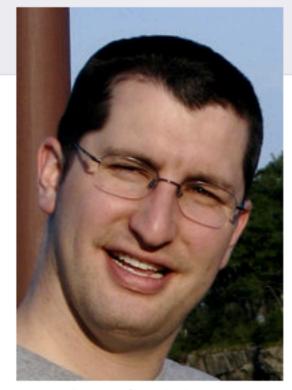
The Ebb & Flow of Activity Streams

Investigating the user experience of stream-based interfaces.

CHIFOO - Wed, Oct 7, 2009

facebook Inbox 41 Home Profile Friends



View Photos of Me (11) Edit My Profile

Find me at http://bokardo.com

Information

Current City:

Boston, MA

Hometown:

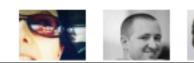
Newburyport, MA

Website:

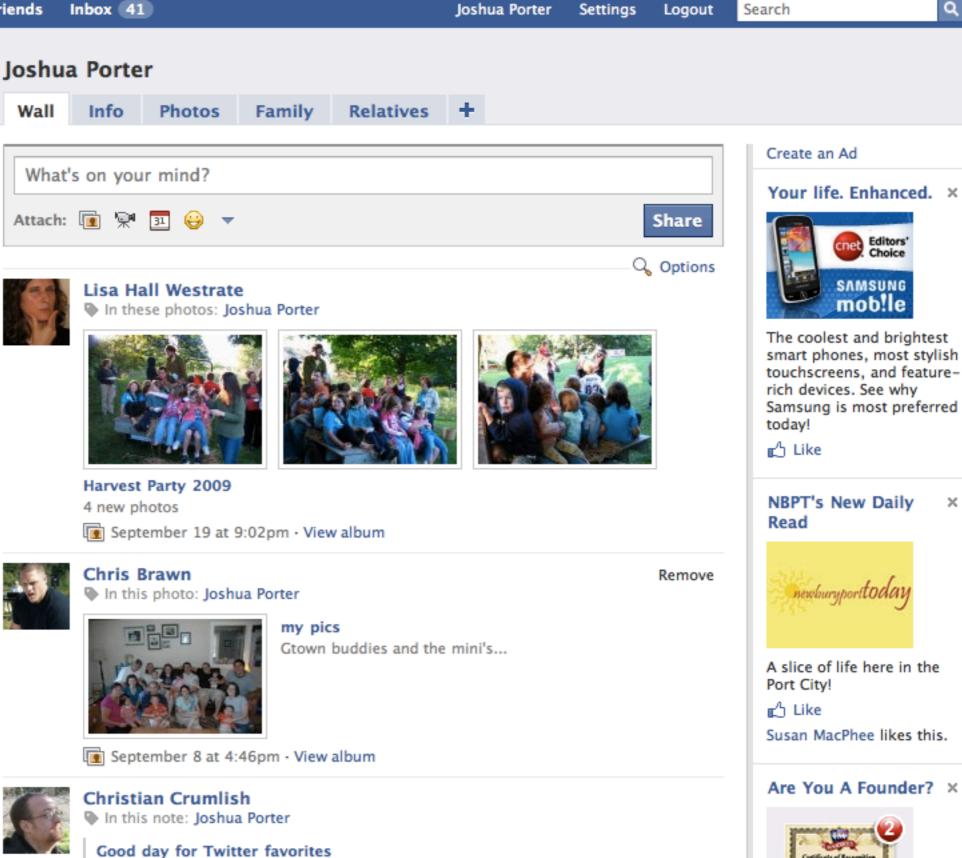
http://bokardo.com

Friends

236 friends



See All

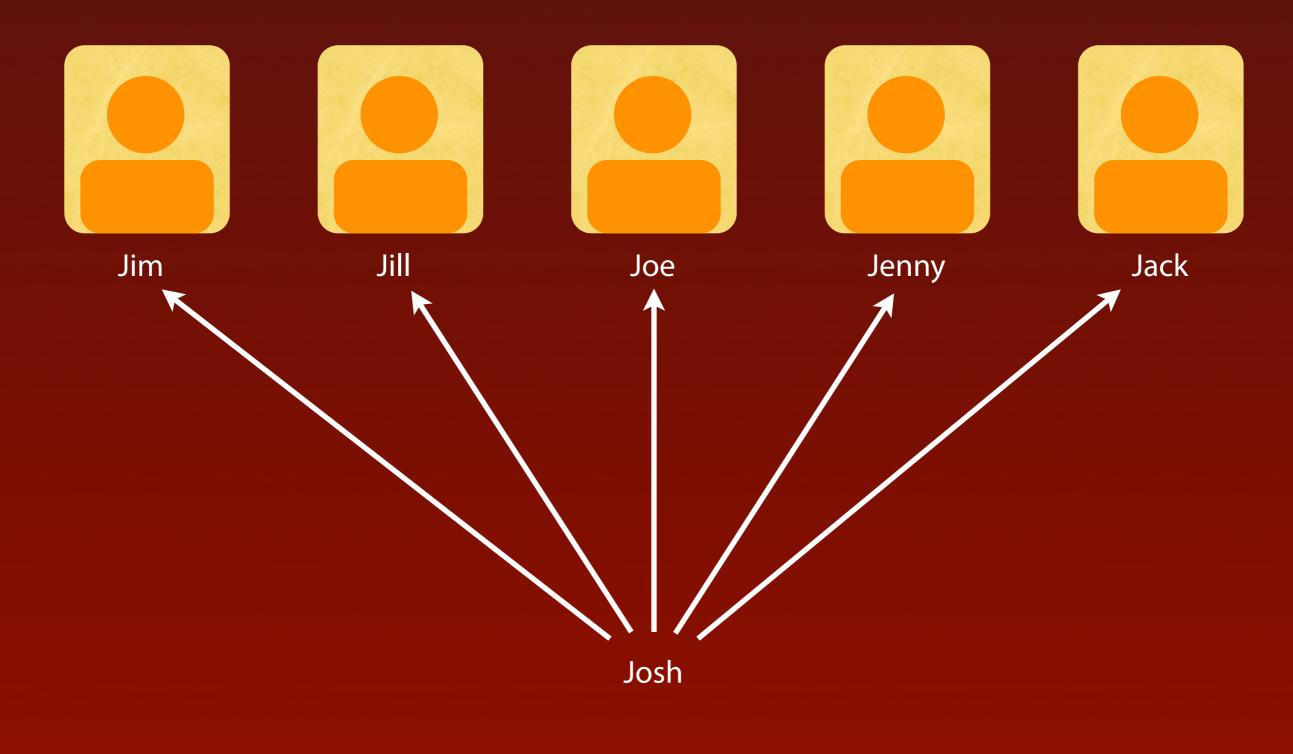


Q

×

MaryHodder: RT @zephoria: "Are You F*cking Kidding Me?" is a hysterical song about Facebook/Twitter by Kate Miller-Heidke http://bit.ly/nU5Ve steveportigal: Delish: Sherry Turkle is Professor of the Social Studies of Science and Technology at MIT and a sociologi.. ht.

Facebook, Summer 2006



To view activity, I had to go to and view each profile in turn.

facebook Hom	e Profile	Friends Inbox (41)	Joshua Porter	Setting	s Logout	Search	۹
 News Feed Boston, MA Chi.mp 	3	What's on your mind? Attach: 📧 👾 🛐 😜 🔻	Shar	e	Requests 5 62 friend 3 3 event i 5 1 friend	nvitations	See All
 Status Updates Photos Links More 	R	Peter Bordes Image: Second s			Be Be		See All
		Fly Fishing Adventure 9 new photos 2 minutes ago · Comment · Like · Share Alex Iskold The A Visual History of Web Brows visualization. http://bit.ly/10AVCf (via @Steffa 4 minutes ago · Comment · Like			Sponsored Old Spice	Turn up you smell.	× ir man-
	25'	Alex de Carvalho I'm humbled by those who w for me. Teaching is a privilege. And teaching of focuses the mind. 4 minutes ago - Comment - Like			58,348 peop The Become Highlights	le are fans of Old Spic	:e.
	6	Will Pate http://www.youtube.com/watch?v=0 http://www.youtube.com/watch?v=ONS2ptAR4				Posterous Photos Tricia Wurster com on this.	



The Case for Separated Bike Lanes Source: www.youtube.com

9 minutes ago · Comment · Like · Share



138

Muhammad Saleem Amazon lowers Kindle price again! From \$299 to \$249: http://ow.ly/taCc 9 minutes ago - Comment - Like

LivingSocial 2 friends use this

Mobile Uploads

on this. ∎Å5

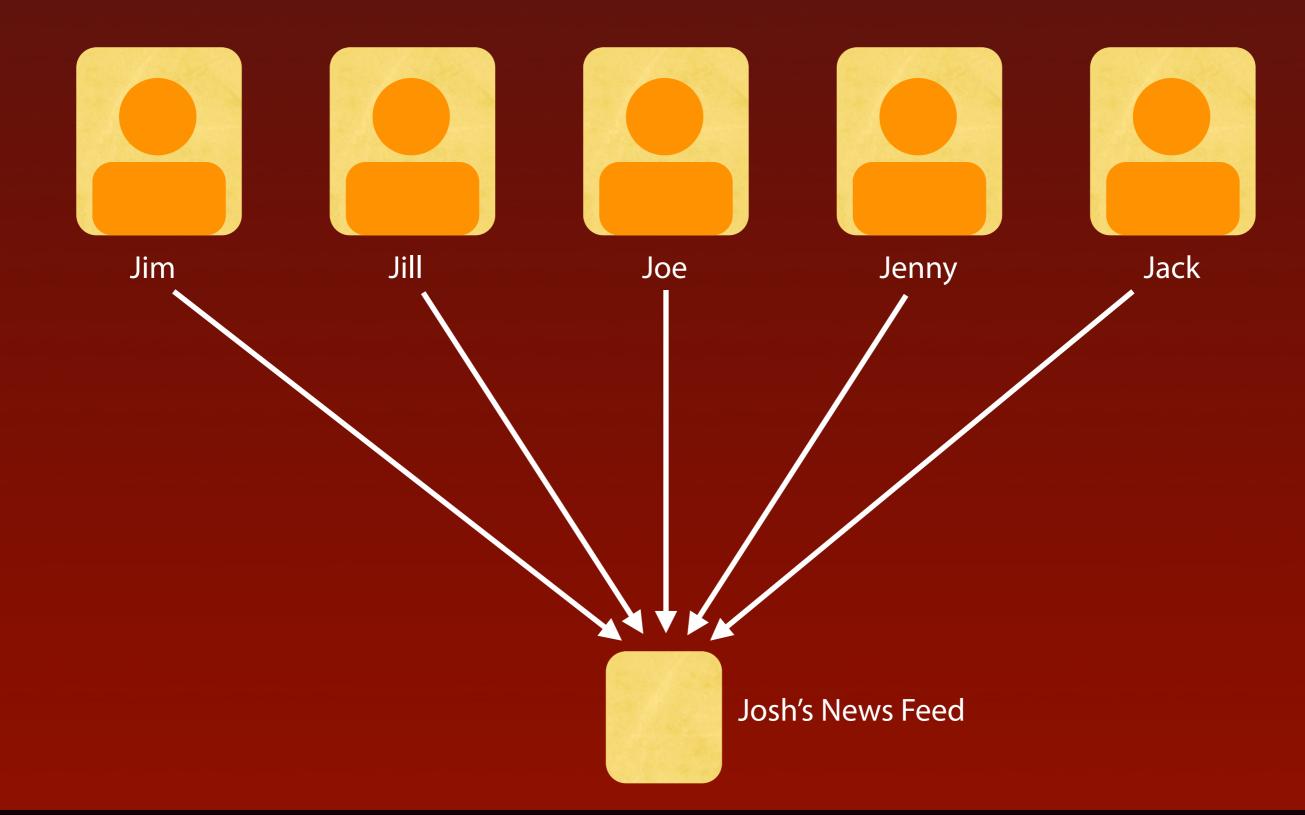
Q14

Wall Photos

Kevin Coombs commented

Camie Wiles likes this.

Facebook News Feed, Fall 2006



Instead of visiting profiles, I could simply visit a single page (my news feed)

Facebook News Feed, Fall 2006

- 1. Same information as always.
- 2. Only a change to the interface.
- 3. Aggregation made all the difference.
- 4. People starting thinking about privacy differently.
- 5. Security by obscurity is taken for granted.
- 6. Overall activity increased dramatically.

By showing new activity in a single screen, Facebook changed everything.

Ewilter Home Profile Find People Settings Help Sign out bokardo 140 What are you doing? 612 9,272 4,724 following followers tweets Latest: I find it interesting that Restoration Hardware sends me Snap - tu update countless emails but I buy furniture at IKEA, who sends me none. n. a social app for your 41 minutes ago phone. Home Home @bokardo dharmesh "Video is the most effective form of content because it "humanizes" the message and can strongly Direct Messages 2,154 engage" #ims09 less than 20 seconds ago from TweetDeck Favorites cathcam

delighted with the progress the Dell UI team are Search Q making on new thinking with http://script.aculo.us/ and our management UI framework Trending Topics 1 minute ago from web Braylon Edwards noahmittman Wow, nice move: PSN opens up DLC purchases #braylongottradedfor to Amazon so you can buy your add-ons/dl games there as well http://bit.ly/NTWJJ Hump 1 minute ago from EventBox Halloween adamconnor It's an extremely quiet and uneventful day. I Google Street View don't know if that is contributing to my glum mood, or Jets helping to keep it from getting worse. 1 minute ago from Echofon LeBron craighenry Diet Pepsi is not as good as Diet Coke. DEAL. Crabtree 2 minutes ago from Echofon Cleveland Kindle circa1977 OK, Basecamp talk over. Can't find emails and

Following

RSS feed

1

open site up to projects, not Dashboard. Wherever it was, didn't register. Thanks, everyone.

2 minutes ago from Tweetie

Oak

zerohearing2 great his ruits and graw — at Allen's Alley

fil	Search Advanced search Tools	
Home	Email / IM 🔻	Joshua Porter settings - sign out
Add: Ph	Post Post leisa storyboarding three different approaches to 'on ramp' design for prototyping and testing. yay! 20 seconds ago from Twitter - Comment - Like - Share - Hide	Friends Home Direct messages My discussions Best of day
	Alex Iskold The A Visual History of Web Browsers. Great visualization. http://en.wikipedia.org/wiki (via @SteffanAntonas) 1 minute ago from Twitter - Comment - Like - Share - Hide	Favorites Personal Professional Browse/edit friends
B	dave mcclure RT @danolsen @Scobleizer intvw real-time discovery http://YourVersion.com (#TC50 Peoples Choice Winner) http://www.ticketweb.com/t3 11 minutes ago from Twitter - Comment - Like - Share - Hide	Groups Social Design July 7, 2008 Browse/edit groups
5	Paul Buchheit shedskin - An experimental (restricted) Python-to-C++ compiler - http://code.google.com/p 2 hours ago from Bookmarklet - Comment - Like - Share - Hide	urowse/curt groups
	 Ertuğ Karamatlı and Space Cowboy liked this "Shed Skin is an experimental compiler, that can translate pure, but implicitly statically typed Python programs into optimized C++. It can generate stand-alone programs or extension modules that can be imported and used from larger Python programs. Besides the typing restriction, programs cannot freely use the Python standard library (although about 17 common modules, such as random and re, are currently supported). Also, not all Python features, such as nested functions and variable numbers of arguments, are supported. For a set of 40 non-trivial test programs (at over 12,000 lines in total; see the shedskin-examples-0.2.tgz download), measurements show a typical speedup of 2-40 times over Psyco, and 2-220 times over CPython. Because Shed Skin is still in an early stage of development, however, many other programs will not compile out-of-the-box." - Paul Buchheit from Bookmarklet 	

🗍 Google Wave - Anna-Christ... 🛛

http://wave.google.com/

Google wave

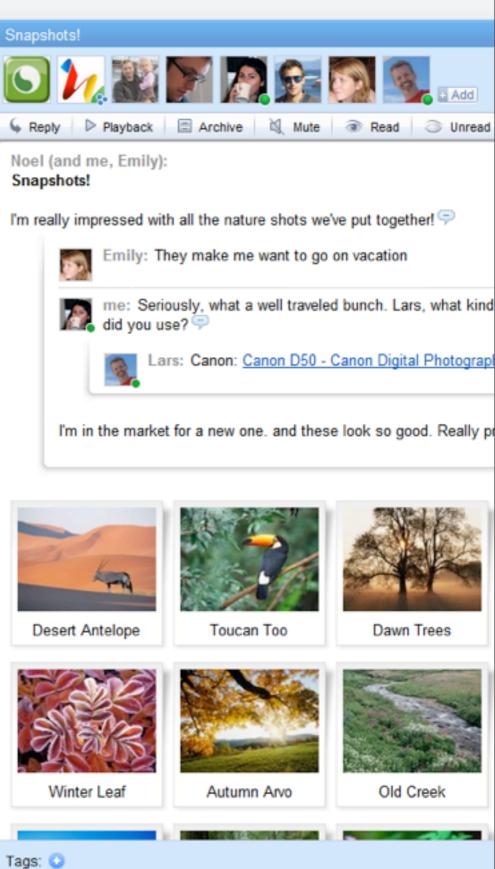
C

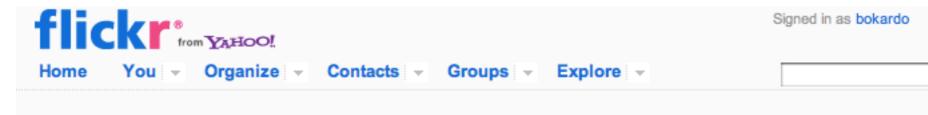
← →

Navigation	
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No. By Me	
History	
疑 <u>Spam</u>	
Settings	
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Casey

Inbox 1 - 17 of 27				
New Wave in	n:inbox			٩
🗉 Archive 🔌	Mute 👁 Read 🔾 Unread 🛱 Folder	🗟 Span	nl	
S 🐊 💽	Dinner and board games – Who's up for d and board games next week? I'm thinking	inner	3:43 pm 1 msg	0
S 😭 🚧	Snapshots! - I'm really impressed with all the nature shots we've put together! Desert	•	3:39 pm 4 msgs	
Sa 🎑 📜	BBQ on Sunday! - Our house, 6pm Let us know if you can come! What can I bring? Just	st 🌸	3:22 pm 3 msgs	2
	Sushi time? – Hey Dan and Jens, I think its for our monthy sushi -tasting dinner Tough	time	3:19 pm 1 msg	(
	Hey Steph, - Wanna get coffee tomorrow? V can met by the palm trees	Ve	3:16 pm 1 msg	
👔 🧟 🔊	Wayward music player? - Looking to return think your music player ended up left on my		1:13 pm 1 msg	
e 1	See what turned up on my front lawn yesterday! – It's fairly late in the season to I	be 🖉	1:05 pm 1 msg	0
or 👘 👘	It's Movie Time!!!! Wheee - the 80's ar again! what about "Confessions of a Shopah		12:22 pm 9 msgs	6
5. 5. 3.	Pics from a walk in Sydney – Just from walking around in Kirribilli / Milsons Point,	Ø	8:05 am 1 msg	0
	Gallery opening this Thursday – Hey everyon show is finall going up and I would love if you		May 26 1 msg	
💽 😪 🦄	Any tips for combating jet-lag? – Please s For the first day, stay up as long as possible		May 26 5 msgs	5
C 🙆 🚧	The Castle (Mandatory Fun) – Speaking of movies, who hasn't seen "The Castle"? Such		May 26 2 msgs	0
🛃 🍋 🗶	Say, here are some photos from the Kokoda track. – Check out the broken wrist! At the	Ø	May 26 1 msg	
2 🔊 🎦	Favorite Place to Travel Poll - Where do ye like to go when you have time off? Brazil Indi		May 25 1 msg	
	Who wants to see transformers?! -	*	May 25 1 msg	1
N 10	Offsite pics! – Check out the photos from our offsite Vista Goofy Helmet So fast Hikes SF		May 25 1 msg	
	Save search Day:	t I	Week: 1	I





Recent Activity

All Activity on my photos Replies to my comments Messages Custom view



You are StevenAMoore's newest contact!

If you don't know StevenAMoore, StevenAMoore is probably a 77 minutes ago fan of your photostream or wants a bookmark so they can find you again. There is no obligation for you to reciprocate, unless you want to.

View StevenAMoore's profile, photos, contacts, or add StevenAMoore as a contact, too.



Yay! dcancel has marked you as a contact too.

View dcancel's profile, photos, contacts, or change your relationship with dcancel.

2 days ago



You are broken4good's newest contact!

If you don't know broken4good, broken4good is probably a fan of your photostream or wants a bookmark so they can find you again. There is no obligation for you to reciprocate, unless you want to.

View broken4good's profile, photos, contacts, or add broken4good as a contact, too.

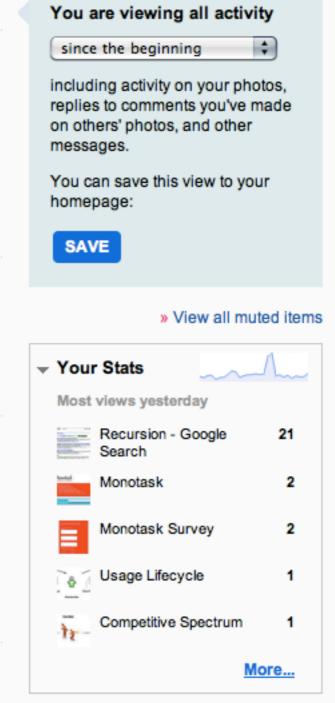


Flash Player quit unexpectedly 52 views | 1 comment | 0 favorites



<u>megafill - [now deemed as 'safe' again!!]</u> said: i'm getting the same message when i try to upload photos to Flickr or Picnik...

do you have a solution?



<u>کور</u>

Sign Out

Search -

Help

2 weeks ago

What is an activity stream?

- 1. A temporally-based interface/screen showing a flow of information
- 2. Consists of many kinds of activity-objects
- 3. Often shows newest items at the top
- 4. Vertical flow
- 5. Based on subscription or follow model
- 6. Displays both personal and social information

What objects are in activity streams?

- 1. Status updates
- 2. Bookmarks, favorites, likes
- 3. Blog posts
- 4. Tweets
- 5. Pictures & videos
- 6. Movie recommendations
- 7. Reviews
- 8. Purchases
- 9. Alerts, notifications, announcements

(Basically anything)

Joshua Porter > Services

Photos

•• Flickr

Albums

Status

ö SmugMug

F Facebook

Q identi.ca

Plurk

Music

ILike

CS Last.fm

P Pandora

Comments

D Disqus

B Backtype

E Twitter

Z Zooomr

Fotolog

Your feed includes the items you have shared from the sites below. Learn more

Blogging
🌸 Ameba
🔝 Blog
💊 LiveJournal
Kyrock
T Tumblr
📓 百度空间
Beekmarking
Bookmarking
delicious
🛏 Diigo
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Ma.gnolia
🐰 Mister Wong
StumbleUpon
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Books
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L LibraryThing

News

- Standard Digg Google Reader
- 8 menéame Mixx
- 📅 Reddit

Video 12 12seconds A Dailymotion D Photobucket Joost Picasa Web Seesmic Smotri.com Vimeo YouTube Miscellaneous brightkite.com Custom RSS/Atom Imail/Google Talk Amazon.com LinkedIn Netflix Netvibes Polyvore SlideShare 🚖 tipjoy Upcoming 🚥 Wakoopa 🔆 Yelp Intense Debate

The Fire-hose feeling



Characterized by a feeling of being overwhelmed with content.

People don't feel in control.

Too much content to process.



<u>newmediapete</u>: Just discovered new version of TweetDeck and am finding it easier to drink from the twitter firehose!

2 days ago from TweetDeck · Reply · View Tweet

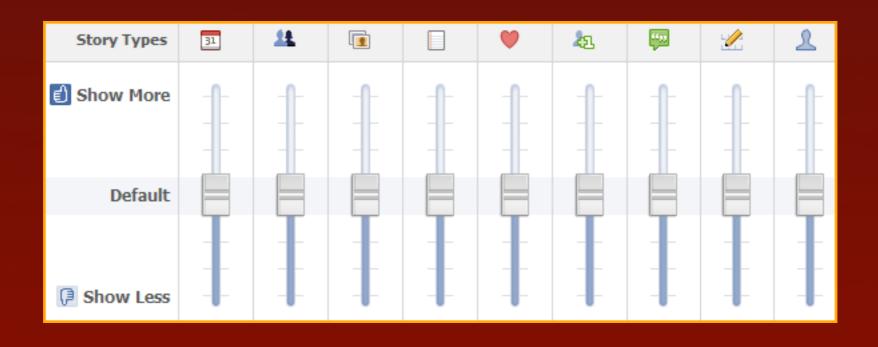


MinimalMeredith: Drinking from the firehose today

about 15 hours ago from TwitterBerry · Reply · View Tweet

Amplifying

Save, share, favorite, more like this



Damping

Hide, block, unsubscribe, delete message

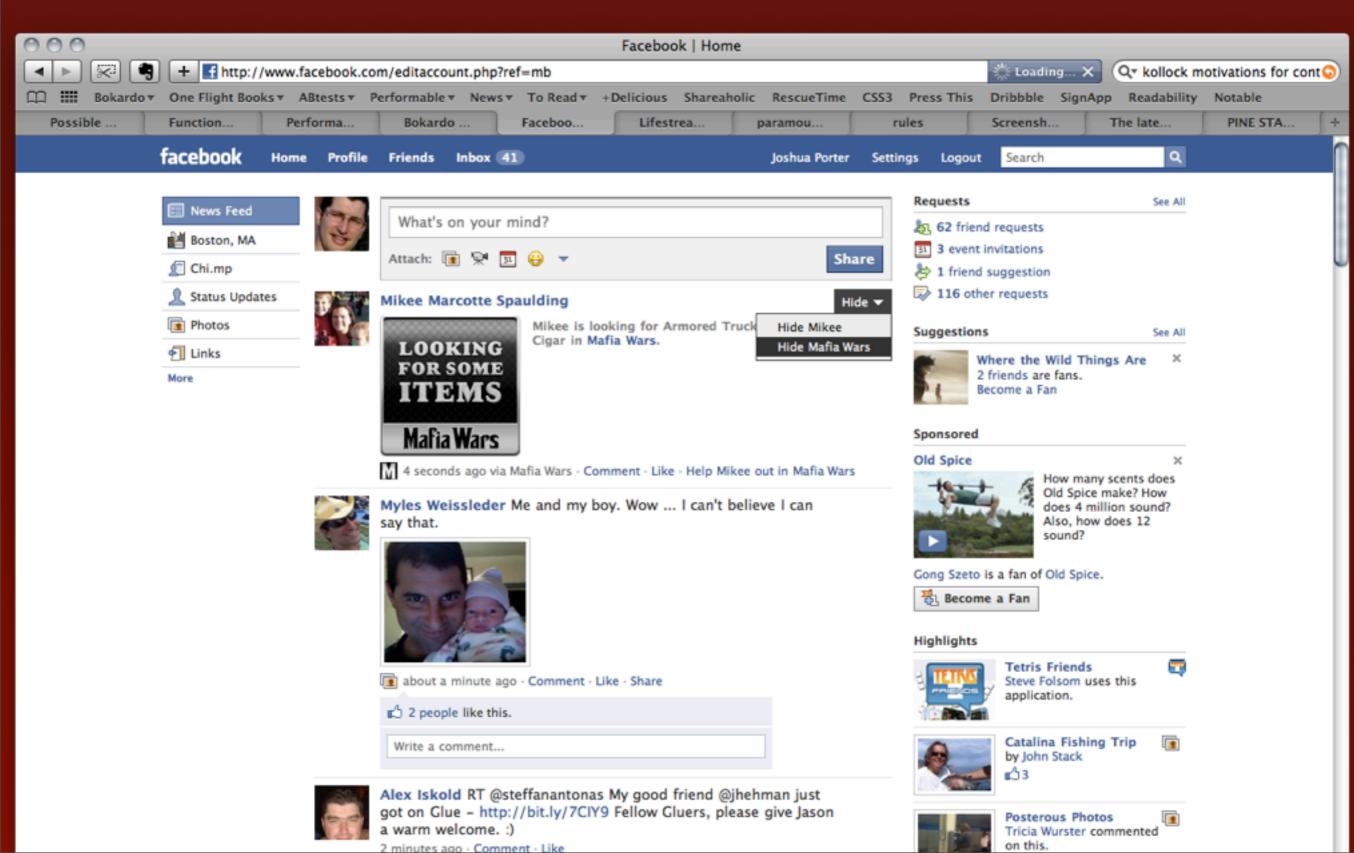
me		Email / IM 🔻
dd: Ph	otos - Files	Post
200	Alex iskold	
T.	-	Great visualization. http://en.wikipedia.org/wiki (via
	@SteffanAntonas) 31 seconds ago from Twitter - Comment - L	ike - Share - Hide
	Entry hidden - undo or hide other items	like this one:
	Hide all 'Twitter / Favorites from S	cobleizer' entries from Robert Scoble
	even if they have comments	
	Hide everyone's Custom RSS/At	
	even if they have comments	or likes
		How does hiding work?

10 minutes ago from Twitter - Comment - Like - Share - Hide



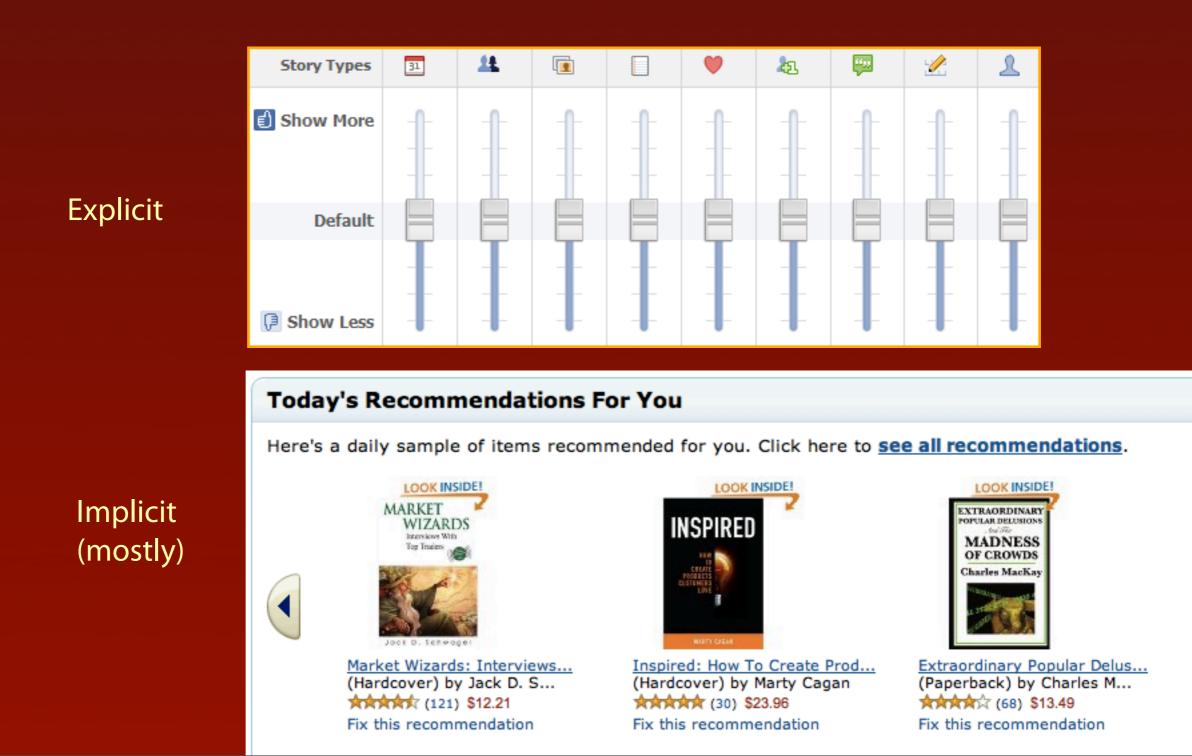
Damping

Hide, block, unsubscribe, delete message



Smart Algorithm

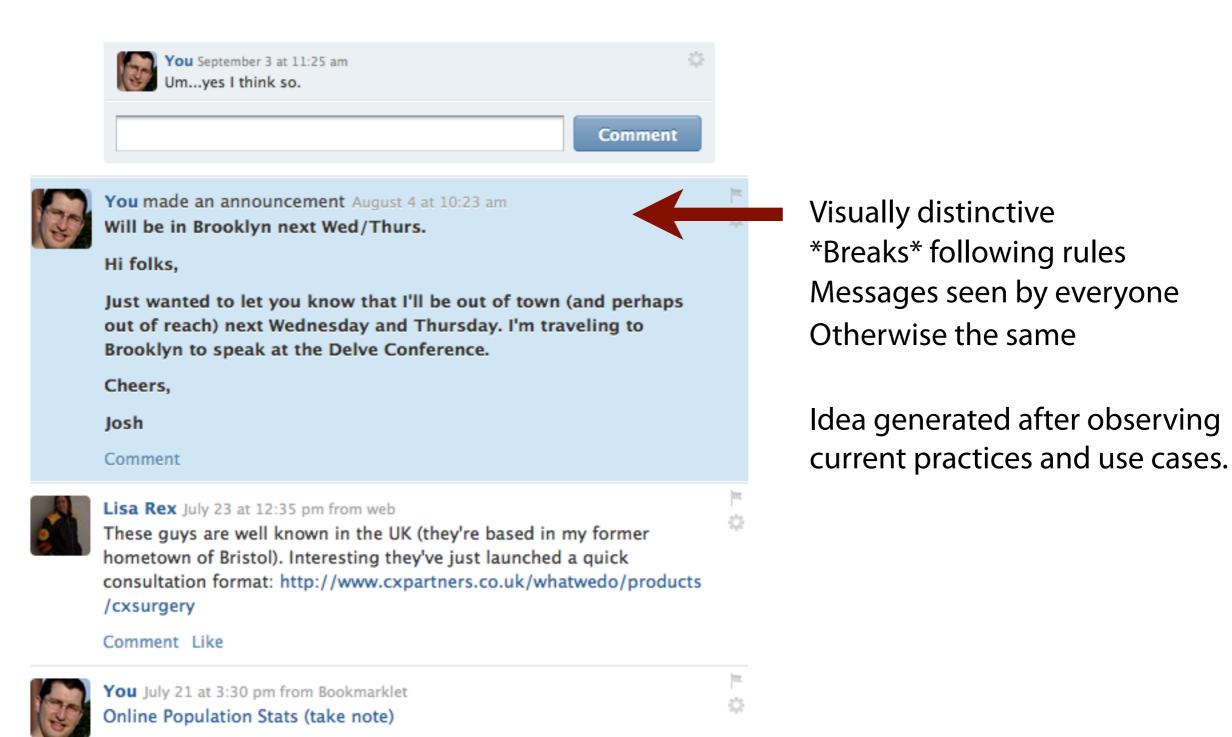
Two types of filtering: Implicit vs. Explicit



Streams in the Enterprise

- 1. Sometimes people can't miss stuff.
- 2. All content is not created equal.
- 3. It very much matters who shared what.
- 4. Privacy is just as important (groups, etc)
- 5. Overall security is important.
- 6. Projects and other groupings become more important

Case Study: Broadcast Messages in Socialcast



Does anybody know how one could tell if there is a foreign market for books in another language?

Comment

Trends in Streams

Avatars

Services as logos Implicit assumption of posts Conversions in aggregate/threaded Real-time Single, persistent open share field Private group-like functionality Streams as APIs (imported content) Statistics/Metrics Ad-hoc sharing activities (one-time streams, etc) Stream as sharable object Email digests Alerts and notifications within the stream Outside objects in stream (ads, news, etc) Ratings, reviews, and other signalling objects Everything in the stream

Trending Topics & Tracking

Trending Topics
startups
python
programming
development
django
View community tag cloud

Trending Topics	Highlights	
#outrageous	A STATE	Mobile Uploads by Dave Nelson
#takemehome	2	Q 1
#cpc09		
GoodMorning	385	Wall Photos by Myles Weissleder ⊯130
#hhl09	1000	L 30
PhotoSketch		Wall Photos by Darron Wayne Norrad
Flash	The second	by barron wayne norrau
Nobel Prize	12102.122	
Hotmail	and the second of	Mobile Uploads by Chris McLaughlin
Halloween	C. C. Alter	⊑ ∆3

Your Google Alerts	Sending HTML emails. Switch to text emails.			
Search terms	Туре	Deliver to	How often	
Discrete Strategy Str	Comprehensive	Email	as-it-happens	edit
□ <u>"josh porter"</u>	Comprehensive	Email	as-it-happens	edit
"joshua porter"	Comprehensive	Email	as-it-happens	<u>edit</u>

IxDA.org

Active Discussion Threads

Where bounce off design concepts?

Started Today at 5:25am via web

Dominic Willems Fredrik Matheson Martin dave malouf Den Serras

\"Download Adobe Acrobat\" for PDFs

Started Today at 10:15am via e-mail

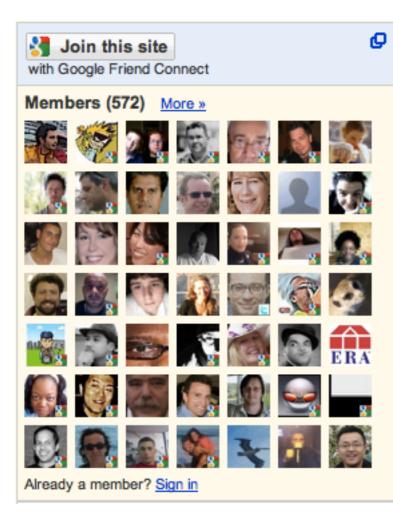
Jamie Bresner James Page Caroline Jarrett James Page David Cortright Christopher Rider David Little James Page

Aggregating activity in sidebar

Focused on who said what (identity)

Let's people track conversations

Trend: Stream of visitors



Comments(24)

Want to contribute? JoinorSign In



Kevin, thanks for the fun and insightful running commentary today on the Altimeter Group webinar! Jo... More » Joy 9/10

Great post, great comedy audio! @olivermarks 8/18

Loic says we need a status update for Fiend Connect in blogs Kevin Marks 3/16

Agreed, that would be great. Ken 8/7



Absolutely. Unknown 6/22 All 3 replies

Translate »

Recent Reader



ø

Next »

Dilmon 2 hrs 53 mins



Alper Yazgan 32 hrs 51 mins

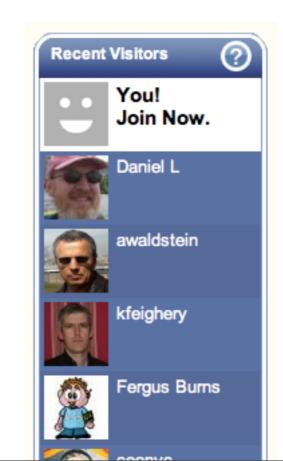




151 hrs 6 mins

michaelocc S.

166 hrs 52 mins Today Users: 1



Trend: Inline getting started

ome	Email / II	
ou have	1 invitation from Zee.	Clo
Add: Ph	notos	Post
-		
	David Recordon	
E.	David Recordon Wedding - http://www.flickr.com/photos	
E		
E		
E.		
	Wedding - http://www.flickr.com/photos	omotio
	Wedding - http://www.flickr.com/photos 6 minutes ago from Flickr - Comment - Like - Share - Hide Find the people you know on FriendFeed Import your address book to see which of your friends are already using FriendFeed	omotio
	Wedding - http://www.flickr.com/photos Image: State of the people you know on FriendFeed Shameless self-product	omotio
	Wedding - http://www.flickr.com/photos 6 minutes ago from Flickr - Comment - Like - Share - Hide Find the people you know on FriendFeed Import your address book to see which of your friends are already using FriendFeed	omotio

Trend: Seeding the stream

Ryf			Welc	ome, Joshua	My	Settings	Invite (20) 🕴 i	leip Give U	ls Feedback	Logo
Home	Get Feedback	My Feedback	Give Feedback	Suggeste	d Que	estions	My Network			
My Fo	eed		Get Feedba	ack		My Stats				
NEW	What's new			04/07		Requests To Advis	I've Made	Me 0	Rypple Avg.	
		Welcome to Rypple! Use this feed to help a your great Rypple content.	keep track of all			Using a		0		
						-	isers Per Requ		6.2	
9	Did you know? Learn how to get useful	feedback! Check o	out the Getting	04/07		Adviser F	Response Rate	0%	64%	
	Started video.					Total Re:	sponses:	0		
						Feedbac	k Shared:	0		
						Good Qu	estions:	0		
						Top Attrit	bute:			
						Feedback	l've Given			
						Total:			0	
						Top Attrit	bute:			
						🍐 x 0	🖗 x 0			
							⊗ x 0 ⊗ x	0 🙆 x 0		

Trend: Aggregate/Threaded Conversations



roonoid The PBS series 'Craft In America' is fabulous.

less than a minute ago from UberTwitter



russu @billder make sure he includes selections from the sweet new mixtape I made him!

1 minute ago from Twitterrific in reply to billder



JohnAByrne Great performance from Derek Jeter (two-run homer, single, pair of walks) as Yanks take first game 7-2 over Twins.

2 minutes ago from TweetDeck



Jason RT @Kellerll: @Jason Paying for Angels - It's extortion and victimization all wrapped in the guise of help and a handshake: snake oil=pa ...

2 minutes ago from UberTwitter



fling tempted to go to the cowboy bar on the corner, but unfortunately the bull is out of order.

2 minutes ago from Birdfeed



Annaleen Have consumed types of molecules necessary to help me enjoy Paranormal Activity.

3 minutes ago from twidroid



docbaty @jmspool Hopefully not the ones to do with a catastrophic death

5 minutes ago from TweetDeck in reply to jmspool



atomiota Why Gourmet is down and Saveur is up http://bit.ly/2Z7UXp

5 minutes ago from Seesmic



billder @fred_beecher Then you're the DJ in Savannah.

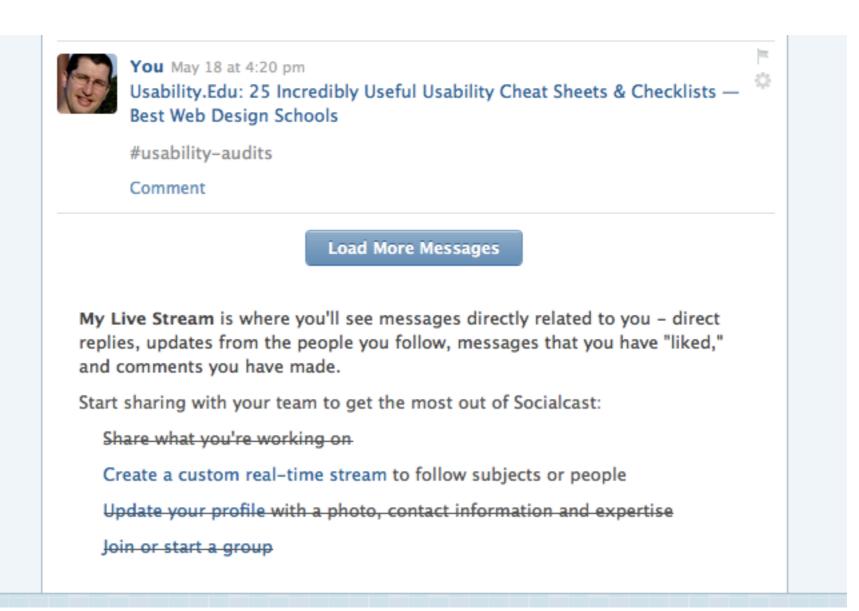
7 minutes ago from TweetDeck in reply to fred_beecher

 Trending Topics	
Glee	
#ghosthunters	
 #davidcookbarbasol	
Lonely Cheating	
 A-Rod	
Yankees	
Modern Family	
 #coinstar	
BlackBerry Messenger	
Halloween	
 E-II-uit-	
Following	
S RSS feed	
 SS feed for this query	
m too recurror this query	

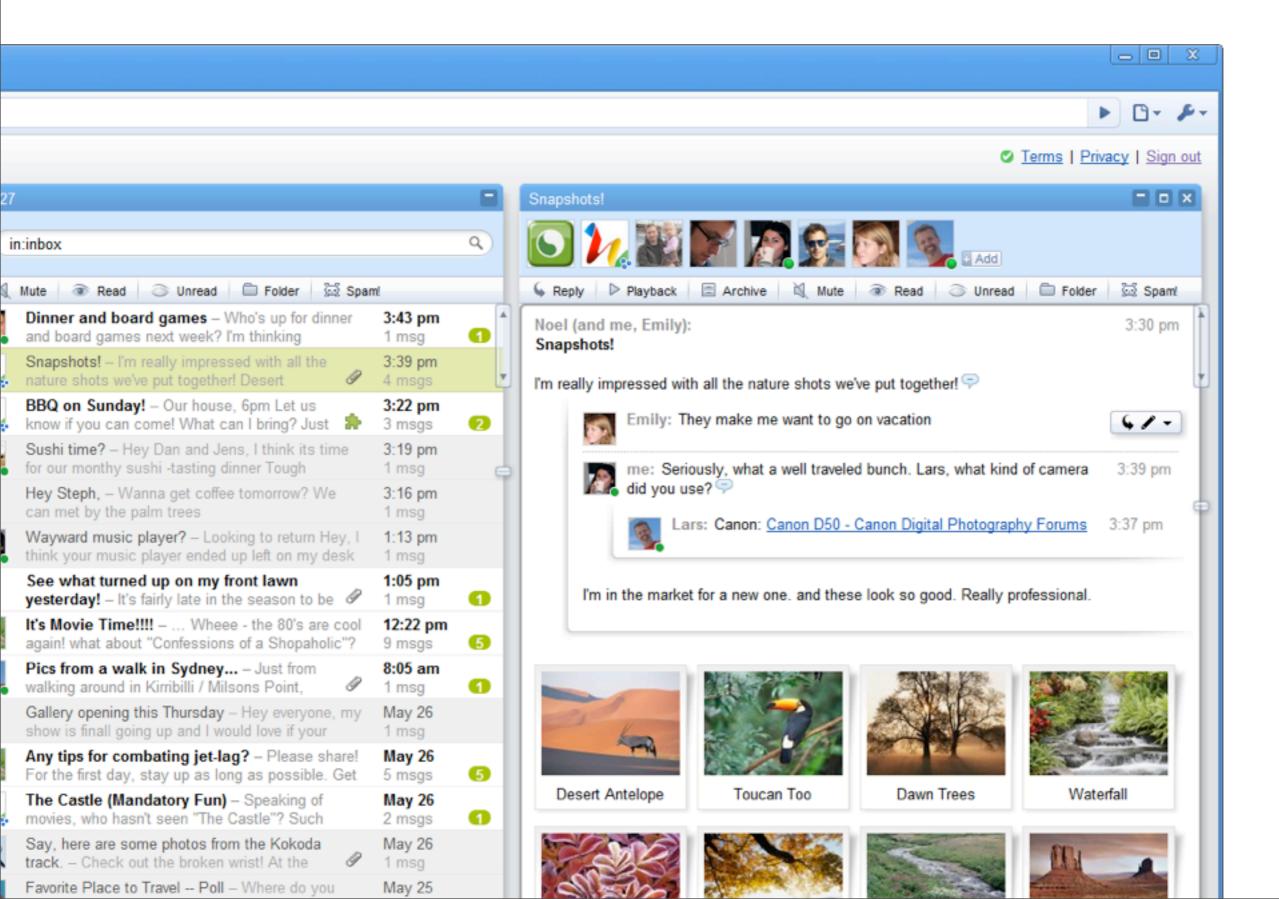
Trend: Aggregate/Threaded Conversations



Trend: Getting Started Inline



Trend: Stream as Sharable Object



Trend: Pre-selected following options

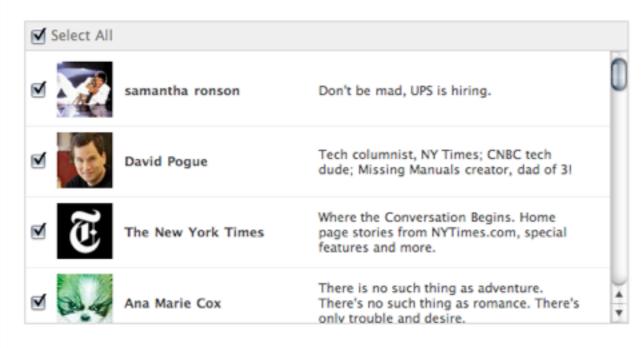
twitter

Look who else is here. Start following them!

Maybe you've heard of these Twitter users? Select the people you'd like to start following.

Finish

Skip this step





People you may know

Tara Hunt Marketing Lead, Intuit Partner Platform at Intuit, Inc.	Invite ×
Victor Lombardi Advisory Board Member at Information Architecture Institute	Invite ×
Louis Rosenfeld Publisher at Rosenfeld Media, LLC	Invite \mid ×
	See more »

Trend: Friendfeed's Use of Avatars over time

Richard posted three messages on Twitter

"you are 10th in the queue, your call will be answered in approx 16 mins". 16 mins of reggae music. great." 2 minutes ago - Comment - Like - Hide - More -

"not that I have anything against reggae, it's just not my choice of music at 6 in the morning, when I'm trying to wake up."

4 seconds ago - Comment - Like - Hide - More -

"listening to reggae music at 6.30am in the morning while on hold with web host. weird." 3 minutes ago - Comment - Like - Hide - More -

Andy Baio posted a message on <u>Twitter</u>

"Game Neverending is shutting down in one hour. Last chance! <u>http://gne.flickr.com/</u>" 38 minutes ago - <u>Comment</u> - <u>Like</u> - <u>Hide</u> - <u>More</u> ~

Robert Scoble added an event on Upcoming

Apr 23, 2008: Ecocity World Summit at Nob Hill Masonic Center 3 hours ago - Comment - Like - Hide - More -

Neal liked this

Chris Messina posted a message on Twitter

"I'm getting better at assertiveness. Sales dude just called and he's like "Can I tell you about..." and I'm all like "Nope, no thanks. Cya.""

32 minutes ago - Comment - Like - Hide - More -

empowering, no? :) - Brett Kelly

You posted two messages on Twitter

"the problem with spam is a lack of identity...in systems where identity is tied to behavior social norms moderate activity over time."

40 minutes ago - Comment - Hide - More -

"getting hammered by 3 types of blog spam simultaneously, comment, header, and footer insertions. No

Trend: Friendfeed's Use of Avatars over time

friend	Search
⊠ 4 requests	Post: Ressage @ Link Photos Notes
Home Favorites Personal Professional new list Me	Fred Wilson - Tumblr Patty Lee - Les Savy Fave - Let's Stay Friends somehow I think I've pos any case, this song came on a random Image: Star Star Star Star Star Star Star Star
Rooms Social Design July 7	 Richard - Digg <u>The Brave New World: More Digital, Less Physical</u> 20 minutes ago - readwriteweb.com - Comment - Like - Hide - More -
Everyone	 Sofia Gkiousou liked this 1 related entry from Alex Iskold
	Tony - Twitter "@bradybd Now all you need is a WP plugin that prevents people readir 49 minutes ago - Comment - Like - Hide - More -
	 Robert Scoble - Backtype Overnight Success And FriendFeed Needs 1 hour ago - regulargeek.com - Comment - Like - Hide - More - Tyson Key, Adriana, Ed Zwart and 2 other people liked this Tyou would get your first request if we got "track." You could also go list and your thinking." - Robert Scoble I will second language filters. Half my postings are in Greek and I k for Greek speakers) - Sofia Gkiousou
	Richard - Twitter "@briantroy, @AGORACOM, @AroundHarlem, I probably didn't word it

Trend: Friendfeed's Use of Avatars over time

lome	Email / IM 🔻
ou have	1 invitation from Zee. Close
Add: Ph	otos
	David Recordon
80	Wedding - http://www.flickr.com/photos
	6 minutes ago from Flickr - Comment - Like - Share - Hide
~~	Find the people you know on FriendFeed Shameless self-promotion Import your address book to see which of your friends are already using FriendFeed
	Facebook Twitter Gmail Transformed Facebook

Evidence of the Power of Avatars



(client)

- After Rypple added avatars to emails, response rate improved between 15 and 20%.
- 2. "Organizations running Rypple Enterprise who branded Rypple with their corporate logo and colors saw a 22% increase in response rates over those who had not!"

http://rypple.com/blog/2009/09/21/uploading-your-logo/

Avatars are powerful presence indicators that drive activity.

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People just love to look at pictures...that's the killer app of all online social networks. Seventy percent of all actions are related to viewing pictures or viewing other people's profiles.

Jan Pikorski - Harvard Business School http://hbswk.hbs.edu/item/6156.html

Thank you!

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