Content and Context: Archiving Social Media for Future Use

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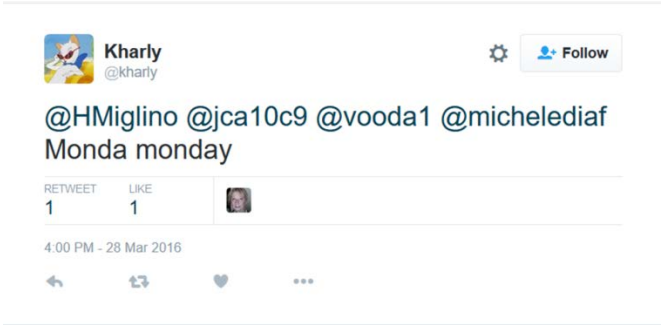
- Why save social media?
  - Institutional records
  - Fabric of society that is part of understanding an era
  - It is history itself
- What do we mean when we say we are going to 'archive' social media?
  - Tweets are not books (or papers or articles or other things we know)
  - 200 billion tweets per year - if you gather them together, how could you use them?
  - Keyword searching is not going to help
  - See: Beall, Jeffrey. 2008. "The Weakness of Full-Text Searching." *The Journal of Academic Librarianship* 34(5): 438-444.
    - All the ways that keyword searching fails
    - Synonyms, homonyms, language barriers ('French distemper' = syphilis)
  - But even more - user-generated abbreviations, to fit into 140 characters
  - Hashtags that are not like words
  - Hashtags used in a different way than you would expect
- Example:



(https://twitter.com/kharly/status/714527619878793217)

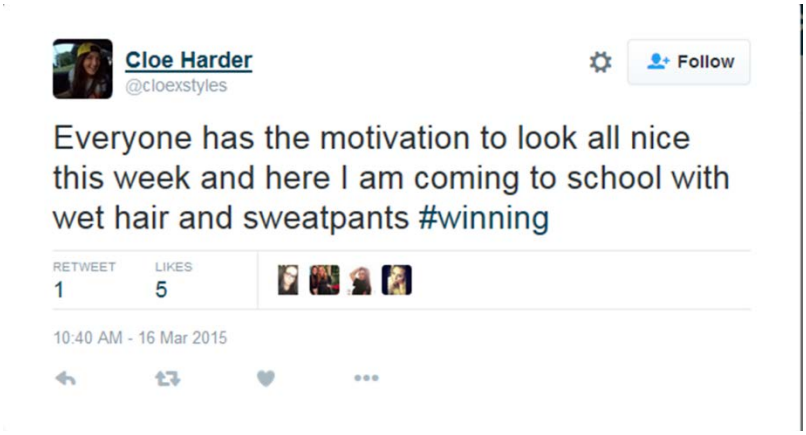
  - By itself, what does this tweet mean? What can we glean from it? Perhaps the social relationships, but not anything about the content itself
- We could save ALL THE TWEETS, but that wouldn't necessarily mean we'd be saving content.
- Not sure we could save all the tweets, anyway.
- An interesting, but rarely discussed problem, is that the different aggregation methods for tweets – whether through Twitter's Streaming API or Search API, or through a third-party Big Data service that is astronomically expensive – produce different results. One study in 2012 found that, for their topic, the Twitter's Streaming API returned more than FOUR times as many tweets as the search API.

    - See: Driscoll, Kevin, and Shawn Walker. 2014. “Working Within a Black Box: Transparency in the Collection and Production of Big Twitter Data.” *International Journal of Communication* 8: 1745-1764.
- Everyone is running around saying the sky is falling - there is too much information and we can’t save it all!
- But the real question is this: even if we saved ALL THE TWEETS, what would that mean? What BENEFIT would there be?
    - Aside: new book about digital memory shaping our future
        - Smith Rumsey, Abby. 2016. *When We Are No More: How Digital Memory Is Shaping Our Future.* New York: Bloomsbury Press.
        - Tries to place this in the history of humanity’s attempts to deal with information overload
- Let’s talk about an example we probably all know: the family photo.
    - What’s missing here? LABELS.
    - Why? Probably for the simple reason that in early photography, everyone *knew* who was in the pictures. Also, photographs were rare, so people passed on information as they passed on the photos.
    - Only needed the advanced technology of the pen to fix this problem.
    - In a way, the photos are still valuable. (They demonstrate something about the culture and about wedding practices.)
        - But not as family history, since the critical info is lost.
- Compare that to this tweet.

(https://twitter.com/PorterAutumn/status/688179478019715074)

        - I have no idea what this means. At all.
- First tweet in 2006
- Hashtag invented by a user in 2007
    - Later the hashtag became part of the platform
    - Hashtags have grown into something else entirely: #blacklivesmatter. Arab spring.
- Technological form – the limitations (and strengths) of a platform due to the way it is built.
    - Character limits (140 for Twitter)
    - Types of files (yes for images, no for audio)
    - Text formatting
    - How you ‘promote’ a post

        - Google ‘plus one’
        - Twitter star - now a heart
        - Facebook ‘like’
        - This is a GREAT example of why understanding the technological platform is important
            - Like button on Facebook has evolved to ‘reactions’.
            - I used to ‘like’ when your dog died. Now I can use a sad face.
            - Researchers of the future need to know about the platform change so that they don’t think people in the pre-Reactions era were barbarians who liked when dogs died.
    - Order
        - Originally in reverse chronological order, with new stuff at the top
        - But that meant important info could be pushed further down the page.
        - Facebook timeline - give priority to some posts
        - Algorithm now used to sort based on user’s history of interacting with content
            - Facebook - sorted based on your past behavior
            - Now also for Twitter and Instagram
            - This is a black box
            - Not good, because it creates the filter bubble effect
            - Think of researchers of the future: why aren’t any people in this group participating in this thing with this other group? - they didn’t see it because it was hidden by the filter bubble
- Social form - The practices we do that are not part of the requirement of the platform
    - Practices, often based on communities
    - #winning and Charlie Sheen
        - Charlie Sheen was on the media circuit talking about how he was ‘winning’ at life, but he clearly was having a very public breakdown.
        - This generated a sarcastic use of ‘winning’.



            - (https://twitter.com/cloexstyles/status/577464433884164096)
        - But it also can be used in the context of winning something:

  -
  - (https://twitter.com/CFAAndSC/status/586164347203940352)
- Hashtags as a marketing trick, where businesses tweet about something that is trendy, so that their business name shows up in people's Twitter streams
- Hashtags co-opted from conference to spread political message
- Other ways we use hashtags that are not a requirement of the platform:
  - Jokes
  - Sarcasm
  - Stage whisper
  - Or Throwback Thursday
  - Also, there are community practices. On Instagram, there is a practice in eating disorder recovery practice of photographing 'decorated mush' (beautiful food: smoothie bowls, salads, plates of food)
    - Some people photograph something on a theme: Diner food. Food truck food. Farmer's market vegetables.
- So, why is this important?
  - In these examples, future researchers will not understand what is happening unless we provide some context for them
  - Context of social practices, events, etc.
  - Context of the platform itself
  - Early on, Facebook had a character limit too. It was increased over time. If a researcher doesn't know that, she could conclude that people first used Facebook for brief messages, but it grew over time to longer posts - when the truth is, the messages were brief because users had no choice
- What do we do?
  - Figure out ways to capture context
  - Could be as simple as providing a readme file to explain your social context
  - Would be nice to see academic articles about platform changes, so we won't have to rely on click-bait articles for that information (click-bait - written to grab your attention, but usually are overly dramatic and sometimes just flat wrong)

  - Would be best if we could get the platforms themselves to record changes over time, but they probably want to keep that secret (especially about their sorting algorithms)
  - Would love to see a way to annotate captured content to say things like:
    - this was during the era of the 'like' button, and the 'reactions' were introduced at this date
    - this was during the period where I participated in a group who posted pictures of diner food on Instagram with these tags
  - Scholarly articles that trace the evolution of the technological forms (information science research) and social forms (sociological research?) - also a role for archivists in this.
  - Convince companies to keep their own records for this purpose. For example, get Twitter to agree to put its development information in the trust of the Library of Congress, for future reference
  - Definitely something we need to consider moving forward
  - It's not just about capturing the stuff. It is making the captured information meaningful for the future.
  - One of the best ways we can deal with this now is simply to group our content together in whatever meaningful way we can.

DEMOS

- First, the ridiculously expensive:
  - e-discovery and regulatory compliance, public sector FOIA laws
  - http://www.smarsh.com/social-media-compliance
    - actually not bad, given the scope: ranges from $75/month to $1000/month
    - you would probably need to use the $150/month plan
    - HOWEVER, consider that this is just a capture and store platform; it doesn't necessarily have preservation support in the way that we mean when we think of digital preservation
  - https://www.pagefreezer.com/social-media-archiving
    - $99/month for five accounts, can get a custom quote for an 'unlimited' plan
  - http://archivesocial.com
    - $199/month to $599/month or more with a custom quote. Note that it refers to it as a 'low-cost service'. Ahem.

- Open source options?
  - Not ready for 'real people' to use
  - Also, these platforms change a lot.
  - Lentil is an open source project developed to harvest your Instagram content. It will stop working in a few months because Instagram changed its policies.
  - Social Feed Manager is an open source project for harvesting tweets. They are rebuilding the program using a different architecture.

  - Leave these sorts of issues to the institutions who have the expertise and/or money to deal with them.

- Screen capture
  - I won't judge you. You have my permission to print the pages out and keep them in a filing cabinet if you want. Is that ideal? No. Does it work? Sort of. And sometimes that is the best you can do.
  - If I had to go this route, I would 'print to PDF' in my browser and save the file that way.

- Freemydata.co: http://freemydata.co/
  - Manual option: just periodically export your data. This is a great idea. Do what you can and move on with your other jobs.
  - Just make sure you see what you are, in fact, getting.
    - Look at Evernote, for example. It only exports in html or a proprietary Evernote format. Not particularly helpful.
  - Most give you a PDF and/or a zip file with other files in it.
  - Note that Facebook only allows individual profile downloads, not Facebook Pages downloads.

- DIgi.me: https://get.digi.me/
  - Obviously intended for personal use
  - Stores your data on your own computer - they do not have any of the information (so make sure you back up the folder on your computer!)
  - Note how my window bar says digime (10) - I am subscribing to the service that allows me to back up ten accounts per year, for $16.99/year.
  - Mac and PC
  - Home - shows you some recent activity
  - Accounts - add the accounts you want to preserve
    - Currently handles Facebook profiles and Facebook Pages, Pinterest, RSS, Flickr, Instagram, Twitter, LinkedIn, Google Plus, and Viadeo
  - Sync
    - There is a setting you can check to make the software launch on startup with automatic sync. I use that feature.
    - But you can also manually sync.
  - "Collections" - provides you with a way to bring content together. This might be really useful if you want to track a single thing across several accounts
    - Demo a collection, grab content from several sources
  - Flashback
    - What were you doing on this date (or roughly around this date) in the past few years?
  - Photos
  - Accounts
    - See the list of content you can view per account type

- JOURNAL - bring everything together into a single stream AND be able to add your own entries!
    - GOOD ENOUGH PRESERVATION?!?!?
- Export
    - Export all content – of limited use in the 'raw' format they provide
        - Note the spreadsheets – they have metadata
        - No posts?
        - No images?
    - Evernote (proprietary, so not the best option)
    - PDF
        - If you decide to export to PDF, you really can't do it all at once. You will have to work through chunks at a time.
        - Neat trick: instead of going to the PDF button and seeing everything and having to select content there, FIRST go to the date range and select a new date range. Now, if you go to export the content, you can select ALL the content without having to go through an item at a time.
        - One great thing about this is that the data is YOURS. It's not in their cloud.
        - But their database is encrypted (they say), so the only way to get the content out is through the export feature in the application. That requires a subscription to the software.
        - (They take privacy very seriously, which is actually really nice for a change.)
        - So, best model is to use the software and periodically export content into PDF and/or the raw format they provide.

- IFTTT: https://ifttt.com/
    - Twitter
        - Note that the captures are very brief. Some include pictures, but those are USER pictures, not pictures from the tweet
        - Seem to rely on the fact that they are storing the URL, but we know just how permanent URLs can be
    - Instagram
        - Captures tiny, tiny thumbnails
        - Again, seems to be relying on the URL as the main feature
    - Facebook pages
        - Images with the post content as titles … ok
        - FB page uploads spreadsheet
        - Again, more tiny thumbnails, mostly just the URL for access
    - My Link Posts spreadsheet
- VERDICT: free. But a little too much of a black box. I don't know what is going on here, and there really isn't a way for me to find out.

- Zapier: https://zapier.com/
    - Paying $5/month for more 'zaps'
    - Twitter
        - Export tweets into a spreadsheet
        - Export tweets into an individual text file (to make them searchable and possibly useful in the future for some sort of database? But the information is incomplete - this is not the full metadata of a tweet)
        - Show Zapier_Twitter spreadsheet - looks a little weird, again relying on URLs for content
    - Facebook
        - Spreadsheet - relies on URLs
        - Individual text entries - allow for searching, but are not particularly useful
- VERDICT: a little easier to do, and slightly better than IFTTT, but still not great

- TAGS: https://tags.hawksey.info/
    - Requires setting up an API key
    - But actually very nicely documented
    - There is even a way to make this collection public. It's explained on the bottom of the TAGS document
    - Free to use, but it again uses URLs to link to images

- Thoughts so far
    - You could figure out how to run a script to download the images from services that don't provide them
    - I really think a multi-pronged approach is best:
    - Use Zapier or IFTTT or TAGS to capture some data into a spreadsheet, since that is helpful for sorting and date order and so on
    - Use something like digi.me to capture the images
    - That way you will have your data in both forms if something better comes along in the future
    - If you use a web-archiving service, that might also work for you.
    - Still a lot missing here, too - the most glaring one being that the methods I've outlined so far have not done anything to capture the INTERACTION - the actual SOCIAL part - of the information stream
    - Also, social interaction continues to change the information stream over time - people replying to your posts, liking them, retweeting them, etc. The methods I've described here don't do anything to preserve those aspects.
    - So, we still have a long way to go.
- At the Personal Digital Archiving conference in 2015, Professor Lori Kendall (UIUC) said that we can't save everything, so the question we should ask ourselves is: "What stories do you want to tell?"
- I think it may be useful to consider tweets and other posts more like parts of a story than like discrete objects we can catalog and search in a database. So, to decide what to capture and how to capture it, ask yourself what stories you want to tell.