



UNIVERSITY OF
MARYLAND

ROBERT H. SMITH
SCHOOL OF BUSINESS

Building the B(r)and

The Use of Social Media to Monitor and Manage Conversations

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SM³ Overview

- Social Media Micro-Modeling
 - 3 year NSF grant from CISE: HCC
 - Diffusion and Ranking in Social Media: A Computational Examination of the Role of Influence and Authority



Building the B(r)and

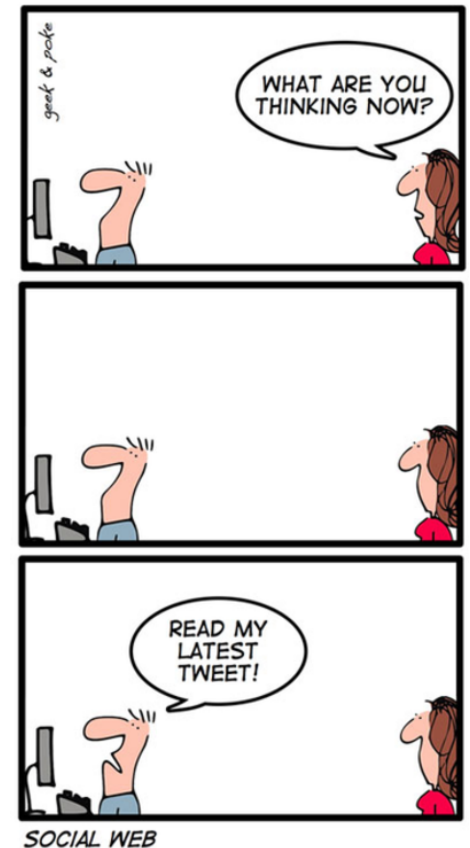
- How can you use social media to build a following and get your message out?
 - For Companies and Brands
 - For Independent Music Groups
 - For Civic Participation Groups
 - For Public Service Information
- For our initial analysis, we chose unsigned rock bands that had all participated in a shared experience (rock residency)
 - How do bands use social media? Can they attract followers?
 - How do their “fans” react on social media?
 - Can we track and compare social media activity across sites?
 - Can we use social media activity as a proxy for performance?

Data Collection

- Twitter
 - 48 bands that participated in Monday night rock residencies in 2 clubs in Los Angeles and 24 bands that were booked on Thursday/Friday nights in 2008 and 2009.
 - SignalB: Tweets from the band.
 - SignalF: Tweets from followers of the band that explicitly include the band twitter ID.
 - SignalBG: Background tweets.
 - Follower Count (FC) for band and FC-FC.
- Last.fm
 - Listens
 - Plays

Data Issues

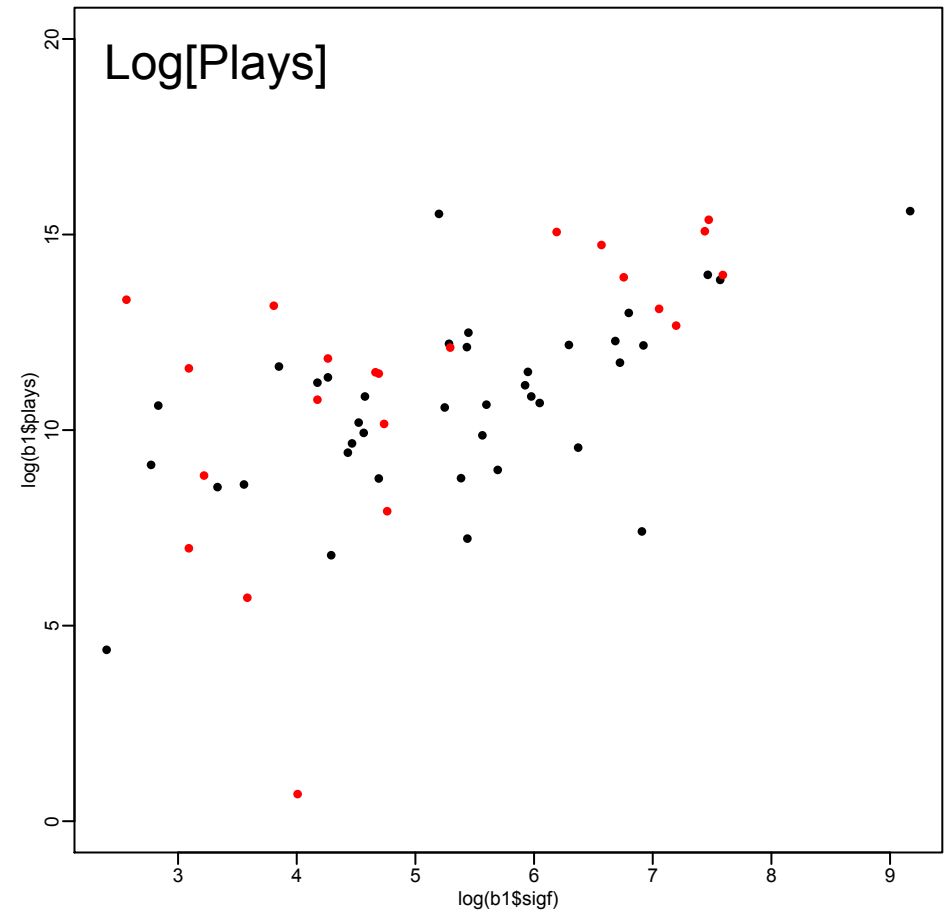
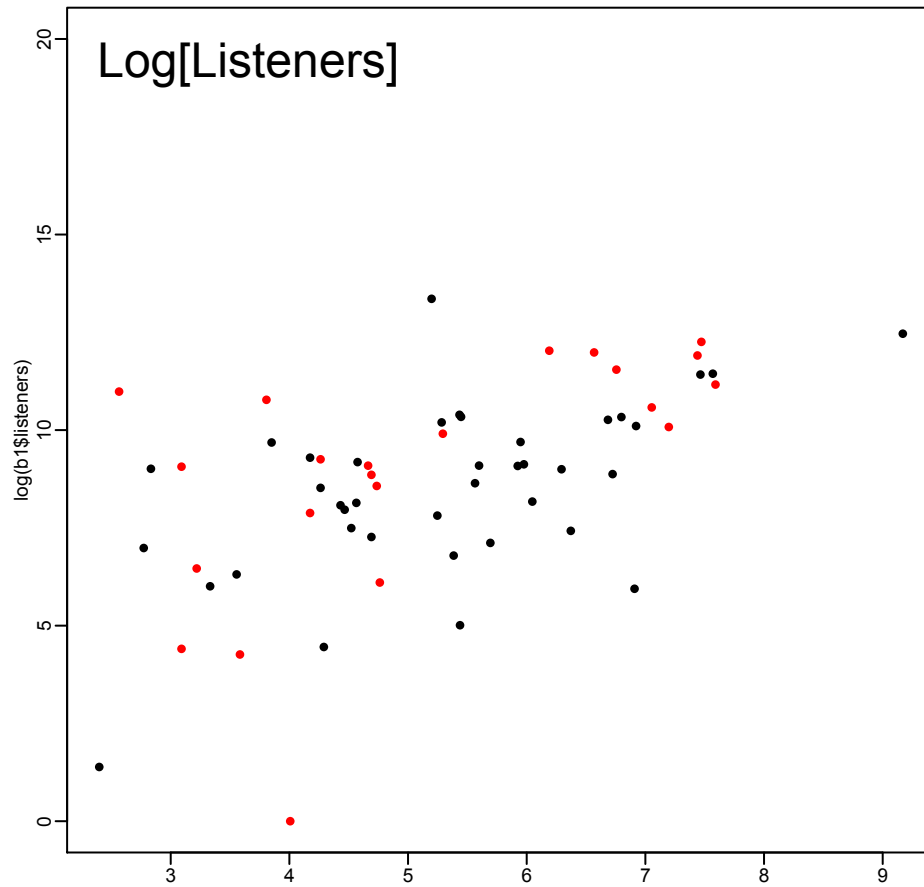
- Twitter Data is not as accessible as it seems
 - Multiple APIs (2 from Twitter, and realtime.google) but they return different results
 - Historical Twitter Data Access is rate-limited
- How do you determine if a Tweet is about a band or some other topic that uses similar words?
- How do you carry out entity resolution for users of different social media platforms?



“Listeners” and “Plays” Correlations

Ind. Variables	Listeners	Plays
Listeners	1.000	0.888
Plays	0.888	1.000
SignalB (Band Tweets)	0.322	0.265
SignalF (Tweets by Followers that mention the Band)	0.387	0.639
SignalFp (All Tweets that mention the Band)	0.356	0.556
Follower Count	0.436	0.598
Followers of Followers Count	0.379	0.476
SignalFreach (SingalF weighted By Followers)	0.409	0.655
SignalFbg (All Tweets by Band Followers)	0.417	0.662

Relating Last.fm to Twitter



Time Series Analysis

(hourly resolution)

Absolute	Sum(sigF)	Sum(sigF sigB) (controlling for band)	Time Periods
sigB = 0	13505	0	30993
sigB >= 1	21622	2703	7744
Relative per Band	Avg(sigF)	Avg(sigF sigB) (controlling for band)	
sigB = 0	0.0067	0	
sigB >= 1	0.0429	0.2035	

Event Detection

tweets2's Profile

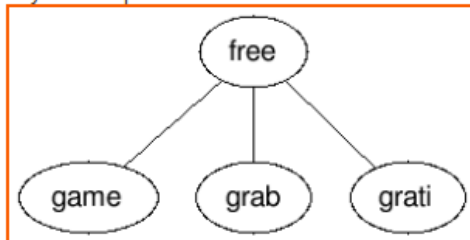
Advanced Search

Search

Generate | Browse | Home | Logout

grabbing; free; games; gratis;

Keyword Graph



View Associated Posts



grabbing; free; games; gratis;

Posts: (90)

Results Per Page:

50 100 150 200 All

Page: <-Prev Next->

1 2

Title	Related	Interest	Select
			<input type="checkbox"/> All
HOW TO: Make Free #iPhone Ringtones: http://bit.ly/9KABpH	Maybe Related	Interesting	<input type="checkbox"/>
Our #iPhone App Review this week: Fisheye for Free http://bit.ly/2sLJbm	Maybe Related	Interesting	<input type="checkbox"/>
RT @iballgames #YouTube #Video for #iBall 3Games Pro #Beach #Volleyball game for #iPhone & iTouch Touch http://bit.ly/cmblix	Maybe Related	Interesting	<input type="checkbox"/>
RT @MarkClayson: Top 10 Free #iPhone Word #Games http://goo.gl/fb/MoNz8	Maybe Related	Interesting	<input type="checkbox"/>
You guys and gals need to try #TwitpicPoster on #iPhone, it's free and it's great! http://bit.ly/twitpicposter	Maybe Related	Interesting	<input type="checkbox"/>
KÄ4nftiger PSP Mini kostenlos im App Store: Fly Fu - PlanetiPhone.de - iPhone, iPod News: http://bit.ly/aOdoc5 #iPhone #Game #free #psp #mini	Maybe Related	Interesting	<input type="checkbox"/>
Neuer PSP TV-Spot stÄ4nkerk gegen iPhone-Spiele: http://bit.ly/9o3ZVi #PSP #iPhone #games	Maybe Related	Interesting	<input type="checkbox"/>
#iPhone Tipp des Tages: iBlast Moki kostenlos im App Store - http://bit.ly/9omiHo #free #gratis #iphone #game	Maybe Related	Interesting	<input type="checkbox"/>
#iPhone DSiWare-Spiel: Hudsons Shot Watch kostenlos auf dem iPhone - http://bit.ly/9omiHo	Maybe Related	Interesting	<input type="checkbox"/>

Web Interface for Data Sets

Generate | Browse | Home | Logout

Tweet 1594148

Post by author <http://twitter.com/smoggiedave83>

See more post by this author [here](#).

@Gizmodo Less than 24hrs to get #PowerDown a classic #Puzzle #App on #iPhone for free <http://bit.ly/9SwAVM> - Can you complete them all?

Hashtags

- iPhone
- App
- Puzzle
- PowerDown

Previous Ratings:

Interesting Maybe Related

How would you rate this article?

- ☐ Interesting ☐ Related
☐ Maybe Interesting ☐ Maybe Related
☐ Not Interesting ☐ Not Related
☐ Remove Ratings

submit

smoggiedave83

Posts: (644)

Results Per Page:

50 100 150 200 All

Page: <-Prev Next->

1 2 3 4 5 6 7 8 9 10 11 12 13

Title	Related	Interest	Select
			<input type="checkbox"/> All
@davywavy hi dave, I recently released an iPhone office sweepstakes app for the world cup + wondered if u could RT it http://bit.ly/9eWCBE			<input type="checkbox"/>
@MFCFacebook hi, I recently released an iPhone office sweepstakes app for the world cup + wondered if u could RT it http://bit.ly/9eWCBE			<input type="checkbox"/>
@Wossy hi jonathan, I recently released an iPhone office sweepstakes app for the world cup + wondered if u could RT it http://bit.ly/9eWCBE			<input type="checkbox"/>
99 problems but the bitch ain't one, it's a hard knock life in New York - Jay-Z rocked			<input type="checkbox"/>
At the M.E.N watching drake waiting for jay-z to come on stage - good times			<input type="checkbox"/>
yay within one full days sales my #iphone app has made it in to the Whats Hot sports Apps :)			<input type="checkbox"/>
The FA have commissioned Duran Duran to record the England World Cup Song. It goes "His Name is Rio and he watches from the stand" :P #wcup			<input type="checkbox"/>
Just watched the #24 finale, Chloe even cried + she's spent all series telling me shes not that bothered about it lol! Sad to see it finish			<input type="checkbox"/>

Content Labeling

- Call to Action



localnatives Local Natives

Dear Londoners: tix for last show of the year @ the Forum 23/11 obtained here <http://tinyurl.com/2utmcuw> RT to enter for a free pair

18 Nov

- Informational



localnatives Local Natives

Playing daytrotter show in rock island tonight, then we've got some tricks up our sleeves for our daytrotter session tomorrow.

15 May



localnatives Local Natives

- @pitchforkmedia just announced us and the rest of the bands playing their festival. Line-up looks pretty ace <http://bit.ly/bDWTVB>

8 Apr

- Entertainment / Biographic



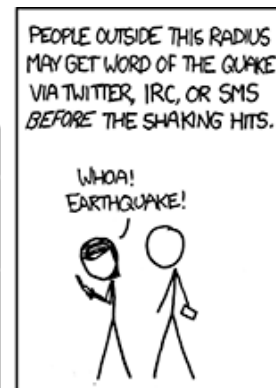
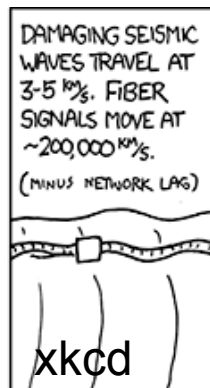
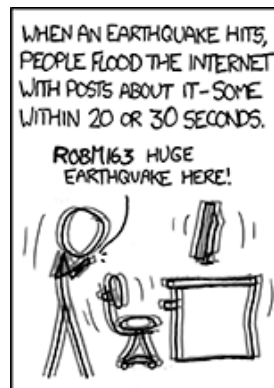
localnatives Local Natives

\$450 fee to fly out our guitars with us to Chicago through American Airlines. How the hell do small bands fly? Help!

17 Jul

Future Work

- Visualization (with CIBER)
 - How do we visualize international patterns of social media diffusion?
- Prediction
 - Can we use social media to predict future events?
- Crisis and Reputation Monitoring
 - Can we build automated tools to analyze social media data and alert stakeholders to important events?



Any Questions?

- Acknowledgements
 - NSF Award #1018361
 - CIBER support via Dept. of Education
- SM3 Wiki
 - wiki.umiacs.umd.edu/sm3/
- Center for Complexity in Business
 - www.rhsmith.umd.edu/ccb/
 - Annual Conference on 10/28/2011