

IN4MATX 153: CSCW

**Class 2:
Social Spread**

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TA Dennis Wang
Reader Weijie Du

Announcements

- TA Dennis' office hours will be in DBH 6121, starting next Monday
- We're still looking for a room for Reader Weijie, will update later
- My office hours are 2-3 Wednesdays, starting today, in DBH 6093

Announcements

- Per the syllabus, Perusall comments are due at 11:59pm the night before class
 - This allows us to catch up on them in the morning, and incorporate some of your thoughts into class for the day
 - I extended the deadline for today's readings, though it doesn't matter since we'll start for points next time
 - Sorry, I should have mentioned this in class on Monday

Announcements

- Most of you (77/~100) did today's readings
 - Check Canvas later to verify that your comment was registered
 - I'll later take down scores for today's readings since they were optional for credit
- You had thoughtful things to say!
 - Please consider bringing up your points in class

Today's goals

By the end of today, you should be able to...

- Offer some principles and best practices on what makes content go viral online
- Describe styles of content which spread better and worse, and reflect on what this tells us about society's values
- Consider how content then impacts the people who see it

Discussion time! Split into groups of 2-3.

What makes something go viral?

What makes something go viral?

Nobody has responded yet.

Hang tight! Responses are coming in.

Surface features of a meme

- Shareable URL
- Simple message
- Low friction to share
- #catchyhashtag
- ... but these characteristics aren't enough



Taking a step back: Where does cultural innovation come from?

- Cultural innovation is often considered from the perspective of the communities that produce it
- Core: mainstream
- Periphery: marginal communities
- Cultural innovation is often greatest amongst those who can *bridge* the core and the periphery

Dahlander, L., & Frederiksen, L. (2012). The core and cosmopolitans: A relational view of innovation in user communities. *Organization science*, 23(4), 988-1007.
Cattani, G., & Ferriani, S. (2008). A core/periphery perspective on individual creative performance: Social networks and cinematic achievements in the Hollywood film industry. *Organization science*, 19(6), 824-844.

Taking a step back: Where does cultural innovation come from?

- Why would these bridging positions in the network be sources of cultural innovation?
- And what does that mean for how you go about designing social systems that spread?

Dahlander, L., & Frederiksen, L. (2012). The core and cosmopolitans: A relational view of innovation in user communities. *Organization science*, 23(4), 988-1007.

Cattani, G., & Ferriani, S. (2008). A core/periphery perspective on individual creative performance: Social networks and cinematic achievements in the Hollywood film industry. *Organization science*, 19(6), 824-844.

Taking a step back: Where does cultural innovation come from?

Call Me Maybe (2011)



“Song of the summer”, top selling
song worldwide, 2012
Why did this song spread?

Taking a step back: Where does cultural innovation come from?

Call Me Maybe (2011)

Justin Bieber 
@justinbieber

Follow

Call me maybe by Carly Rae Jepson is possibly the catchiest song I've ever heard lol

6:09 AM - 31 Dec 2011

18,580 RETWEETS 6,888 FAVORITES



The New Rise of a Summer Hit: Tweet It Maybe

Share full article   73

OP

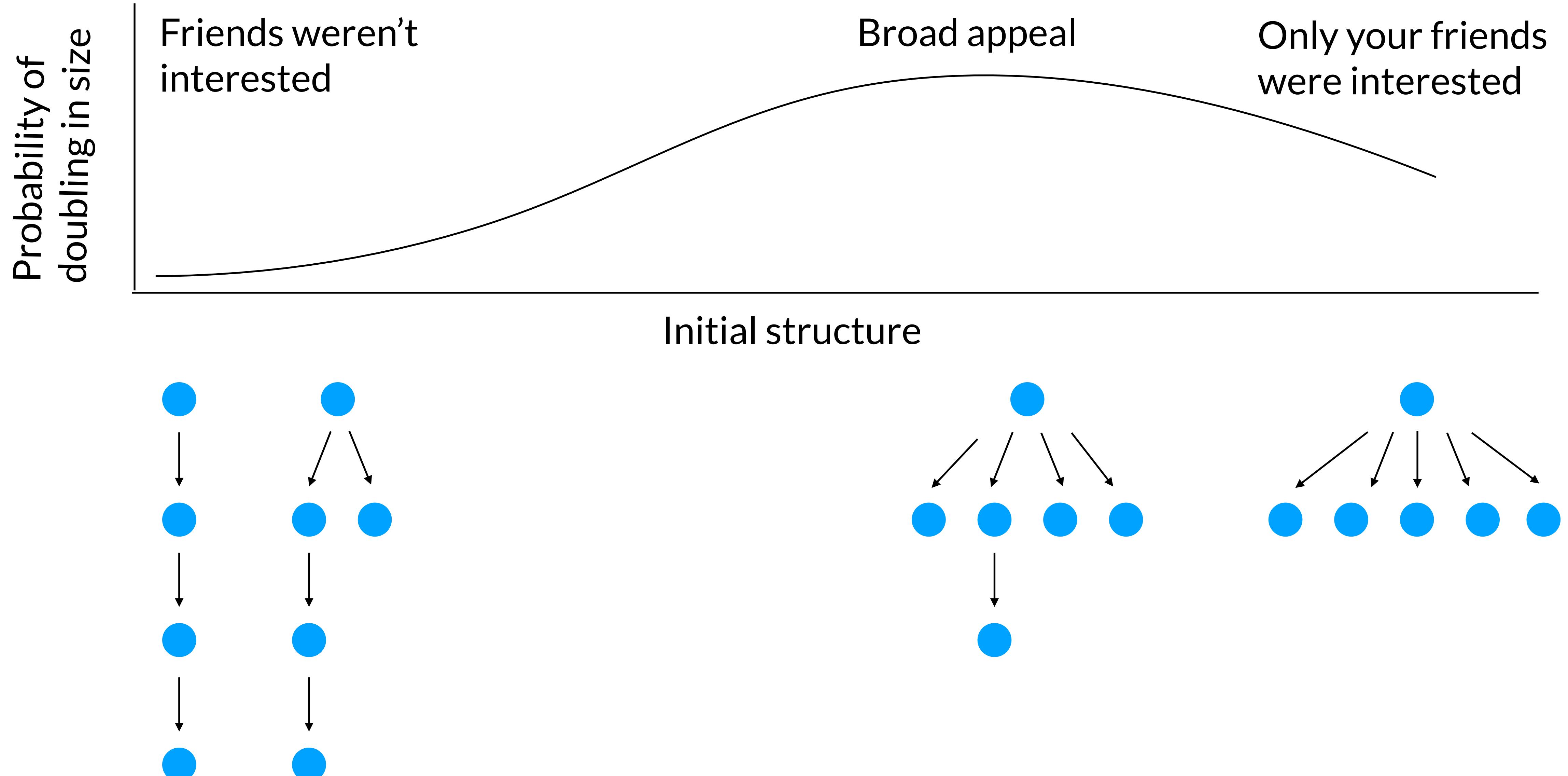
Carly Rae Jepsen's video for "Call Me Maybe," which has been watched 212 million times online.

By Ben Sisario

Aug. 21, 2012

For decades, the song of the summer would emerge each year following a pattern as predictable as the beach tides.

<https://www.nytimes.com/2012/08/22/business/media/how-call-me-maybe-and-social-media-are-upending-music.html>



Cheng, J., Adamic, L., Dow, P. A., Kleinberg, J. M., & Leskovec, J. (2014, April). Can cascades be predicted?. In Proceedings of the 23rd international conference on World wide web (pp. 925-936).

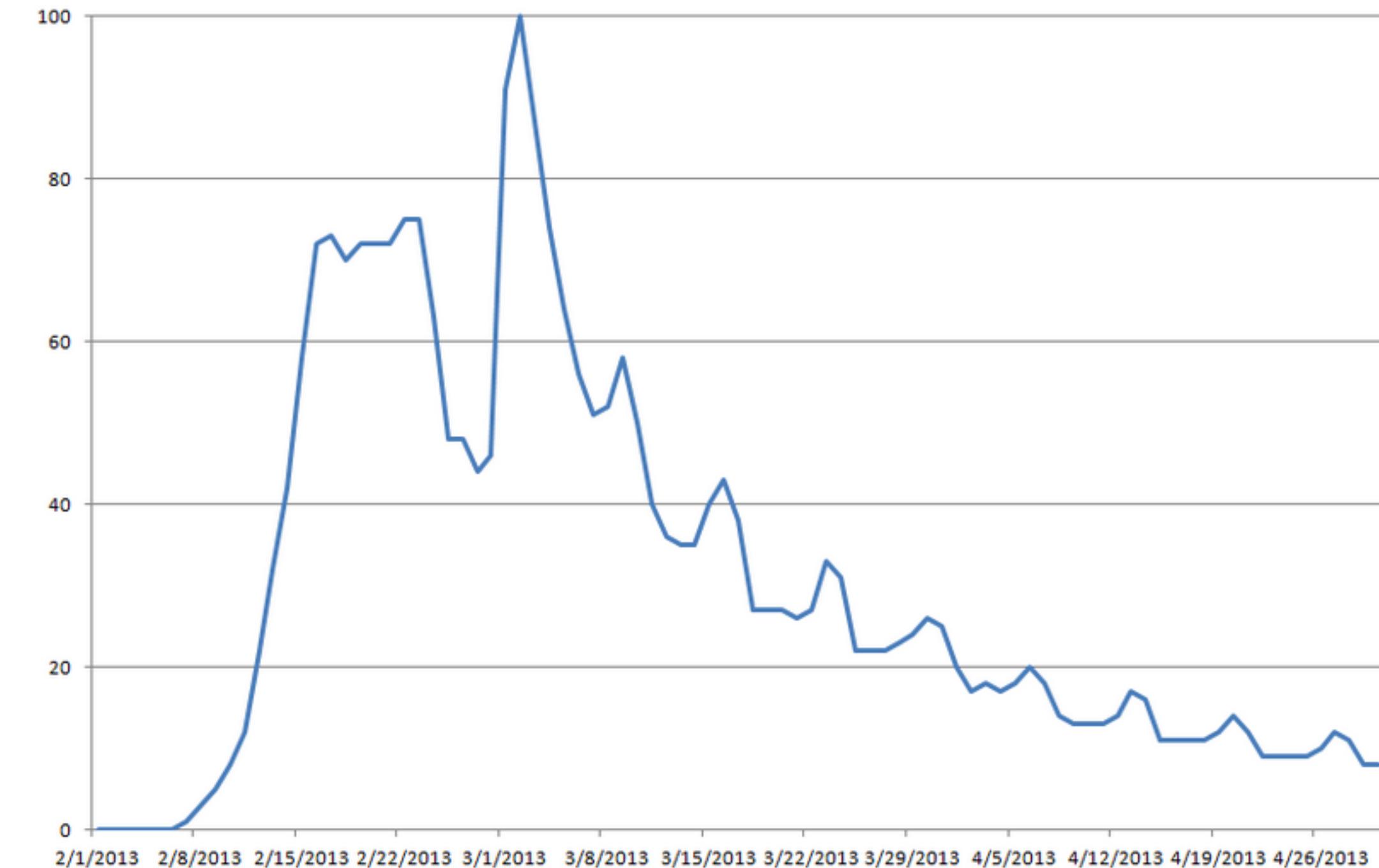
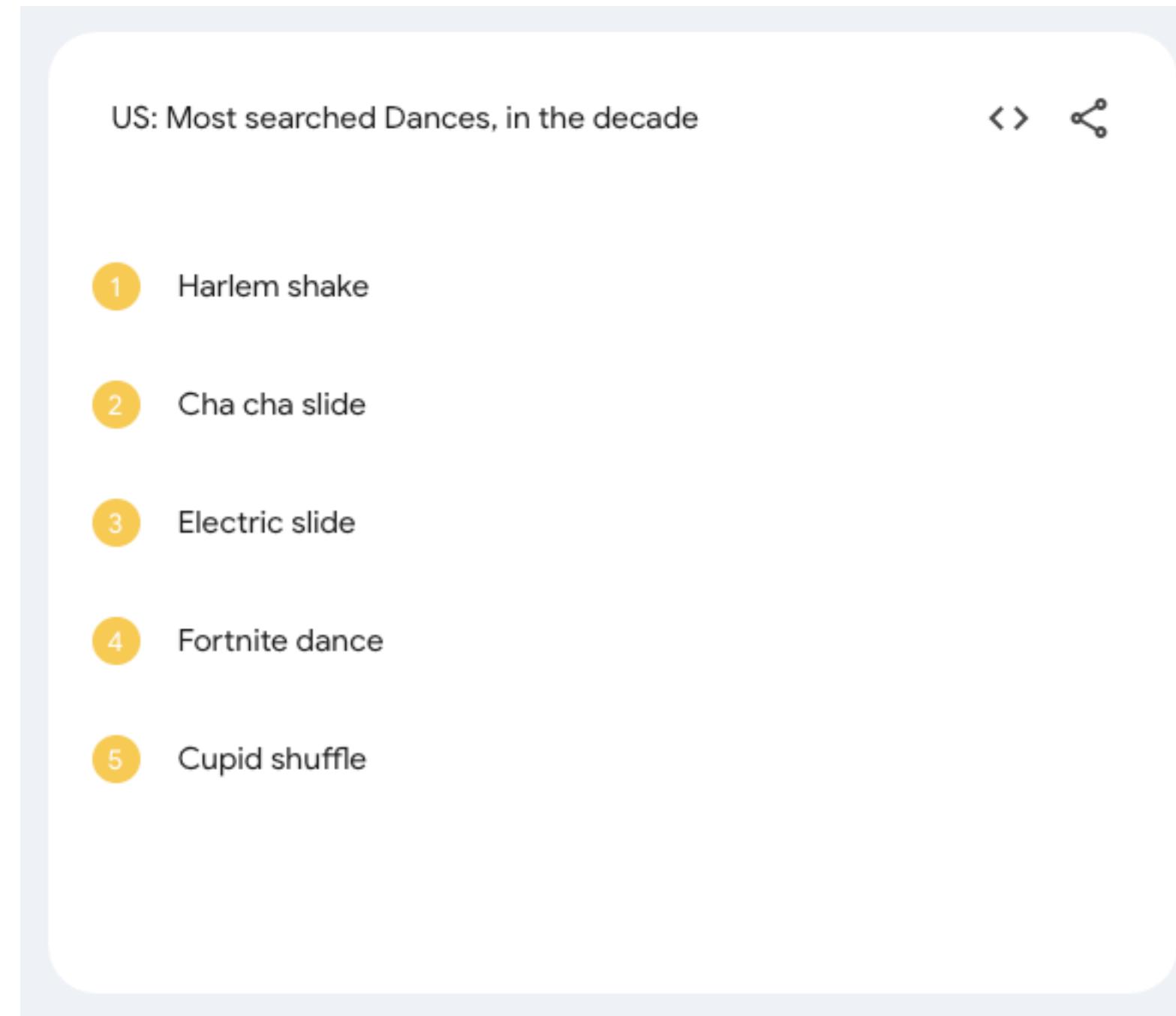
So what does viral content look like?

Harlem Shake (2013)



<https://www.youtube.com/watch?v=8vJiSSAMNWw>

Harlem Shake (2013)



2010-2019, A decade in search

https://trends.google.com/trends/story/US_cu_JpG6EG8BAADzAM_en

Harlem Shake (2013)

- Groups that did the Harlem shake:
Jimmy Fallon's show, the
Norwegian Army, Anderson
Cooper's show, NASCAR drivers,
members of the WWE, and many,
many, many more.



Harlem Shake (2013)

- Simple message: things change when the beat drops
- Low friction: no TikTok yet, but easy enough to tweet out a video link



https://trends.google.com/trends/story/US_cu_JpG6EG8BAADzAM_en

Harlem Shake (2013)

- But... bridging from Black cultures to the mainstream
- Original dance was conceived in the 1980's in the predominantly Black neighborhood of Harlem, NY
- Backing track is Trap music, originating from Black hip-hop artists in the South in the 2000's

THE BLOG [AL B BAAUER CULTURAL APPROPRIATION](#)

Is the Harlem Shake Meme Cultural Appropriation?

The most recent online sensation created by dimwits with access to cameras is the Harlem Shake meme. However, the name of the meme has recently become a topic of discussion and controversy for some, particularly after a group of Harlemites responded to the new Harlem Shake meme in a video released last week. Arguably, the Harlem Shake meme is a form of cultural appropriation in that it is the popular use (and misuse) of a cultural artifact to black culture by a predominantly white crowd. Most importantly, this new Harlem Shake has already began to eradicate the original Harlem Shake from popular culture online.

By Huda Hassan, Contributor

Writer and Photographer

Ok, another example.

What is this photo? (2024)



Kate Middleton, Princess of Wales (2024)

- Why were people so curious?
- What does this teach us about social media and public celebrities?



<https://www.vox.com/culture/24098724/kate-middleton-editing-photo-explained>

The downsides of virality

- Virality is exciting, but recognition has serious downsides
 - Privacy gets invaded
 - Audiences start having expectations that you're accessible and available

Zooming out

Feed algorithms amplify these effects

- “For you” feeds show you what they predict you will engage with
- Going viral often means optimizing for what the algorithm is optimizing for
- More on this next time.



Jeff Allen
@jeff4llen

...

According to the Heavy Ranker readme, it looks like this is the "For you" feed ranking formula is

Each "is_X" is a predicted probability the user will take that action on the Tweet.

Replies are the most important signal. Very similar to MSI for FB.
github.com/twitter/the-al...

```
Twitter Ranking Score =  
  75 * is_replied_reply_engaged_by_author  
+ 27 * is_replied  
+ 12 * is_profile_clicked_and_profile_engaged  
+ 11 * MAX(  
            is_good_clicked_convo_desc_favorited_or_replied,  
            is_good_clicked_convo_desc_v2  
        )  
+ 1.0 * is_retweeted  
+ 0.5 * is_favorited  
+ 0.005 * is_video_playback_50  
- 74 * is_negative_feedback_v2  
- 369 * is_report_tweet_clicked
```

1:35 PM · Mar 31, 2023 · 56.9K Views

Things which spread well

- Funny things
- Outlandish things
- Timely things
- ???

Uh oh. There are no checks in place.

[CW: domestic terrorism, suicide]

Boston Marathon bombing

- April 15, 2013
- Homemade bombs detonated near the finish line of the Boston Marathon
- Hundreds injured, 3 killed

https://en.wikipedia.org/wiki/Boston_Marathon_bombing

Boston Marathon bombing

Rumor A: An 8-year-old girl was killed while running the marathon

- NBC News first announced on Twitter that an eight-year-old *spectator* was killed
- Twitter users then stated she was a competitor, and gave her a fake photo
- 90,668 tweets perpetuated the misinformation
- 2,046 referred to the correct info

Starbird, K., Maddock, J., Orand, M., Achterman, P., & Mason, R. M. (2014). Rumors, false flags, and digital vigilantes: Misinformation on twitter after the 2013 boston marathon bombing. ICOnference 2014 proceedings.

Boston Marathon bombing

Rumor B: Reddit and Twitter misidentify one of the bombers

- Sunil Tripathi (Brown undergrad student) went missing on March 16, weeks before the bombing
- Reddit and Twitter users suspected that Sunil was one of the bombers, and began to spread the rumor
- His family received hateful messages online and phone calls

 [The Boston Bombing debacle](#) (self.MuseumOfReddit)
1393 submitted 10 years ago by [UnholyDemigod](#) [Reddit Historian](#)

As you know, on Apr 15 2013, two bombs exploded during the Boston Marathon, killing 3 people and injuring 264. Naturally, reddit 'blew up' as well, as being a social media site, it's a haven for current news. Two of the biggest subreddits to post information were [/r/worldnews](#) and [/r/news](#). Being that [/r/worldnews](#) is only for posting non-US news stories, they began removing the posts from there, [which angered a lot of people](#). As more people went over to [the posts in /r/news](#), the admins realised that they needed a primary US news subreddit that wasn't politically based, so [/r/news](#) was added to the defaults.

Over the next few days, the Internet turned on Batman Mode, and started posting pictures and theories to 'help' identify the bad guys. [One person was Sunil Tripathi, who had gone missing on Apr 16](#). This misidentification ignited a witchhunt, which only ceased when the current suspects were found by actual authorities. On Apr 22, the admins [made a blog post](#) apologising to Sunil's family for the grievances caused, among other things. On Apr 23, Sunil's body was discovered in a river.

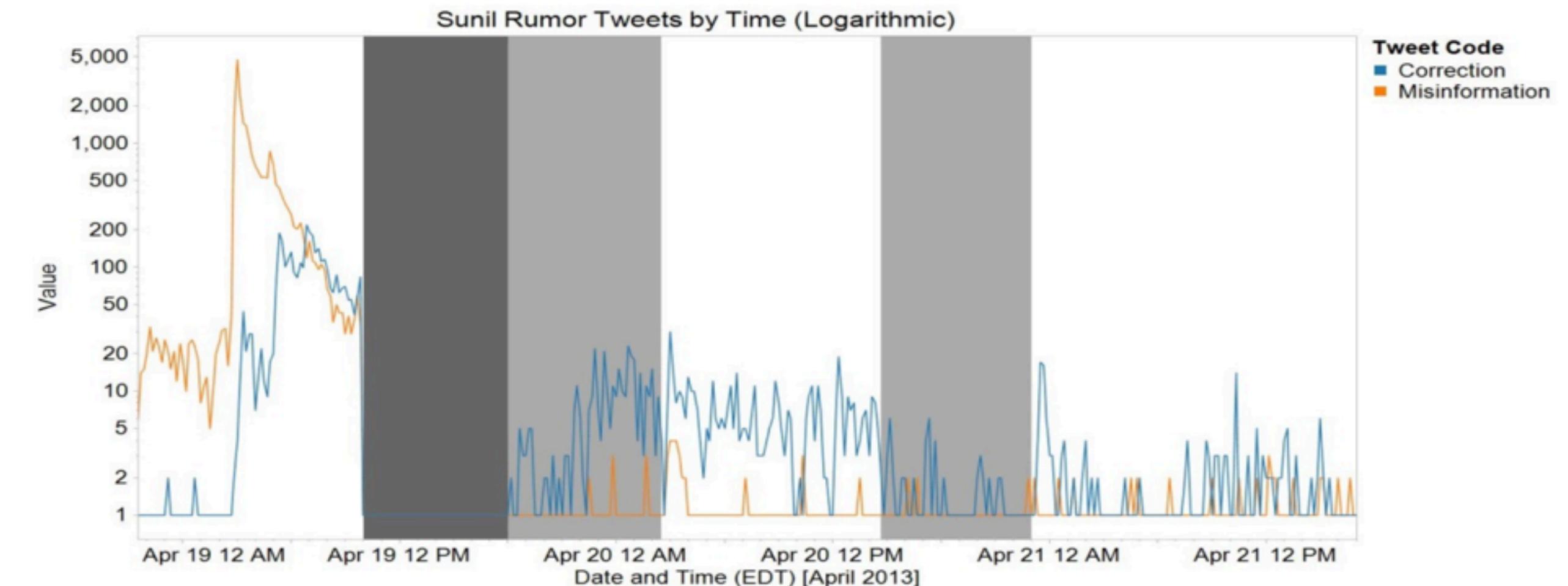
It should be noted that the misidentification was not just reddit's fault; other websites such as 4chan were also failing at playing detective too.

Starbird, K., Maddock, J., Orand, M., Achterman, P., & Mason, R. M. (2014). Rumors, false flags, and digital vigilantes: Misinformation on twitter after the 2013 boston marathon bombing. IConference 2014 proceedings.
https://www.reddit.com/r/MuseumOfReddit/comments/1iv343/the_boston_bombing_debacle/

Boston Marathon bombing

Rumor B: Reddit and Twitter misidentify one of the bombers

- Sunil was wrongly identified, he had died by suicide
- Eventually, corrections spread more widely than the rumors
- Reddit issued a public apology



Starbird, K., Maddock, J., Orand, M., Achterman, P., & Mason, R. M. (2014). Rumors, false flags, and digital vigilantes: Misinformation on twitter after the 2013 boston marathon bombing. IConference 2014 proceedings.
https://www.reddit.com/r/MuseumOfReddit/comments/1iv343/the_boston_bombing_debacle/

Boston Marathon bombing, takeaways

- Social collectives *can* correct themselves, in theory
 - But it can be hard to determine what's correct
 - Someone might see the original piece of info, but not the correction
- Sensational information tends to spread faster and further than true information
- More on misinformation later in the quarter

So, what makes something go viral?

So, what makes something go viral?

- Something that hasn't been articulated before, but is widely appealing
- Simple, creative messages
- Some amount of randomness, or a particular framing
- False, negative, or aggressive content tends to spread faster. But don't give into that

Assignment 1: Make a Meme

- Due April 17
- Goal: understand what makes content go viral online, and appreciate how difficult it is!
- Goal: create a piece of content that goes viral.
 - You must create it yourself, though you can remix existing content
 - Make multiple attempts and iterate
 - No negativity

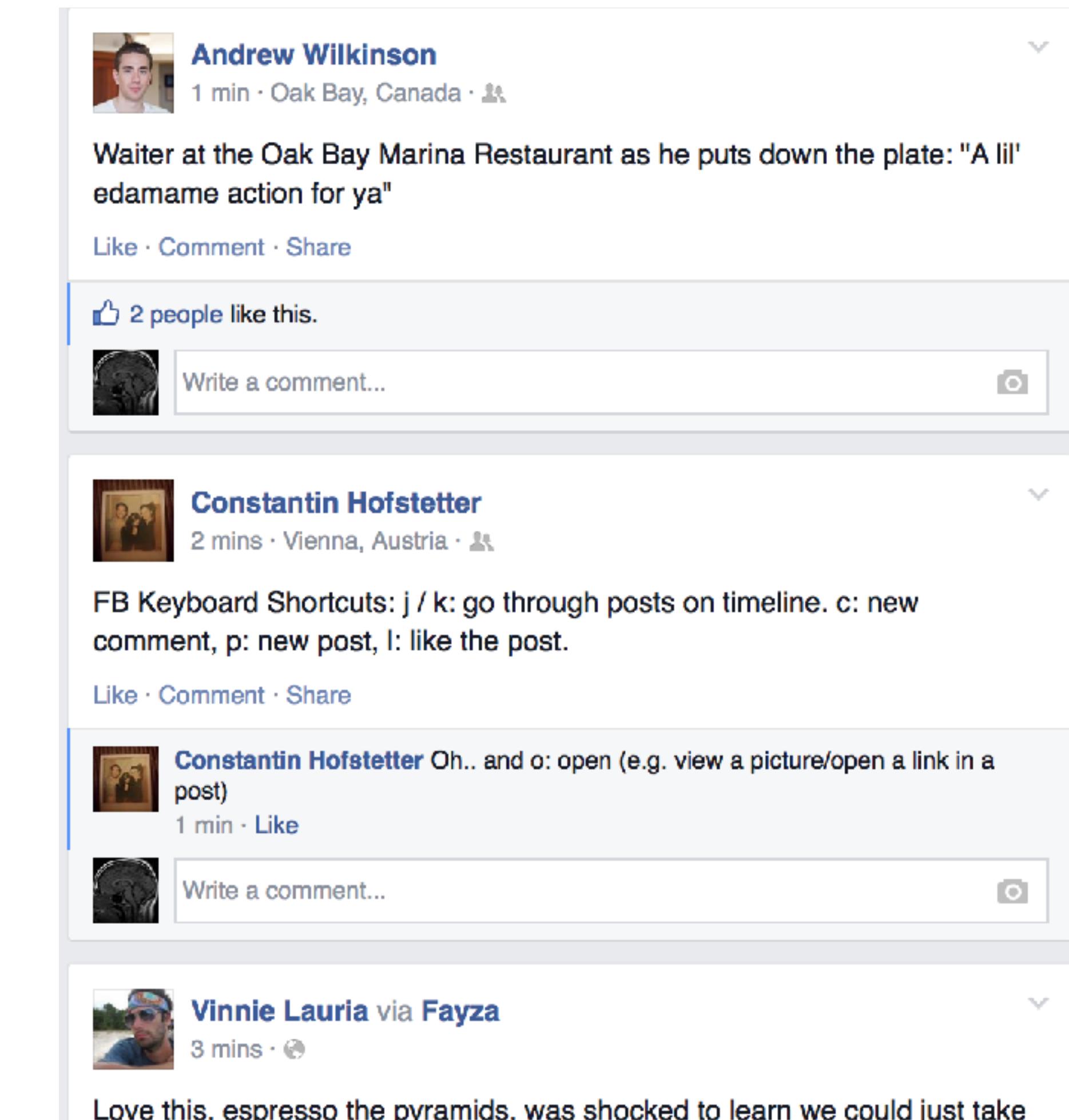
Assignment 1: Make a Meme

- Think creatively in terms of content; not all viral content is a png with text on it
- You will not be graded directly on views, likes, etc., but rather on how you approached iterating on your idea and what you learned from the process
- You can get extra credit for being the most viral, or for being the most favored by your peers

Another angle on virality: contagion

The Facebook Study

- Facebook manipulated the type of content people saw in their feeds
 - Some people saw more “positive” words while others saw more “negative” words
- Those who saw more “positive” words tended to then post more “positive” words themselves
- Therefore, *emotion* can be *contagious* online



Kramer, A. D., Guillory, J. E., & Hancock, J. T. (2014). Experimental evidence of massive-scale emotional contagion through social networks. *Proceedings of the National academy of Sciences of the United States of America*, 111(24), 8788.

Discuss: How does The Facebook Study make you feel about social media? How would you feel if you had been a participant?

The Facebook Study

- The public got really upset about this.
- Facebook was running experiments on us without us knowing, and then they published it!
 - Is that ethical? If Facebook were a University, they'd have to get consent from their users

TECHNOLOGY

Everything We Know About Facebook's Secret Mood-Manipulation Experiment

It was probably legal. But was it ethical?

By Robinson Meyer



<https://www.theatlantic.com/technology/archive/2014/06/everything-we-know-about-facesbooks-secret-mood-manipulation-experiment/373648/>

The Facebook Study: public reaction

Living in a lab

- The experiment was a glorified A/B test
 - This is pretty common in industry, but often done in controlled lab environments
 - E.g., inviting people into a lab, soliciting feedback in a survey
- Some people cared about the lack of transparency in running a “live” experiment

The Facebook Study: public reaction

Manipulation anxieties

- People were concerned their social relationships might have been disrupted by the manipulation
 - What if you didn't see your friend's post?
 - Or, worse, that Facebook could manipulate content to support causes/values/opinions that are in Facebook's best interests
 - These concerns still come up, more on this in future classes

The Facebook Study: public reaction

Wake up, sheeple

- Facebook is a private company, incentivized to create a “sticky” app
 - Therefore, we should have expected this
- Facebook is free, so you should expect any information about you to be manipulated

Hallinan, B., Brubaker, J. R., & Fiesler, C. (2020). Unexpected expectations: Public reaction to the Facebook emotional contagion study. *New Media & Society*, 22(6), 1076-1094.

The Facebook Study: public reaction

No big deal

- We should expect Facebook to do this, and ultimately it shouldn't matter much to users
- The effect was small, so it shouldn't matter

Hallinan, B., Brubaker, J. R., & Fiesler, C. (2020). Unexpected expectations: Public reaction to the Facebook emotional contagion study. *New Media & Society*, 22(6), 1076-1094.

The Facebook Study: researcher reaction

Ethical approval

- One perspective: Facebook should have been held to the same standard as academic researchers
 - This could be perceived as a deception study, which IRBs would require debrief
- IRB approval does not constitute ethical research
 - IRBs are effectively a “minimum checklist”
 - For a long time, IRBs didn’t know what to make of public data from social media

The Facebook Study: researcher reaction

Emotions are sacred

- One perspective: Facebook's research shouldn't be in the business of manipulating people's emotions
- But, Facebook as a platform absolutely is. The effect of the research is small relative to the effect of the platform at large

The Facebook Study

- All of these discussions about ethics miss the bigger picture.
- Facebook (and other platforms like it) have the ability to influence our emotions
- And they will act on that on that ability
 - They want us to stay engaged with and entertained by their app
 - More on algorithmic feeds next time

Today's goals

By the end of today, you should be able to...

- Offer some principles and best practices on what makes content go viral online
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