

# CS 6474/CS 4803

## Social Computing:

### Social Computing Theories: Social Capital and Social Influence

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Week 5 | February 8, 2023

# Proposal Presentation Specs

- Signup for a presentation slot by Friday
  - First come first serve
- Email the slides to the TA and me by 11:59pm ET the night before your scheduled presentation.
  - PDF format only
- Structure:
  - What is the problem
  - Why is it important
  - What has been done so far
  - Are there any/what are the gaps in this prior research?
  - How does your project close these gaps/extend current state of the art

Social Capital Focuses on:

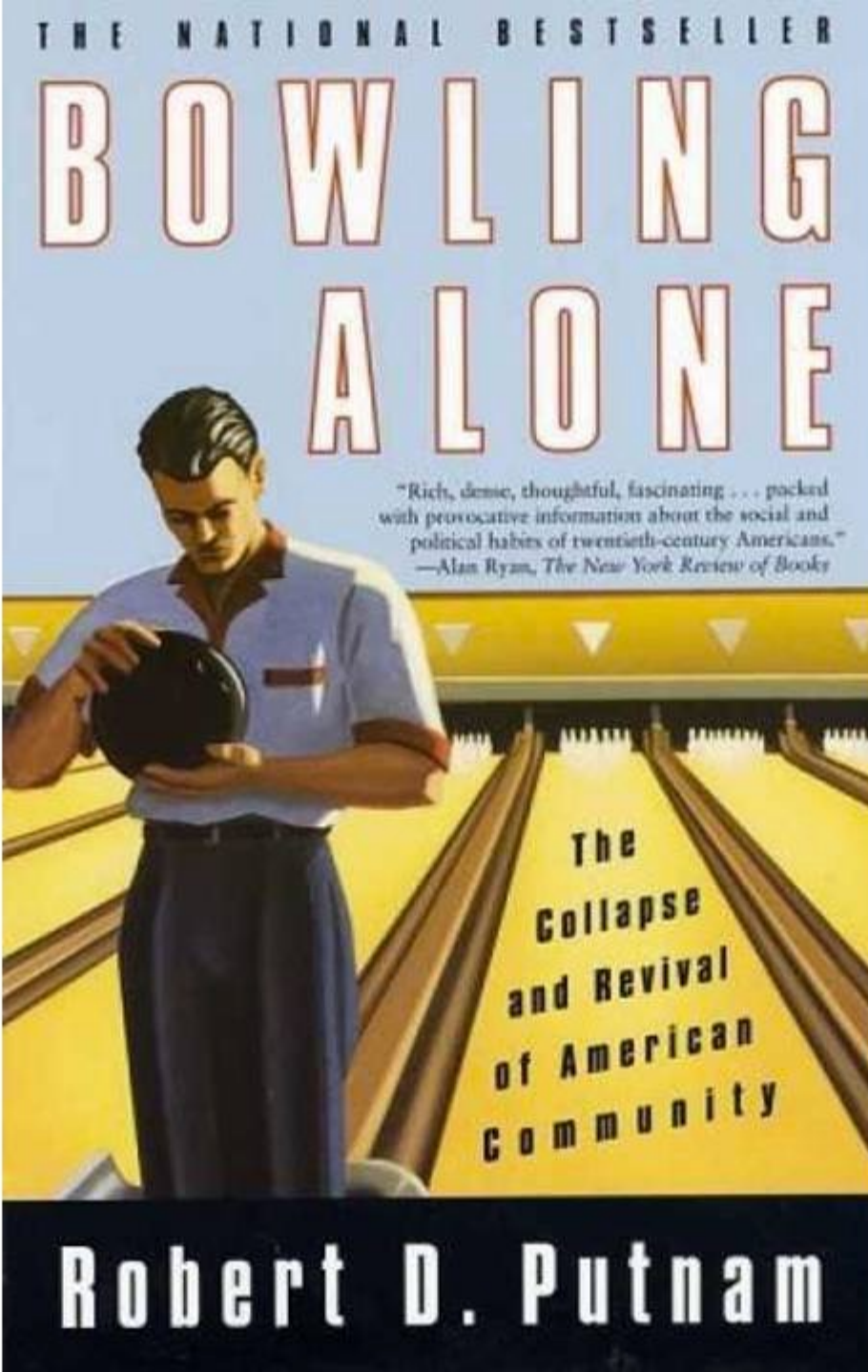
- *Who knows Whom*
- *The Character of these Networks*
- *The Strength of our Ties*
- *Levels of Trust*
- *Levels of Reciprocity*

Social capital broadly refers to the resources accumulated through the relationships among people (Coleman, 1988).

Bourdieu and Wacquant (1992) define social capital as “the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (p. 14).

Social capital is defined as “social networks and the associated norms of reciprocity and trust that arise from those networks” (Putnam, 2000)





## Rise and Decline of League Bowling

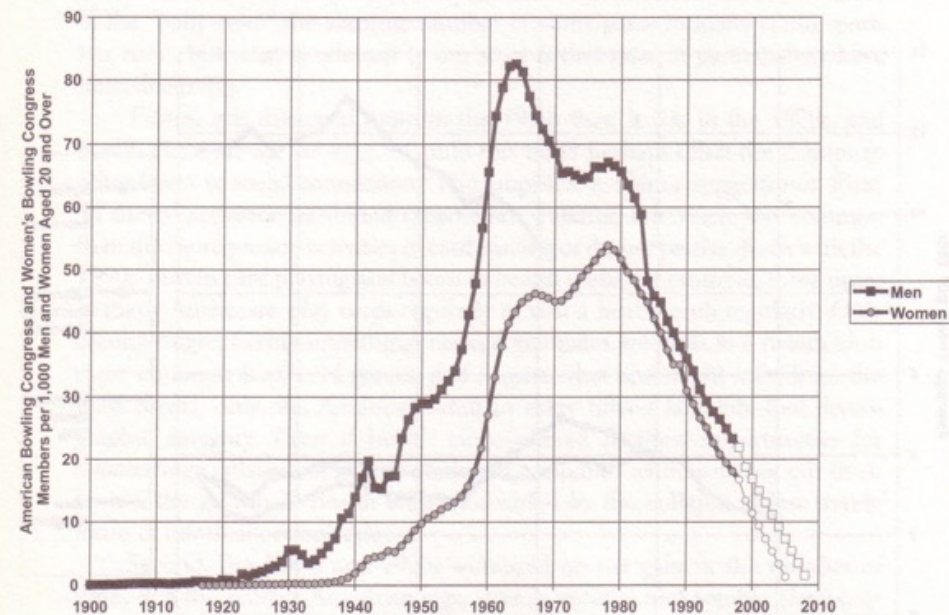


Figure 26: The Rise and Decline of League Bowling

# Bonding and bridging social capital (Putnam)

## 1. Bonding (Putnam)

- ▶ Generated by strong ties. Considered essential in every society. Concerns over loss of bonding social capital prevalent in related scholarship (see also our earlier notes on communities)
- ▶ Bonding social capital is the *effect* of maintaining strong ties

## 2. Bridging (Putnam)

- ▶ Weak ties at play; 'bridges' more essential than other weak ties. Complementing or making up for loss of strong ties and increasing in importance in modern urban societies and CMC
- ▶ Bridging social capital is the *effect* of maintaining bridges

Putnam's book was controversial  
– he disregarded newer  
organizations and forms of social  
capital

Critics like sociologist Claude Fischer said that “Putnam neglects the emergence of new forms of supportive organizations on and off the Internet”

Why is it important or relevant to study social capital in this class?

# The Benefits of Facebook “Friends:” Social Capital and College Students' Use of Online SNS



# Dimensions of social capital

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## 1. Bonding (Putnam)

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## 2. Bridging (Putnam)

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- ▶ Bridging social capital is the *effect* of maintaining bridges

## Maintained (Ellison et al.)

- ▶ Social capital salvaged by CMC after physical disconnection from offline social network (implies some social capital lost by physical disconnection, e.g., move to another place for work or study)

H1: Intensity of Facebook use will be positively associated with individuals' perceived bridging social capital.

H2: Intensity of Facebook use will be positively associated with individuals' perceived bonding social capital.

H3a: The relationship between intensity of Facebook use and bridging social capital will vary depending on the degree of a person's self esteem.

H3b: The relationship between intensity of Facebook use and bridging social capital will vary depending on the degree of a person's satisfaction with life.

H4a: The relationship between intensity of Facebook use and bonding social capital will vary depending on the degree of a person's self esteem.

H4b: The relationship between intensity of Facebook use and bonding social capital will vary depending on the degree of a person's satisfaction with life.

# Thoughts and additional findings

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- ▶ Main target audience for Facebook profile seem to be old friends and then current friends and acquaintances from immediate environment; but strongest results of study are with respect to the effects of weak ties (bridging social capital)
  - ▶ Possible interpretation: users maintain FB pages for their friends and closer circle of acquaintances but FB is actually most helpful in the management of weak ties
- ▶ FB more valuable in bridging for users with low self-esteem and/or dissatisfaction with professional and/or social environment
  - ▶ Possible interpretation: CMC helps users overcome social or psychological barriers to communication

# Class Activity 1

Ellison et al. focus on the role of Facebook in bridging and bonding social capital. Do the findings extend to other platforms as well? Give examples of bonding/bridging social capital on a social media platform (Instagram), an online forum (Reddit), and an anonymous / ephemeral site (Snapchat).

Ellison et al. use college students as participants. How could this attribute have affected the findings? E.g., there's a strong case of college students wanting to maintain social capital with friends from high school. But how does this generalize to other populations or settings?

Does algorithmic design impact how  
people derive benefits from social capital?  
E.g., curation of items on the News Feed



## ELEMENTS

## HOW FACEBOOK MAKES US UNHAPPY



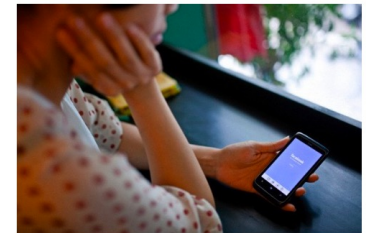
By Maria Konnikova September 10, 2013



Ellison et al. also found that Facebook usage was found to interact with measures of psychological well-being. How does it contrast with the perception of today that Facebook makes people depressed?

No one joins Facebook to be sad and lonely. But a new study from the University of Michigan psychologist Ethan Kross argues that that's exactly how it makes us feel. Over two weeks, Kross and his colleagues sent text messages to eighty-two Ann Arbor residents five times per day. The researchers wanted to

know a few things: how their subjects felt overall, how worried and lonely they were, how much they had used Facebook, and how often they had had direct interaction with others since the previous text message. Kross found that the more people used Facebook in the time between the two texts, the less happy they felt—and the more their overall satisfaction declined from the beginning of the study until its end. The data, he argues, shows that Facebook was making them unhappy.



Research into the alienating nature of the Internet—and Facebook in particular—supports Kross's conclusion. In 1998, Robert Kraut, a researcher at Carnegie Mellon University, found that the more people used the Web, the lonelier and more depressed they felt. After people went online for the first time, their sense of happiness and social connectedness dropped, over one to two years, as a function of how often they used the Internet.

# The Benefits of Facebook “Friends:” Social Capital and College Students’ Use of Online Social Network Sites

Nicole B. Ellison  
Charles Steinfield  
Cliff Lampe

Department of Telecommunication, Information Studies, and Media  
Michigan State University

## Social Media as Social Transition Machinery

OLIVER L. HAIMSON, University of Michigan School of Information, USA

Social media, and people’s online self-presentations and social networks, add complexity to people’s experiences managing changing identities during life transitions. I use gender transition as a case study to understand how people experience liminality on social media. I qualitatively analyzed data from transition blogs on Tumblr ( $n=240$ ), a social media blogging site on which people document their gender transitions, and in-depth interviews with transgender bloggers ( $n=20$ ). I apply ethnographer van Gennep’s liminality framework to a social media context and contribute a new understanding of liminality by arguing that reconstructing one’s online identity during life transitions is a rite of passage. During life transitions, people present multiple identities simultaneously on different social media sites that together comprise what I call *social transition machinery*. Social transition machinery describes the ways that, for people facing life transitions, multiple social media sites and networks often remain separate, yet work together to facilitate life transitions.

## Social Network Activity and Social Well-Being

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Received: 13 April 2017 | Revised: 12 July 2017 | Accepted: 29 August 2017  
DOI: 10.1111/eip.12496

### ORIGINAL ARTICLE

## Exploring opportunities to support mental health care using social media: A survey of social media users with mental illness

John A. Naslund<sup>1,2,3</sup> | Kelly A. Aschbrenner<sup>2,4</sup> | Gregory J. McHugo<sup>4</sup> | Jürgen Unützer<sup>5</sup> | Lisa A. Marsch<sup>3,4</sup> | Stephen J. Bartels<sup>1,2,6</sup>

<sup>3</sup>The Dartmouth Institute for Health Policy and Clinical Practice, Dartmouth College

**Aim:** Social media h  
for young people w  
who self-identified a  
health and to identif  
**Methods:** We asked  
ness to participate i  
pants’ mental health  
mental health progr

WILEY

[4,15], which is based on self-reports of time online and  
er of friends, along with six attitude items like  
book has become part of my daily routine.” One of the  
of this study is to determine how well people self-report  
values by comparing them with Facebook activity logs.  
ew exceptions [14], these kinds of studies have focused  
lege students, and so we also test whether previous  
gs generalize to older users and those outside the U.S.

CSCW’19, November 9–13, 2019, Austin, TX, USA

## Social Technologies for Digital Wellbeing among Marginalized Communities

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(De Choudhury, Kiciman, Dredze, Coppersmith, Kumar CHI 2016)

# Online Social Support Alleviates Risk of Suicidal Ideation

[–] **badasset312** 3 points 12 hours ago

This post very relatable to me as well. Feel better friend, I'm rooting for you.

[permalink](#) [embed](#)


[–] **emb13** 4 points 12 hours ago

i am in a similar situation. i have 0 friends because of pretty awful social anxiety. i have no one to do things with, so i am completely depressed and bored with life right now. i'd like to think things will get better someday, but i've been saying that to myself for years. at least we're alone together ¯\_(ツ)\_/¯

[permalink](#) [embed](#)


**Why does no one like me?** (self.depression)

9

submitted 13 hours ago by 

I feel invisible so often; like an extra in a movie, always on the sidelines. I don't have any genuine friends, just acquaintances. And not even just friends, I haven't had a genuine conversation with anyone of the opposite gender in years. The worst part is that I delude myself into thinking I have a chance with people who are out of my league. I just feel so alone.

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Lawmakers confront TikTok, Snapchat and YouTube about eating disorder content

Amanda Silberling @asilbwrites / 7:08 PM EDT • October 26, 2021

The New York Times

*Parents Sue TikTok, Saying Children Died After Viewing 'Blackout Challenge'*

The suit, involving girls ages 8 and 9, claims TikTok knew or should have known that its product was “addictive” and was directing children to dangerous content.

 BUSINESS

Markets Tech Media Success Perspectives Videos


Advertisement

Instagram promoted pages glorifying eating disorders to teen accounts



By [Donie O'Sullivan](#), [Clare Duffy](#), and [Sarah Jorgensen](#), CNN Business  
Updated 7:28 PM EDT, Mon October 4, 2021






NEWS FILM TV AWARDS LIFESTYLE BUSINESS GLOBAL VIDEO PODCASTS TIFF SU

HOME > BUSINESS > BUSINESS NEWS

Instagram, Snapchat, TikTok Cause Mental Health Problems in Teens, Lawsuits Claim

The plaintiffs take aim at social media platforms' product features, alleging that the companies amplify dangerous content that prioritizes engagement over safety.

BY WINSTON CHO  AUGUST 18, 2022 3:18PM

Get 12 weeks for \$29.99 \$6

THE NEW YORKER

CULTURAL COMMENT

NETFLIX AND SUICIDE: THE DISTURBING EXAMPLE OF “13 REASONS WHY”

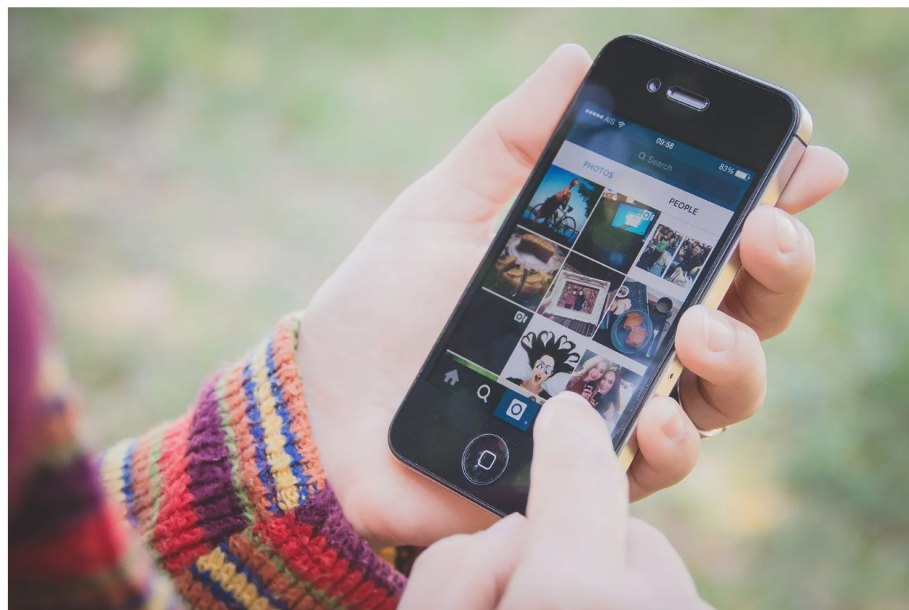
By Stephen Marche  
May 6, 2019



EMILY REYNOLDS

BUSINESS 14.03.2016 04:04 PM

# Instagram's pro-anorexia ban made the problem worse



# Social influence – a critical construct of social networks

Why are certain things more contagious than others?

Why are certain things more popular or catchy?

How does the social network facilitate such contagion?



*The International No.1 Bestseller*

*The*  
TIPPING  
POINT



*HOW LITTLE THINGS CAN MAKE  
A BIG DIFFERENCE*

MALCOLM  
GLADWELL

# What is the Tipping Point?

*The International No.1 Bestseller*  
*The*  
**TIPPING  
POINT**



*HOW LITTLE THINGS CAN MAKE  
A BIG DIFFERENCE*

**MALCOLM  
GLADWELL**

That magic moment when an idea,  
trend or social behavior crosses,  
tips and spreads like wildfire.

# Is she worth \$10,000 per tweet? Kim Kardashian earns big money using her Twitter account to advertise to her 2million fans

By [DAILY MAIL REPORTER](#)

**UPDATED:** 11:16 EDT, 24 December 2009



Share



 17

[View comments](#)

Some might question her apparent celebrity status, however Kim Kardashian certainly seems to have acquired some pulling power.

According to a report out this week, the U.S. socialite allegedly commands up to \$10,000 (£6,300) for every tweet she posts on her Twitter account as part of her contract with in-stream advertising company Ad.ly.

Kim, 29, is the highest earner on the company's books and the most popular on their roster of celebrity tweeters.

[BACK TO BLOG](#)

# Your Facebook Posts Will Probably Go Viral if You Follow These 5 Steps

FACEBOOK

Share 115 Tweet 32 LinkedIn Share 93



ABOUT THE AUTHOR

[Aaron Lee](#)

Aaron Lee is the Founder of [AskAaronLee.com](#) & ShortofHeight.com, a fashion blog that shares [style for short men](#).

Follow him on Twitter at [@askaaronlee](#)

Do you want your Facebook posts to go viral?

Of course you do.

Who wouldn't want to dramatically increase the reach of their posts?!

# QUIZ: Which of these Facebook photos went viral?



# Everyone's an Influencer: Quantifying Influence on Twitter





02-01-08 | CHANGE AGENTS

# Is the Tipping Point Toast?

Marketers spend a billion dollars a year targeting influentials. Duncan Watts says they're wasting their money.



BY CLIVE THOMPSON LONG READ

Don't get Duncan Watts started on the Hush Puppies. "Oh, God," he groans when the subject comes up. "Not them." The Hush Puppies in question are the ones that kick off *The Tipping Point*, Malcolm Gladwell's best-seller about how trends work. As Gladwell tells it, the fuzzy footwear was a dying brand by late 1994—until a few New York hipsters brought it back from the brink. Other fashionistas followed suit, whereupon the cool kids copied them, the less-cool kids copied them, and so on, until, voilà! Within two years, sales of Hush Puppies had exploded by a stunning 5,000%, without a penny spent on advertising. All because, as Gladwell puts it, a tiny number of superinfluential types ("Twenty? Fifty? One hundred—at the most?") began wearing the shoes.



## MORE LIKE THIS

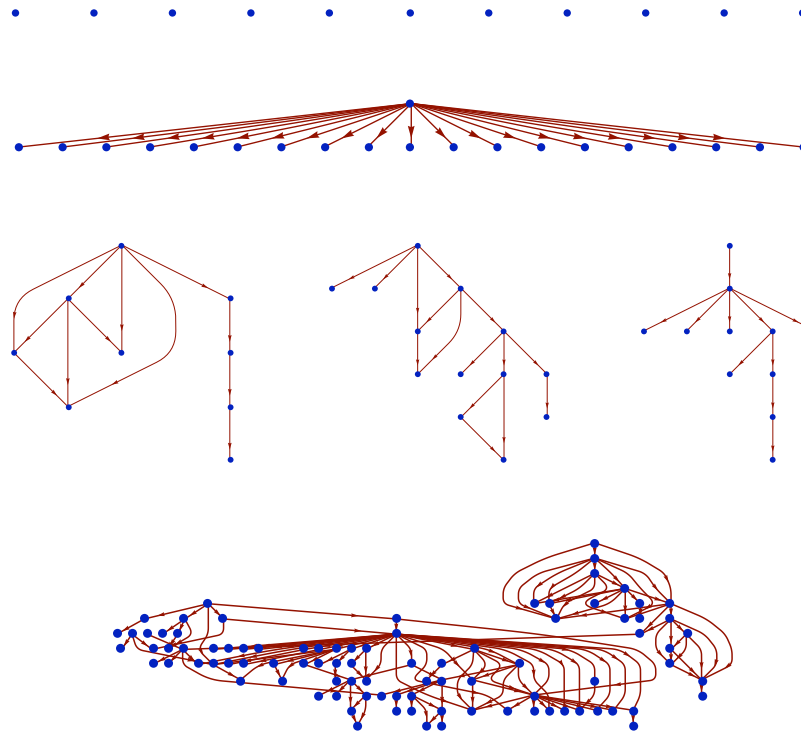
Pittsburgh is ready for takeoff

Tata Harper, cofounder and co-CEO of Tata Harper, shares her media diet

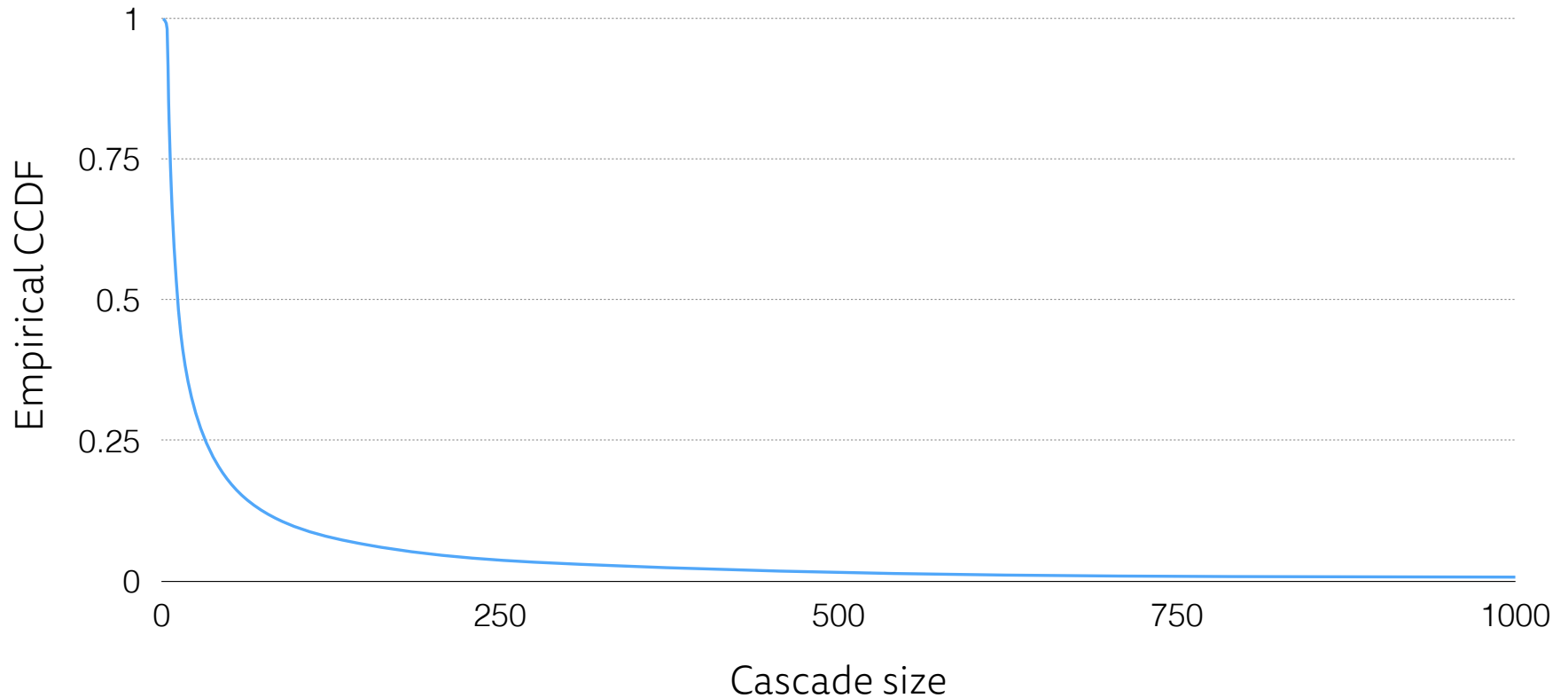
The song that Ceremonia founder Babba Rivera plays for a mellow morning

# Summary

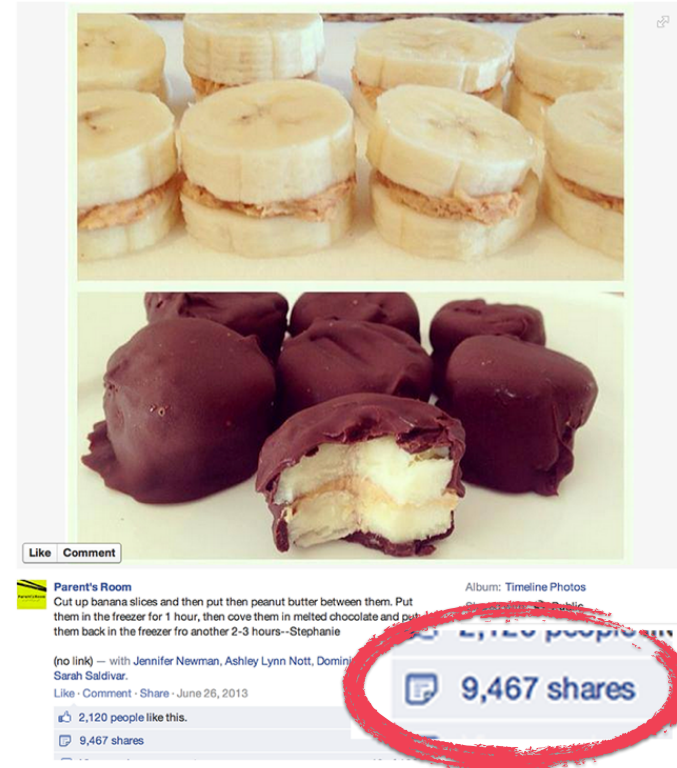
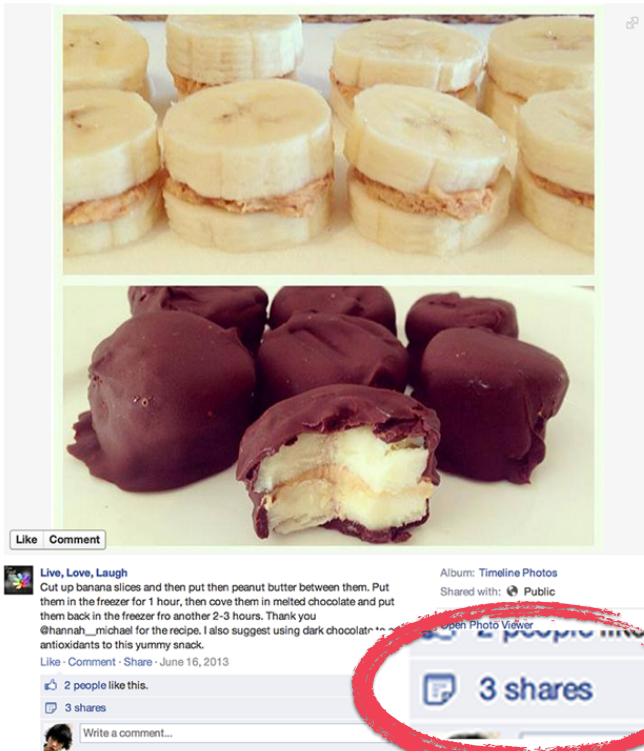
- Diffusion of URLs on Twitter
  - Easy to be traced back to the originating user through the follower graph



## Difficulty #1 Large cascades are rare



## Difficulty #2 Same content, different popularity



What intuition may explain why large number of followers does not necessarily imply greater influence?