

On Leveraging Social Media

Pranam Kolari

Tim Finin, Akshay Java & eBiquity folks!
.. collaborations with IBM, NEC, JHU and others



SOCIAL MEDIA

Social media describes the online technologies and practices that people use to share opinions, insights, experiences, and perspectives with each other.

Wikipedia 06

SOCIAL MEDIA

Social media describes the online technologies and practices that people use to share opinions, insights, experiences, and perspectives ***and engage*** with each other.

Wikipedia 07

SOCIAL MEDIA

- Engagement protocols defined by platforms;
 - Blogs, Social Networks, Wiki, Micro-blogs
- around content types;
 - text, audio, video, read-write Web, avatars
- instantiated by applications;
 - Live Spaces, YouTube, Wikipedia, flickr
- enabling online communities.

SOCIAL MEDIA

- Pew (2007) : 55 percent of American youth age 12 to 17 use online social networking sites
- Hitwise (February 2007): 6.5% of all Internet visits for social networking sites
- Andrew Tomkins at ICWSM 2007
 - Professional vs. Personal (Social) Content
 - 4GB/day vs. 5-10GB/day (minus songs/videos)
 - 90% vs. 10% clicks
 - good ranking vs. crazy good ranking

SOCIAL MEDIA RESEARCH

Efforts best described by published papers in 3 workshops (2004, 2005, 2006) and at ICWSM 2007

A simple experiment...

SOCIAL MEDIA RESEARCH

Social Media: 2004, 2005, 2006

Web: www 2007

communities,
analysis, ties,
moods, bloggers,
weblogs, topics,
blogs, weblog,
blogosphere,
blog

database,
ontology, server,
user, applications,
databases,
policies, **services**,
personalized,
scalable, mobile,
networks, xml,
semantic

SOCIAL MEDIA RESEARCH

Social Media: 2007

Web: www 2007

people, corporate,
comments,
visualization,
personal, trust,
social, sentiment,
analysis, blog,
blogs, blogosphere

ontology, server,
databases,
policies, **services,**
scalable, queries,
xml, search, web

SOCIAL MEDIA RESEARCH

Social Media: 2007

cs.pitt.edu,
staff.science.uva.nl,
miv.t.u-tokyo.ac.jp,
del.icio.us,
icwsm.org,
ebiquity.umbc.edu

Web: www 2007

research.yahoo.com,
cs.washington.edu,
research.ibm.com,
research.att.com,
cs.cornell.edu,
cs.cmu.edu,
www2007.org,
research.microsoft.com

SOCIAL MEDIA RESEARCH

- **Modeling Bias through Link-Polarity**
- Mining micro-blogs
- Social Media and the Semantic Web
- Internal Corporate Blogs
- Spam in Blogs/Social Media

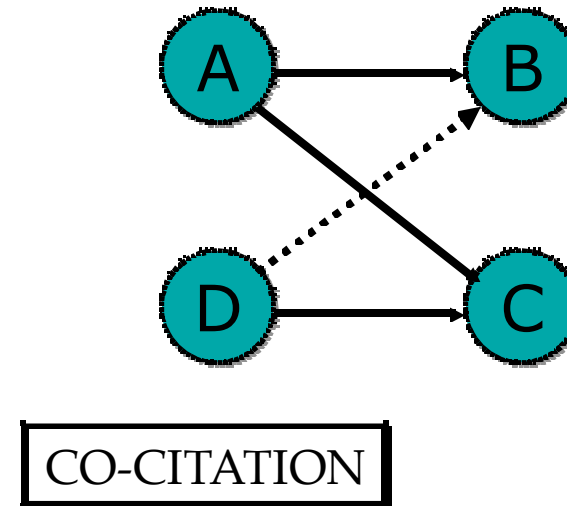
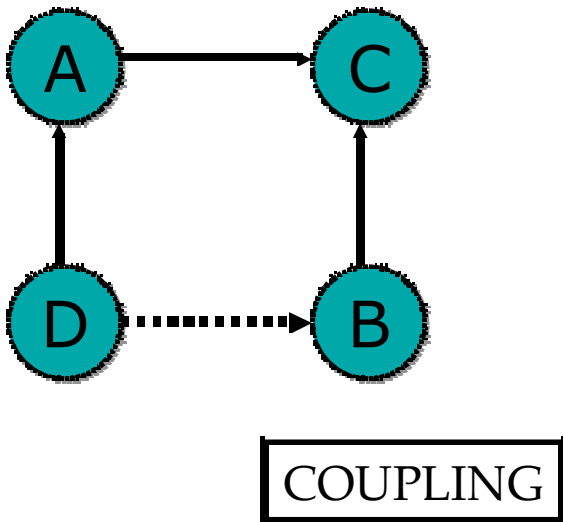
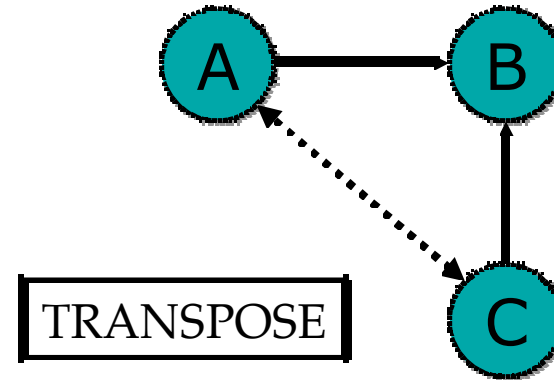
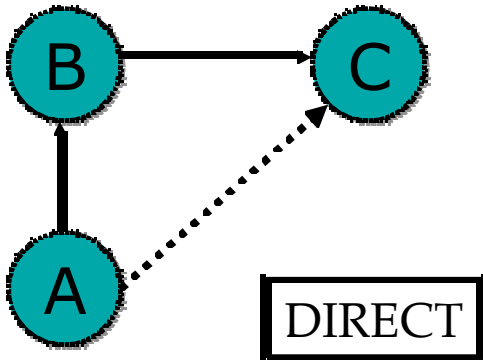
LINK-POLARITY IN BLOGS

“ ... Michelle Malkin’s brilliant analysis of the [immigration bill](#) is right on the mark. As usual, the moonbats on the left are all over the place. Check out Atrios’ [idiotic and corrupt argument](#) for supporting the fatally flawed bill. ...”

LINK-POLARITY IN BLOGS

- Exploit argumentative and unedited nature of blog posts
- Represent the opinion (and strength) of source blog about destination blog by analyzing a window of text around post hyperlink; $[-1,+1]$
- Belief Matrix (B) as opposed to Transition Matrix (T)
- Enables leveraging existing work in the area of “Trust Propagation in Networked Environments”

BIAS (TRUST) PROPOGATION



BIAS (TRUST) PROPOGATION

- R. Guha's Trust Framework
- A small number of expressed trust/distrust allows predicting trust between any two individuals with high accuracy
- Incorporating trust propagation
 - $C_i = a_1 * B + a_2 * B^T * B + a_3 * B^T + a_4 * B * B^T$
 - $a_i \{0.4, 0.4, 0.1, 0.1\}$ represents weighing factor
- Trust Matrix (M) after i^{th} atomic propagation
 - $M_{i+1} = M_i * C_i$

IDENTIFYING MSM BIAS



Left Leaning

Right Leaning

SOCIAL MEDIA RESEARCH

- Modeling Bias through Link-Polarity
- **Mining micro-blogs**
- Social Media and the Semantic Web
- Internal Corporate Blogs
- Spam in Blogs/Social Media

A global community of friends and strangers answering one simple question: **What are you doing?** Answer on your phone, IM, or right here on the web!

Look at what [these people](#) are doing right now...



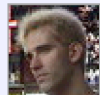
[dctalk](#) enjoying my iced latte (thanks philip!) while waiting for my maestro download to finish [less than 5 seconds ago](#) from web



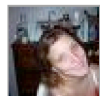
[shckor](#) 会社にいる [less than 10 seconds ago](#) from web



[wintermelon](#) ランチ、スタバのヘーゼルナッツカフェラテとレモンスコーン、 [less than 10 seconds ago](#) from [twitterrific](#)



[mopedronin](#) @Halcyon happy birthday. [less than 10 seconds ago](#) from web [in reply to Halcyon](#)



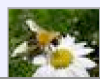
[JeSslcA11171985](#) im talking to my best friend and listening to music [less than 20 seconds ago](#) from web



[MacLife](#) From the July 2007 issue: A Day in the Life of an Apple Genius: <http://tinyurl.com/yth3pn> [less than 20 seconds ago](#) from web



[calon](#) 北京市第一中级人民法院判决肖传国败诉。不知是否还会上诉到北京市高级人民法院？ <http://urltea.com/ng9> [less than 20 seconds ago](#) from [Tweetr](#)



[BZB](#) @RodneyOlsen Fantastic interview with the Grumpies yesterday! Thanks! <http://tinyurl.com/2e6mca> [less than 20 seconds](#)



Please Sign In!

Username or Email

Password

☐ Remember me

[Forgot?](#)

Sign In!

Want an account?

Join for Free!

It's fast and easy!

Featured!



[Steven Wright](#)



[Justine](#)



[timer](#)



[Where 2.0](#)



[R1 Big Weekend](#)



[Scott Hanselman](#)



[Jodrell Bank](#)



[TwitLit](#)



[BlogPhiladelphia](#)



[Lisa@FlashWEEK](#)



kolari

Current Status

speaking to a intellectually engaging audience at IPAM :)

less than 20 seconds ago from web ☆ 🗑

With Others

Previous

smiling at Karin's super cute baby [half a minute ago](#) from web ☆ 🗑

I: Los Angeles, CA [11 minutes ago](#) from web ☆ 🗑

In love with UCLA campus [about 5 hours ago](#) from [bt](#) ☆ 🗑

[@akshayjava](#) welcome back ;) [05:08 PM August 27, 2007](#) from im [in reply to akshayjava](#) ☆ 🗑

[@steverubel](#) I was recommended <http://www.shieldzone.com/> [09:16 PM July 17, 2007](#) from im [in reply to steverubel](#) ☆ 🗑

iBrick -- Day 2 [01:13 PM July 02, 2007](#) from im ☆ 🗑

Around 60 lined up at columbia mall for iphone [03:32 PM June 29, 2007](#) from [bt](#) ☆ 🗑

another analogy -- IM:friends :: Micro-blog:friends.network :: Blog:friends.network.rest [01:14 PM June 27, 2007](#) from im ☆ 🗑

[@steverubel](#) twitter id's -- great find. Ids seem to increment by ten though. [01:03 PM June 27, 2007](#) from im [in reply to steverubel](#) ☆ 🗑

[@zaneMATTHEW](#) good luck on your site! [12:36 PM June 27, 2007](#) from im [in reply to zaneMATTHEW](#) ☆ 🗑

[@dvallet](#) congratulations! [11:39 AM June 15, 2007](#) from im [in reply to dvallet](#) ☆ 🗑

Posts

About

Name Pranam Kolari

Location San Jose, CA

Stats

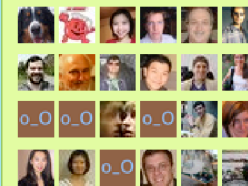
[Following](#) 25

[Followers](#) 29

[Favorites](#) 0

[Updates](#) 56

Following



Friends

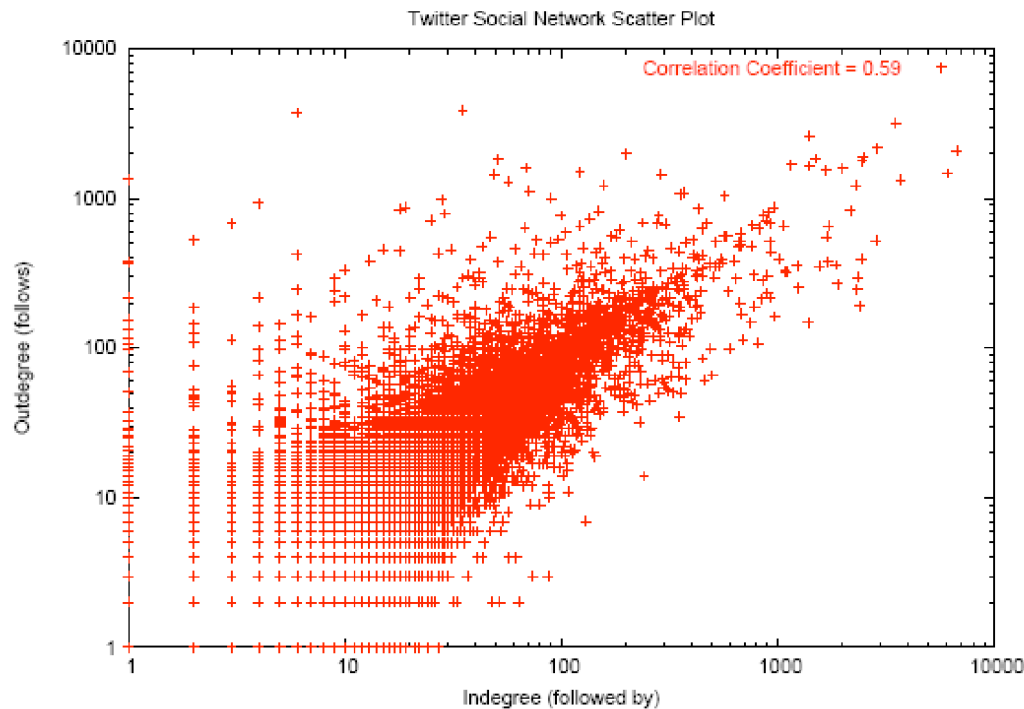
AMBIENT INTIMACY

“**Ambient intimacy** is about being able to *keep in touch* with people with a level of *regularity and intimacy* that you wouldn't usually have access to, because time and space conspire to make it impossible.”

- Leisa Reichelt

Twitter, Flickr and other Social Media sites.

NETWORK STATISTICS



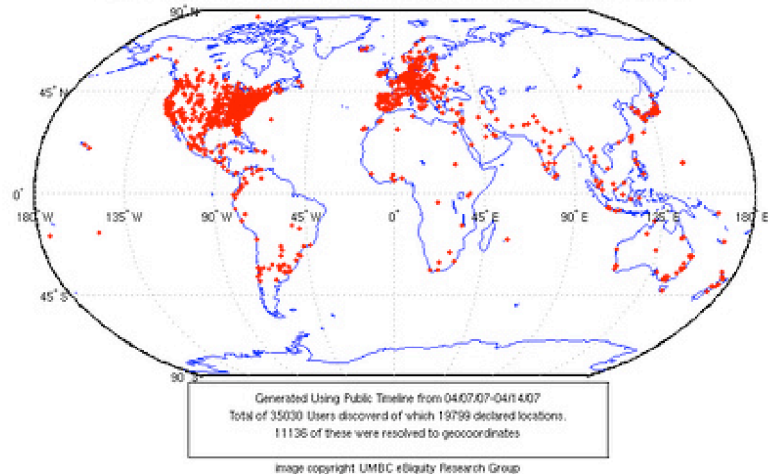
Network Statistics

Property	Twitter	WWE
Total Nodes	87897	143,736
Total Links	829247	707,761
Average Degree	18.86	4.924
Indegree Slope	-2.4	-2.38
Outdegree Slope	-2.4	NA
Degree correlation	0.59	NA
Diameter	6	12
Largest WCC size	81769	107,916
Largest SCC size	42900	13,393
Clustering Coefficient	0.106	0.0632
Reciprocity	0.58	0.0329

higher reciprocal linking and clustering coefficient indicates mutual acquaintance.

TWITTERMENT

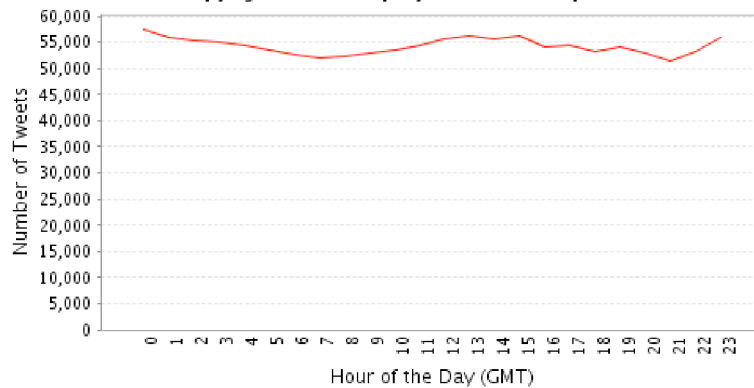
Distribution of Twitter Users Across the World



Rank	City
1	Tokyo
2	New York
3	San Francisco
4	Seattle
5	Los Angeles
6	Chicago
7	Toronto
8	Austin
9	Singapore
10	Madrid

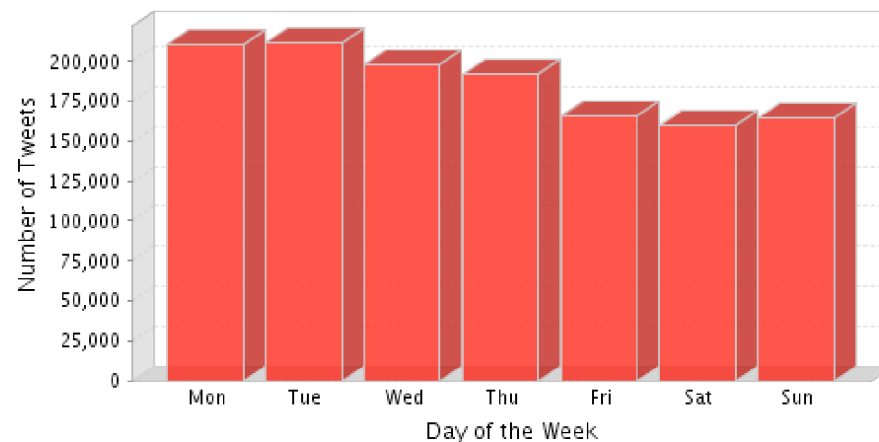
Number of Tweets Per Hour

copyright UMBC eBiquity Research Group



Number of Tweets Per Day

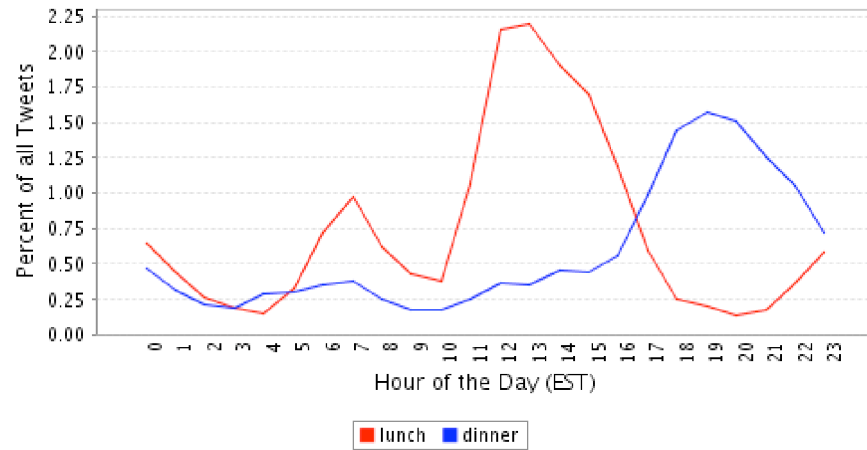
copyright UMBC eBiquity Research Group



TWITTERMENT

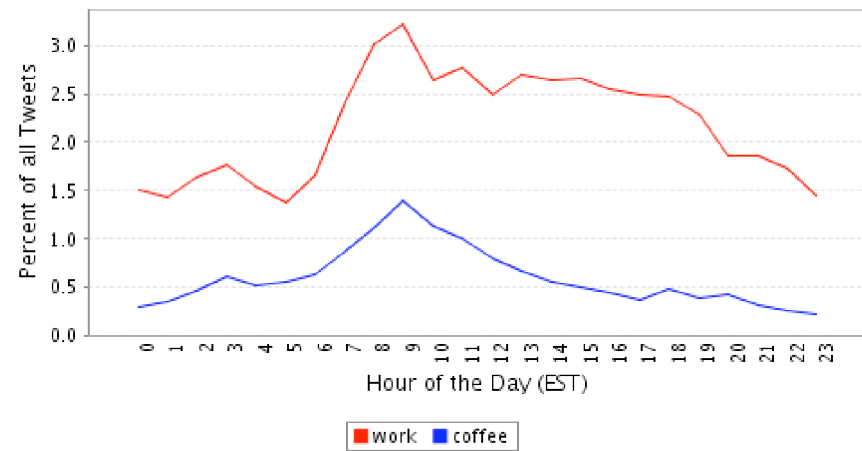
Hourly Trends

copyright UMBC eBiquity Research Group



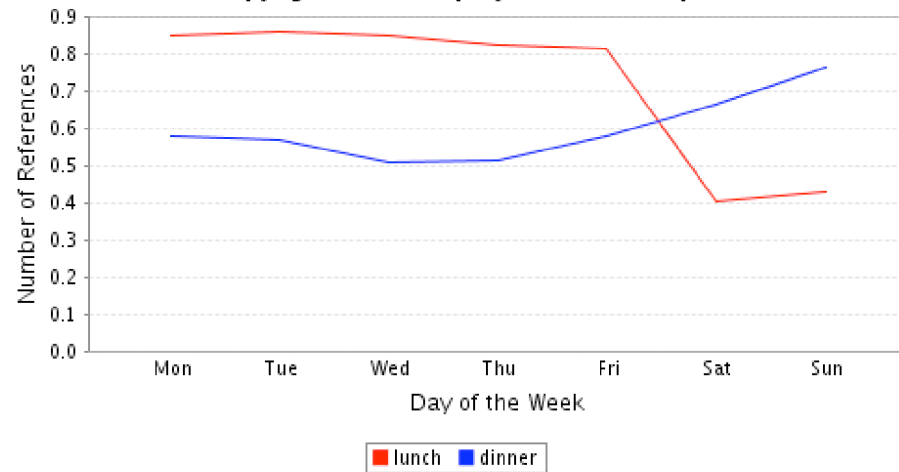
Hourly Trends

copyright UMBC eBiquity Research Group



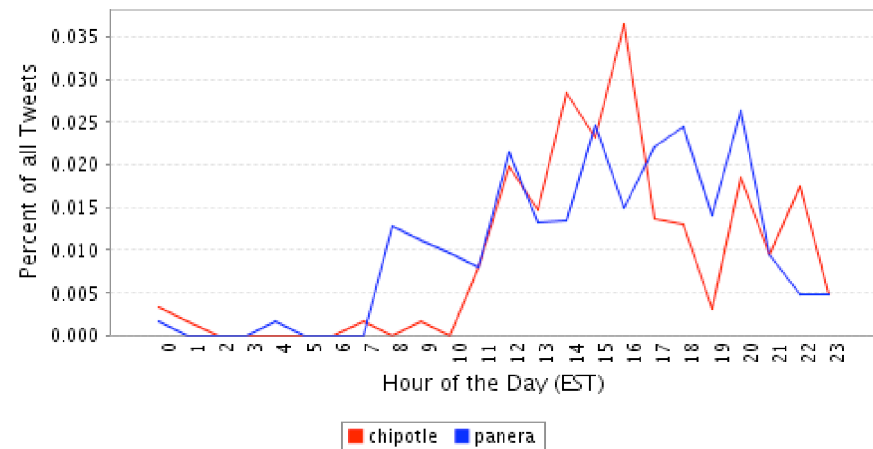
Daily Trends

copyright UMBC eBiquity Research Group



Hourly Trends

copyright UMBC eBiquity Research Group



SOCIAL MEDIA RESEARCH

- Modeling Bias through Link-Polarity
- Mining micro-blogs
- **Social Media and the Semantic Web**
- Internal Corporate Blogs
- Spam in Blogs/Social Media

SEMANTIC WEB

- Many are exploring how Semantic Web technology can work with social media
- Background of our work on the Semantic Web -- Swoogle
- Social media like blogs are typically temporally organized
 - valued for their timely and dynamic information!
- Maybe we can (1) help people publish data in RDF on their blogs and (2) mine social media sites for useful information



Applying semantic web technologies
in research ecoinformatics

Tuesday, November 08, 2005, 20:42:37
EST

[ABOUT](#) [ELVIS](#) [EVIDENCE PROVIDER](#) [FOOD WEB CONSTRUCTOR](#) [ITIS](#) [ONTOLOGIES](#) [PEOPLE](#) [PUBLICATIONS](#) [WIKI](#) [REGISTER](#) [LOGIN](#)



An NSF ITR collaborative project with

- University of Maryland, Baltimore County
- University of Maryland, College Park
- U. Of California, Davis
- Rocky Mountain Biological Laboratory

Fact of the week

About

Evidence Provider

People

Publications

INVASIVE SPECIES

- Nile Tilapia fish have been found in a California lake.
- Can this invasive species thrive in this environment?
- If so, what will be the likely consequences for the ecology?



We got
\$*%@%&^\$#
Nile Tilapia
in a lake!

FieldMarking - Mozilla Firefox


Edit View Go Bookmarks Tools Help

http://ebiquity.umbc.edu/fieldmarking/


March 28, 2007

The bushes rejoice

Filed under: [observation](#), [indirect observation](#), [phenology](#), [birds](#)



No, this is not suddenly turning into a political blog. Just announcing yesterday and today are in full bloom. I always thought of forsythia as a weed, but then I thought of course it is invasive and pervasive. This photo is from a datapoint when I get a chance to properly code them.



I am even more pleased to announce that the [spicebushes](#) have native

Once entered, the data is embedded into the blog post and Swoogle is pinged to index it

Wish it had been mine. During the upcoming National Wildlife Week, we will be recording the species we encounter in an area of our choosing. Details are available at [http://www.flickr.com/photos/mveaches/420976239/](#) and a place and time to spend at least two hours recording species

SPOTter button

http://spire.umbc.edu - Observation Form - Mozilla Firefox

Observation

Reporter:

Observer:

Address:

Latitude:

Longitude:

Date:

Taxon:

Common name:

How many:

Source URL:

Just announcing the gaudy show of the forsythia which were just slightly open yesterday and today are in full bloom.

start

3:41 PM

Geographical Coordinates of the Bounding Box

Bottom Left Corner

Latitude:

Longitude:

Top Right Corner

Latitude:

Longitude:



Prototype SPOTter Search engine

Change map focus to

#	Icon	Reporter	Observer	Taxon	Address	Location	Date
1		Cynthia Parr	Cynthia Parr	Periplaneta americana (Palmetto bug), 1	New Orleans, LA	lat: 29.9371000 lon: -90.1092000	2007-03-21
2				Macfadyena unguis-cati (cat's claw)	New	lat: 29.9371000	

Map

Flickr
tags:

European Starling

☒ text search (title, description
and tags)

☐ tag search (please supply
comma delimited list of tags)

☒ AND (all of the words in tag)

☐ OR (any of the words in tag)

Geographical Coordinates of the
Bounding Box

Bottom Left Corner

Latitude: 41.994201560315695

Longitude: -71.6363525390625

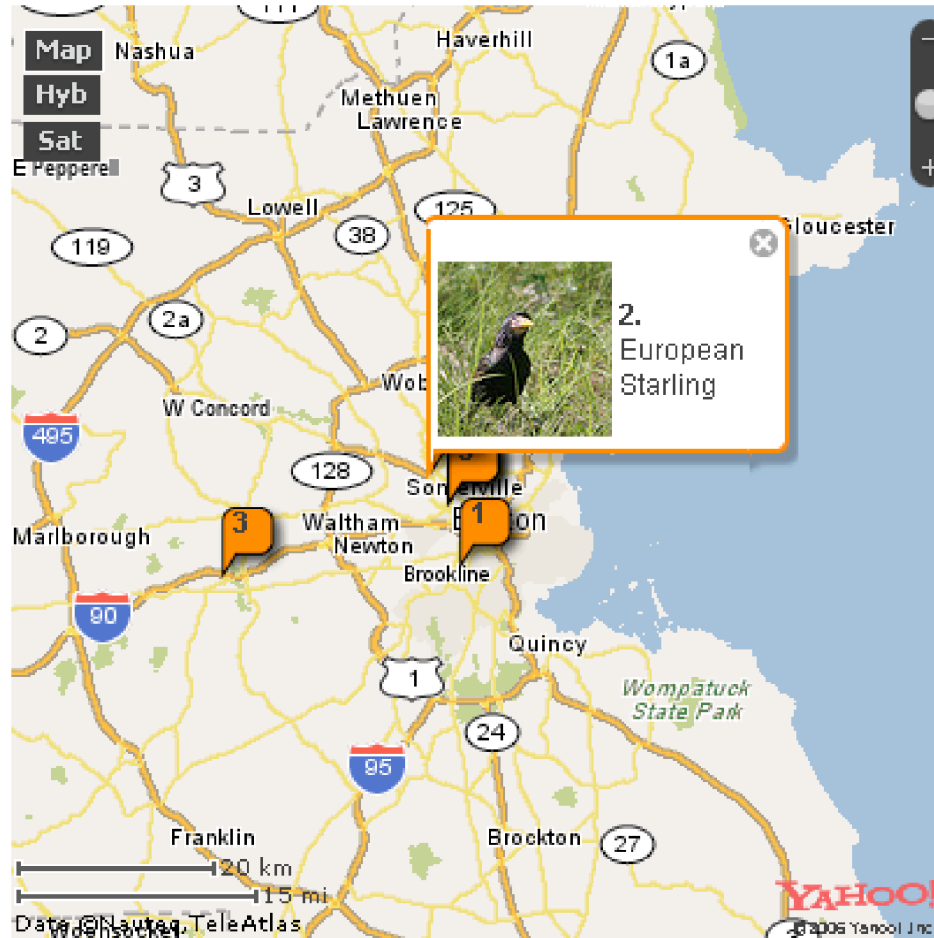
Top Right Corner

Latitude: 42.80547682786028

Longitude: -70.5377197265625

Prototype splickr Search engine

Splice Splickr



Change map focus to

There are 5 results.

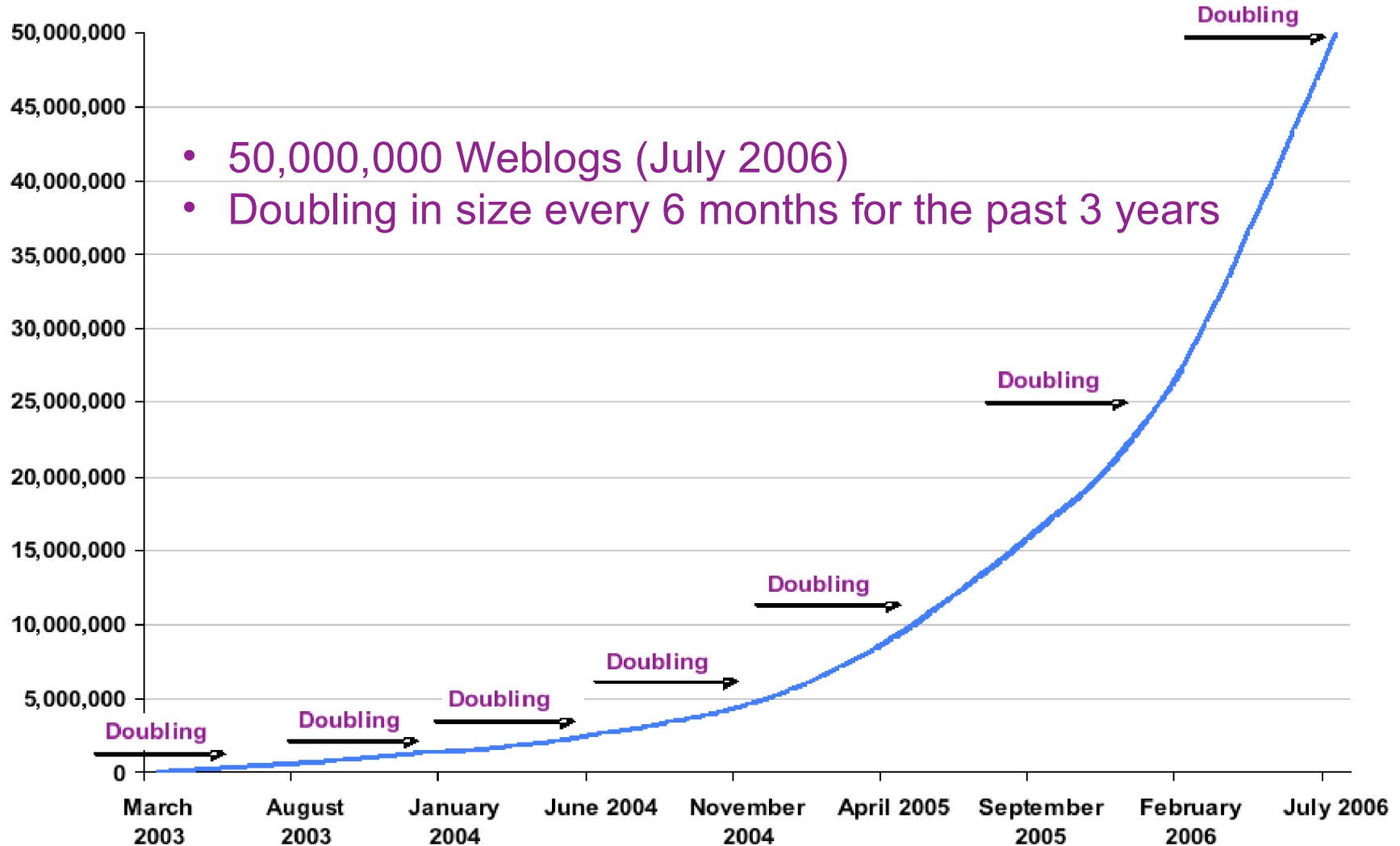
#	Icon	Title	Tags	Location	Date taken
---	------	-------	------	----------	------------

SOCIAL MEDIA RESEARCH

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- Mining micro-blogs
- Social Media and the Semantic Web
- **Internal Corporate Blogs**
- Spam in Blogs/Social Media

GROWTH OF BLOGS

umber of blogs



- 50,000,000 Weblogs (July 2006)
- Doubling in size every 6 months for the past 3 years

MOTIVATION

- What are the characteristics of Internal Blogs?
 - How are they growing?
 - Who uses them?
 - How would you quantify the nature of conversations?
- How does this map to Corporate Hierarchy?
- How best to exploit Internal Blogs?
 - Bottom-up competitive Intelligence
 - Emergence of Experts
- What next with tools for Internal Blogs?

http://blogs.tap.ibm.com/weblogs/page/kolari@ca.ibm.com

BlogCentral
Kolari on Blogging, Web 2.0

Search w3 GO
Search BlogCentral

w3 Home | BluePages | Help Now | Feedback

BlogCentral
Weblog tags
Users Directory
Statistics
My weblogs
TOC
Kolari
Help

Thursday January 25, 2007

Analysis of IBM Internal Blogs

We recently worked on an analysis of IBM's internal blogs. A submitted paper is available for Internal Bloggers [\[PDF\]](#). Clearly IBM is emerging as a leader in this space. GO Lotus Connections!

Thanks to Blogcentral users for their timely input! Suggestions, comments and corrections very much welcome.

Posted by Pranam Kolari at 01:19 AM EST | [Comments \[3\]](#)
 Tags: [analysis](#) [b2](#) [b2-feedback](#) [blog](#) [blogcentral](#) [blogging](#) [blogs](#)
[\[redacted\]](#) on January 25, 2007 at 02:37 AM EST
[\[redacted\]](#) on January 25, 2007 at 04:18 AM EST
[Praman Kolari](#) on January 25, 2007 at 03:19 PM EST

Wednesday November 29, 2006

The Growth of Internal Blogs at IBM

I have been analyzing the internal blogosphere for some of the work I have been doing. Here is one snippet of this analysis.

The external blogosphere doubles every six months, David Sifry from Technorati has been [reporting this](#) for the past two years. The growth internally hasn't been that high, but very good nonetheless doubling every 10 months. The first chart shows the cumulative number of blogs and posts on BlogCentral from Nov 2003 to July 2006. The divergence between blogs and posts shows an interesting trend on how the blogging community is better engaging new adopters, encouraging them to post, and hence retaining them.

The Growth of IBM Internal Blogs (Cumulative)

Technome

www.flickr.com

Praman Kolari's Favorites photoseet

Kolari on Blogging, Web 2.0
...with w3 cap on. While you are here, check out [BlueSphere](#).

[BluePages profile](#)
[BluePages+1 profile](#)
 Name: Pranam Kolari
 Title: CAS Ph.D Fellow, IBM Toronto
 Email: kolari@ca.ibm.com
 Phone: 9054132699
 (T/L: 72699)
 Location: Baltimore, Maryland

Show Fan!

Recent entries

- [Analysis of IBM Internal Blogs](#)
- [The Growth of Internal Blogs at IBM](#)
- [Gabe announces Technome+e\\$\\$](#)
- [Back to School](#)
- [AAAI at Boston -- July 16-20](#)
- [Most Active Users on BlogCentral](#)
- [Inspiring, Very Inspiring](#)
- [BlogCentral -- Adoption Catalysts](#)
- [Dell initiates a Corporate Blog](#)

> Apache Roller Publishing Platform
 > Similar (less customized) platform
 used by Sun (Public Facing) Blogs -
<http://blogs.sun.com/>

BlogCentral

Weblog tags

Users Directory

Statistics

My weblogs

Help

She secured by IBM intranet password

Related links:

- IBM Blogging Policy
- BlogCentral project under the TAP program

Search w3

GO

Search BlogCentral


IBM

w3 Home | BluePages | HelpNow | Feedback

Featured weblog entries

Subject:

Blog:

 [BCv2 Problem: Feeds aren't working \[Update: They're back\]...](#)

chmod 777 ibm

Apparently sometime last week the RSS and Atom feeds for new BCv2 entries stopped working. We're investigating the problem. The server will likely be restarted at least once today as we attempt to resolve the problem. We'll let you know how it goes. Update : Server was rebooted and the feeds are back.

Mar 12, 2007 12:03:22 PM | By [\[redacted\]](#)
Tags: [bcv2](#)

Recent weblog entries

[SDM Underway...](#)

My SDM Weblog

Time to start interacting with our subject matter experts. The SDM project is ready to go.

Mar 14, 2007 2:16:45 PM | By [\[redacted\]](#)
Tags: [almaden](#) [sdm](#)

[Sametime 7.5.1 fix](#)

The Owl's Log ...

For those who find Sametime 7.5.1 freezes up, there is a nice fix by just replacing your sametime.ini file with this one (backup your old one, of course!). It throttles down the Java garbage collection, or so I'm told, I'm not the expert. I got this from the IBM sametime forums. The ini file is located in C:\Program Files\IBM\Sametime Connect. ...


Mar 14, 2007 2:09:20 PM | By [\[redacted\]](#)
Tags: [sametime7.5.1](#)

[Re: Working moms- What works for you?](#)

JoAnn's Weblog ...

I'm late to the party here but this post regarding what works for Working Moms caught my eye. My husband's job is not flexible. He cannot work from home, has no part time options. What worked for my husband and I was for me to work part time for as long as we could afford to. I took 2 Flex Work Leaves of Absence when each of my kids were born. Th...

Mar 14, 2007 2:07:46 PM | By [\[redacted\]](#)

 [rmb and I listened in to predator potato aka Ian Hughes in real life, give a presentation on secondlife to a predominant Public Sector audience. Ian is part of the UK team which has really helped push IBM's presence in secondlife. The charts can be found here: <https://w3.webahead.ibm.com/w3ki/download/attachments/705407/DecSLIH2.ppt> It w...](#)

Mar 14, 2007 1:57:42 PM | By [\[redacted\]](#)
Tags: [matavara](#) [secondlife](#)

Popular Entries : Last 10 days comment count

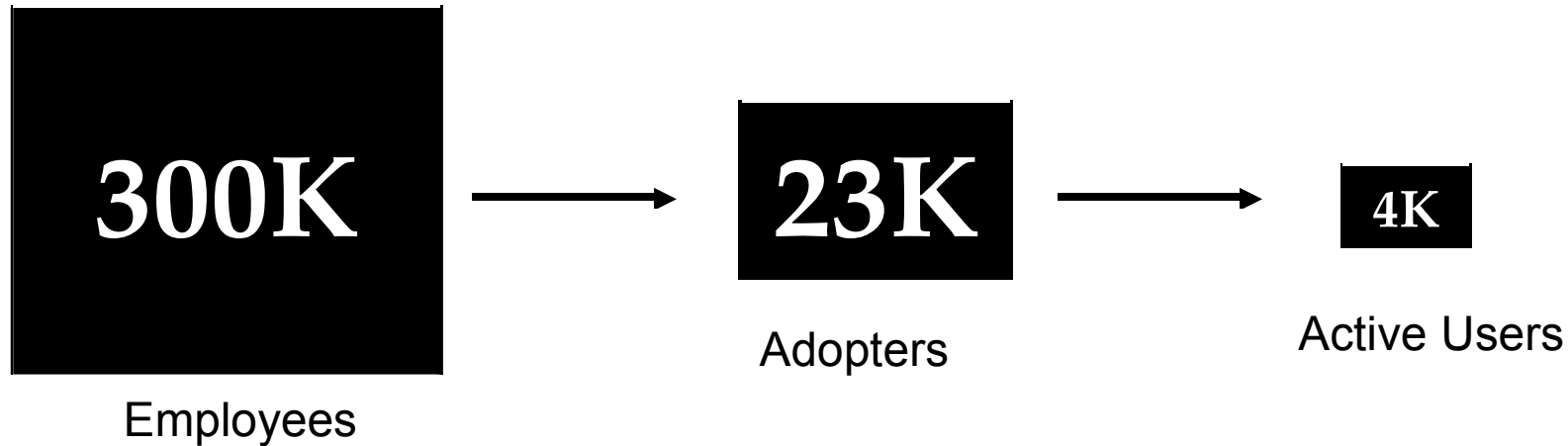
- [Do IBM VPs \(and other execs\) Read Blogs?](#): 20 comments
- [Features](#): 19 comments
- [English Pronunciation](#): 17 comments
- [Part 1: Apples and Oranges - BluePages Fring...](#): 14 comments
- [Hands up who would like to help test an inter...](#): 12 comments
- [Brainstorming](#): 11 comments
- [Twittering](#): 10 comments
- [Reaching 'Generation Xbox' -- Mark Shearer](#): 10 comments
- [Skiing or Snowboarding? Respond to this post](#): 10 comments
- [BCv2 Problem: Feeds aren't working \[Update: T...](#): 9 comments

Hot blogs : Daily hits

- [Marc's blog](#): 520 hits
- [PWTN Industry Weblog](#): 424 hits
- [TeamBlade 20000](#): 232 hits
- [Ohana](#): 151 hits
- [Storage Market Watch](#): 129 hits
- [The Positive Blog](#): 120 hits
- [colistra@br.ibm.com's Weblog](#): 108 hits
- [chmod 777 ibm](#): 90 hits
- [David Fin's Technical findings](#): 88 hits
- [?????Rocky](#): 87 hits
- [Be Happy! Akita's Diary](#): 66 hits
- [BLOGJAM: It's big it's heavy, it's wood](#): 66 hits
- [Irregardless...](#): 59 hits

Landing page lists recent entries, popular entries and *hot* blogs

BACKGROUND



- Means to initiate collaboration
- Protection of ownership to ideas
- Platform for leadership emergence
- Audience to discuss work practices
- Asset to overall Internal Business Intelligence

WHAT GETS DISCUSSED?

Internal Blogs

IBM, java, code,
software, team,
Microsoft, lotus,
innovation, social,
services,
customer, support,
products,
websphere

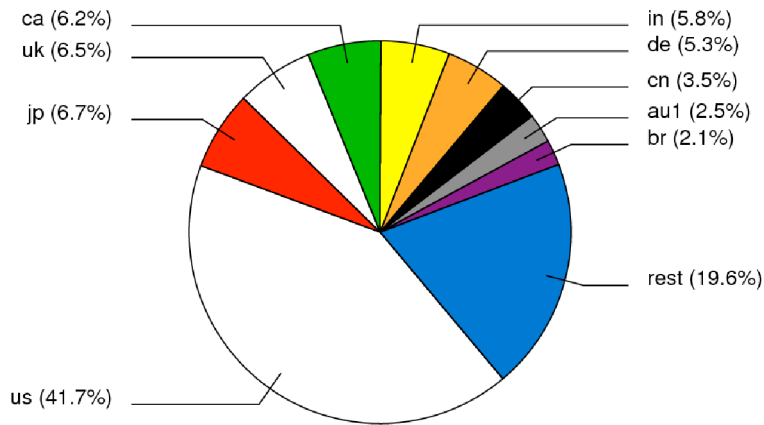
External Blogs

journal, she, her,
me, him, love, girl,
lol, god, im, mom,
school, shit, night,
gonna, friend,
tonight, eat, cry,
guy, sick, happy

BACKGROUND

- Blog host database from November 2003 to August 2006
- ~23K blogs
- ~48K posts, ~48K comments/trackbacks
- Employee Database of around ~300K
- Support and Feedback from the highly enthusiastic internal blogging community

GEOGRAPHICAL SPREAD

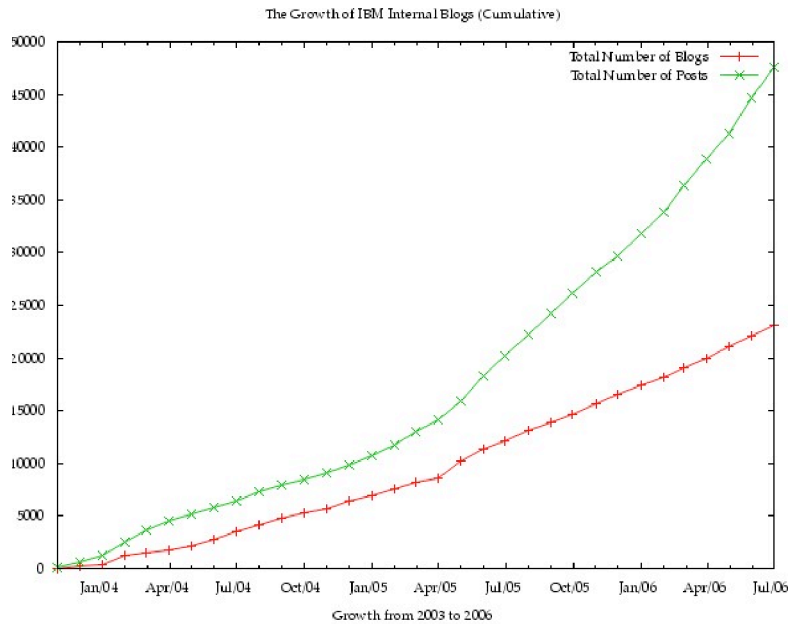


- US leads the pack
- UK, CA good adoption
- Japan highest in Asia
- Rest catching up

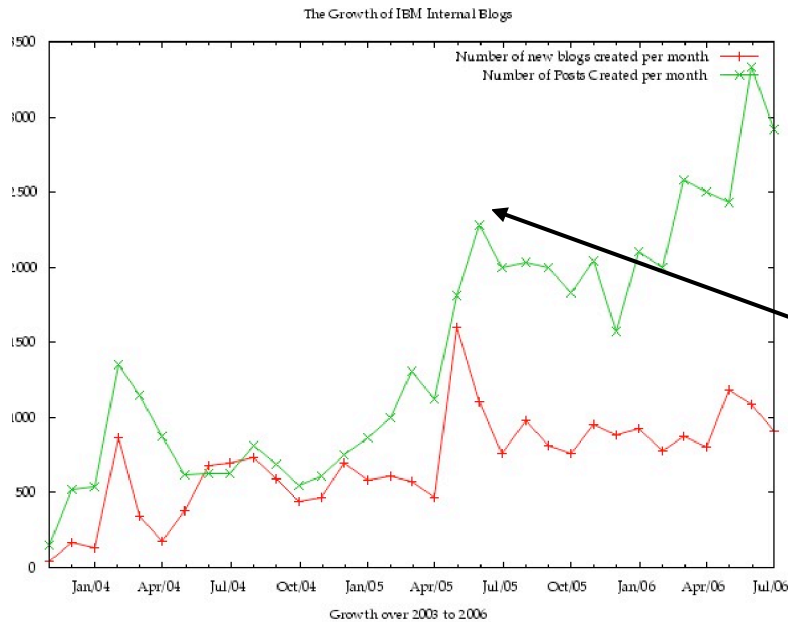
Distribution of Blog Users

Adoption closely mirrors those seen on the external blogosphere

GROWTH



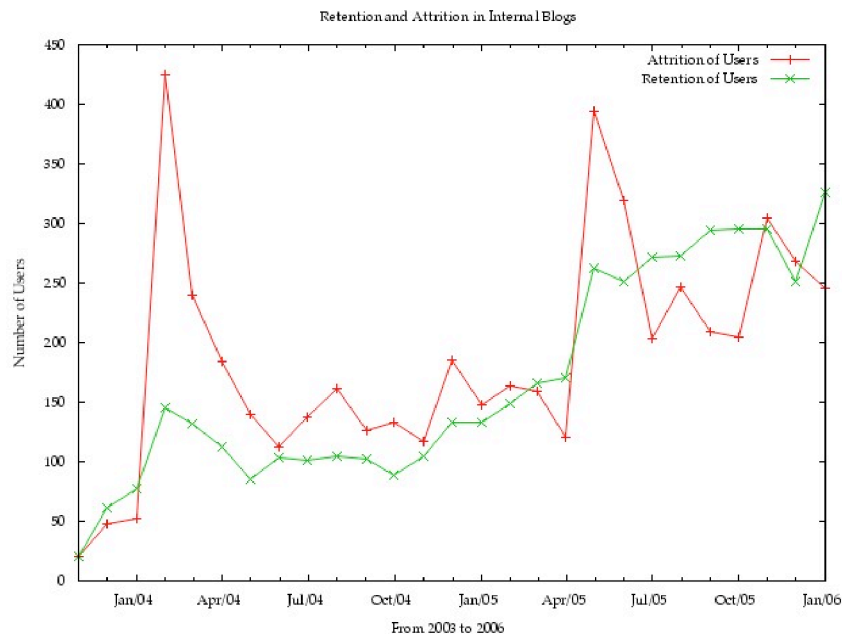
- Blogs double in 10 months
- Posts double in 6 months



Top-down guidance and organizational policies key to internal blogging adoption

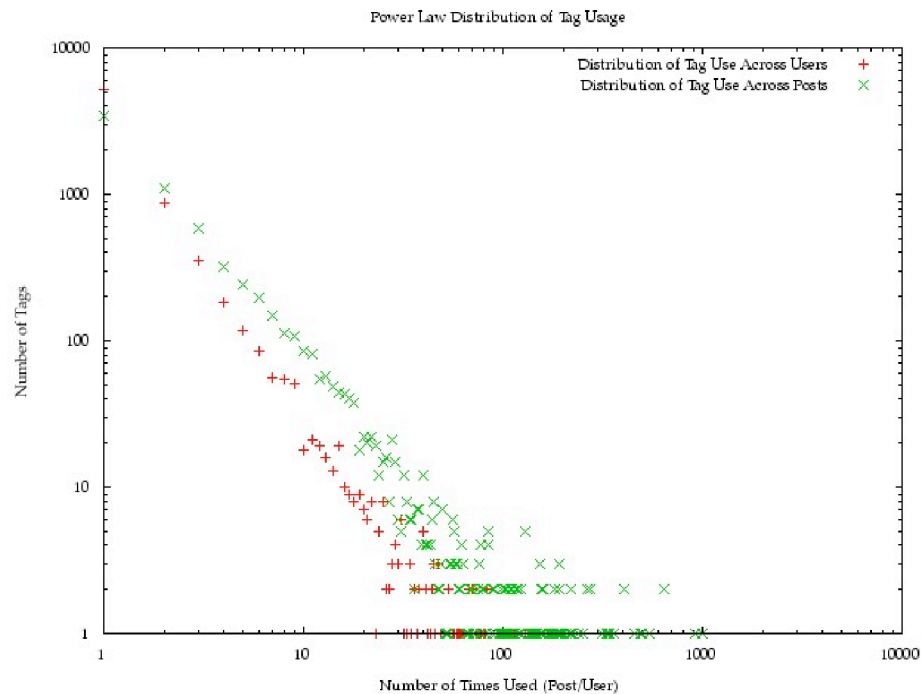
RETENTION/ATTRITION

Definition: A user who posted during a specific month is considered retained if he/she reposts at least once in the following x(6) months



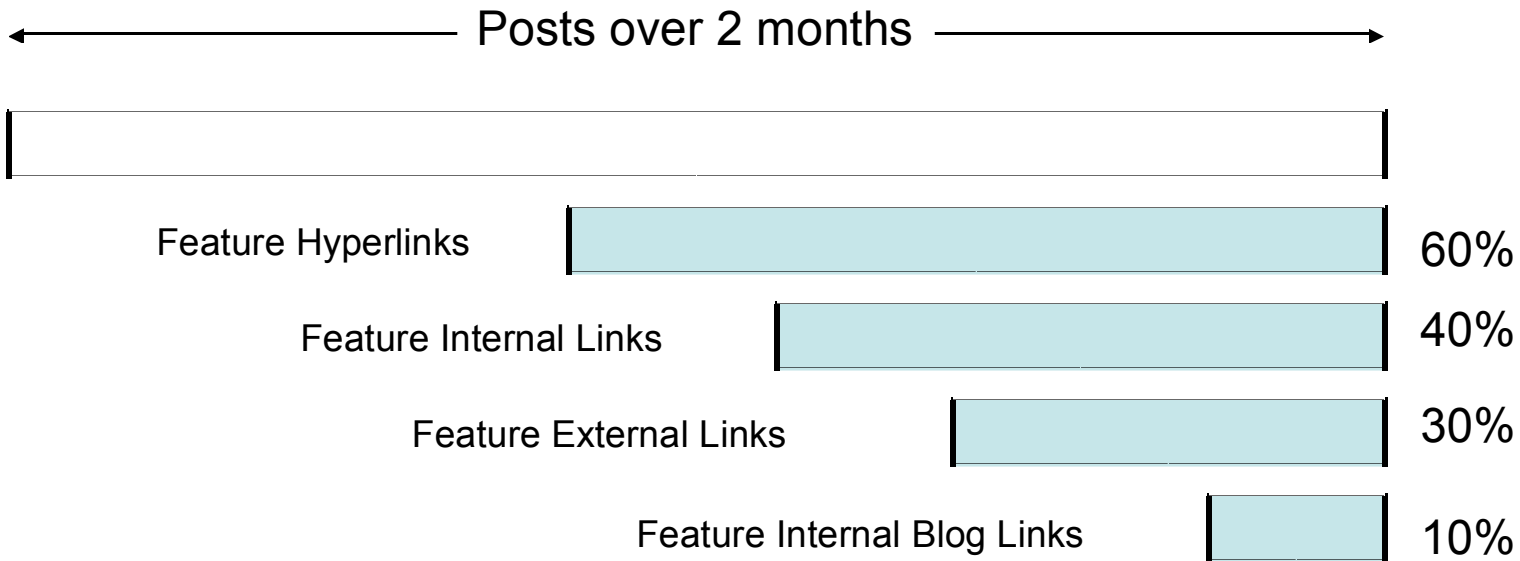
Ability of the community to engage and retain new users has improved significantly

TAG USE DISTRIBUTION



- Typical Power Law Distribution – Some tags are popular with a long tail of less popular tags
- What can we draw from these two data points?
- Is this related to quality of a folksonomy?

LINKING BEHAVIOR

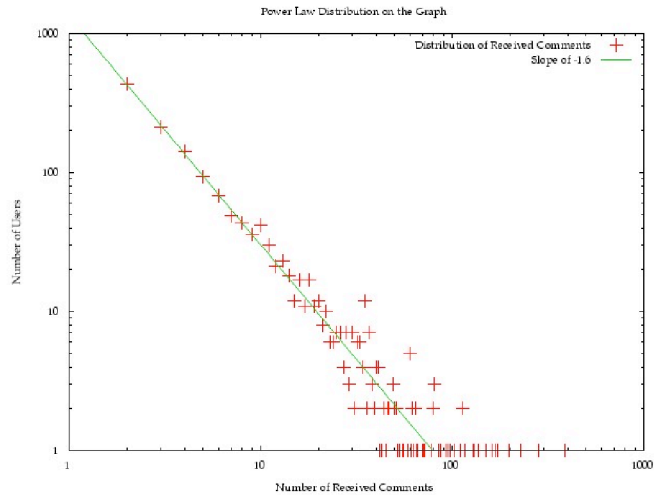


- Internal themes are widely discussed
- More conversations are through comments, few through trackbacks

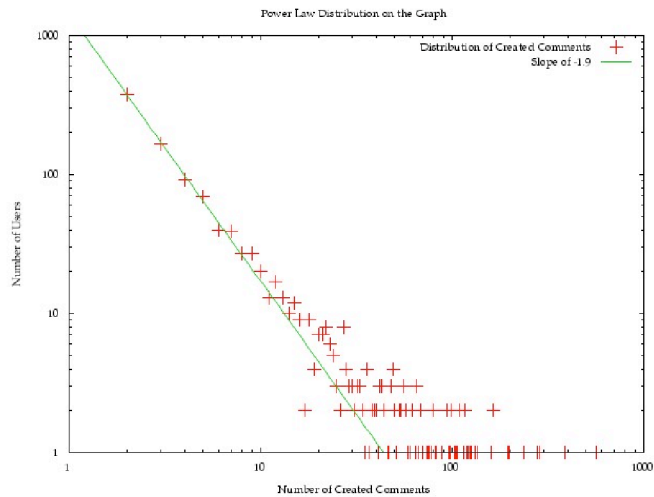
NETWORK BACKGROUND

- $G(V,E)$
 - Every user u is in V
 - User u commenting/trackbacking on one or more posts by user v creates an edge (u,v)
- 75-80% of the nodes were disconnected
 - Created a blog with no post
 - Not commented on other posts, not a recipient of comments
- ~4.5K Nodes
- ~17.5K Edges

DEGREE DISTRIBUTION



- In-degree slope -1.6
- Out-degree slope -1.9



- Web (-2.1, -2.67)
- E-mail (-1.49, -2.03)

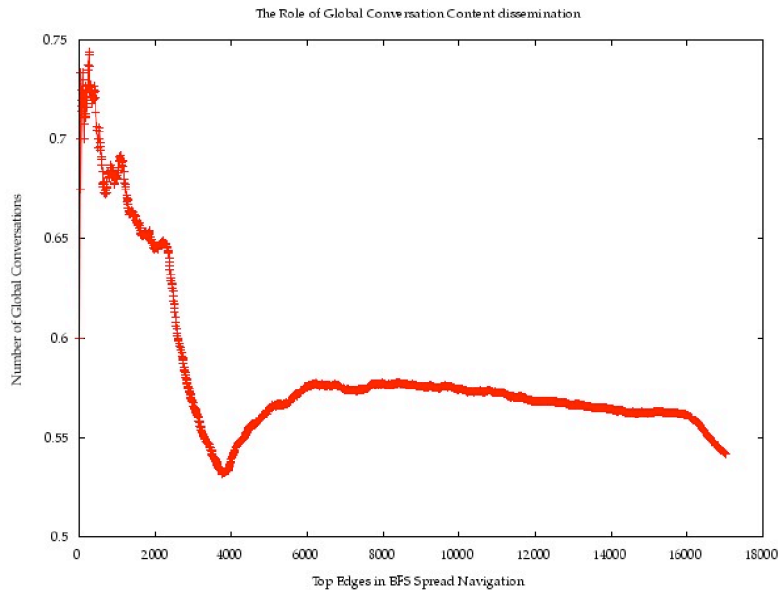
GLOBAL CONVERSATIONS

← POST

	US	JP	UK	CA	IN	DE	CN	AU	BR
US	41.4	0.3	8.9	4.4	0.6	1.4	0.2	1.2	0.4
JP	2.1	4.3	0.5	0.2	0.0	0.1	0.0	0.1	0.0
UK	7.4	0.1	8.0	1.0	0.2	0.6	0.0	0.3	0.1
CA	4.3	0.1	1.2	2.6	0.1	0.2	0.0	0.2	0.0
IN	0.8	0.0	0.3	0.1	0.6	0.1	0.0	0.1	0.0
DE	1.1	0.0	0.5	0.2	0.1	0.3	0.0	0.1	0.0
CN	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
AU	1.0	0.0	0.5	0.1	0.0	0.1	0.0	0.3	0.0
BR	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2

↑
COMMENT

GLOBAL CONVERSATIONS

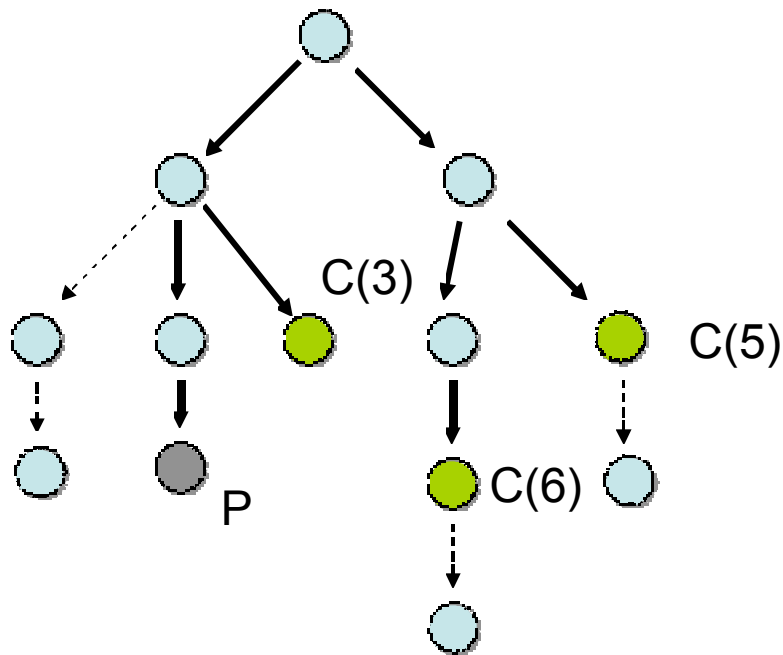


- All pairs shortest path
- Ranked Edges by Centrality
- Plot ratio of inter-geography conversations in top x edges

Conversations are still limited by language barriers, global conversations are key to information diffusion

REACH/SPREAD

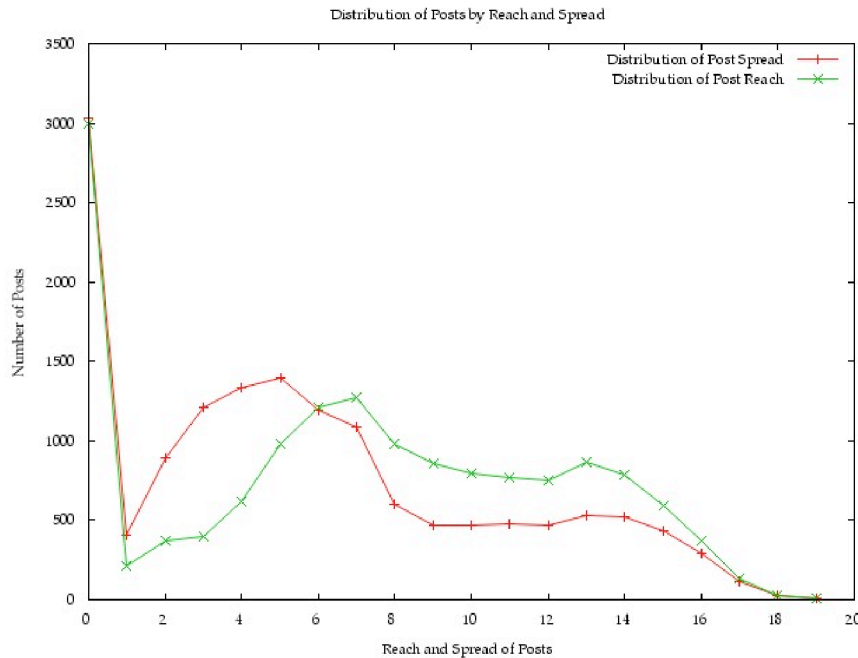
“Reach” measures distance between all conversations on a post independently, while *“Spread”* measures them together – based on the corporate hierarchy.



$$\text{REACH} = 3 + 5 + 6 = 14/3$$

$$\text{SPREAD} = 8/3$$

REACH/SPREAD



- Posts with spread = 1 (Employee/Manager) quite low
- Spread peaks around “4” showing intra-department conversations

The notion of spread in addition to showing nature of conversations can also contribute to new metrics

DERIVED METRICS

Additional Ranking Measures

Meme Tracking: Overall Spread of Conversations on a Post

Trend Identification: Tags attached to high “meme” posts can correlate with emerging interests

Finding Experts: Authorities on topics by identifying meme and their topics

SOCIAL MEDIA RESEARCH

- Modeling Bias through Link-Polarity
- Mining micro-blogs
- Social Media and the Semantic Web
- Internal Corporate Blogs
- **Spam in Blogs/Social Media**

WHAT IS SPAM?

- “Unsolicited usually commercial e-mail sent to a large number of addresses” – Merriam Webster Online
- **As the Internet has supported new applications, many other forms are common, requiring a much broader definition**

Capturing user attention unjustifiably in Internet enabled applications (e-mail, Web, Social Media etc..)

NIST Computer Security Division's CSRC Home page

CSD publications, events, cryptographic standards and applications. Information on security testing, security management, and research initiatives. Includes links to the national vulnerability cyber

Source: csrc.nist.gov

Macromedia - Security Resource Center

**Auto-generated and/or
Plagiarized Content**

certain sections of

Mail Security

Test / Event Log

Scan your system for trojans using this free online trojan scanner. Anti trojan software will allow Security Tests Web Site Security Audit. Get a free audit of your Website Security and check if

Source: www.windowsecurity.com

Security Center - PayPal

Welcome to the PayPal Security Center. Here, you'll find the latest information on how to buy and sell safely online. You'll get tools to help keep you protected.

Source: www.paypal.com

ASG Security - Home Security Solutions

We all know the feeling, that nagging concern in the back of our minds What if there's a fire? What if someone breaks in? ASG has a solution for you and your family - to help stop the worrying.

Source: www.asgsecurity.com

Yahoo! Security Center | About Passwords

Passwords. Your password is more than just a key to your online account. If your password falls into the wrong hands, someone

www.Protect-My-Home.com

Security System Reviewed

Top Rated Security
Systems Ratings -
Security Systems
www.a-SecuritySystems.com

**Advertisements in
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MASSAGE CHAIRS
FACTORY FURNITURE
PRINTABLE GROCERY COUPONS
LAND IN NORTH CAROLINA
MOEN FAUCETS
DINING FURNITURE
FIBER GLASS
BOYNTON BEACH REAL ESTATE
CHENILLE BEDSPREADS
HOUSE DESIGNS

**Link Farms to promote
other spam pages**

FURNACE AIR FILTERS
SELL HOUSE

Find:

Widget Spam



kolari

[View Full Profile](#)

Tools

[Edit Profile](#)

My Admirers



a26a27



Jaymect



flwong



AlvaroF



megite



Tinu



pepperjam



Neill



Logic



8uu8



AuctionDonkey



TonNet

Admiration Spam!?

time on this site

A Smarter Web - Tech Review on the Semantic Web

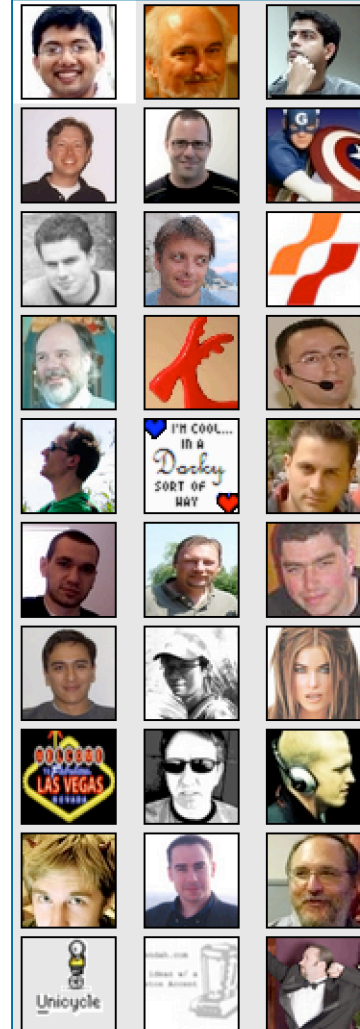
March 12th, 2007, by Tim Finin, posted in [GENERAL](#), [Semantic Web](#), [Web](#)

The current issue of Technology Review has a long article on the Semantic Web, [A Smarter Web](#), with the theme

New technologies will make online search more intelligent—and may even lead to a "Web 3.0."

The article tells the Semantic Web story using Eric Miller's involvement as a thread and mentions many other people and companies along the way.

Recent Readers



[View Reader Community](#)
(provided by MyBlogLog)

SPAM TAXONOMY

INTERNET SPAM

[Forms]

DIRECT

INDIRECT

E-Mail Spam

IM Spam (SPIM)

Bookmark Spam

Comment Spam

Social Network Spam

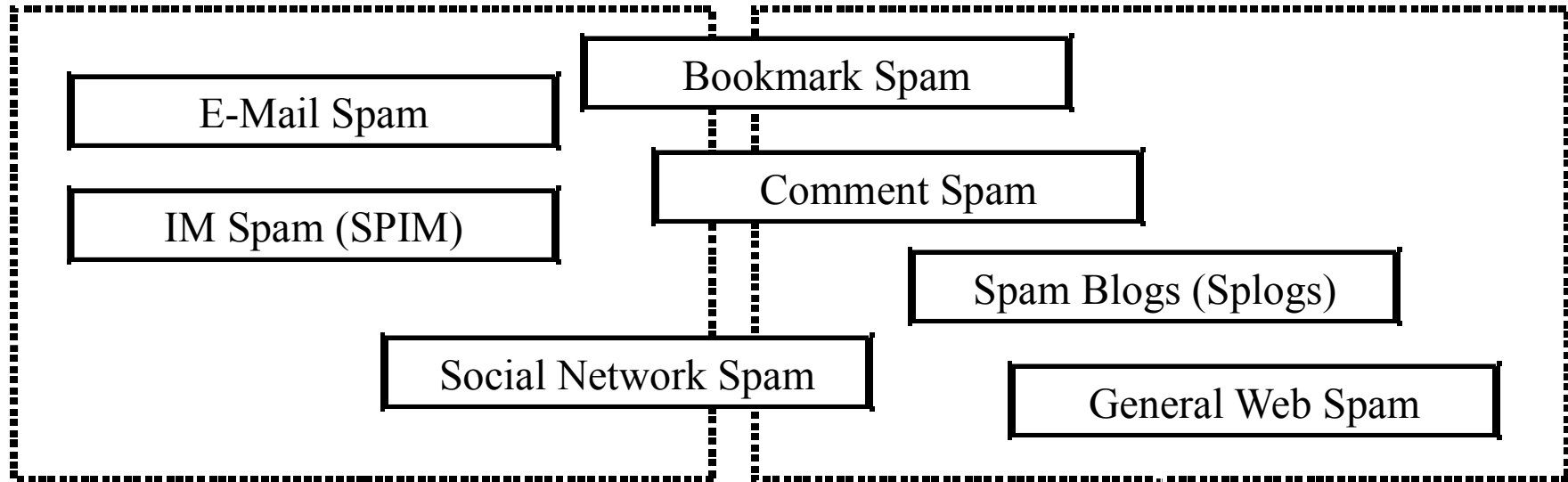
Spam Blogs (Splogs)

General Web Spam

[Mechanisms]

Social Media Spam

Spamdexing



SOCIAL MEDIA SPAM

- Spam in social “microcosms” on the Web
- Spam on the Web
 - Spamdexing
 - Social Media Spam
- Social Media Spam serves two purposes
 - Local effects initially
 - Global effects subsequently (spamdexing)
- Detection efforts should address deployment contexts (microcosm, search)

conclusion

We are just at the beginning of
deriving social capital from the Web!

- Interesting Challenges
- Endless Opportunities

lets engage!
txt me, lol

pranam@yahoo-inc.com