

PUBLISH ON DEMAND

Expanding Social Engagement: A New Road to Digital Dollars?

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UPDATE

mediaX
STANFORD UNIVERSITY



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We are the industry-affiliate program to Stanford's H-STAR Institute. We help our members explore how the thoughtful use of technology can impact a range of fields, from entertainment to learning to commerce. Together, we're researching innovative ways for people to collaborate, communicate and interact with the information, products, and industries of tomorrow.



Expanding Social Engagement: A New Road to Digital Dollars?

Publish On Demand Project Update October 2013

Research Team: Ann Grimes, Lorry I. Lokey Professor of Practice and Director of Stanford's Graduate Program in Journalism; R.B. Brenner, Visiting Lecturer in Stanford's Graduate Program in Journalism; Jay Borenstein, Stanford's Computer Science Department; Jeff Heer, Associate Professor, Department of Computer Science

Abstract

What if we could help media companies better track the “social footprints” of their audiences to increase revenue?

Thanks to funding from mediaX, we assigned two teams of Computer Science and Journalism students to tackle the question of how media companies can better track the ‘social footprints’ of their audience – specifically, how consumers behave and engage with content on their websites.

The 12 students who were enrolled in CS210 and COMM240 worked with the McClatchy Corp. and other media organizations to address questions such as: What are site users actually reading? Are users’ online behaviors in sync with their stated interests? How can this knowledge be captured and be translated into higher ad rates and more revenue.

The teams took two different routes.

Team A: TagTeam Metrics

This group built a meta-tagging system that uses natural language processing - Open Calais (Thomson Reuters software) and Stanford's Alchemy Library – that can scan thousands of articles and identify the most relevant keywords within each. The front-end user interface features bar charts that display the results in an easy-to-read format, enabling editors and publishers to have a more precise understanding of each article's content. The system simultaneously collects vital demographic and geographic information about each individual reader of an article. By merging the two, media companies can accumulate large data sets on the behavior of individual users: reading habits, interests, gender, income, ethnicity, location and age. This, in turn, can lead to targeted ads and content packages.

Students got feedback on their project during Spring break from media companies in New York (including *The New York Times*, Bloomberg, *The Wall Street Journal*, Digital First, ChartBeat, and Thomson Reuters. Summarized, all media representatives said, “This is the biggest problem we face.” (See summary sheet for PowerPoint – TAGTEAM – for a schematic of this work to date.)

TEAM B: Yes&

This team focused on user engagement from a different angle, by examining how to monetize social behavior through a more robust and innovative commenting system. At present most websites display comments at the end of articles. Comments thus tend to be overly general and un-engaging. The system developed by the students allows for comments within individual paragraphs, which can foster greater discussion and more time spent on the site. Comments also can be customized and filtered: by ‘friends,’ ‘most recent’ and ‘hottest.’ This, in turn, leads to increased time spent on site, and potentially higher revenues for social engagement. From interviews with users of social networking at several media companies, including Brazil’s sporting giant GrupoLince, students learned that the private sector is moving quickly to develop more robust commenting systems. Examples include new startups like Branch and Spreecast.com against which the team is benchmarking. (See summary sheet for PowerPoint – Yes& - for a schematic of this work to date).

2012-13: Timeline/Accomplishments to Date

Phase 1: Sept/Dec 2012: -Defined goals, scope, deliverables, project parameters and milestones with faculty and industry partners.

Phase 2: Jan/March 2013 – Identified interdisciplinary student research team; launched prototype design process via CS 210/ COMM 299 and COMM 240 classes.

Phase 3: March/June 2013: Prototype developed. Beta version of software released May 10.

The teams conducted a user-testing phase, accessing datasets provided by *The Sacramento Bee*. This testing and refinement continued through June 7.

Weekly 30-minute (each) small group meetings with faculty advisors

Winter Quarter: Mondays

Spring Quarter: Tuesdays

Meetings with Publishers

Sacramento Bee:

Four on-site meetings – either in Sacramento or Stanford (February – May 2013)

New York Times, Bloomberg, Thomson Reuters, Wall Street Journal, Digital First, ChartBeat
(March 24-27 2013), New York

San Jose Mercury News (March 2013)

Half Moon Bay Review (March 2013)

Project Summaries

The Transparent Social Footprints project (co-led by Jeffrey Heer, Ann Grimes, Jay Borenstein and R.B. Brenner), examined requirements and developing prototypes for metrics and tools to support media organizations in the shift from print to digital content. Two teams in an upper level two-quarter computer science course, CS201: Software Project Experience with Corporate Partners and journalism course Comm 241: Digital Media Entrepreneurship, worked on a use case involving a mid-sized, regional newspaper, *The Sacramento Bee*.

Student Teams

Team A/ Meteowrite:

Stanford Department of Computer Science

Hugh Cunningham

Stanley Tang

Gavin Bird

Stanford Graduate Program in Journalism

Riva Gold

Ian Yakob

Team B/Yes&:

Stanford Department of Computer Science

Azmaan Onies

Michael Christensen-Calvin

Nick Latourette

Stanford Graduate Program in Journalism

Anna Li

Danielle Radin

Xioahua Cui

Rachel Estabrook

Faculty Advisors

Ann Grimes is the Lorry I. Lokey Professor of the Practice and Director of Stanford's Graduate Program in Journalism. Since 2007 she has taught COMM 240, Digital Media Entrepreneurship (<http://dme.stanford.edu>), a class that brings together interdisciplinary teams of journalism, computer science and business students to prototype new digital media ventures. Professor Grimes joined the Stanford *faculty* in 2005-2006 after an award-winning career at *The Wall Street Journal* and *The Washington Post*. She is an affiliated faculty member of the Brown Institute for Media Innovation.

R.B. Brenner is a visiting lecturer in Stanford's Graduate Program in Journalism. His courses range from digital journalism to public-issues reporting to magazine writing. Previously he was Metro Editor and then Sunday Editor of The Washington Post, where he also oversaw the creation of the Universal News Desk -- an editing and production hub for The Post's web and mobile sites, as well as its social-media and reader-engagement teams. He was one of the primary editors of the newspaper's coverage of the Virginia Tech shootings, awarded a Pulitzer Prize in 2008.

Jay Borenstein joined Stanford's Computer Science Department as a Lecturer in 2008. Since then he has taught Computer Science 210: Project Based Computer Science Innovation and Development (cs210.stanford.edu) and Computer Science 194: Senior Project (cs194.stanford.edu). He also works at Facebook where, as the "Education Modernizer," he works with top universities around the world to provide experiential software-engineering experiences as part of university curricula.

Jeff Heer, Associate Professor, Department of Computer Science, Stanford University, served as PI for the Media X grant.

Media Advisors

McClatchy Corp. *Sacramento Bee*:

Tom Negrete, Director of Innovation & News Operations

Daryl Kunken, Director of Marketing Analysis

Sean McMann, Director of Digital Media

Additional Reading:

Statement of the Publish On Demand Research Theme

<http://mediax.stanford.edu/POD/concept>

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