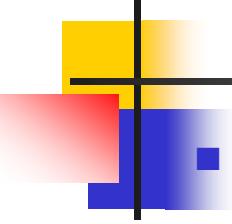


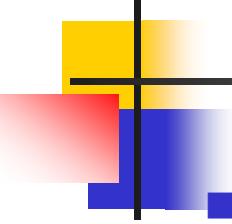
Crowdsourcing: Ideagoras



Crowdsourcing Origin

- 
- The Crowdsourcing philosophy was first introduced at the turn of the 21st century with James Surowiecki's book "*The Wisdom of Crowds*"
 - The term 'Crowdsourcing' was used for the first time in 2006 by Jeff Howe, a portmanteau of the words 'crowd' and 'sourcing (<http://www.youtube.com/watch?v=F0-UtNg3ots>)
 - Other important thought leaders on Crowdsourcing are Don Tapscott with "*Wikinomics and Marcowikinomics*" and Charlene Li and Josh Bernoff with "*Groundswell*"
 - A more detailed definition was introduced on Wikipedia by Henk van Ess in September 2010 "Crowdsourcing is channeling the experts desire to solve a problem and then freely sharing the answer with everyone"

Crowdsourcing vs. outsourcing

- 
- Like outsourcing, crowdsourcing is a model that depends on work being done outside the traditional company walls, but while outsourcing is typically performed by lower paid professionals, crowdsourcing relies on a combination of volunteers and low-paid amateurs who use their spare time to create content, solve problems, or even do corporate R&D. (source: Wikipedia)

R&D vs. Outsourcing

In House R&D

- closed
- internal employees
- fixed teams
- inflexible management
- high costs

Outsourcing

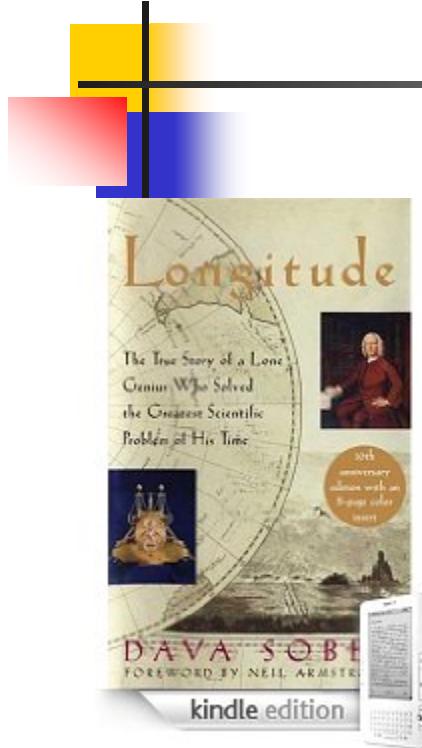
- (usually) closed
- external employees
- teams can change
- on demand
- more flexible management
- less higher costs

vs. Crowd sourcing

Crowdsourcing

- (usually) open but company keeps Intellectual Property
- no employees
- no notion of a “team”
- management is crucial
- negligible costs

The earliest crowd sourcing project



In 1714, British Parliament established a prize of £20,000 (US\$12M today) to anyone who could invent a way determine the longitude on a sailing vessel

Longitude : the true story of a lone genius
who solved the greatest scientific problem
of his time / Dava Sobel
QB225 .S64 1995

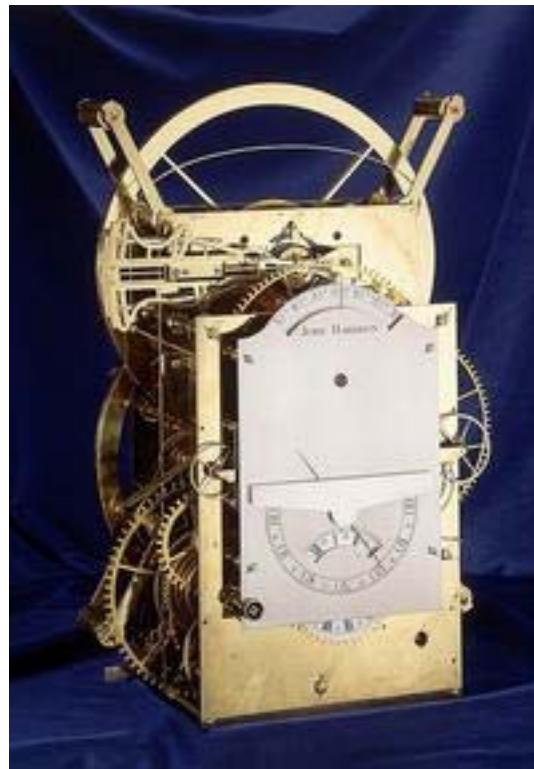
Harrison's timepieces



H1



H2



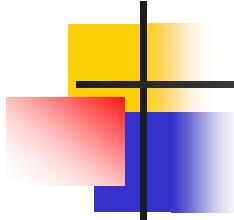
H3



H4

National Maritime Museum Romney Road,
Greenwich

Premise behind Crowdsourcing



“No matter who you are, most of the smartest people work for someone else” Bill Joy, Sun Microsystems cofounder



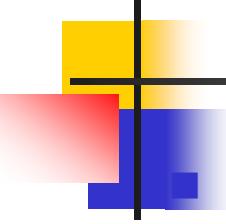
this “law” emphasizes the essential knowledge problem that faces many enterprises today, that is, that in any given sphere of activity most of the pertinent knowledge will reside outside the boundaries of any one organization, and the central challenge for those charged with the innovation mission is to find ways to access that knowledge

With Tech, the crowd is

- Larger
- Connected
- Contributing in many ways/range of skill levels (latent micro expertise)

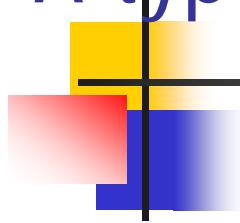


Internet is the infrastructure of the crowd



- New low-cost collaborative infrastructures — from free Internet telephony to open-source software to global outsourcing platforms — allow thousands of individuals and small producers to co-create products, access markets and delight customers in ways that only large corporations could manage in the past
- People can contribute to the “digital commons” at very little cost to themselves, which makes collective action attractive.
- Captcha: <http://www.youtube.com/watch?v=cQI6jUjFjp4>

A typology of problem solving on the Internet



	Single solution	Open-ended
Individual	answers.yahoo.com Naver.com (South Korea)	Case Lego
Collective	<u>TED's translation project</u>	Open Source

Lego Design with Crowdsourcing

LEGO Home Products Games Create & Share Shop Change Region ▾ LEGO ID Sign Up Sign In Search

LEGO DESIGNbyME

Home Download + Get Started Gallery Competition News FAQ Terms Message Board Survey



DREAMT byME BUILT byME DESIGN byME

Get Started
Download **Free** LEGO Digital Designer software and design the LEGO creation of your dreams!
for MAC + PC

Download Now!

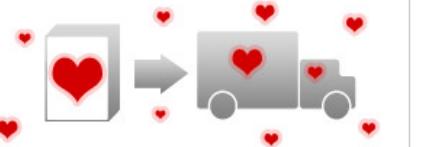
Tell us what you think 

Holiday Building Contest!!!

All the votes are counted, and we're proud to present the winner of our Holiday building contest. Click here to see!

LEGO Digital Designer 4.0!!!

LDD 4.0 introduces new functionality and features, nicely wrapped in a fresh new design. Click to read more.

Valentine's Shipping Times!

To get your custom set in time for Valentine's Day, please click to see a list of the last order dates.

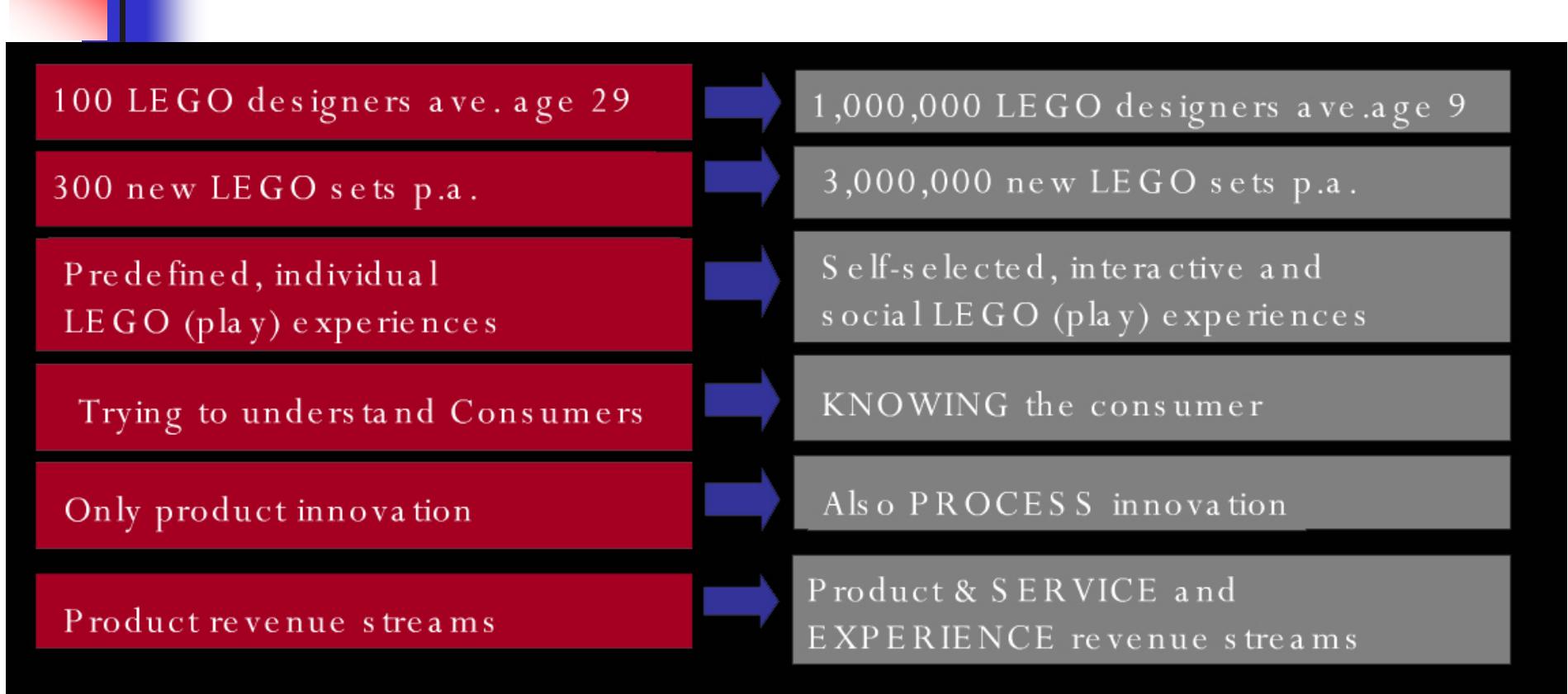
Internet  100% 

The Lego Prosumer Community

- Lego itself has become a flagship for how to get customers deeply involved in co-creating and co-innovating products.
- With Lego Mindstorms, for example, users build real robots out of programmable bricks that can be turned into two-legged walking machines, or into just about anything a teenage mind can envision.
- Today Lego uses mindstorms.lego.com to encourage tinkering with its software. The company benefits hugely from the work of this volunteer business web. Each time a customer posts a new application for Mindstorms, the toy becomes more valuable.
- The Mindstorms experience has proven to be so successful that Lego has transferred its customer-centric development practices to its more conventional Lego brick toys with a service that lets customers design their own custom Lego sets.
- <http://www.youtube.com/watch?v=gXiql8Fm64A>



The results of LEGO crowdsourcing*



*ITSM Sourcing specialization 2011-2012

Crowdsouce: TED Translation Project

- <http://www.ted.com/OpenTranslationProject>



Why do people do it?

- Earn Money (real or virtual)
- Have fun (or pass the time)
- Socialize with others
- Obtain recognition or prestige (leaderboards, badges)
- Do Good (altruism)
- Learn something new
- Obtain something else
- Create self-serving resource

Multiple incentives can often operate in parallel



18 March 2009

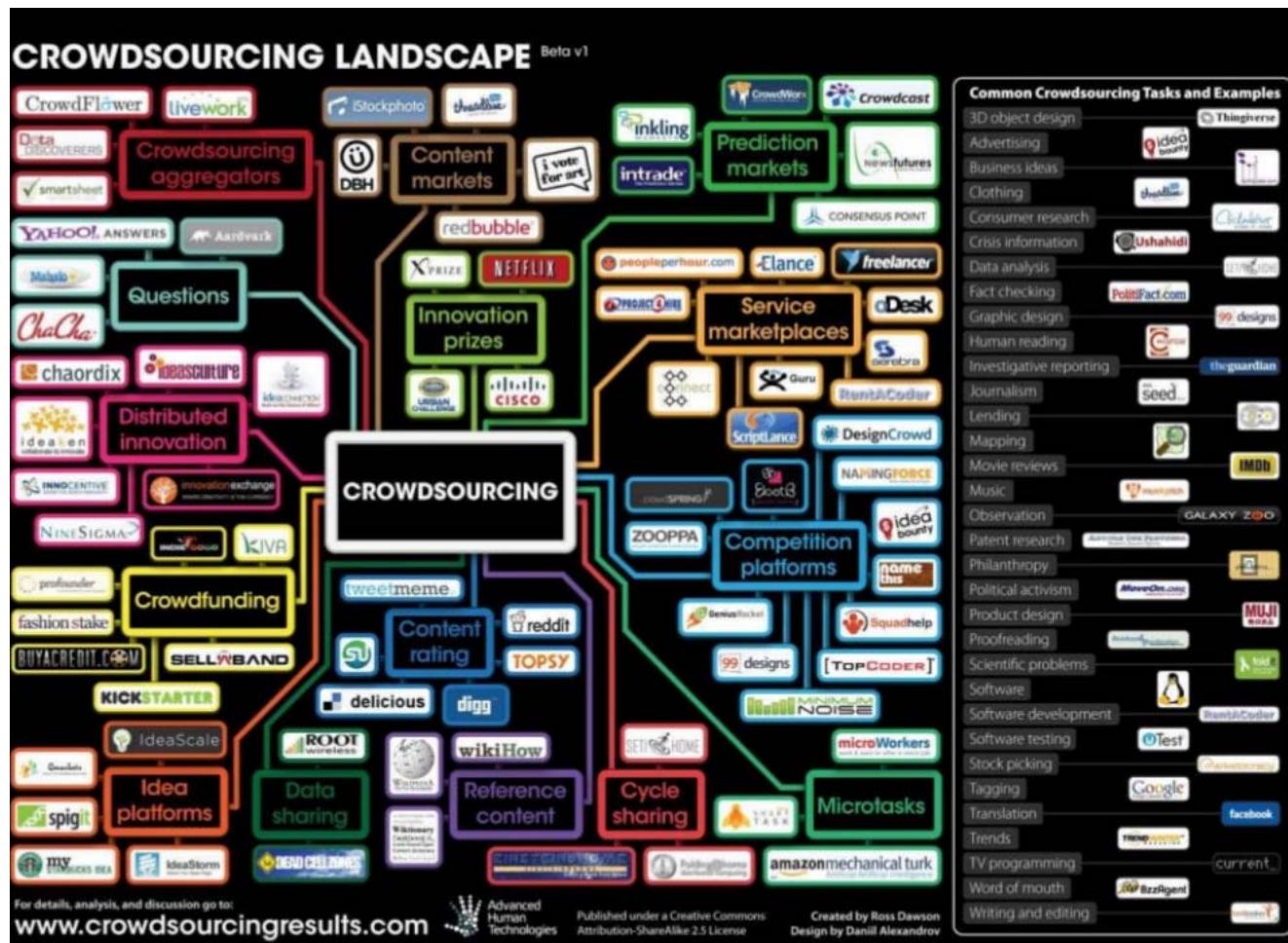
Gary wins Idea Bounty with BMW!

Our interactive producer Gary Willmott won \$3000 with his digital concept for BMW. He was chosen by BMW from over 200 other entries. Well done Gary!

[Read the interview with Gary.](#)



Crowdsourcing Landscape*



*from crowdsourcingresults.com

Questions:

- answers.yahoo.com
- Naver.com (South Korea)



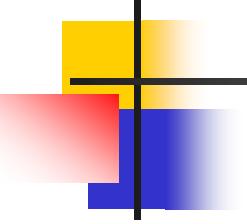
Innovation Prize: Goldcorp*



- \$575,000 prize money
- 400 mb data
- 55,000 acres to explore
- Within 1 month:
 - More than 1000 virtual prospectors from 50 countries
 - Result: 110 new targets, 50% previously unidentified
 - 80% yielded gold
 - Company's value goes from \$100 million to \$9 billion

* In March 2000

Innovation Prize: Netflix's Million Dollar Challenge

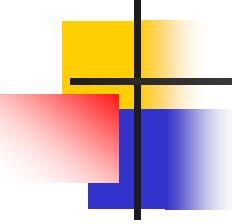


The Netflix Prize Leaderboard table shows the top 29 teams and their scores. The table includes columns for Rank, Team Name, Best Score, % Improvement, and Last Submit Time.

Rank	Team Name	Best Score	% Improvement	Last Submit Time
Grand Prize - RMSE <= 0.8563				
1	Ensemble	0.8584	0.79	2009-09-01 01:04:47
2	EnsembleDlQuinn	0.8590	0.71	2009-05-13 06:14:06
3	GrandPrizeTeam	0.8593	0.68	2009-05-12 08:20:24
4	Caser	0.8600	0.68	2009-04-22 06:57:03
5	BigChaos	0.8613	0.47	2009-05-15 18:33:55
PrizePool: \$1,000,000 - RMSE = 0.8514 - Winning Team: BetterInBigChaos				
6	BetterIn	0.8620	0.48	2009-07-17 13:41:48
7	Groth	0.8634	0.25	2009-04-22 18:21:32
8	Caser&Solutions	0.8640	0.19	2009-05-09 22:24:53
9	ensemble	0.8640	0.19	2009-05-17 12:47:27
10	DeepCineGeoOffices	0.8641	0.19	2009-05-32 17:07:07
11	Caser	0.8642	0.17	2009-05-17 12:42:25
12	mag2	0.8640	0.17	2009-05-17 03:35:08
13	aryeling	0.8640	0.17	2009-05-13 16:25:36
14	team22	0.8647	0.11	2009-05-19 22:21:18
15	JeffL.Jay.R.A.Schaefer	0.8650	0.08	2009-05-24 18:32:54
16	Team EDP	0.8653	0.05	2009-05-15 05:25:11
17	ensemble200	0.8654	0.04	2009-05-05 18:18:03
18	navidRezaeiTeam	0.8657	0.01	2009-05-31 07:30:22
19	Lilimex_2r	0.8659	0.00	2009-03-11 06:41:54
20	VAKINDU Industries	0.8658	0.00	2009-05-11 06:43:14

NYT: A \$1 Million Research Bargain for Netflix, and Maybe a Model for Others

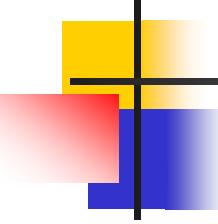
Innovation Prize: TopCoder



[TOPCODER]

- TopCoder is a company which administers contests in computer programming
- Useful software will be licensed for profit by TopCoder and contestants involved in the creation of these components are paid royalties
- Victors of less useful software may be paid by company sponsors

Citizen Science - Zooniverse



Internet's most popular citizen science platform, where professional scientists invite hundreds of thousands of volunteers to help them with their research

- The Zooniverse began with a single project, Galaxy Zoo, which was launched in July 2007.
- Cosmologist Kate Land of the University of Oxford and her team are asking for help in classifying galaxies from the Sloan Digital Sky Survey, the largest digital map of the universe
- The Galaxy Zoo team were overwhelmed and overawed by the response to the project



Competition Platforms: Threadless

The screenshot shows the Threadless homepage with a navigation bar including Shop, **Participate**, Info, and My Account. A red oval highlights the **Participate** link, which is connected by a curved arrow to a lightbulb icon. Below the navigation are links for Score Designs, Submit Ideas, "Loves" Challenges, Street Team, Blog, and Forum. On the left, there are three dropdown menus: Browse by line, Browse by size, and Browse by style. A banner at the top announces "New tees for MONDAY, SEPTEMBER 15". To the right, a user interface shows "Hi, Lunchbox" and "LOGOUT", a shopping cart with "0 items in your cart!", and a "Checkout" button. A sidebar on the right promotes "New tees and prints EVERY MONDAY!" and includes a newsletter sign-up form. Below that is a "WATCH TV" section featuring a video thumbnail for "Spoiler Alert 9/22/08" from Vimeo.

Participate

New tees for MONDAY, SEPTEMBER 15

New tees and prints
EVERY MONDAY!

Spoiler Alert 9/22/08

WATCH TV

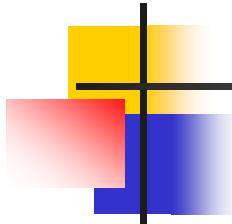
From \$18 | Liquid Shot by Jonas Hovden

From \$18 | Bread Barber by Patchadapim Sansiripun

From \$18 | The Last F*ckin' Unicorn by Dick Firestorm

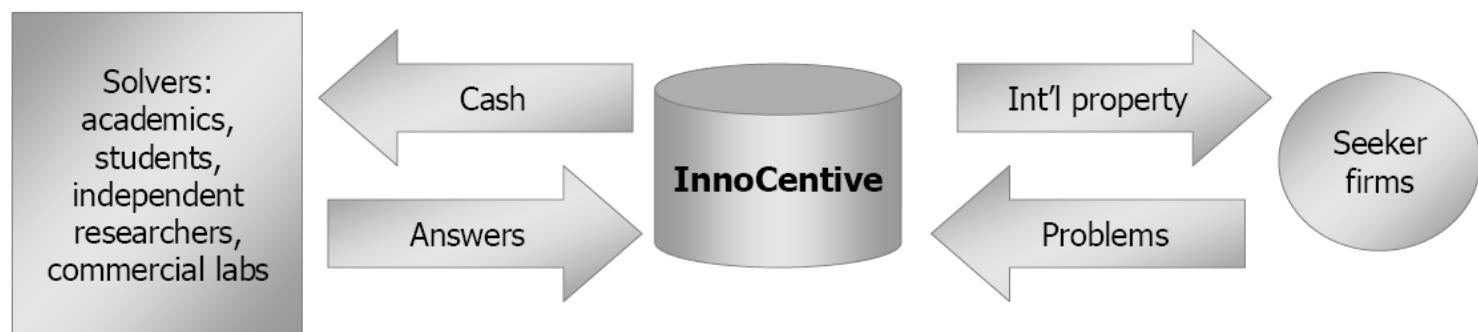
http://www.threadless.com/product/383/The_Communist_Party#zoom

Threadless

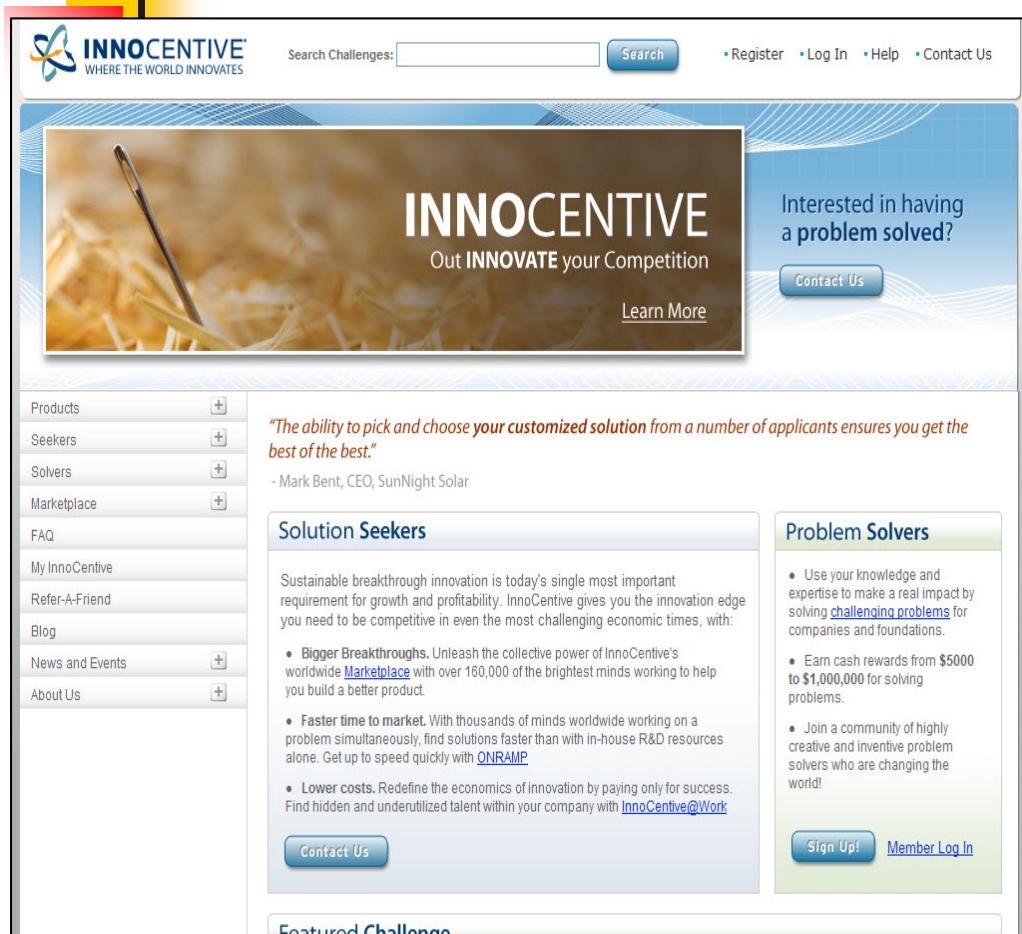


- Threadless: Chicago-based T-shirt maker founded by Jack Nickell and Jacob DeHart
- T-shirts are determined by an online contest
- Submissions are posted on the website and scored
- The four to six highest-scorers are put into production, if there is sufficient pre-order demand
- Winners receive \$2,000 in cash and prizes
- But people argue that financial gain is secondary to the thrill of seeing your name on the label of a t-shirt you designed

Distributed Innovation: InnoCentive



Distributed Innovation: InnoCentive



The screenshot shows the homepage of the InnoCentive website. At the top, there's a search bar with "Search Challenges:" and a "Search" button, along with links for "Register", "Log In", "Help", and "Contact Us". The main banner features a close-up image of a needle and thread, with the text "INNOCENTIVE Out INNOVATE your Competition" and a "Learn More" button. To the right, there's a call-to-action "Interested in having a problem solved?" with a "Contact Us" button. On the left, a sidebar lists navigation links: Products, Seekers, Solvers, Marketplace, FAQ, My InnoCentive, Refer-A-Friend, Blog, News and Events, and About Us. The main content area includes a quote from Mark Bent, CEO of SunNight Solar, and two sections: "Solution Seekers" and "Problem Solvers", each with a list of benefits and a "Contact Us" or "Sign Up!" button. A "Featured Challenge" section is also visible at the bottom.

- Zacary Brown won US\$20,000 for design of a solar-powered wireless router
- Ed Melcarke won US\$25,000 figuring a novel way of getting fluoride into toothpaste tubes

Distributed Innovation: P&G's Pringles Print



Technology brief that defined the problems needed to solve, circulated it throughout global networks of individuals and institutions to discover if anyone in the world had a ready made solution.

- A small bakery in Bologna, Italy, run by a university professor who also manufactured baking equipment.
- He had invented an ink-jet method for printing edible images on cakes and cookies that we rapidly adapted to solve the problem.
- This innovation has helped the North America Pringles business achieve double-digit growth over the past two years

Huston, "Connect and Develop", *Harvard Business Review*, March 2006

Distributed Innovation: Other examples

yet2.com



- P&G and other Fortune 500 companies invested
- Online marketplace for IP* exchange
- brokers technology transfer both into and out of companies, universities, and government labs
- Shanghai Silicon IP Exchange
 - Founded by Shanghai city government and Minister of Industry & Information, PRC



*IP: Intellectual Property

Content Rating

- Create new content by making users organize existing content
- inbound links + peer voting = organization of information
 - Digg, reddit, yahoo buzz (vote on articles/news)
 - Stumbleupon (vote on articles sites)



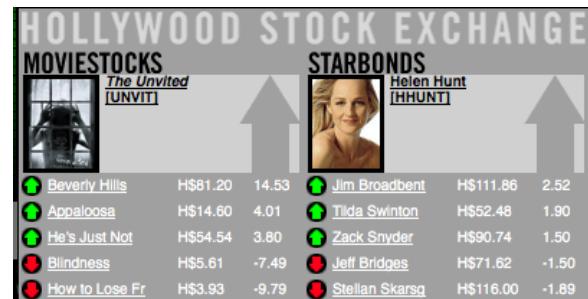
Prediction Markets

Predict trends by inviting users to submit and vote on ideas : Mediapredict.com (users bet on media trends, such a TV viewership, books that are likely to sell well)

- Hollywood Exchange (www.jsx.com)
- Marketocracy



IEM | Iowa Electronic Markets



Service Marketplaces: crowdSpring

The screenshot shows the homepage of crowdSPRING. At the top, there's a navigation bar with links for "Join Now", "Log In", "Contact us", "Search", "How it works", "Browse", "Community", "Help", and a prominent pink "Post a project" button. Below the navigation, a blue banner features the text "AS FEATURED IN AdvertisingAge, EST@MPANY, Forbes, WALL STREET JOURNAL, WIRED". The main headline on the page reads "67,000+ designers and writers. 11,000+ happy clients. 100% Satisfaction Guarantee." A sub-headline below states "Easy, effective and affordable logo, graphic design and writing services for small business." To the right of this sub-headline is a "LEARN MORE" button with a play icon. On the left side of the main content area, there's a large black box containing the text "BrandX" in white, followed by "an unnamed pharmaceutical company has offered 40 awards for a new print piece." To the right of this box are two smaller projects: one for "Illustration" (\$300 - 87 entries) featuring a cartoon illustration of a person, and another for "Logo design" (\$500 - 71 entries) featuring a logo for "IPSWICH ANIMAL HOSPITAL" with a dog icon. At the bottom, there's a section for "NEW WRITING PROJECTS" with a project for "Air New Zealand safety video" (\$9 entries - \$6,000).

The world's #1 marketplace for logo design, web design, and crowdsourced writing projects.

Service Marketplaces: Elance

- It is a web-based platform for online, contingent work
- It allows businesses to post jobs, search for freelance professionals, and solicit proposals



<http://www.clickworker.com/en/about-us/>



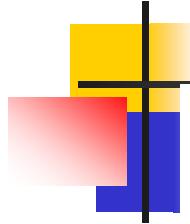
Content Market



- Generate new content by soliciting the masses
 - Language translation
(http://www.ted.com/index.php/talks/hans_rosling_shows_the_best_stats_you_ve_ever_seen.html)
 - iStockphoto (stock content for publishing or photography)
 - Doritos crash the Super Bowl
 - Story (http://www.usatoday.com/money/advertising/2009-09-09-ad-contest-doritos_N.htm)
 - Video (<http://www.youtube.com/watch?v=M8QZo4mybGA>)
 - <http://www.youtube.com/watch?v=skyfAhlHj2E>
 - Live music
 - <http://www.youtube.com/watch?v=PxMTS-r5cc0>



Micro-task crowdsourcing marketplace



Make Money by working on HITs

HITs - *Human Intelligence Tasks* - are individual tasks that you work on. [Find HITs now.](#)

As a Mechanical Turk Worker you:

- Can work from home
- Choose your own work hours
- Get paid for doing good work

Find an interesting task

Automated scenario
Global supply chains
Intelligently enable remote
workers
TASKS after
movement, effective
information. Global
adapts

Work



Earn money



[Find HITs Now](#)

Get Results from Mechanical Turk Workers

Ask workers to complete HITs - *Human Intelligence Tasks* - and get results using Mechanical Turk. [Get started.](#)

As a Mechanical Turk Requester you:

- Have access to a global, on-demand, 24 x 7 workforce
- Get thousands of HITs completed in minutes
- Pay only when you're satisfied with the results

Fund your account



Load your tasks



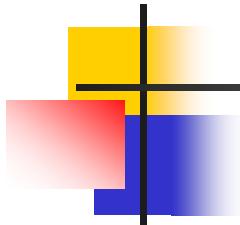
Get results



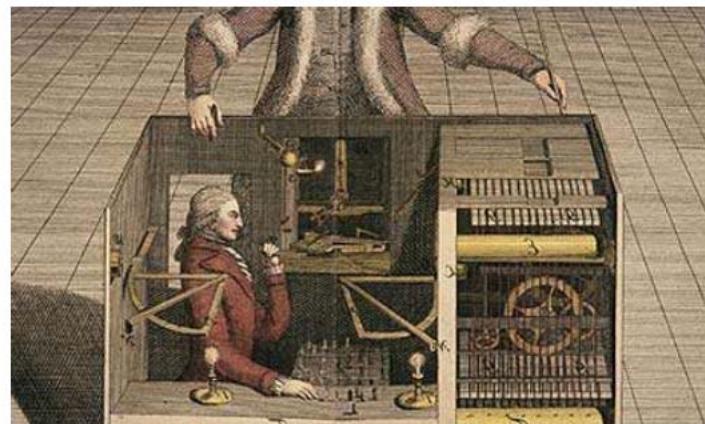
[Get Started](#)

- On-demand, scalable, real-time workforce
- Online since 2005 (and still in “beta”)
- Programmer’s API & “Dashboard” GUI

Amazon mechanicalTurk



Chess machine constructed and unveiled in 1770 by Wolfgang von Kempelen (1734–1804)



amazon mechanicalturk™
Artificial Artificial Intelligence

J. Pontin. Artificial Intelligence, With Help From the Humans. NYT
(March 25, 2007)

Crowdfunding

- Asking crowd to donate a defined amount of money for a specific cause, project or other uses within a predetermined timeframe. If your goal is not met, all donations are refunded
- Kickstarter & Quirky (loan for project) & Kiva (microloan)



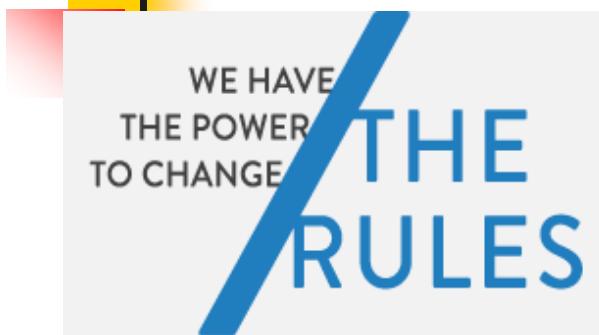
Kickstarter



- an all-or-nothing online pledge system for funding creative projects in Art, Comics, Dance, Design, Fashion, Film, Food, Games, Music, Photography, Publishing, Technology, and Theater
- Backers get something out of it (collateral) and people don't give up ownership of their ideas
- 3 projects have made over \$1 million
- iPod Nano watches are being sold in Apple stores



Kickstarter Project - CrowdRing



<http://www.therules.org/en>

- The application allows organizations around the world to engage people in campaigns via free missed calls and SMS blasts.
- The project was lead by a group of activists, technologists, campaigners and designers from NYC mainly Deepa, Adriana, Leo and Carina and was successfully funded on March 17, 2013 on "KICKSTARTER" with \$15, 252.

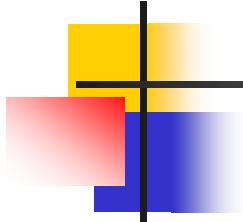
Global mobile culture

'Missed calls' – also known as 'beeps,' 'flashes' or 'fishing' – are intentionally dropped phone calls that are logged by the recipient, but neither the caller nor the recipient pays any charges. Common in emerging economies where calling rates can be costly, people use 'missed calls' to send simple signals and messages, such as 'I'm thinking of you' or 'I'm ready to be picked up' – avoiding fees for SMS or talk time.



Source: <https://www.kickstarter.com/projects/therules/crowdring-a-mobile-organising-tool>

Crowdring



Crowdring provide a streamlined user flow for both **campaigners** and **participants**



Campaigner logs into Crowdring and creates a petition which is connected to a local phone number

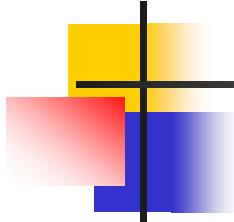
Citizens learn of missed call campaigns through SMS, TV, radio, and web-based outreach

They place a missed call to the advertised number, to "sign" the petition

Their mobile numbers is stored in a database for analytics and future SMS campaign engagement

They immediately received an auto-fire SMS, free of charge, becoming a member of organization

Decentralization



- A chief tenet of the Internet age is belief in the natural proliferation of democracy and decentralization, in the ability of distributed networks of everyday people to achieve what once required top-down hierarchies and a great concentration of power
- When you contribute to a Kickstarter campaign that funds an album or a documentary, you're participating in the creation of cultural value outside the risk-averse bureaucracies of mass cultural production. You're kicking in to cut out the middlemen of music labels or Hollywood studios.

ArtistShare



<http://www.artistshare.com/v4/>

The screenshot shows a project page for "The Gil Evans Project". At the top, there's a navigation bar with links for "HOME", "FUND A PROJECT", "SHOP", "NEWS", "ARTISTS", and "ABOUT US". Below the navigation, there are three main visual elements: a video thumbnail of an older man, a photo of a band performing at the Jazz Standard, and a large "LIVE in NYC" text. Underneath these images, there's a section titled "About This Project" with a brief description and a "what's this?" link. At the bottom, there's a funding goal of "\$10,000.00" with a "qty" dropdown set to "1" and a price of "\$10,000.00". There are also "Additional support" and "what's this?" buttons.

- ArtistShare is a platform that connects creative artists with fans in order to share the creative process and fund the creation of new artistic works.
- ArtistShare created the Internet's first *fan funding* platform (referred to today as "*crowdfunding*") launching its initial project in October, 2003.
- The business model benefits both the artist and the fans by financing new and original artistic projects while building a strong and loyal fan base

Crowdfunding: Quirky

Sign Up, Get Quirky

Sign In: Email Password Do It

quirky

Home Influence Submit Shop Learn About Us Feedback Blog Contact

Here's what you can do at Quirky

Influence Products

Influence Quirky products that are currently in development and you can earn cold hard cash!

Submit Ideas

Have a product idea? We're taking submissions for Product 0053 now! Only 0 days left!

Shop Til You Drop

Find products developed by people just like you. Commit to a pre-sale and get a sweet deal!

Awesome Products For Sale Browse The Quirky Store

Newest | Accessories | Toys | Housewares | Electronics

TILT
GIVE PROPS TO YOUR PHONE

Give props to your phone

MSRP \$30.00
\$28.00

39 out of 990 Add To Cart

Your shiny new iPhone 4 deserves only the coolest accessories. Look no further than the Quirky Tilt, a

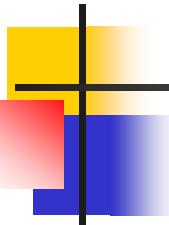
More examples*

WHO (Company/Sponsor)	WHAT (What is Crowdsourced?)	WHERE (Country)	WHO (Company/Sponsor)	WHAT (What is Crowdsourced?)	WHERE (Country)
99designs	Graphic Design	Australia	Ekotekoo	Cleantech	France
Article One Partners	U.S. Patent Reform / Prior Art Research	USA	Fat Muffin	Advertising	USA
Battle Of Concepts	Advertising Creative	Holland	Featurelist	IT/Computers /Internet	USA
Bellow	General	USA	Feedback2.0	Ideas+Answers	France
Bon Bon Kakku	Graphic Design	Finland	FeVote	General	USA
Cambrian House	General	Canada	Foldit	Science	USA
Catwalk Genius	Fashion / Design / Shopping	Ireland	Freerisk	Finance	USA
Cameesa	Apparel / Design	USA	Galaxy Zoo	Aerospace	USA
College Prowler	Education	USA	GeniusRocket	Video, Design, and Copywriting	USA/Global
Colspark	Business / Sales / Marketing	USA	Get Satisfaction	Customer Service	USA
Covestor	Investing	USA	Goosegrade	Editing	USA
c.mm.n	Automotive	Holland	Graniph	Apparel	Japan
Creatad	Advertising		Guardian (Tech News on Sun Oracle)	News	UK
CreateMyTattoo	Custom Tattoos	USA			



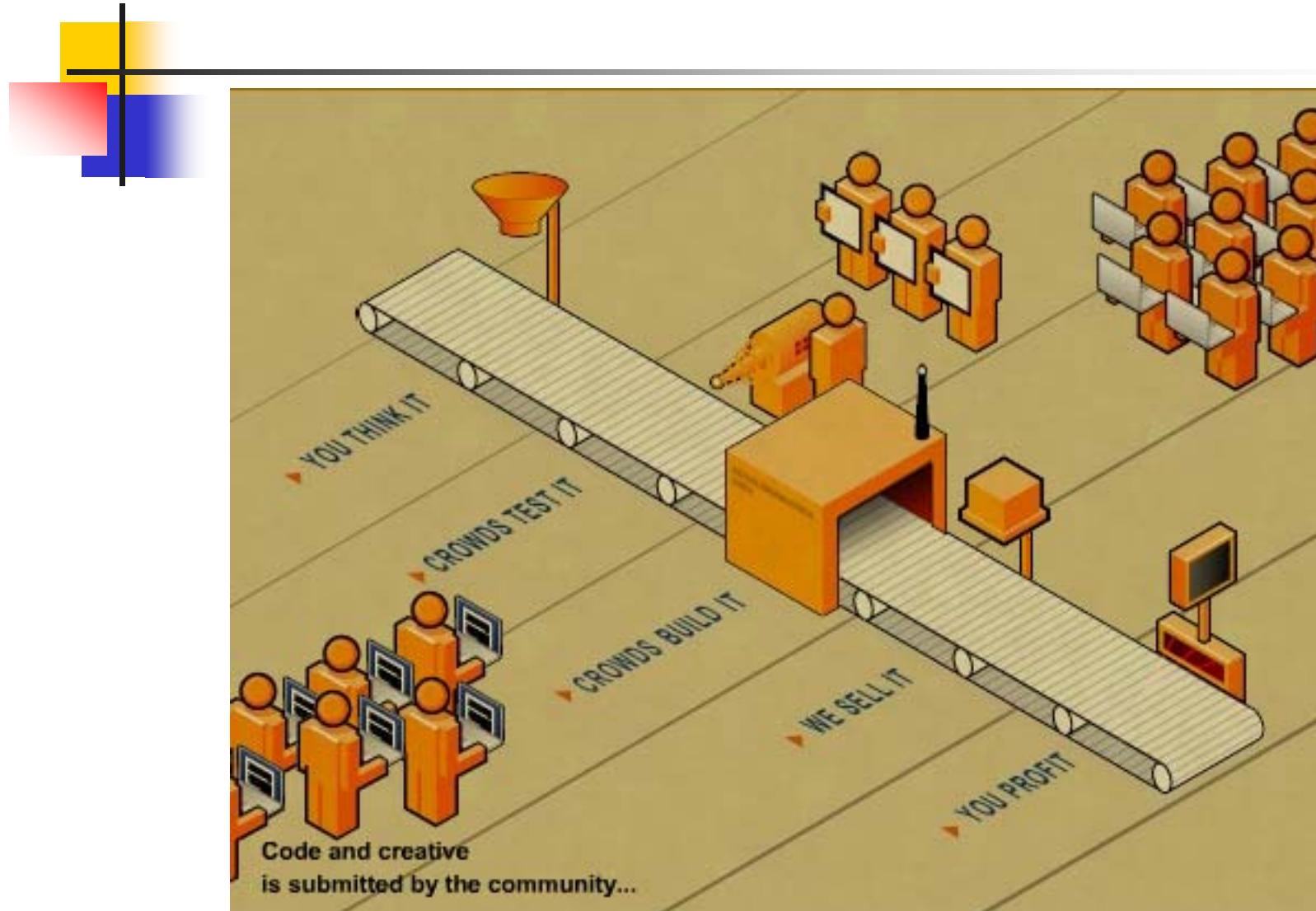
* From Idea Bounty

Not so successful one

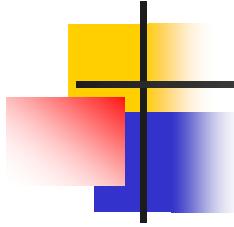


■ http://www.wired.com/techbiz/media/news/2007/07/crowdsourcing_soccer

Not sucessful - Cambrian house



More examples



- <http://jalopnik.com/5398864/local-motors-rally-fighter-the-first+ever-creative-commons-car>