Lecture 2:
CS 5306 / INFO 5306:
Crowdsourcing and Human Computation

Crowdsourcing

- “Crowdsourcing is the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call.”

“The Rise of Crowdsourcing,” Jeff Howe, *Wired*, Jun 2006

Crowdsourcing

- "We say that a system is a [crowdsourcing] system if it enlists a crowd of humans to help solve a problem defined by the system owners, and if in doing so, it addresses the following four fundamental challenges:
  - How to recruit and retain users?
  - What contributions can users make?
  - How to combine user contributions to solve the target problem?
  - How to evaluate users and their contributions?"

"Crowdsourcing systems on the World-Wide Web," Anhai Doan, Raghu Ramakrishnan, Alon Y. Halevy. *Communications of the ACM,* Vol. 54 No. 4, Pages 86-96, April 2011

Human Computation

- "The idea behind digital computers may be explained by saying that these machines are intended to carry out any operations which could be done by a human computer."

"Computing Machinery and Intelligence." A.M. Turing, *Mind*, 59:236, (1950), 433-460.

Human Computation

- Human computation is “a paradigm for utilizing human processing power to solve problems that computers cannot yet solve.”

Human Computation, Luis van Ahn. Doctoral Dissertation, Department of Computer Science, Carnegie Mellon University (2005).

Human Computation

- "[H]uman computation systems can be defined as intelligent systems that organize humans to carry out the process of computation."

  Human Computation, Law and van Ahn 2011

Human Computation

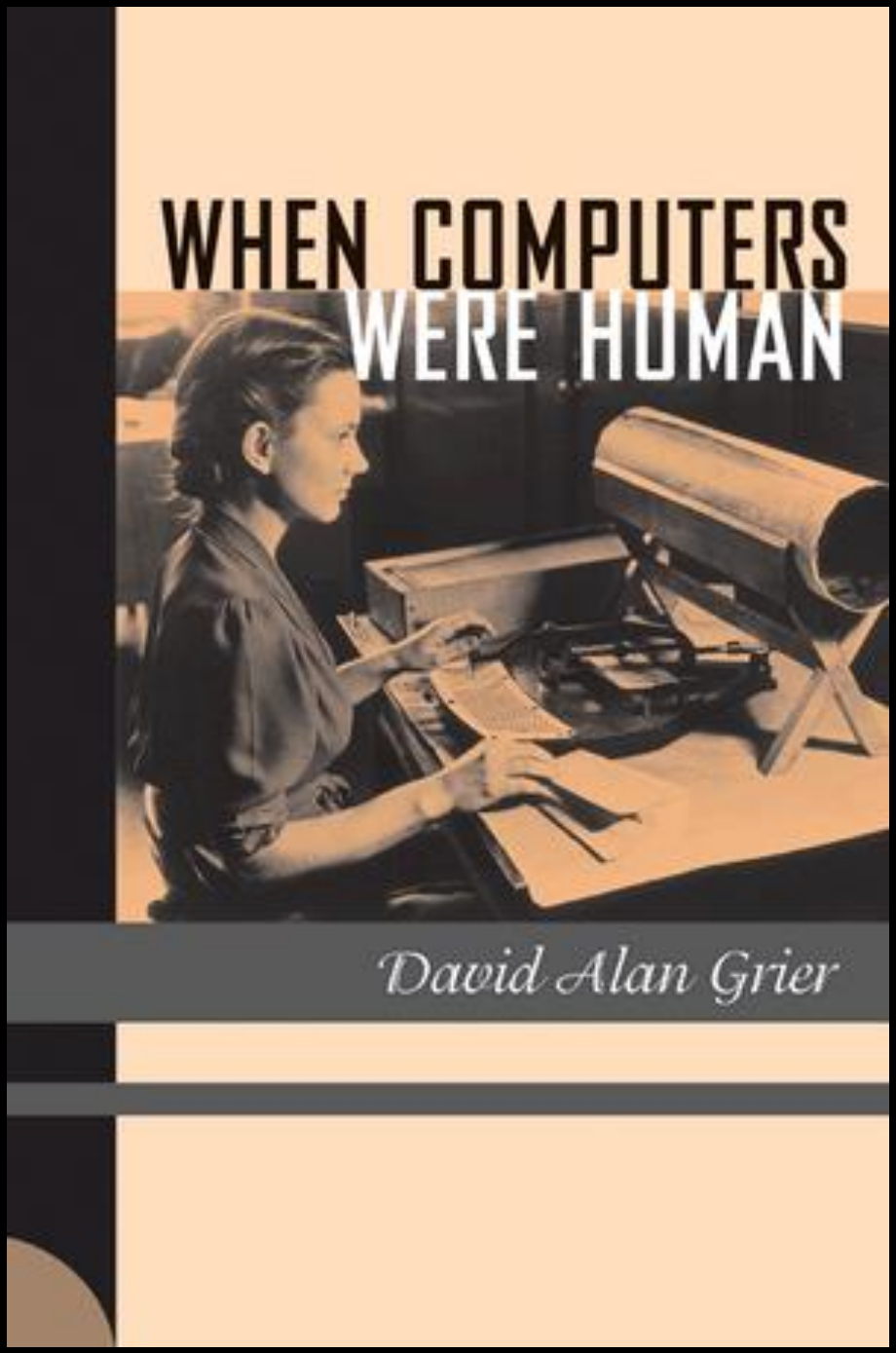
- Human computation:
  - The problems fit the general paradigm of computation, and as such might someday be solvable by computers.
  - The human participation is directed by the computational system or process

Quinn and Bederson CHI 2011

Human Computation

Thinking computationally about organized human labor

- Algorithms
- Abstractions
- Performance measures
  (correctness, accuracy, efficiency, cost, …)
- System building tools
- ….


WHEN COMPUTERS
WERE HUMAN
David Alan Grier

Collective Intelligence

- "groups of individuals doing things collectively that seem intelligent"

"The Collective Intelligence Genome", Malone, Laubacher, and Dellarocas, *MIT Management Review*, April 1, 2010

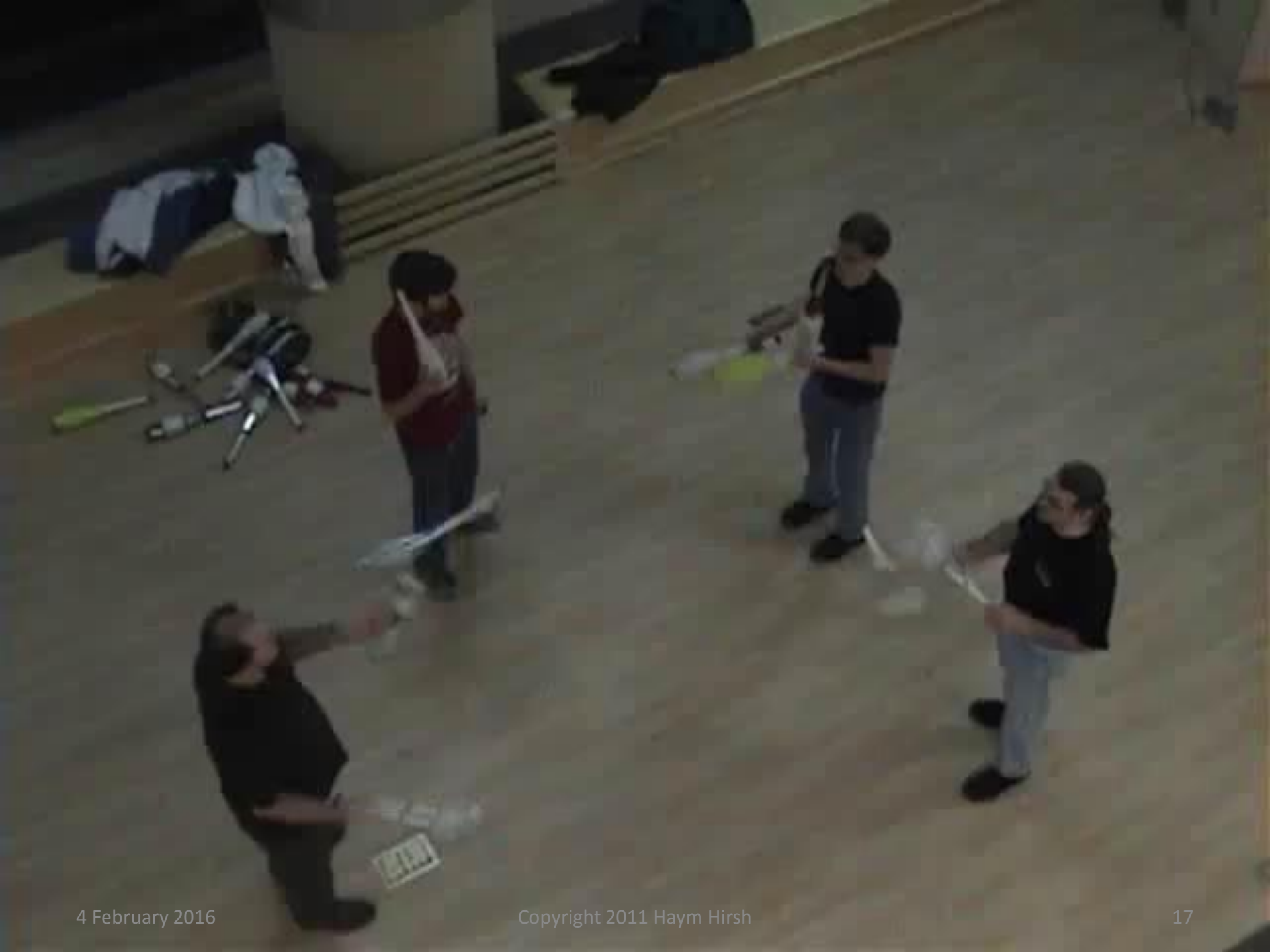
- "How can people and computers be connected so that—collectively—they act more intelligently than any individuals, groups, or computers have ever done before?"

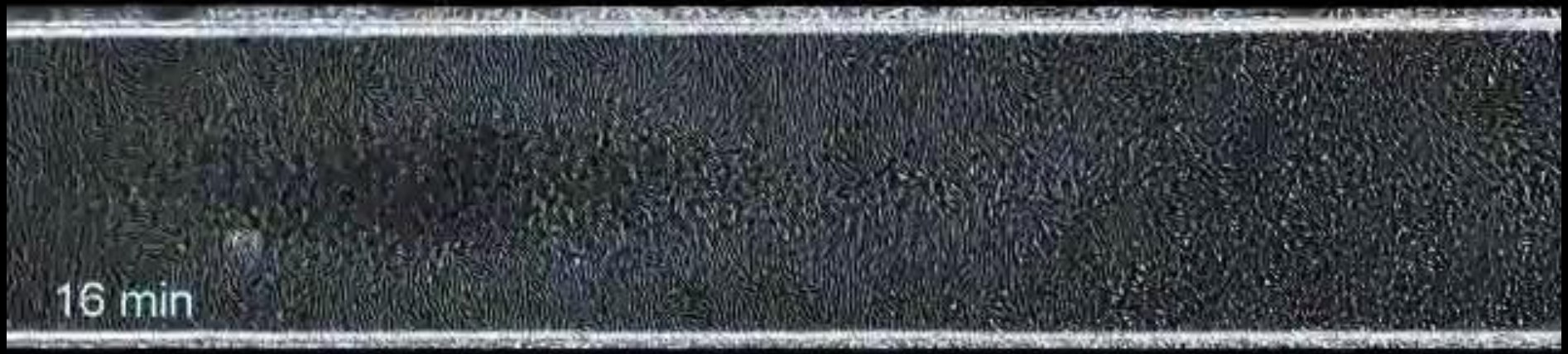
http://cci.mit.edu

Collective Intelligence

- “Collective intelligence is a shared or group intelligence that emerges from the collaboration and competition of many individuals and appears in consensus decision making in bacteria, animals, humans and computer networks”

Wikipedia, “Collective Intelligence”





Social Computing

- “applications and services that facilitate collective action and social interaction online with rich exchange of multimedia information and evolution of aggregate knowledge”

Parameswaran, M. & Whinston, A.B. Social Computing: An Overview. *CAIS* 19:37, (2007), 762-780

Social Computing

- In the weaker sense of the term, social computing has to do with supporting any sort of social behavior in or through computational systems.
- In the stronger sense of the term, social computing has to do with supporting "computations" that are carried out by groups of people

Wikipedia, "Social Computing"

Comparison

- Crowdsourcing: Reach of Internet makes it possible to bring people together in new ways
- Human computation: Creating computational systems that rely on people for part of their operation
- Collective intelligence: Emergent behavior from large numbers of organisms

Types of Crowdsourcing & Human Computation

- Overt
  - Collecting
  - Collaborative Creation
  - Smartest in the Crowd
  - Collaborative Decisions
  - Human Computation and Micro-Crowdsourcing
- Covert / Crowd Mining
  - Search logs
  - Social media

Perspectives

- "Leveraging Cyberspace", T. Kalil, *IEEE Computer,* 1996
- *The Wisdom of Crowds*, J. Surowiecki, 2004
- "The Collective Intelligence Genome", T. Malone, R. Laubacher, and C. Dellarocas, *MIT Management Review*, 2010
- "Crowdsourcing systems on the World-Wide Web," A. Doan, R. Ramakrishnan, A. Halevy. *Communications of the ACM*, 2011
- "Human Computation: A Survey and Taxonomy of a Growing Field", A. Quinn and B. Bederson, CHI 2011
- *Human Computation,* E. Law and L. van Ahn, 2011

ABSTRACT

People with shared interests are using the Internet to solve problems, accomplish tasks, and create resources that would be well beyond the reach of any one person or organization. The Internet is being used to create virtual libraries, factor large numbers, organize massive volunteer efforts, and filter information in a collaborative fashion. The ability to leverage the efforts of large numbers of networked users has important economic, social, and political consequences. This phenomenon is important to policy makers because it can potentially be used toleverage scarce taxpayer dollars and promote applications of the information infrastructure.

Leveraging Cyberspace

Thomas A. Kalil, National Economic Council

"Give me a lever long enough and a place to stand, and I will move the Earth."

– Archimedes

The rapid growth in the ubiquity and functionality of the Internet is amazing. The Internet now connects 10 million computers, tens of millions of users, and more than 100 countries. At its current rate of growth, the Internet will connect 100 million computers by the year 2000. Because anyone with a computer and a connection to the Internet can publish, the global information space is also growing rapidly. Developers of search engines such as Altavista and Lycos believe that the Web currently contains 30–50 million pages of information, or 200 to 330 Gbytes of text. At current growth rates, the Web could surpass the 29 Tbytes of the Library of Congress in two years [1].

In addition to allowing anyone to publish, the open architecture of the Internet also allows anyone to add to its func-

In my view, one of the more important applications of the Net is its ability to enable "communities of interest" to solve problems, accomplish tasks, or create resources that would be well beyond the ability of any one individual or organization to complete. Steven Whitehead refers to this phenomenon as "cyberspace leveraging," which he defines as "using computer networks to harness the power of a large population of networked users" and leveraging the "small efforts of the many" as opposed to the "big efforts of the few" [2]. Think of the Internet as a distributed, massively parallel supercomputer connecting not only microprocessors but people, information repositories, sensors, intelligent agents, and mobile code.

There are many examples of Internet users leveraging cyberspace, some of which will be described in greater detail below. Six hundred volunteers from five continents used 1600 computers to factor RSA-129 in eight months, a mathematical feat that was projected to take 40 quadrillion years. Users of multi-user dungeons (MUDs) collaborate to build elaborate text-based virtual reality environments. Archives of scientific

Perspectives

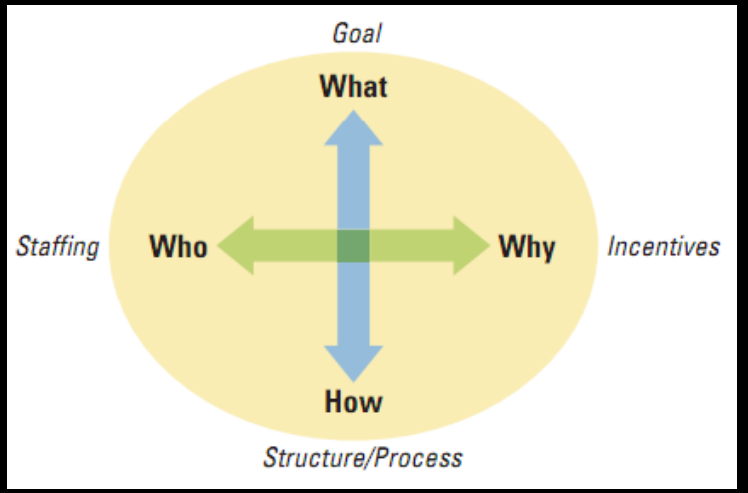
- Can dependencies between parts of the task be eliminated or managed?
- What will motivate people to participate?
- Is there part of the task that must be centrally administered?
- Does the initiative demonstrate increasing returns?

Perspectives

- Requires participant:
  - Diversity
  - Independence
  - Decentralization
  - Aggregation

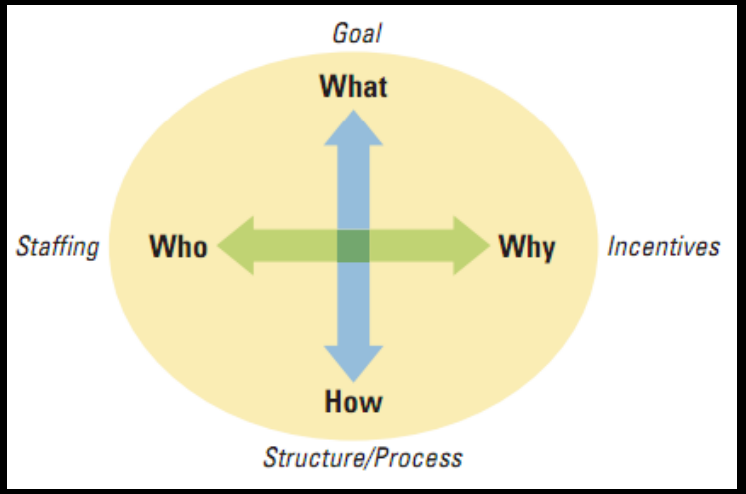
Perspectives: Malone, Laubacher and Dellarocas 2010

- Who is doing it?
- Why are they doing it?
- How is it being done?
- What is being done?



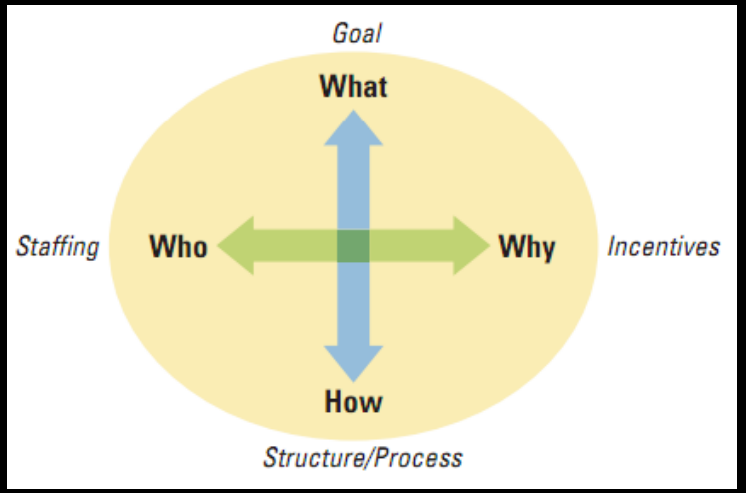
Perspectives: Malone, Laubacher and Dellarocas 2010

- Who is doing it?
  - Organization / Authority selects
  - Crowd: Individuals select
- Why are they doing it?
  - Money
  - Love (e.g., enjoyment, socializing)
  - Glory
- What is being done?
  - Create
  - Decide



Perspectives: Malone, Laubacher and Dellarocas 2010

- How is it being done?
  - Create
    - Collection (incl. Contest)
    - Collaboration
  - Decide
    - Group
      - Voting, Consensus, Averaging, Markets
    - Individual
      - Markets
      - Social Network



Perspectives: Doan, Ramakrishnan, and Halevy 2011

- How to recruit and retain users?
- What contributions can users make?
- How to combine user contributions to solve the target problem?
- How to evaluate users and their contributions?

Perspectives: Quinn and Bederson 2011

- Motivation:
  - Pay (AMT)
  - Altruism (search for Jim Gray)
  - Fun (ESP Game)
  - Reputation (Threadless)
  - Implicit Work [Coercion] (ReCAPTCHA)
  - [Economical models (e.g., game theory)]

Perspectives: Quinn and Bederson 2011

- Reliability
  - Output agreement (ESP Game)
  - Input agreement (Tag-a-tune)
  - Economical models (e.g., game theory)
  - Defensive task design (AMT)
  - Reputation system (AMT, Wikipedia)
  - Redundancy/voting (AMT)
  - Ground truth seeding (AMT)
  - Statistical filtering/aggregating
  - Multilevel review (Soylent, TurkIt)
  - Expert review
  - Automatic checking (fold.it)

Perspectives: Quinn and Bederson 2011

- Aggregation
  - Collection (Wikipedia, reCaptcha)
  - Statistical processing (e.g., averaging) (IEM, Wisdom of the Crowds, Kasparov against the World)
  - Iterative improvement (TurkIt, Soylent)
  - Active learning
  - Search
  - [Genetic algorithm]
  - None

Perspectives:
Quinn and Bederson 2011

- Human Skill
- Process Order
- Task Request Cardinality

Perspectives: Quinn and Bederson 2011

- Aggregating outputs: Simple vs complex
- Task routing: Push vs pull
- Quality: Correctness, efficicy
- Task design: [Information,] granularity, independence, incentives, quality control
  - Incentives:
    - Extrinsic: money, rewards
    - Intrinsic: social standing, influence/power, curiosity, social contact, idealism, to collect/ownership, to win/competition

Soylent: A Word Processor with a Crowd Inside

Michael S. Bernstein[1], *Greg Little*[1], *Robert C. Miller*[1],
Björn Hartmann[2], *Mark S. Ackerman*[3], *David R. Karger*[1], *David Crowell*[1], *Katrina Panovich*[1]

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ABSTRACT

This paper introduces architectural and interaction patterns for integrating crowdsourced human contributions directly into user interfaces. We focus on writing and editing, complex endeavors that span many levels of conceptual and pragmatic activity. Authoring tools offer help with pragmatics, but for higher-level help, writers commonly turn to other people. We thus present Soylent, a word processing interface that enables writers to call on Mechanical Turk workers to shorten, proofread, and otherwise edit parts of their documents on demand. To improve worker quality, we introduce the Find-Fix-Verify crowd programming pattern, which splits tasks into a series of generation and review stages. Evaluation studies demonstrate the feasibility of crowdsourced editing and investigate questions of reliability, cost, wait time, and work time for edits.

ACM Classification: H5.2 [Information interfaces and presentation]: User Interfaces. - Graphical user interfaces.

General terms: Design, Human Factors

Keywords: Outsourcing, Mechanical Turk, Crowdsourcing

edits on Wikipedia [13]. Writing is no exception [7]: we commonly recruit friends and colleagues to help us shape and polish our writing. But we cannot always rely on them: colleagues do not want to proofread every sentence we write, cut a few lines from every paragraph in a ten-page paper, or help us format thirty ACM-style references.

As a step toward integrating this human expertise permanently into our writing tools, we present *Soylent*, a word processing interface that utilizes crowd contributions to aid complex writing tasks ranging from error prevention and paragraph shortening to automation of tasks like citation searches and tense changes. We hypothesize that crowd workers with a basic knowledge of written English can support both novice and expert writers. These workers perform tasks that the writer might not, such as scrupulously scanning for text to cut, or updating a list of addresses to include a zip code. They can also solve pro[illegible] tificial intelligence cannot, for example fla[illegible] errors that the word processor does not catch.

Soylent aids the writing process by integrating paid crowd

Annie Kai Ian Cheang View profile ★★★★★ (1 user) More options Apr 10 1995, 3:00 am

Hi you all:

I don't know if this is the proper place to post this, but I got the message below from one of the other newsgroup I'm in, and I just want to post it here to see if anyone could help.

---------- forwarded message begins----------
Date: Mon, 10 Apr 1995 04:44:56 PST
Reply-To: Medical student discussion list <MEDSTU-L%UNMVMA.BIT...@cmsa.Berkeley.EDU>
Sender: Medical student discussion list <MEDSTU-L%UNMVMA.BIT...@cmsa.Berkeley.EDU>
From: Cai Quanqing <ca...@MCCUX0.MECH.PKU.EDU.CN>
X-To: medst...@unmvma.bitnet
To: Multiple recipients of list MEDSTU-L <MEDSTU-L%UNMVMA.BIT...@cmsa.Berkeley.EDU>

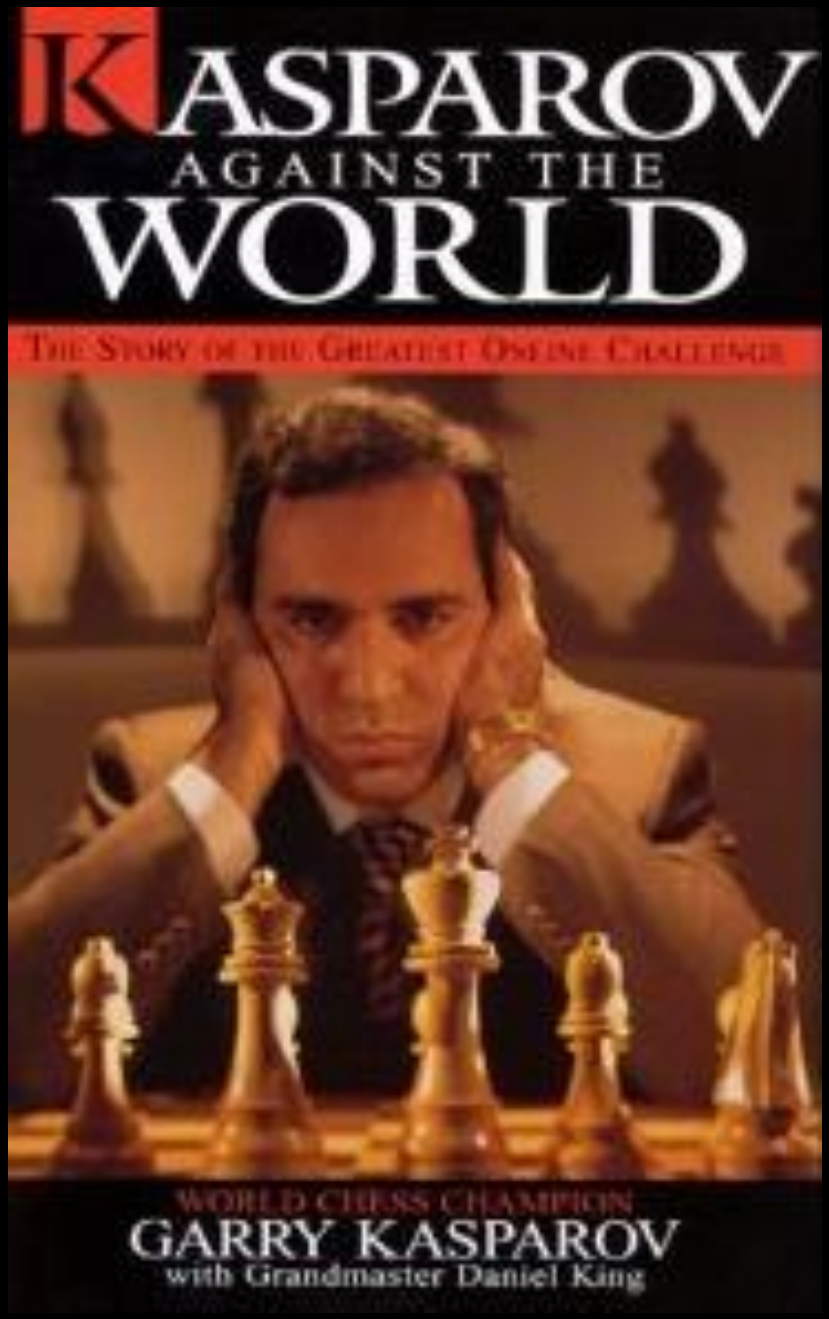
Hi,

This is Peking University in China, a place those dreams of freedom and democracy. However, a young, 21-year old student has become very sick and is dying. The illness is very rare. Though they have tried, doctors at the best hospitals in Beijing cannot cure her; may do not even know what illness it is. So now we are asking the world -- can somebody help us?

Here is a description of the illness:

The young woman -- her name is Zhu Ling -- is a student in the chemistry department. On DEC. 5, 1994, Zhu Ling felt sick to her stomach. Three days later, her hair began to fall out and within two days she was completely bald. She entered the hospital, but doctors could not discover the season for her illness. However, after she was in the hospital for a month, she began to fell better and her hair grew back. Zhu Ling went back to school in February, but in March her legs began to ache severely, and she felt dizzy. She entered XieHe Hospital - Chinese most famous hospital. In early March and on March 15, her symptoms worsened. She Began to facial paralysis, central muscle of eye's paralysis, self-controlled respiration disappeared. So she was put on a respirator.

The doctors did many tests for many diseases(include anti-H2V, spinal cord puncture, NMR, immune system, chemical drug intoxication ANA,ENA,DSONA,ZG and Lyme), but all were negative, except for Lyme disease(ZGM(+)).



Rethinking the ESP Game

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September 2008

Technical Report
MSR-TR-2008-132

Abstract — The ESP Game [15] was designed to harvest human intelligence to assign labels to images - a task which is still difficult for even the most advanced systems in image processing [2, 8]. However, the ESP Game as it is currently implemented encourages players to assign "obvious" labels, which are most likely to lead to an agreement with the partner. But these labels can often be deduced from the labels already present using an appropriate language model and such labels therefore add only little information to the system.

We present a language model which, given enough instances of labeled images as training data, can assign probabilities to the next label to be added. This model is then used in a program, which plays the ESP game *without looking at the image*. Even without any understanding of the actual image, the program manages to agree with the randomly assigned human partner on a label for 69% of all images, and for 81% of images which have at least one "off-limits" term assigned to them.

We then show how, given any generative probabilistic model, the scoring system for the ESP game can be redesigned to encourage users to add less predictable labels, thereby leading to a collection of informative, high entropy tag[1] sets. Finally, we discuss a number of other possible redesign options to improve the quality of the collected labels.

Nilton Rossoni Sentenced To 68 Months In Federal Prison For Colossal eBay Fraud; Elaborate Scheme Featured 59 Mail Drops, 260 Bogus Auction Accounts

By PatrickPretty.com *6:46 pm Feb 5, 2010*

It was a case that was all about the numbers. In the end, the number with the most meaning to Nilton Rossoni was 68 — the number of months he'll be spending in federal prison.

Rossoni conducted more than 5,500 fraudulent auction on eBay. He pulled off his scheme by using at least 26(bogus accounts, at least 59 mail drops, six names, fou bogus passports and three banks.

Rossoni, 50, formerly of Sunny Isles and Hallandale Beach, Fla., collected $717,000 in the scheme between October 2003 and June 2008 The bizarre fraud was smashed by the U.S. Postal Inspection Service

Winning bidders were notified via e-mail to send a check or money order payable either to Celso Ferreira, Jorge Carlos, Joao Santos, Lourival Philipps, Prime Hill Inc. or Primo Hill Inc. Buyers were instructed to send payments via U.S. Mail to specific addresses, all of which proved to be mail drops.

"Elaborate" barely described the scheme.

"Rossoni rented at least 59 separate private mail boxes at various Commercial Mail Receiving Agencies (CMRA), including The UPS Store, Mail Boxes Etc., and Pak-Mail, using fraudulent Brazilian passports in the names of Celso Ferreira, Jorge Carlos,

The Sybil Attack

John R. Douceur
Microsoft Research
johndo@microsoft.com

"One can have, some claim, as many electronic personas as one has time and energy to create."
– Judith S. Donath [12]

Abstract *– Large-scale peer-to-peer systems face security threats from faulty or hostile remote computing elements. To resist these threats, many such systems employ redundancy. However, if a single faulty entity can present multiple identities, it can control a substantial fraction of the system, thereby undermining this redundancy. One approach to preventing these "Sybil attacks" is to have a trusted agency certify identities. This paper shows that, without a logically centralized authority, Sybil attacks are always possible except under extreme and unrealistic assumptions of resource parity and coordination among entities.*

1. Introduction

We* argue that it is practically impossible, in a distributed computing environment, for initially unknown remote computing elements to present convincingly distinct identities. With no logically central, trusted authority to vouch for a one-to-one correspondence between entity and identity, it is always possible for an unfamiliar entity to present

If the local entity has no direct physical knowledge of remote entities, it perceives them only as informational abstractions that we call *identities*. The system must ensure that distinct identities refer to distinct entities; otherwise, when the local entity selects a subset of identities to redundantly perform a remote operation, it can be duped into selecting a single remote entity multiple times, thereby defeating the redundancy. We term the forging of multiple identities a *Sybil attack* [30] on the system.

It is tempting to envision a system in which established identities vouch for other identities, so that an entity can accept new identities by trusting the collective assurance of multiple (presumably independent) signatories, analogous to the PGP web of trust [37] for human entities. However, our results show that, in the absence of a trusted identification authority (or unrealistic assumptions about the resources available to an attacker), a Sybil attack can severely compromise the initial generation of identities, thereby undermining the

Shilling Recommender Systems for Fun and Profit

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ABSTRACT

Recommender systems have emerged in the past several years as an effective way to help people cope with the problem of information overload. One application in which they have become particularly common is in e-commerce, where recommendation of items can often help a customer find what she is interested in and, therefore can help drive sales. Unscrupulous producers in the never-ending quest for market penetration may find it profitable to *shill* recommender systems by lying to the systems in order to have their products recommended more often than those of their competitors. This paper explores four open questions that may affect the effectiveness of such shilling attacks: which recommender algorithm is being used, whether the application is producing recommendations or predictions, how detectable the attacks are by the operator of the system, and what the properties are of the items being attacked. The questions are explored experimentally on a large data set of movie ratings. Taken together, the results of the paper suggest that new ways must be used to evaluate and detect shilling attacks on recommender systems.

recommendations to a user regarding which items she may find interesting. One instance of a recommender system is *MovieLens* (http://www.movielens.org). GroupLens, our research group, operates this recommender system, which makes personalized recommendations suggesting movies that a user might like based on movies that she has seen and has expressed an opinion about.

While recommender systems are clearly beneficial to users, they can also be a valuable asset to retail companies in helping their customers find things that they might want to buy and, in effect, increasing not only sales, but perhaps also cross-sales and customer retention. This is particularly true in the realm of e-commerce. For example, *Amazon.com* has made many recommender systems available to their customers. These range from manually operated recommenders where users can recommend items to other users by writing reviews or creating lists, to automated systems where the site generates a list of recommended items based on what the user has looked at recently or has purchased in the past.

Producers of items (manufacturers, authors, etc.) would like their products to sell well in the marketplace. With recommender

Wherefore Art Thou R3579X? Anonymized Social Networks, Hidden Patterns, and Structural Steganography

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ABSTRACT

In a social network, nodes correspond to people or other social entities, and edges correspond to social links between them. In an effort to preserve privacy, the practice of anonymization replaces names with meaningless unique identifiers. We describe a family of attacks such that even from a single anonymized copy of a social network, it is possible for an adversary to learn whether edges exist or not between specific targeted pairs of nodes.

Categories and Subject Descriptors

F.2.2 [**Analysis of Algorithms and Problem Complexity**]: Nonnumerical Algorithms and Problems

General Terms

Theory, Measurement

Keywords

social networks, anonymization, privacy in data mining

1. INTRODUCTION

be considering the "purest" form of social network data, in which there are simply nodes corresponding to individuals and edges indicating social interaction, without any further annotation such as time-stamps or textual data.

In designing studies of such systems, one needs to set up the data to protect the privacy of individual users while preserving the global network properties. This is typically done through anonymization, a simple procedure in which each individual's "name" – e.g., e-mail address, phone number, or actual name – is replaced by a random user ID, but the connections between the (now anonymized) people – encoding who spoke together on the phone, who corresponded with whom, or who instant-messaged whom – are revealed. The motivation behind anonymizing is roughly as follows: while the social network labeled with actual names is sensitive and cannot be released, there may be considerable value in allowing researchers to study its structure. For such studies, including those cited above, researchers are not specifically interested in "who" corresponds to each node, but in the properties of the graph, such as its connectivity, node-to-node distances, frequencies of small subgraphs, or the extent to which it can be clustered. Anonymization is thus intended to exactly preserve the pure unannotated structure of the graph while suppressing the "who" information.

Can this work? The hope is that being handed an anonymized picture of a social network — just a graph with a random identifier attached to each node — is roughly akin to being given the

Google Let JC Penney Spam Search Results For Months

Matt Rosoff | Feb. 13, 2011, 12:10 PM | 5,901 | 15

Share 37 Tweet 142 Recommend 15 Email A A A

The New York Times exposed the dirty side of search engine optimization this morning with a long article about how JC Penney spammed Google so it would appear at the top of search results.

Somebody created thousands of fake pages with the keywords that Penney wanted to game, like "black dresses," and a direct link to Penney's site. This messes with Google's PageRank algorithm, which assumes that a site is useful if it's popular. (A Penney spokesperson denied that the company knew what was going on -- it was probably a guerrilla SEO team or agency working on Penney's behalf.)

The amazing part of the story isn't how Penney tricked Google -- this kind of "black hat" SEO has been around almost since Google began.

Google cofounders Larry Page and Sergey Brin back in more carefree days.

GOOG	Jul 8 2011, 05:20 PM EDT		
	531.99	Change	% Change
		-14.61	-2.67%

A Bully Finds a Pulpit on the Web

By DAVID SEGAL
Published: November 26, 2010

SHOPPING online in late July, Clarabelle Rodriguez typed the name of her favorite eyeglass brand into Google's search bar.

Enlarge This Image

David G. Klein

In moments, she found the perfect frames — made by a French company called Lafont — on a Web site that looked snazzy and stood at the top of the search results. Not the tippy-top, where the paid ads are found, but under those, on Google's version of the gold-medal podium, where the most relevant and popular site is displayed.

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Issue 14.09 - September 2006

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Spam + Blogs = Trouble

Splogs are the latest thing in online scams – and they could smother the Internet.

By Charles C. Mann

I am aware that spending a lot of time Googling yourself is kind of narcissistic, OK? But there are situations, I would argue, when it is efficiently – even forgivably – narcissistic. When I published a book last year, I wanted to know what, if anything, people were saying about it. Ego-surfing was the obvious way to do that. Which is how I stumbled across Some Title.

Some Title identified itself as a blog but obviously wasn't one. Here, reprinted in its entirety, is the paragraph from the site that mentioned me:

Show Disputed Vinland Map Was Made Half Century Before Columbus Trip Audio/Video Columbus: Secrets From The Grave quot;The Last Voyage of Columbus quot;: An Epic Tale Charles Mann's quot;1491 quot; (Audio

In orthodox bloggy style, the paragraph linked to another Web page. When I clicked on the link, I was confronted with more gibberish: "Below," it stated, "you will find some grave

The Trolls Among Us

Robbie Cooper for The New York Times

The Trolls Among Us: Weev (not, of course, his real name) is part of a growing Internet subculture with a fluid morality and a disdain for pretty much everyone else online.

By MATTATHIAS SCHWARTZ
Published: August 3, 2008

TWITTER
SIGN IN TO E-MAIL OR SAVE THIS
PRINT
SINGLE PAGE
SHARE

One afternoon in the spring of 2006, for reasons unknown to those who knew him, Mitchell Henderson, a seventh grader from Rochester, Minn., took a .22-caliber rifle down from a shelf in his parents' bedroom closet and shot himself in the head. The next morning, Mitchell's school assembled in the gym to begin mourning. His classmates created a virtual memorial on MySpace and garlanded it with remembrances. One wrote that Mitchell was "an hero to take that shot, to leave us all behind

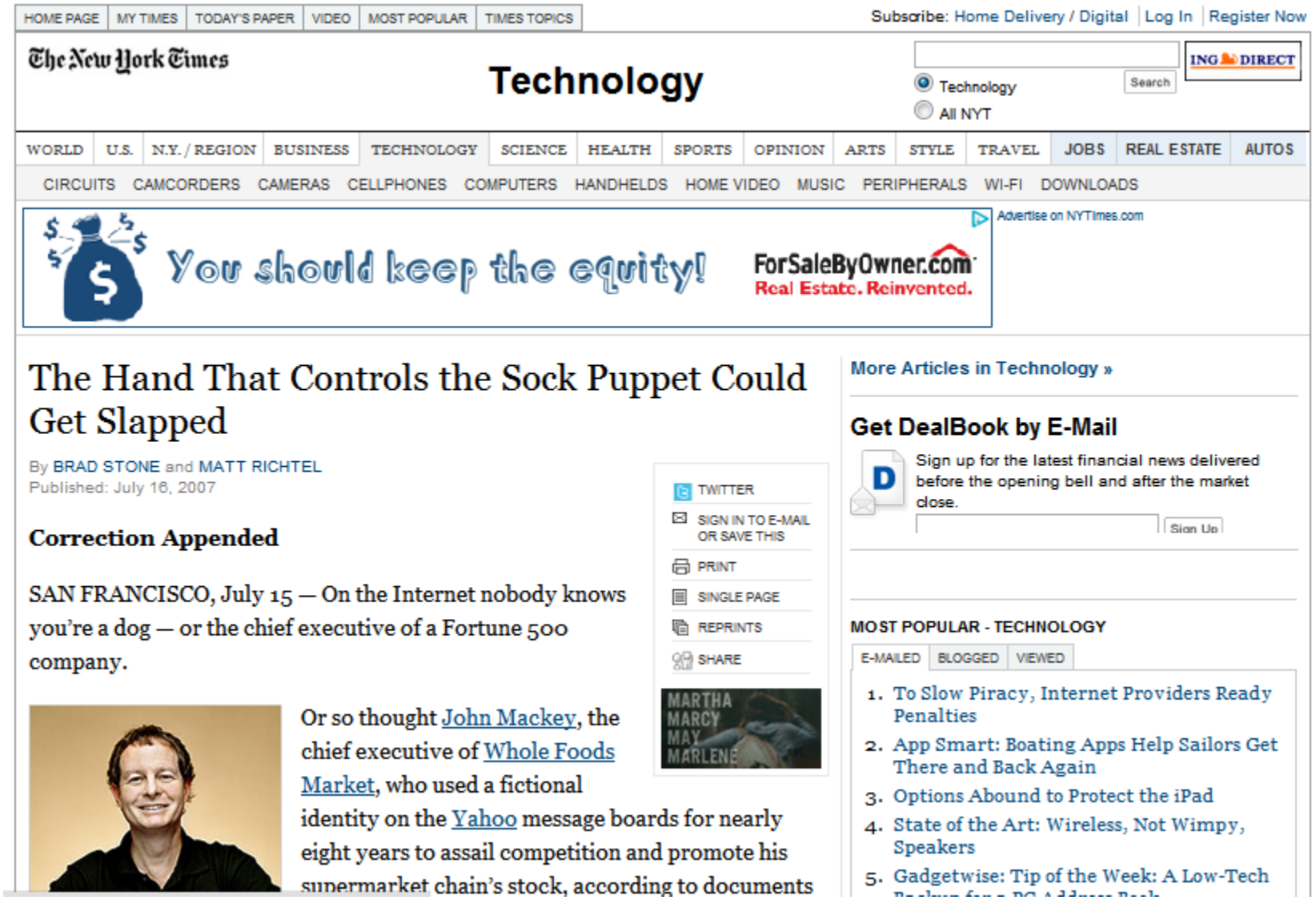
Mutilated Furries, Flying Phalluses: Put the Blame on Griefers, the Sociopaths of the Virtual World

by Julian Dibbell + FOLLOW
Wired | January 2008

The Albion Park section of Second Life is generally a quiet place, a haven of whispering fir trees and babbling brooks set aside for those who "need to be alone to think, or want to chat privately." But shortly after 5 pm Eastern time on November 16, an avatar appeared in the 3-D-graphical skies above this online sanctuary and proceeded to unleash a mass of undiluted digital jackassery. The avatar, whom witnesses would describe as an African-American male clad head to toe in gleaming red battle armor, detonated a device that instantly filled the air with 30-foot-wide tumbling blue cubes and gaping cartoon mouths. For several minutes the freakish objects rained down, immobilizing nearby players with code that forced them to either log off or watch their avatars endlessly text-shout Arnold Schwarzenegger's "Get to the choppaaaaaaa!" tagline from Predator.

The incident, it turns out, was not an isolated one. The same scene, with minor variations, was unfolding simultaneously throughout the virtual geography of Second Life. Some cubes were adorned on every side with the infamous, soul-searing "goatse" image; others were covered with the grinning face of Bill Cosby proffering a Pudding Pop.

Soon after the attacks began, the governance team at San Francisco-based Linden Lab, the company that runs Second Life, identified the vandals and suspended their accounts. In the popular NorthStar hangout, players located the offending avatars and fired auto-cagers, which wrapped the attackers' heads in big metallic boxes. And at the Gorean city of Rovere — a Second Life island given over to a peculiarly hardcore genre of fantasy role-play gaming — a player named Chixxa Lusch straddled his giant eagle mount and flew up to confront the invaders avatar-to-avatar as they hovered high above his lovingly re-created medieval village, blanketing it



On [[March 24]] [[1989]], shortly after midnight, the oil tanker [[Exxon Valdez]] struck [[Bligh Reef]] in [[Prince William Sound]], [[Alaska]], spilling more than 11 million gallons (42,000 m&sup3) of crude oil. The spill was the largest in U.S. history, and in the aftermath of the Exxon Valdez incident [[Congress of the United States|U.S. Congress]] passed the [[Oil Pollution Act of 1990]]. **Exxon Mobil has not yet** paid the $**5** billion in **spill** damages **it owes to** the **32,000 Alaskan fishermen**.

On [[March 24]] [[1989]], shortly after midnight, the oil tanker [[Exxon Valdez]] struck [[Bligh Reef]] in [[Prince William Sound]], [[Alaska]], spilling more than 11 million gallons (42,000 m&sup3) of crude oil. The spill was the largest in U.S. history, and in the aftermath of the Exxon Valdez incident [[Congress of the United States|U.S. Congress]] passed the [[Oil Pollution Act of 1990]]. **ExxonMobil** paid **$300 million immediately and voluntarily to more than 11,000 Alaskans and businesses affected by** the **Valdez spill. In addition, the company paid $2.2 billion on the cleanup of Prince William Sound, staying with the cleanup from 1989 to 1992, when the State of Alaska and the U.S. Coast Guard declared the cleanup complete. ExxonMobil also has paid $1** billion in **settlements with the state and federal governments. Virtually all Valdez compensatory** damages **were paid in full within one year of** the **accident, and the trial court commended ExxonMobil for coming forward "with its people and its pocketbook and doing what had to be done under difficult circumstances."**

In [[August 2003]], [[Penguin Books]] published Franken's "[[Lies and the Lying Liars Who Tell Them|Lies and the Lying Liars Who Tell Them: A Fair and Balanced Look at the Right]]". [[Fox News]] sued, claiming that Franken [[infringement|infringed]] its registered [[trademark]] rights in the phrase, "Fair and Balanced." Fox was unsuccessful, with a federal judge finding the [[lawsuit]] to be "wholly without merit." The lawsuit focused a great deal of media attention upon Franken's book and greatly enhanced its sales. Reflecting later on the lawsuit during an interview on the [[National Public Radio]] program "[[Fresh Air]]" on [[September 3]], [[2003]], Franken said that Fox's case against him was **"literally laughed out of court" and that "wholly (holy) without merit" is a good characterization of Fox News itself**.

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Many feel that copyleft licenses are desirable and popular for shared works precisely because they "are" viral, and apply to all derivative works, which are thus "infected" by the requirement to re-integrate changes deemed desirable by any party down the line. This requirement is seen as important because it ensures uniform license terms and free access, and makes copyleft projects resistant to unnecessary [[fork (software)|forking]] because all maintainers of the original work, or other versions, may use any modifications released by anyone. Useful changes tend to be merged, and different versions are maintained only to the extent that they are useful. Without the "viral" license, variant terms can apply to the forks and derivative works can be controlled commercially by the parties that extend or translate them, which can be considered as some of the disadvantages of non-copyleft "open source" projects. It is thought that [[Linux]] has not suffered the same [[Unix wars|fragmentation]] as [[Unix]] because it is copylefted.

Opponents of copyleft point out that even using a single line of copy-lefted code inside millions of line of non-copylefted code will cause all the code to automatically get copylefted. This is not unlike the behaviour of a computer virus or a biological virus which infects a larger entity though it's own dimensions are small in comparison.

Since the late [[1970]]s, Nestlé has attracted much criticism for its baby milk marketing policies in [[Developing country|developing countries]]. This has centered on its apparent recommendations for [[Breastfeeding|nursing]] mothers to switch to its [[infant formula]] milk products, leading to the alleged deaths of about 1.5 million babies each year as a result of formula being mixed with contaminated water{{fact}}. Nestlé allegedly has violated the widely agreed-upon [[International Code of Marketing of Breast-milk Substitutes]]{{fact}}. This has led to a boycott coordinated by the International Nestlé Boycott Committee, informed by monitoring conducted by the [[International Baby Food Action Network]]. In 1982, Nestlé implemented the [[WHO]] Code of Marketing of Breast-Milk Substitutes in developing countries. The instructions were reviewed and refined in 1984 in consultation with the WHO, [[UNICEF]] and the International Nestlé Boycott Committee.

Nestlé itself still advertises breast milk replacements, and does use pictures of babies in its advertising{{citation needed}}. According to the report "Breaking the Rules, Stretching the Rules 2004" put out by IBFAN/ICDC it is still continuing aggressive and misleading advertising tactics [http://www.ibfan.org/english/codewatch/btr04/btr04contents.html]. Nestlé has issued instructions to all its offices to ensure strict compliance with the International Code. However, the boycott still continues in some 20 countries.

+ In 1982, Nestlé implemented the [[WHO]] Code of Marketing of Breast-Milk Substitutes in developing countries. The instructions were reviewed and refined in 1984 in consultation with the WHO, [[UNICEF]] and the International Nestlé Boycott Committee.

- ==Environmental and human rights controversies==
- ===Union Carbide Bhopal disaster===
- {{main article|Bhopal disaster}}

In 1984, a chemical factory operated by [[Union Carbide]], an American company, leaked lethal gases into the surrounding environment, which has caused more than 20,000 deaths and 100,000 disabilities. In 1999, Dow purchased Union Carbide, which is now a [[wholly owned subsidiary]]. Dow denies legal liability for the disaster, since it did not own or operate the Bhopal factory. <ref>{{cite website | url=http://news.bbc.co.uk/onthisday/hi/dates/stories/december/3/newsid_2698000/2698709.stm | title=On This Day: December 3, 1984 | publisher=British Broadcasting Corporation | accessed=June 24, 2006}} </ref><ref>{{cite website | url=http://news.bbc.co.uk/1/hi/programmes/bhopal/4023447.stm | title=Response: Union Carbide and Dow Chemical | date=November 25, 2004 | publisher=British Broadcasting Corporation}}</ref>

-

The human rights organization [[Amnesty International]] has held Dow responsible for the persistence of contamination and continued suffering of the victims of Bhopal disaster.<ref>{{cite website | url=http://web.amnesty.org/library/pdf/ASA200152004ENGLISH/$File/ASA2001504.pdf | title=Clouds of Injustice: Bhopal Disaster, 20 years on | date=2004 | publisher=Amnesty International}}</ref>

Victims of the Bhopal disaster and their supporters have demanded that Dow compel Union Carbide to face trial in India, where it is a fugitive from justice. <ref> [http://www.studentsforbhopal.org/Assets/CJM_Jan2005.pdf]</ref>

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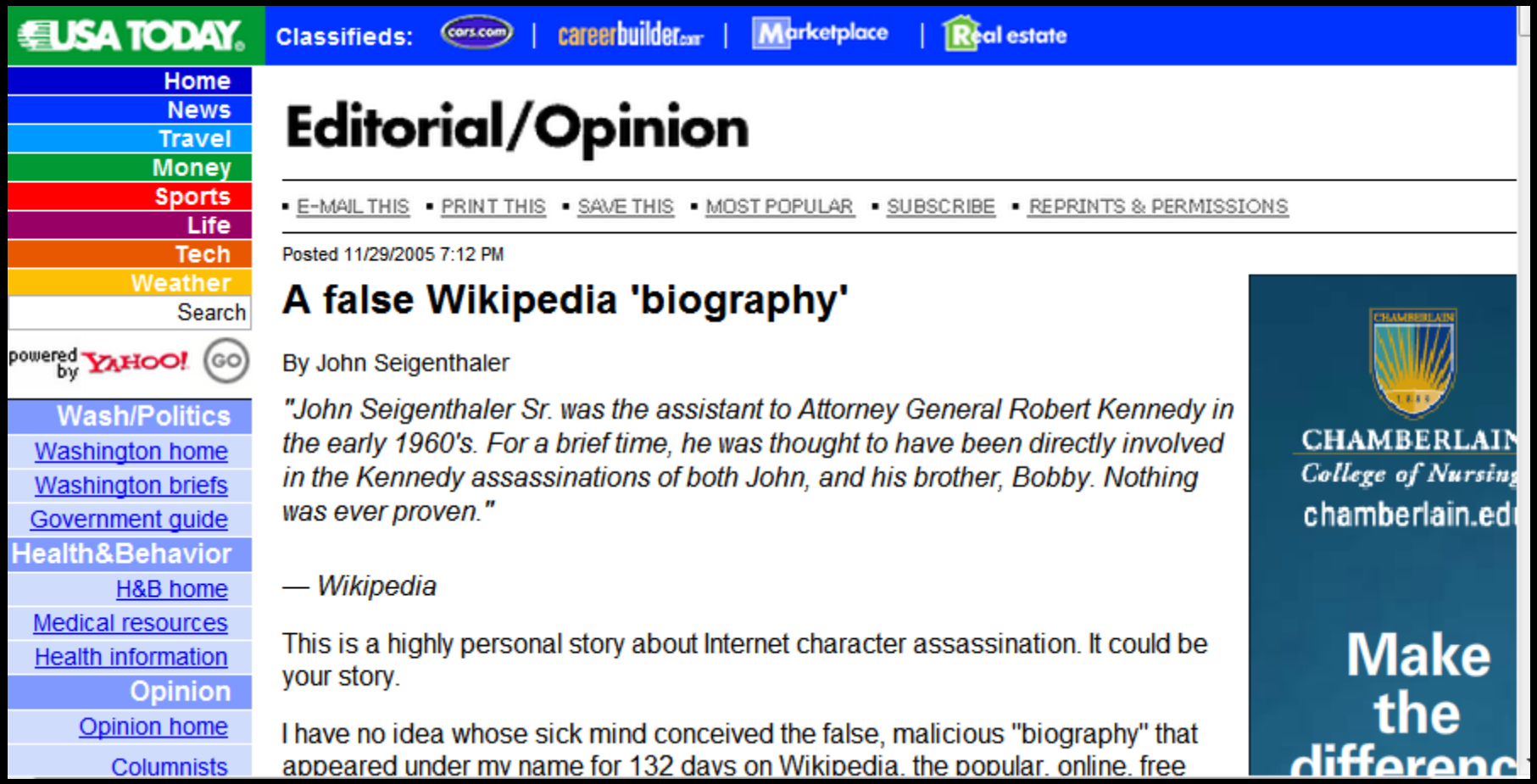
- === Breast implants ===

-

A major manufacturer of silicone [[breast implants]], Dow Corning was successfully sued in 1977 for damages arising from a woman whose implants ruptured; it was the first such successful suit, and Dow Corning paid $170,000 in a settlement. During the 1980s, [[Ralph Nader]]'s [[Public Citizen]] Health Research Group publicised its belief that the implants were cancer-causing; in December of 1990, an



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Grass Mud Horse

From Wikipedia, the free encyclopedia

The **Grass Mud Horse** or **Cao Ní Ma** is a Chinese Internet meme widely used as symbolic defiance of the widespread Internet censorship in China. It is one of the 10 mythical creatures, and since an article about it was created on Baidu Baike in early 2009, it has become a cult phenomenon on the internet in China through chat forums. Videos, cartoons and merchandise of this animal, which apparently resembles the alpaca, have appeared, and it has since received worldwide press attention.

Contents [hide]

Etymology and species [edit]

Cao Ni Ma, literally "Grass Mud Horse", was supposedly a species of alpaca. The name is derived from a profanity

Grass Mud Horse [hide]

A Grass Mud Horse plush doll

Traditional Chinese 草泥馬

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FAQ

Flu activity

- Intense
- High
- Moderate
- Low
- Minimal

Explore flu trends around the world

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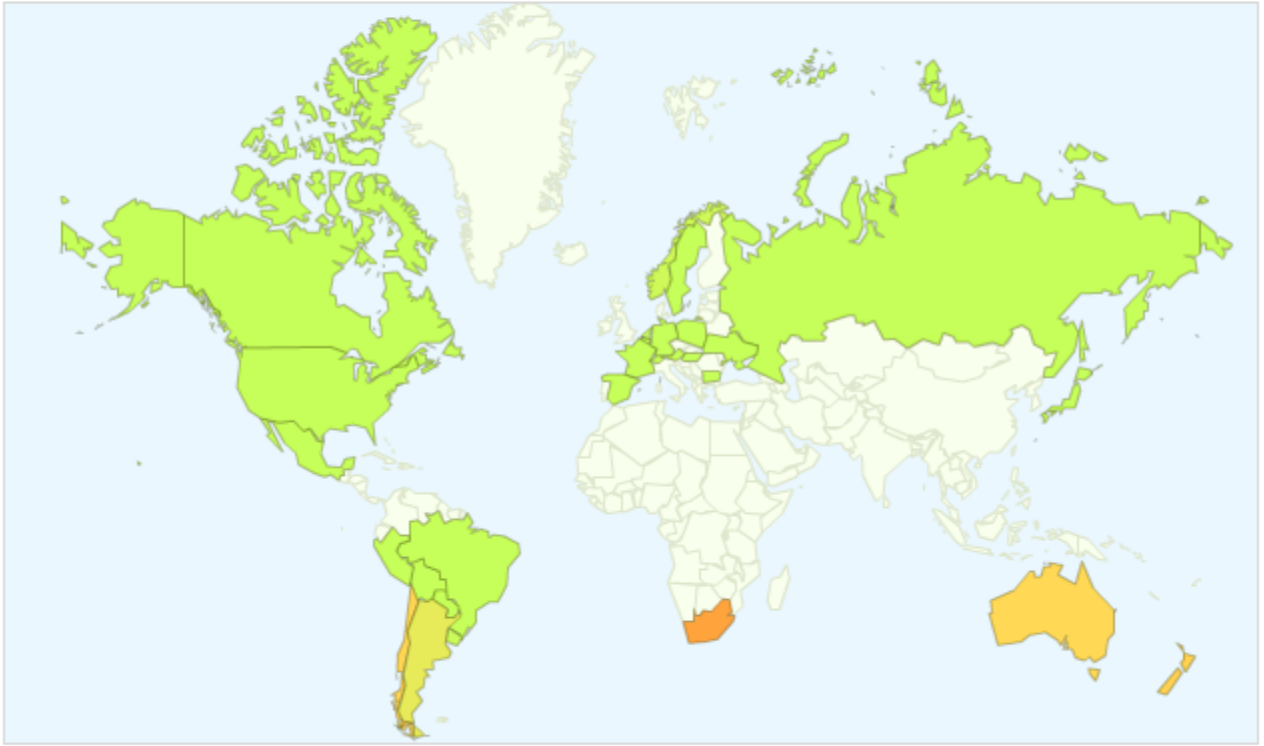

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boingboing

A DIRECTORY OF WONDERFUL THINGS

TUESDAY, JANUARY 27, 2004

Solving and creating captchas with free porn

Someone told me about an ingenious way that spammers were cracking "captchas" -- the distorted graphic words that a human being has to key into a box before Yahoo and Hotmail and similar services will give her a free email account. The idea is to require a human being and so prevent spammers from automatically generating millions of free email accounts.

The ingenious crack is to offer a free porn site which requires that you key in the solution to a captcha -- which has been inlined from Yahoo or Hotmail -- before you can gain access. Free porn sites attract lots of users around the clock, and the spammers were able to generate captcha solutions fast enough to create as many throw-away email accounts as they wanted.

Now, chances are that they didn't need to do this, since optical character recognition has been shown to be readily tweakable to decode captchas without human intervention -- that which a computer can generate, a computer can often solve.

My cow-orker Seth Schoen points out that *human-generated* captchas are much harder to solve: say, picking out a photo of an animal, at a funny angle, in a cage, and challenging attackers to correctly identify it. People can do so readily, machines probably can't.

They play games for 10 hours - and earn £2.80 in a 'virtual sweatshop'

Tony Thompson in Caracal, Romania
The Observer, Sunday 13 March 2005 01.49 GMT
Article history

Bogdan Ghirda is paid £70 a month to do what most bosses would fire him for. From the moment he arrives at work he plays computer games on the internet.

With only a few short breaks Ghirda, 20, goes on playing furiously for 10 hours in the backroom of a run-down apartment block in Caracal, Romania. The moment he leaves his desk a member of an evening shift takes over the computer and continues the same game with equal determination.

Between them, the company's 11 employees keep a dozen or so computers running 24 hours a day, seven days a week.

Although Ghirda works in Romania, the computers and the internet connection he uses are paid for by a company in northern California. Gamersloot.net is one of a growing number of firms taking advantage of a boom in online computer games by opening 'virtual sweatshops', using the low pay in poor countries to provide services for wealthy western players.

Older computer games pit a single player against computerised opponents, but the new ones allow players to join forces with others anywhere in the world. There are now an estimated 350 such games, the most popular of which have more than 300,000 subscribers, each paying a monthly fee to keep their place

Renrou Sousuo Yinqing: "Human Flesh Search Engines" Seek Vigilante Justice in China

China | Chinese Internet | Fleshmob | Human Flesh Search Engines | Internet | Internet Vigilantes | mop.com | New York Times | NYT | Renrou Sousuo Yinqing

by Robert Quigley | 8:58 am, March 5th, 2010

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This week's *New York Times Magazine* has a fascinating article about the Chinese phenomenon of ***renrou sousuo yinqing:*** crowdsourced "Human Flesh Search Engines" that seek out individuals who have committed some offending act, use information available online to identify them, and then try to publicly shame them.

The article's hook is the story of a woman who stomped a cat to death with a high-heeled shoe and anonymously uploaded a video to the Internet. When it spread to the forums on Mop.com, the Human Flesh Search Engine kicked into gear as people were outraged by the video, and within days, a combination of detective work, crowdsourcing, and media attention allowed them to track down and identify the woman and exact their wrath on her:

> ...Locals reported that nothing in their city resembled the backdrop in the video. But Netizens kept sifting through the clues, confident they could track down one person in a nation of more than a billion. They were right.
>
> The traditional media picked up the story, and people all across China saw the kitten killer's photo on television and in newspapers. "I know this woman," wrote I'm Not Desert Angel four days after the search began

trapster

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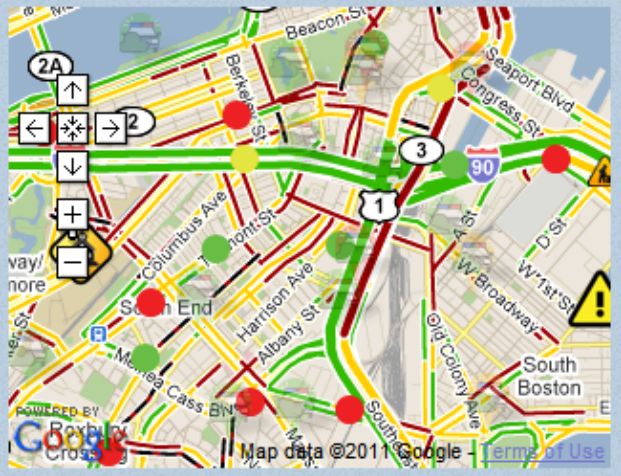


Usage Statistics

Total Users	12,580,714
New Users Today	12,265

In The News

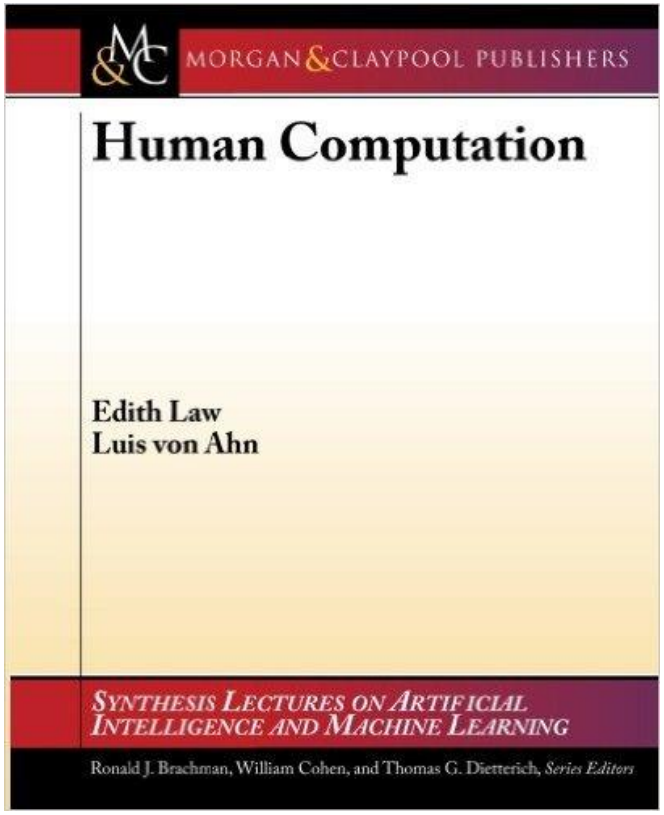
MSNBC

"Think of it as a community based high-tech early warning system" Continue

"Essentially a cell-phone social

How Does It Work?

Users submit speed traps, enforcement cameras, and road hazards, that then alert all Trapster users in the area. A high-tech version of flashing your headlights to alert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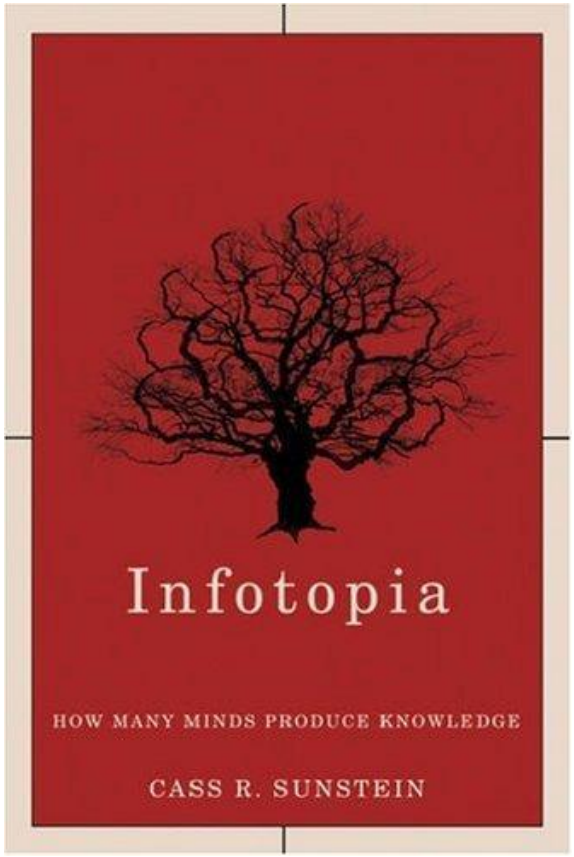
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