network exploration
Mark Nowotarski	Prior Art	Tuning core voltages of processors
Walter Dietrich	Prior Art	System and method for retaining information in a da...

[more ...](#)

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TO REVIEW

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Large-Scale Collaborations: Key Points

- Usually requires some expertise; the kinds of expertise needed are heterogeneous.
- People are working together towards a shared goal.
- Can only be done because of the supporting technology.
- The pieces need to be modularized (sometimes by a central entity).

Idea Markets

- Set up a market with an idea as a premise.
 - Public policy questions.
 - How would crime rates change if more citizens could legally carry hidden guns?
 - Make a market based on the crime rate change after a hidden-gun bill was passed. (Hansen 1999)
 - Internal product markets.
 - Manage IT portfolio via a trading market.

Idea Markets: Key Points

- Ferrets out hidden expertise or hidden information.
- People don't have to expose what they know directly.
- People don't have to know all pieces of the puzzle; it (hopefully) arises out of the mix.
- The connectivity of the Internet makes it possible like never before to find enough people with the right pieces of information to do this.

Social Networks

- Undirected social networks
 - Facebook, MySpace, etc.
- Directed Social Networks
 - Connected within an organization, or for a purpose.
 - IBM's Dogear Intranet system
 - GovLoop
 - Slideshare

GovLoop

Last View: 3:15PM, 13 Mar 09


Last On: 7:11PM, 13 Mar 09

Mary Davie

Female

Arlington, VA

United States


 [Add as Friend](#)

MY RANKING 



Super User

1320 points

 [Share](#)

 [Block Messages](#)

Applications

[Blog Posts \(1\)](#)

[Discussions \(5\)](#)

Events

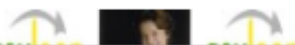
[Groups \(7\)](#)


Photos

Photo Albums

Videos


MARY DAVIE'S FRIENDS




 [Bjorn Miller](#) [left a comment for Mary Davie](#) yesterday

 [Lesa Scott](#) [commented on the blog post 'Project of the Week - "Around the Corner"'](#) yesterday

“ Mary, now you've done it, you've got me thinking about becoming a blogger! ”

 [Martha Przysucha](#) [commented on the blog post 'Project of the Week - "Around the Corner"'](#) on Thursday


“ Thank you Mary, and Casey! This is an excellent intro to those considering launching a blog or just trying to understand social media. I'm interested in the measurements for ROI on social media implementations. Will watch for more from GSA! ”

 [Janice](#) [commented on the blog post 'Project of the Week - "Around the Corner"'](#) on Wednesday

“ Very informative Mary. I'm learning a lot about blogging and social networking thanks to you. I'm having fun too. ”

 [Greg Berry](#) [commented on the blog post 'Project of the Week - "Around the Corner"'](#) on Wednesday

“ Great job Mary! Thank you for "introducing" me to Casey. The timing couldn't be better, we are launching our new blog soon (since Google deleted our old one for reasons unknown to us) and it gave me some ideas on how to structure it... ”

 [Mary Davie](#) and [Faye Farah](#) are now friends on Wednesday



 [Adriel Hampton](#) [commented on the blog post 'Project of the Week - "Around the Corner"'](#) on Wednesday

“ Thanks, Mary! Always interested in the process behind official social media projects. ”

GovLoop

Marti Hearst Sign Out Search Social Network



Main Invite My Page Members Rankings Blogs **Groups** Forum Jobs Events Multimedia Knowledge

All Groups My Groups [+ Add a Group](#)

All Groups (288)

Search Groups Sort by: Most Active

**Geeks in Government**
120 members
Latest Activity: 4 hours ago
Science and sci-fi geeks come out of the government closet!

**CRM**
4 members
Latest Activity: 1 day ago
govloop group dedicated to educating on the topic of CRM (Customer Relationship Management). Collaborative group offering best practices, findings, li...

**Mac Lovers Unite**
31 members
Latest Activity: 1 day ago
To all mac lovers - long-time fans and recent

**Web Metrics**
84 members
Latest Activity: 1 day ago
Discussion group for Government Web

Marti Hearst
Sign Out

- Inbox
- Alerts
- Friends – Invite
- Settings

Quick Add...

GovLoop



[Can Government Procurement Be Streamlined By Using Collaboration Technologies and Social Media?](#)

By [Dennis D. McDonald, Ph.D.](#) *Author's note: this is a republication from the author's web site [located here](#).* The report [Six Practical Steps to Improve Contracting](#) by Dr. Allan V. Burman, Adjunct Professor, George Mason University, is based on a series of discussions co-sponsored by The IBM Cente... [Continue](#)

Added by [Dennis McDonald](#) on February 27, 2009 at 3:22pm — [5 Comments](#)



[In which I make a case for \(a little bit of\) Web 1.0 in the Government 2.0 world](#)

I've been thinking about [Dennis McDonald's](#) thoughts about [K-TOC](#). He wrote: "I guess I see an advantage to being able to easily differentiate between a web site that serves as an official portal, and a web service that facilitates a mix of formal and informal communication. The question is, how realistic is it to combine the two?" I tap-danced around Dennis's points in my response, but I've had a chance to think about it for... [Continue](#)

Added by [Patrick Quinn](#) on February 25, 2009 at 4:34pm — [3 Comments](#)



[Making Recovery.gov first step toward smart regulation](#)

(This post [appeared originally in the Huffington Post, Feb. 23, 2009](#). Reprinted with permission)

The Obama Administration created [Recovery.gov](#) as a critical stimulus component, taking a "don't trust us, track us" approach to assure funds are

[June](#) (21)

[May](#) (5)

[April](#) (4)

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2007

[November](#) (2)

Social Networks: Key Points

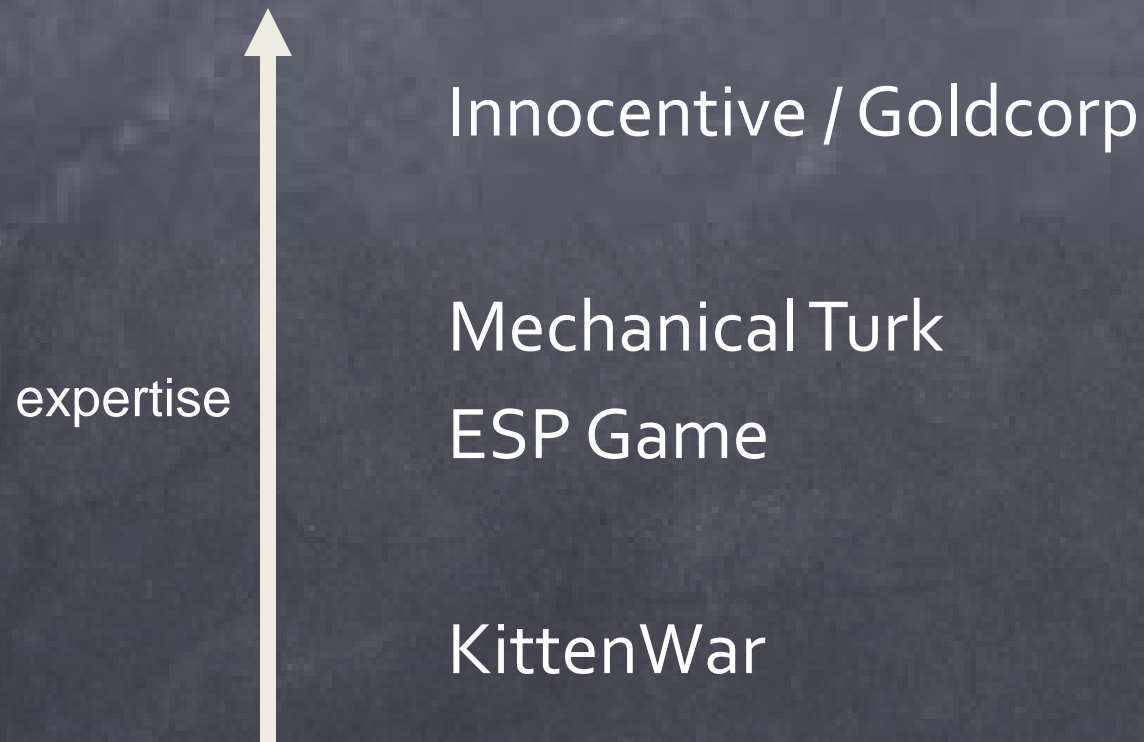
- Usually no expertise required.
- Identity is central, relationships are key.
- People make contributions, or just hang out.
- Value rises out of connectedness, sometimes leading to virality.

Implicit Contributions

- Clicks on
 - Search results
 - Recommended items
 - Ads
- Search queries
- Anchor text (in hyperlinks)


Putting it all Together

Many People, Don't See Others' Activities / Data



Many People, Shared Data, but Not Working Together

Expertise
or
Special
knowledge



SIMS tools, iPhone apps

Idea Markets

Crime fighting

Reviews, comments, tags ...

Social networks, voting

Many People, Shared Data, and Working Together

Open source software

Peer2Patent

Wikipedia

Top Coder

Scientific Research

Consequences

Participation has Consequences

Comments

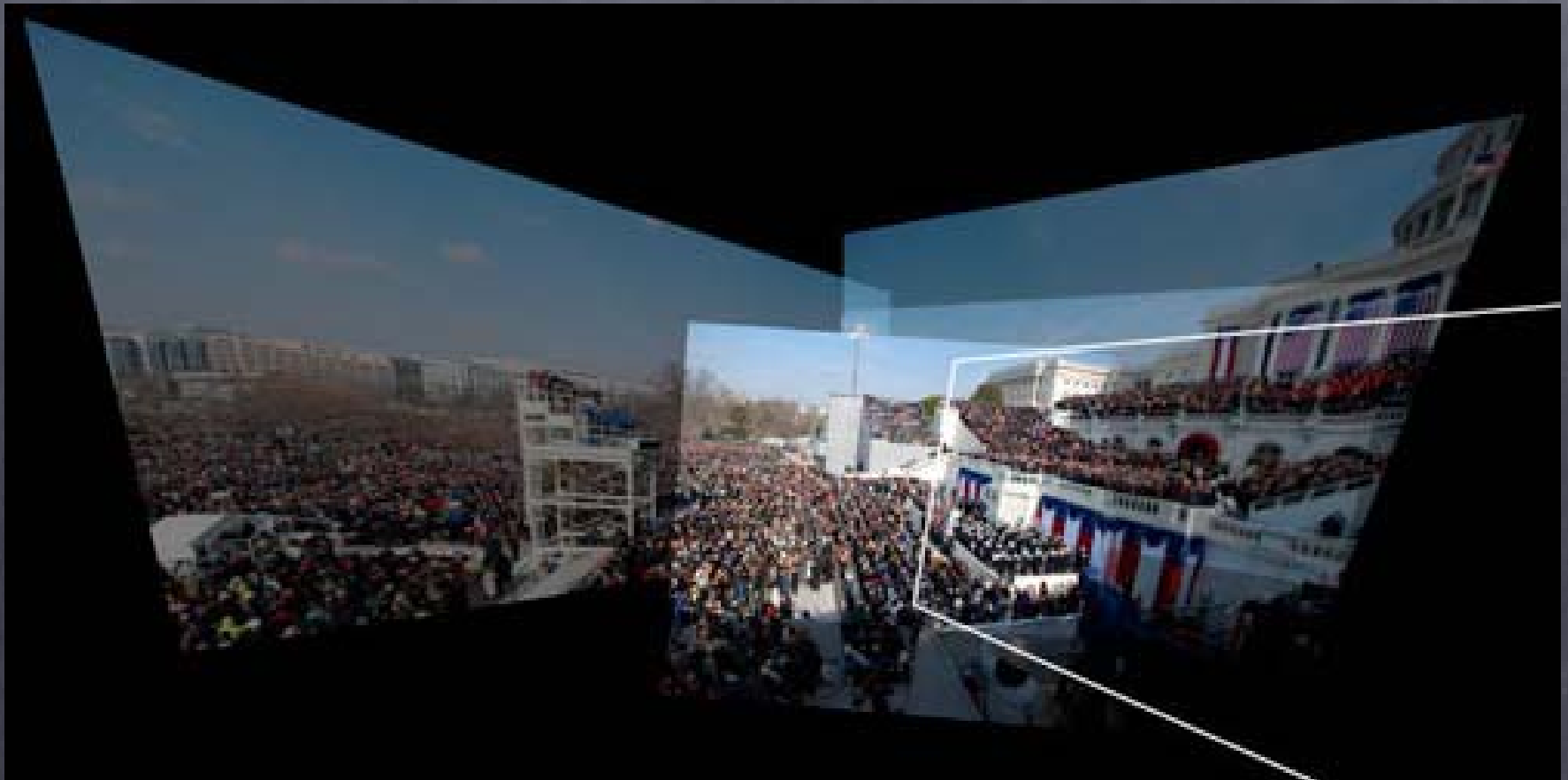
- Influence the perception of which sentences should go in a summary
 - Hu, Sun, Lim, CIKM'07

Reviews

- Affect purchasing choices.
 - Chevalier, J. A., and Mayzlin, D. 2006
 - Chen, Dhanasobhon, & Smith 2007
- Businesses no longer control the conversation about their products and brand.
 - Bickart & Schindler 2001

Latent Groups Reified Have Consequences

- Stranded airplane passengers, 1999 vs 2006.
- HSBC bank, student accounts.
- Purple tunnel of doom ticket holders.
- Every camera-bearing person attending the Inauguration.



Consequences: Expectations Have Changed

- Building new CACM website: must have comments!
- Government must make data available!
- Companies must respond to customers!

Downsides

- Socially destructive uses:
 - “Ana girls”
 - Autism/mercury controversy
 - eBay fraud
- Also happens without social technology:
 - “Swiftboat veterans for truth”
 - Bernie Madoff

Theoretical Underpinnings

Well, some thoughts anyhow

Some Pontificating

- What has changed about groups?
 - Clay Shirky, author of “Here comes everybody”
- What makes for a successful social site?
 - Rashmi Sinha, CEO of slideshare
 - Tim O’Reilly, O’Reilly media
 - Clay Shirky, author of “Here comes everybody”

Shirky on Groups

We have lots of words for them:

corporation, congregation,
clique, cabal, club, crowd

Shirky on Groups

- Much of the structure of social institutions is a response to the difficulty of managing groups.
(The organizational tools we use are those that are the least bad.)
- In changing the way groups form, communication is key.
- We now have tools that are flexible enough to match our in-built social capabilities.

Shirky on Groups

- In the past, we unconsciously assumed that people cannot self-assemble easily.
- Technology and expectations now allow the formation of otherwise “latent groups”.
- “The scope of work that can [now] be done by non-institutional groups is a profound challenge to the status quo.”

What leads to successful social?

Incentive-Centered Design

- “ICD is the science of designing systems or institutions that align participants’ (individual) incentives with overall system (social) goals.”
 - http://mblog.lib.umich.edu/~jmm/archives/2006/02/what_is_incenti.html

Defining Web 2.0

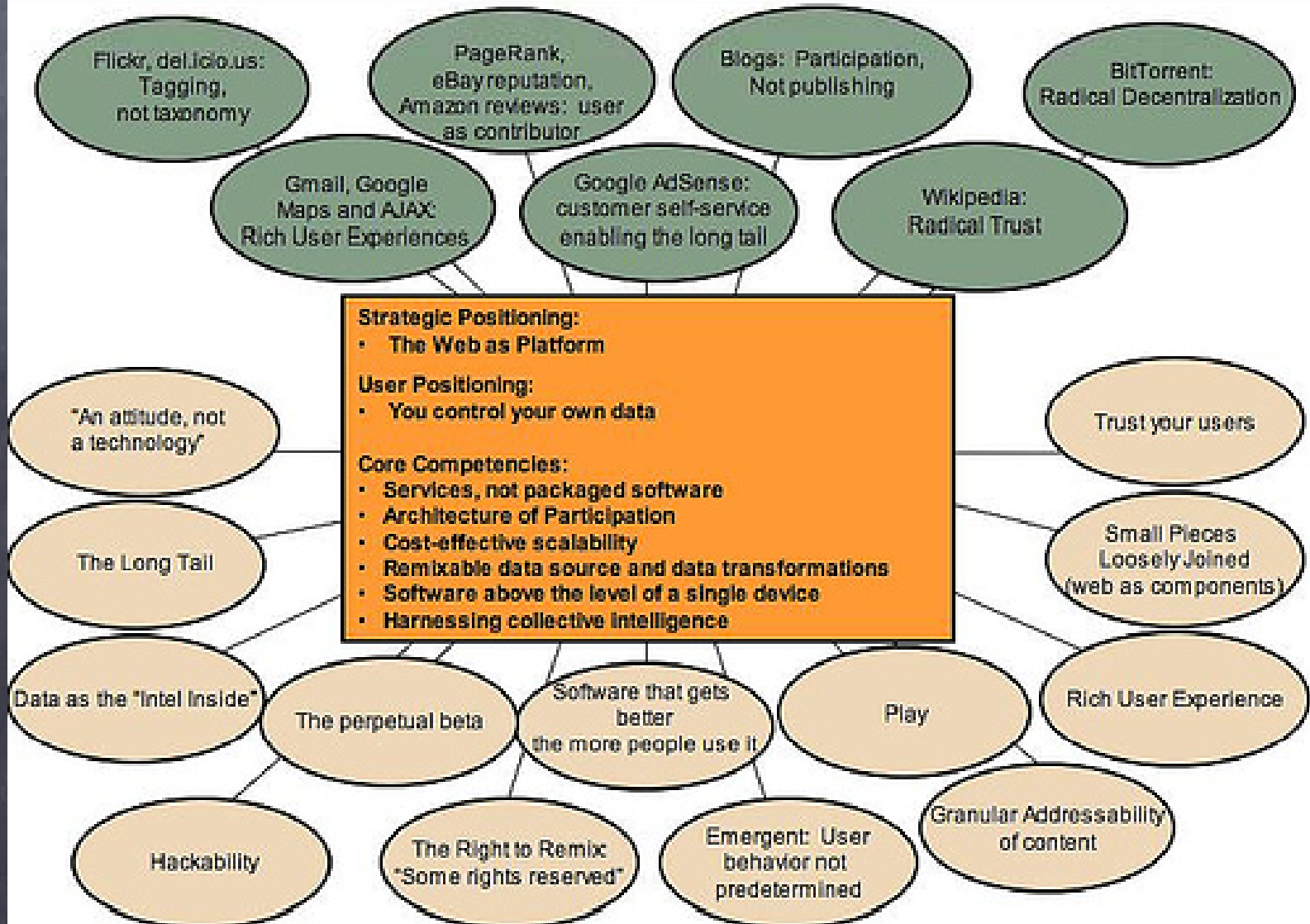
Web 1.0		Web 2.0
DoubleClick	-->	Google AdSense
Ofoto	-->	Flickr
Akamai	-->	BitTorrent
mp3.com	-->	Napster
Britannica Online	-->	Wikipedia
personal websites	-->	blogging
evite	-->	upcoming.org and EVDB
domain name speculation	-->	search engine optimization
page views	-->	cost per click
screen scraping	-->	web services
publishing	-->	participation
content management systems	-->	wikis
directories (taxonomy)	-->	tagging ("folksonomy")
stickiness	-->	syndication

Defining by Example, Brainstorming Starting Point, Tim O'Reilly & others
FooCamp, Aug 2005

Web 2.0 Principles

- O'Reilly on The Web 2.0 lesson:
 - *leverage customer-self service and algorithmic data management*
- Web as Platform
- Long tail (fringes) vs. Head
 - (Akamai vs bittorrent (p2p), doubleclick vs adsense, and more recently hulu vs youtube)
- Participation vs. publishing (scripting)
 - Reality tv vs. situation comedies
 - American Idol vs. record studios

Web 2.0 Meme Map



Collaboratively Generated Definition of Web 2.0

FooCamp, Aug 2005

Long Tail = Lots of “Failure”

- The power law nature of the information use means:
 - Most flickr photos are not commented on
 - Most blogs are read by only a few people
 - Most sourceforge projects have few downloads
 - Only a few meetup groups get really popular
- Making it cheap to fail allows for exploring a wide range of options.
- But companies can't hire people this way.

Sinha:



“Fast, cheap, & somewhat in control”

- Leave the beta underdeveloped (perpetual beta)
 - Less polished look allows users to feel ownership
- Put it out there. Respond. Refine.
 - Communicate with the first 10,000 users
 - (Caterina Fake of flickr says the same thing)
 - They email you every day, want to visit your offices
 - Customer service as user research
- Design for crowds:
 - Users drive navigation (tags, popularity)
 - Social networks, people interacting, comments, ratings.

Relinquish Control

Example: Plentyoffish.com

- Markus Frind, NYTimes 1/13/08
- 1.2 billion page hits in Dec '07
- Only one employee, 10 hours/week
- Site users do the photo screening



Example: Obama campaign

- Give volunteers real responsibility
- Incentivize with goals
- Don't try to control outsiders' messages

Relinquish Control

- Wikipedia, Linux, had visible leaders, but the rules were developed by the participants.
- Edinburgh Fringe Festival / Foo camp: big public events; the organization arises via controlled chaos.

Shirky: Successful Social Sites

- Three rules, but hard to combine them
 - Plausible Promise
 - Appropriate Tools
 - Acceptable Bargain

Plausible Promise

- The paradox of groups: I won't join unless I know others will too.
- Must attend personally to those who join early to help with this in many cases.

Appropriate Tools

- Delicious tagging allows the individual to benefit immediately, the group benefits as a side-effect.
- Livejournal benefited from having groups of teens joining together.

Acceptable Bargain

- Wikipedia had to make it clear they wouldn't go commercial in order to continue to expand.
- Some flickr groups have commenting rules.
- eBay didn't initially allow for a reputation system, but had to add it in.
- AOL guide writers felt they had been wronged after the site sold for lots of money.
- Digg had to allow posting of a DRM key

The Goverati

The Push for Open Data

- www.maplight.org
 - Gathering open data sets, doing mashups, esp. congressional voting records
- GovTrack.us
 - Gathering data on federal legislation
- stimuluswatch.org
 - Asking people to enter their own data on how Recovery funds are being spent.
- www.ombwatch.org
 - Internally gathered data (apparently)
- “Government Data and the Invisible Hand”
 - Paper by Felton et al.

Government Opening Data

- USAspending.gov
 - “google for govt” bill
- Fedspending.org
 - Narrower subset of USAspending
- Recovery.gov

Citizen Participation

- personaldemocracy.org
 - “a hub for the conversation already underway between political practitioners and technologists”
- kitchendemocracy.org
 - Discuss and vote on local issues

Research Questions

Main Questions

- Should this fundamentally change how research / science is conducted?
- Should this fundamentally change how research is funded?

Research Questions

- How to support constructive online debate?
- How to make citizen input scale?
- How to divide up tasks to allow for large-scale user participation?
- Which incentives work for which kinds of groups?
- What to do about destructive uses?
- What about those who are too shy to participate?
- Can any contributions be anonymous?
- Slander / correcting false information.

Research Example: What Makes Hit Songs?

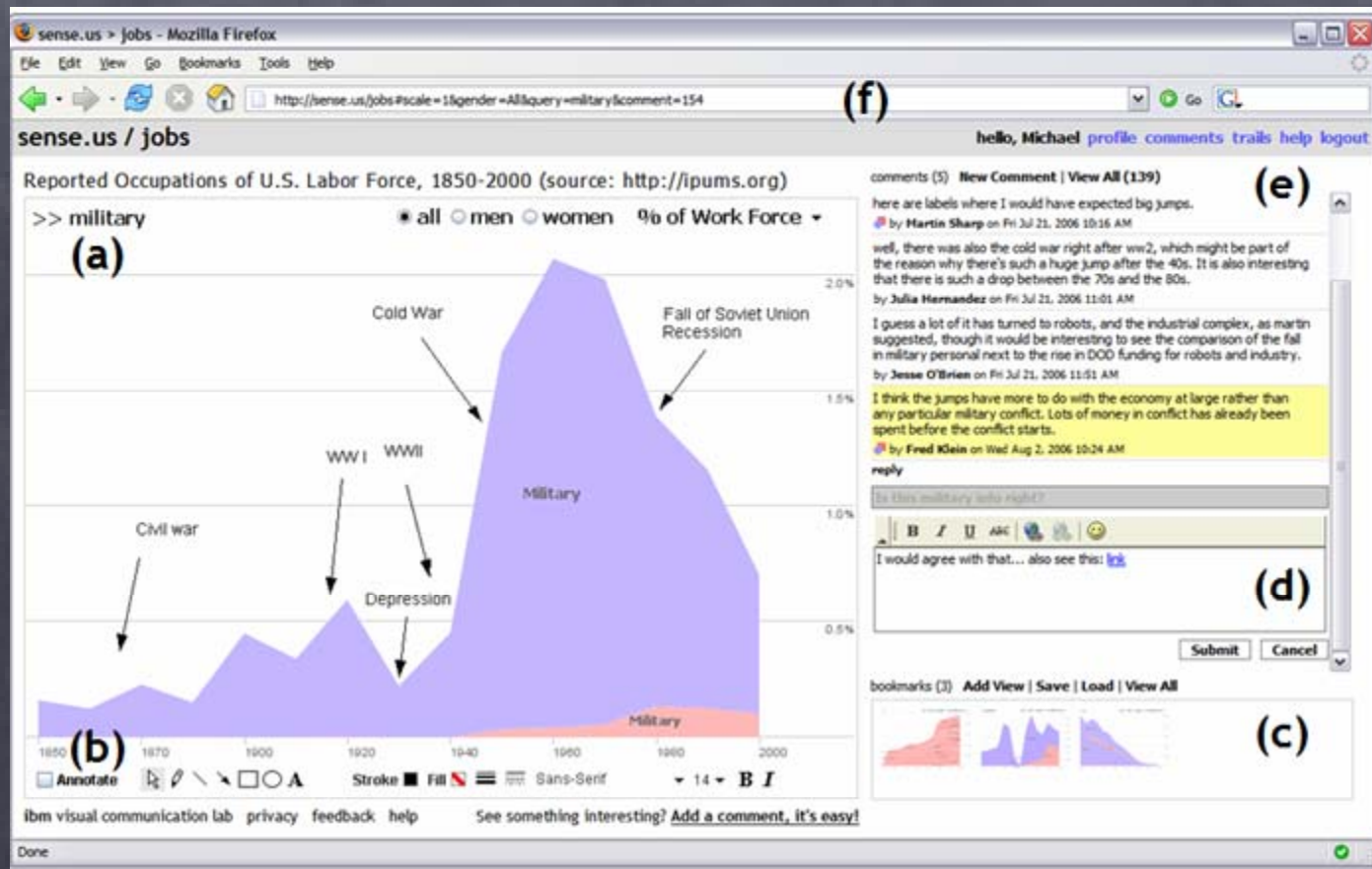
- Answer:
 - It's strongly affected by what other people think!
- NSF grant:
 - "Experimental Study of Inequality and Unpredictability in an Artificial Cultural Market", Salganik, Dodds, Watts

Research on Collaborative X

Collaborative Search
Collaborative Visualization

Collaborative Visualization

Sense.us (Heer): collaborative analysis around viz



Social Visualization

Manyeyes (Wattenberg & Viegas)
shared data, shared viz, but individual work

The screenshot shows the Manyeyes website interface. At the top right, there is a search bar with the text "visualizations" and a dropdown arrow, and a "search" button. To the right of the search bar is a "Login" link. Below the search bar is the heading "Try Our Featured Visualizations". There are four featured visualization cards:

- Where the AIG Bailout Money Is Going**: A bubble chart showing the distribution of bailout money across countries. Below the chart is the text "Which countries got the money?" and "by Ira Sager".
- Obama's Speech to Congress**: A word cloud visualization of key phrases from Obama's speech on Feb. 24. Below the chart is the text "Key phrases from Obama's speech on Feb. 24" and "by VictoriaLHerring".
- Unemployment insurance reserves**: A choropleth map of the United States showing unemployment insurance reserves by state for Q4. Below the chart is the text "Estimating financial resilience, by state, 2008 Q4." and "by ProPublica".
- What we need**: A word cloud visualization of what people need on Twitter. Below the chart is the text "I need to... on Twitter" and "by LeeByron".

Below the featured visualizations is the heading "Featured Topic Hubs". There are three topic hub cards:

- Economic Recession**: A small chart with the text "Let's hope it's over soon".
- Sports**: A small chart with the text "All things sports.".
- OECD Factbook 2007**: A pie chart with the text "Official statistics.".

At the bottom of the page, there is a banner with the text "Many Eyes Wikified is now public" and an illustration of a hand holding a stylized eye.

NSF HSD Program: A Good Start

- Human and Social Dynamics
 - Agents of Change (AOC)
 - Dynamics of Human Behavior (DHB)
 - Decision Making, Risk, and Uncertainty (DRU)
- About 14 IIS awards
 - Collaborative Research: IT-Enhanced Market Design and Experiments
 - Transformed Social Interaction in Virtual Environments
 - Scalable Computational Analysis of the Diffusion of Technological Concepts
 - Investigating the Dynamics of Free/Libre Open Source Software Development Teams

How to Study This?

Make your own social network:
Garcia-Molina's CourseRank

Should Research Change?

Thank you!

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