

Progamming to the Twitter API (ReTweeter)

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Agenda



- Twitter
- The Twitter API
- ReTweeter
- Lessons Learned
- Q & A

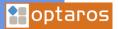
twitter

What are you doing?

140

update



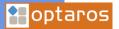


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Twitter



- Lightweight micro-blogging platform
 - Short (<140) text messages to followers
 - River of updates from those you follow (friends)
- Some conventions:
 - d username = direct message
 - @username = reply
 - Unlike DMs, replies are public
 - User determines whether to see replies from folks not followed
 - #tag = hashtag (twemes.com, hashtags.org)
- Multiple modes of access
 - Mobile (SMS or Mobile Web)
 - Web Browser
 - Other Client (Using API)



The Twitter API



- Most access to Twitter is via the API
 - 10x more than the Web interface)

(http://readwritetalk.com/2007/09/05/biz-stone-co-founder-twitter/)

- Desktop clients like twhirl, twitterrific
- Mobile clients TinyTwitter, PocketTweets, iTweet
- Well documented in Google Group

(http://groups.google.com/group/twitter-development-talk/web/api-documentation)

- Provides access to core data simply
 - XML, JSON data formats
 - RSS, ATOM syndication formats
- Basic http authentication where needed
- Rate limited

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- On reads (gets):
- Unlimited writes (posts)

The Twitter API: Basic Methods



Status Methods:

- public_timeline
- friends_timeline
- user_timeline
- show
- update
- replies
- destroy

Account Methods:

- verify_credentials
- end_session
- archive

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- update_location
- update_delivery_device

- User Methods:
 - friends
 - followers
 - featured
 - show

• Direct Message Methods:

- direct_messages
- sent
- new
- destroy

• Friendship Methods:

- create
- destroy
- exists

The Twitter API: Continued



• Favorite Methods:

- favorites
- create
- destroy

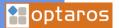
Help Methods:

- test
- downtime_schedule

Notification Methods:

- follow
- leave
- Block Methods
 - create
 - destroy





ReTweeter



- Use the Twitter API to fake "group" functions
- Create a new "group" account
- Follow back folks who follow that account
- When those users tweet with a hashtag, repost that tweet so that all followers see it, prefaced with the username of the original poster
- Could have sent direct messages instead
- Hashtag could be the name of the account but doesn't have to be





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ReTweeter Basic Flow of Code



- Whole thing runs on a cron job
 - Rate limiting 70 requests in 60 minutes
 - Unlimited posting

Get friends_timeline.xml

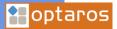
Returns the 20 most recent statuses posted in the last 24 hours from the authenticating user and that user's friends.

curl -u email:password

http://twitter.com/statuses/friends_timeline.xml

Loop through posts in friends_timeline

- Remove the group account itself (avoid loop!!)
- Find all tweets in timeline beginning with hashtag
- Put in database, with datestamp and id
- Pull all "un-retweeted" tweets from database
- Post those tweets, updating "retweeted" status as they post



ReTweeter Code



- Time allowing, we'll look at the code
- Otherwise you can get it later: http://www.openparenthesis.org/code/twitter-api
- Open Source, GPLv3 license
- Uses:
 - PHP 5 (SimpleXMLElement rocks)
 - MySQL DB
 - cron or equivalent (scheduled command line invocation)
 - cURL



Lessons Learned



Don't Test on the Live Account

- Bad developer spams his followers
- If they use SMS, this can have an actual financial cost in addition to annoyance
- Thankfully people are forgiving, generally

Use a desktop client like Twhirl

- Multiple client support
- Talk amongst yourselves

Twitter will go down

- Not if, but when
- Handle errors gracefully

Twitter can enable "auto-follow-back" for you

- Sometimes following people fails for undetermined reasons
- Since the group account can't follow them back they can't post!





Q & A



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http://johneckman.com/ (lifestream, profile links)
http://www.openparenthesis.org/ (open source, web
 development, social applications)
http://www.goatless.org/ (travel, veganism, music)
http://www.optaros.com/user/jeckman (enterprise
 focus, how changes in the online industry affect
 Optaros clients and prospects)

