Collective Intelligence

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What is Collective Intelligence?

Quinn and Bederson, CHI 2011
Collective Intelligence

“groups of individuals doing things collectively that seem intelligent.”
Thomas Malone, Director of MIT Center for Collective Intelligence, 2006
http://cci.mit.edu/about/MaloneLaunchRemarks.html

“when technologists use this phrase they usually mean the combining of behavior, preferences, or ideas of a group of people to create novel insights.”
Toby Segaran, Programming Collective Intelligence, 2007, p. 2
BEING HUGE DATA NERDS, WE WONDERED IF TRENDS IN FLU-RELATED SEARCH ACTIVITY ON GOOGLE MIGHT REFLECT THE PATTERN OF ACTUAL FLU ACTIVITY.

WE COMPARED BILLIONS OF SEARCH TRENDS TO ACTUAL FLU TIME SERIES AND WE USED THE BEST MATCHES TO CREATE...

http://www.google.org/flutrends/about/how.html
Crowdsourcing

“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.”

http://www.wired.com/wired/archive/14.06/crowds.html
Human Computation

“a paradigm for utilizing human processing power to solve problems that computers cannot yet solve.”
Luis van Ahn, Doctoral Dissertation at Carnegie Mellon, 2005

“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 Bedderson, CHI 2011
What do you see?

taboo words:
- baby
- pasture
- herd

guesses:
- sheep
- lamb

Submit or pass.
http://fold.it/portal/
CI not superset of HC

- Human Computation
- Social Computing
- Collective Intelligence
- Crowdsourcing

HC system could use single person working in isolation
“Whereas human computation replaces computers with humans, crowdsourcing replaces traditional human workers with members of the public.”

Quinn and Bedderson, CHI 2011
Social Computing

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

**6 votes  1 answer**

**600 ShareKit with MonoTouch how?**

How do you use ShareKit with MonoTouch? The MonoTouch Bindings project on GitHub seems to have bindings for ShareKit but I can’t get them to work. I currently have an iPhone application developed ... asked Jun 4 at 10:24

**1 vote  2 answers**

**+50 Web Application and REST services SSO in tomcat and spring-security**

I am using two different web application deployed in the same tomcat instance. One of web application and another one is REST services. When user logged into the web application and calls the REST ... asked Jun 5 at 4:36

**2 votes  3 answers**

**+50 Tomcat fails on heavy load**

I'm running a heavy db-based GWT application on a debian VPS using tomcat server 7 (& JRE 1.6). My app contains a lot of java servlets which communicate with MySQL5 database via a tomcat ... asked May 22 at 20:35

**16 votes  4 answers**

**+100 Tagging friends in status updates from Facebook API**

I recently came across this blog post that said that it’s possible to tag someone in a status update from a Facebook app (= from the API): ... asked Dec 1 '10 at 17:51
Data Mining

“the application of specific algorithms for extracting patterns from data.”

Congratulations! Movies we think You will ❤️

Add movies to your Queue, or Rate ones you've seen for even better suggestions.

- Spider-Man 3
- 300
- The Rundown
- Bad Boys II
- Las Vegas: Season 2 (6-Disc Series)
- The Last Samurai
- Star Wars: Episode II
- Robot Chicken: Season 3 (2-Disc Series)
Twitter mood predicts the stock market
(Bollen et al., 2011)
No, You Cannot Predict Elections with Twitter

Nov.-Dec. 2012 (vol. 16 no. 6)
pp. 91-94

Daniel Gayo-Avello, University of Oviedo, Spain

DOI Bookmark: http://doi.ieeecomputersociety.org/10.1109/MIC.2012.137

ABSTRACT

Predicting X from Twitter is a popular fad within the Twitter research subculture. It seems both appealing and relatively easy. Among such studies, electoral prediction maybe the most attractive, and a growing body of literature exists on this topic. This research problem isn’t only interesting, but is also extremely difficult. However, most authors seem to be more interested in claiming positive results than in providing sound and reproducible methods. It’s also especially worrisome that recent papers seem to only acknowledge those studies supporting the idea that Twitter can predict elections. This is all problematic because while simple approaches are purported to be good enough, the predictive power of Twitter regarding elections has been greatly exaggerated, and difficult research problems still lie ahead.

ADDITIONAL INFORMATION

Index Terms:
Prediction methods,Voting,Twitter,elections,Twitter,social media,prediction,forecasting,politics

Citation:
Summary

• Relatively new field making use of networked world
• Uses machine learning and data mining algorithms
• Need for ethical standards
Further Reading

• Howe, *Crowdsourcing* (2008)
• Shirky, *Here Comes Everybody* (2009)
• Tapscott, *Wikinomics* (2010)