

# **IN4MATX 251: CSCW**

**Class 2:**  
**Social Spread**

Daniel Epstein

# Today's goals

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

- Articulate what makes content spread online
- Describe The Facebook Study, the controversy around it, and the reaction by researchers and the public to it

**Discussion time! Split into groups of 2-3.**

**What makes something go viral?**

# Surface features of a meme

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



HOW DO YOU DO, FELLOW KIDS?

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

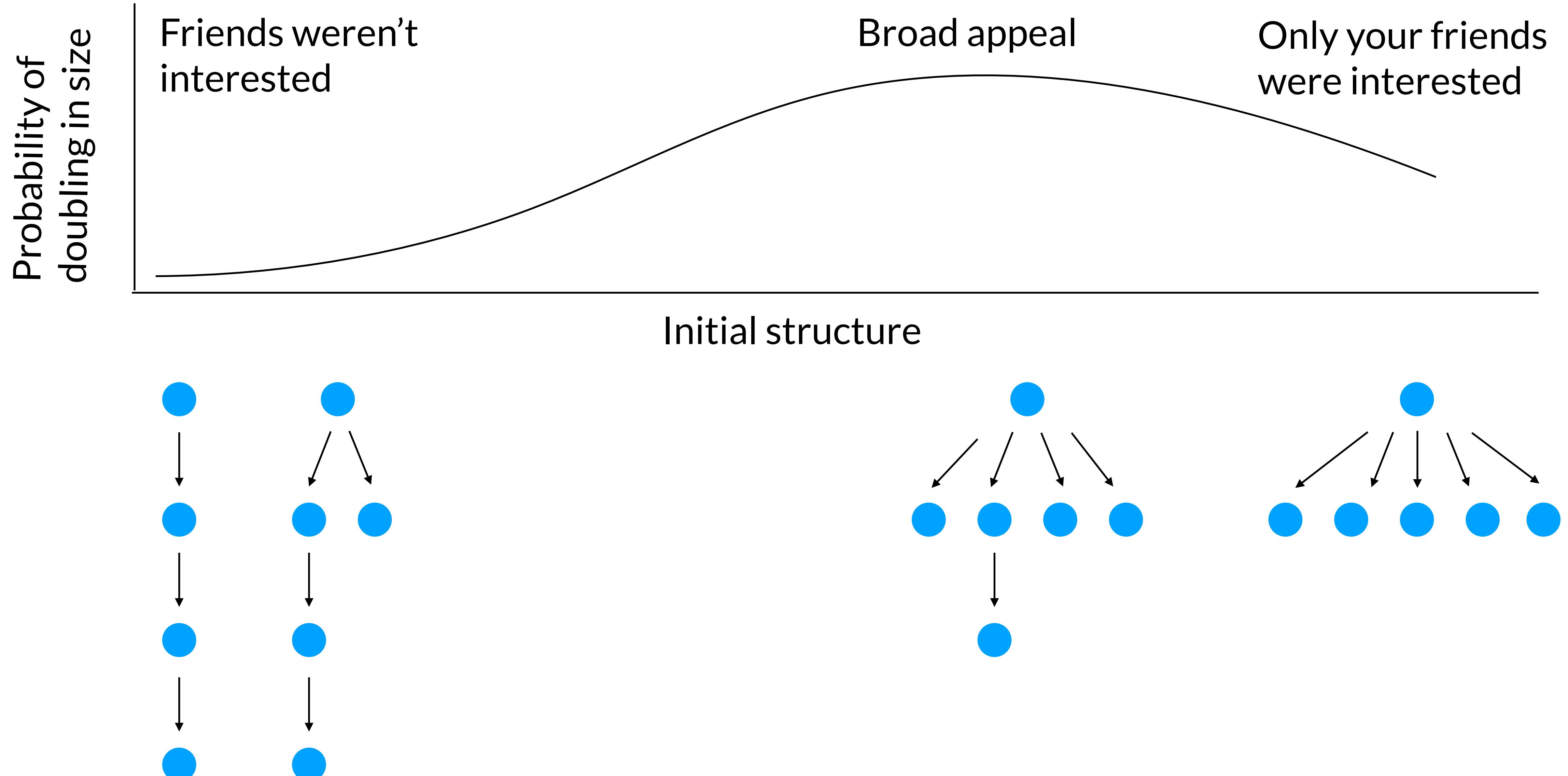
- Cultural innovation is often considered from the perspective of the communities that produce it
- Core: mainstream
- Periphery: marginal communities
- Cultural innovation is often greatest amongst those who can *bridge* the core and the periphery

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?
- **Discuss in small groups, and we'll come back**

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.



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).

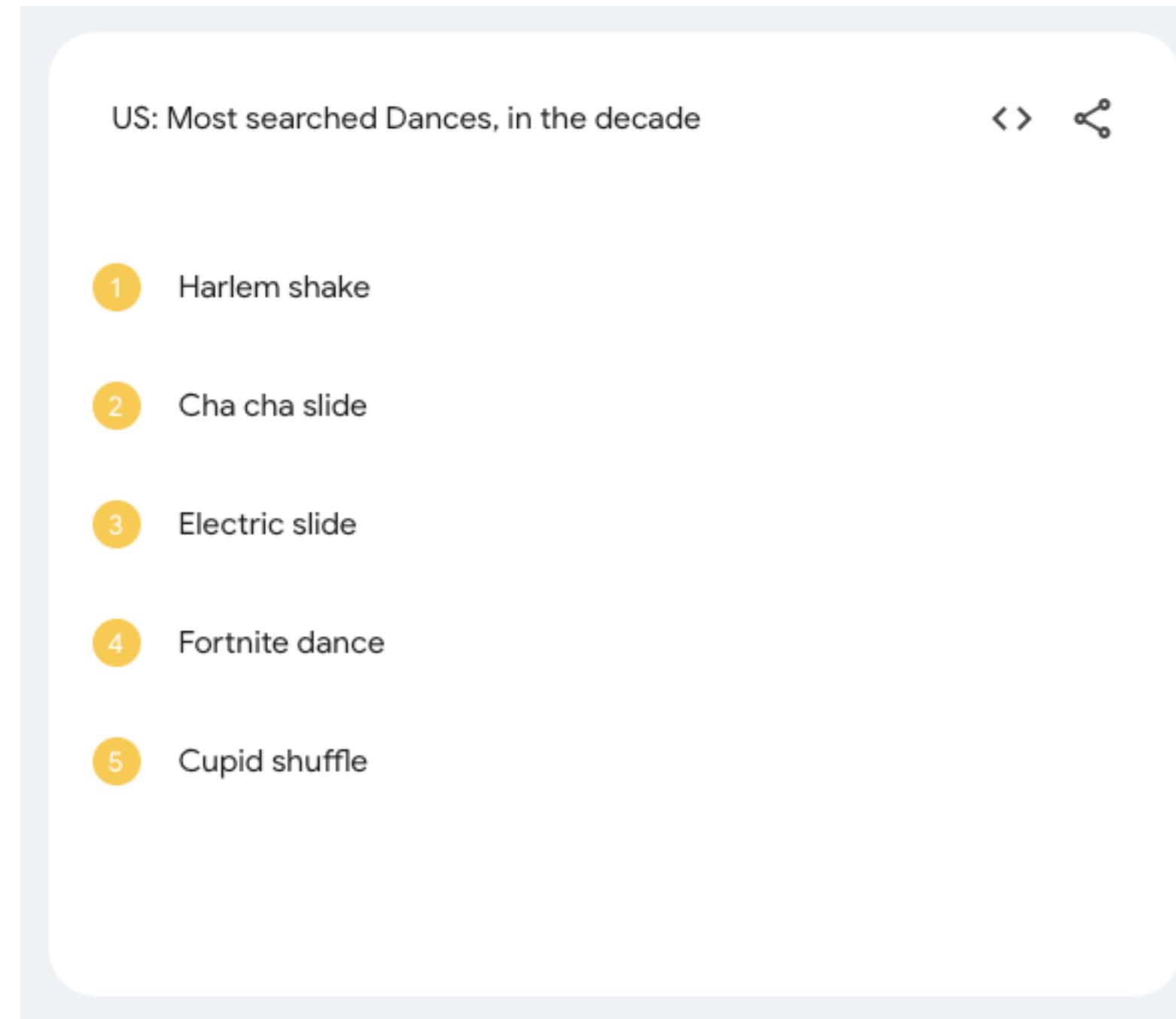
# **So what does viral content look like?**

# 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](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](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>

# **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...](https://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
- ???

**But, ultimately, we're at the mercy of platforms to decide what we see.**

# 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.

**Discussion time! Split into groups of 2-3.**

**Why did the public react the way they did?**

# The Facebook Study: public reaction

- 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

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

## 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.

**Discussion time! Split into groups of 2-3.**

**Why did the research community react the way they did?**

# 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: the bigger issue

- 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
  - And, manipulating what we are able to see is critical to putting ads (and ads we like) in front of us

# The Facebook Study: the bigger issue

- People want Facebook (and others like it) to be benevolent
  - I'm just on here hanging out with my friends!
  - But its' not, and getting it to be might not be possible

# Today's goals

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

- Articulate what makes content spread online
- Describe The Facebook Study, the controversy around it, and the reaction by researchers and the public to it

# **IN4MATX 251: CSCW**

**Class 2:**  
**Social Spread**

Daniel Epstein