

#Privacy #Security #OnlineSocialMedia

Introductory Lecture
Jan 21, 2021

Ponnurangam Kumaraguru (“PK”)
#ProfGiri CS, #DeanGiri Student Affairs IIIT Delhi
ACM India Council Member
TEDx & ACM Distinguished Speaker

A Course on

Privacy & Security in Online Social Media

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Register at

precog.iiitd.edu.in/psosmonnpTEL

Instructed by

Ponnurangam Kumaraguru (“PK”)

For any further questions or
clarifications write to pk@iiitd.ac.in

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Stay updated  @ponguru  @pkatiitd



NEW CONTENT

DURATION

JAN- APR 2021

MODE OF INSTRUCTION

ONLINE



Top performers in the course can explore opportunities to work with PK

PRIVACY & SECURITY
IN
ONLINE SOCIAL MEDIA

Registration in first week of May
onlinecourses.nptel.ac.in

Watch the teaser video at
<https://youtu.be/wsuTBfmV3bI>

Instructed by
Ponnurangam K (PK)

Mode of Instruction
Online

Duration
July-September 2016

Physical interactions at
IIT-Delhi



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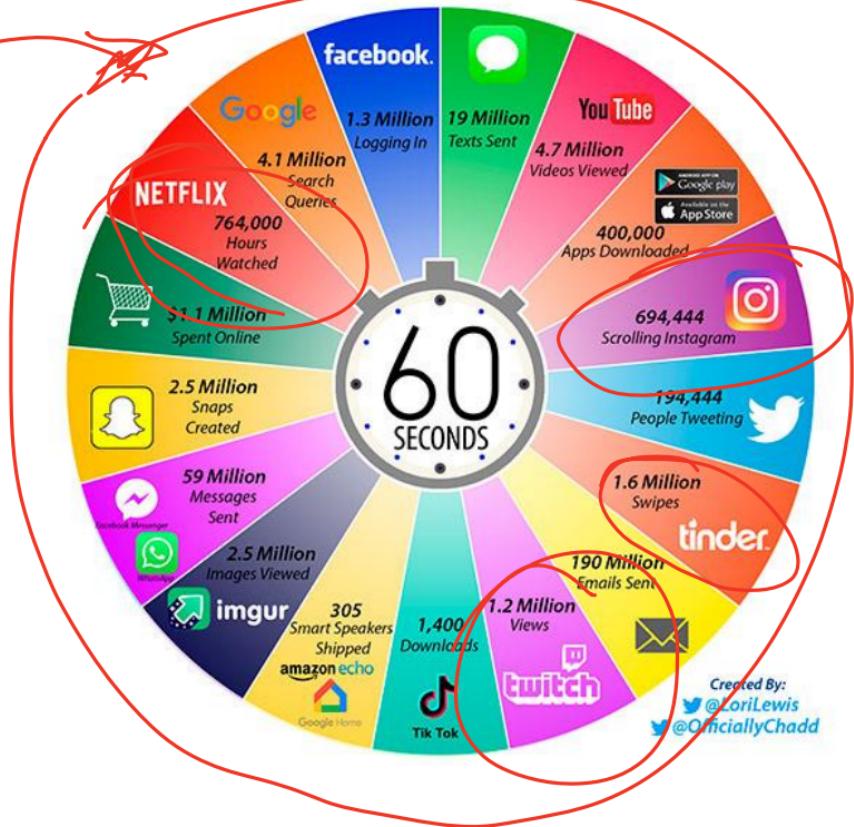
(i) For more information, email:
pk@iitd.ac.in

Stay updated by following PK
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2019 *This Is What Happens In An Internet Minute*



2020 *This Is What Happens In An Internet Minute*





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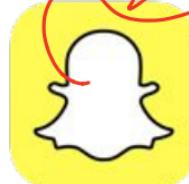
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Lets discuss this 3 words in the title of the course

- Privacy

Intosnation
Physical
watching me

Lets discuss this 3 words in the title of the course

- Security

Lets discuss this 3 words in the title of the course

- Online Social Media

Now lets see

- Privacy + Security + Online Social Media

TAs → Teaching Assistant
Neha Kumari, PhD Student
Avinash Tulasi, PhD Student
Prashant Kodali, PhD Student

Hitchhiker

Live / Online Lecture tomorrow in the evening? If interested, please +1 to this email.
Thanks.

53 views



Ponnurangam Kumaraguru

To develop more excitement around the course, to show / discuss some interesting topics, I was

Jan 20, 2021, 10:16:52 PM (yesterday)



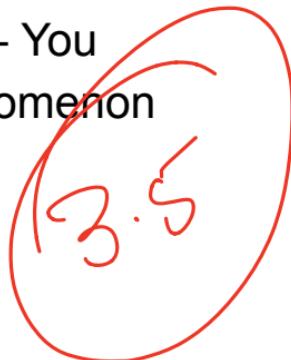
Six degrees of separation

Network Science

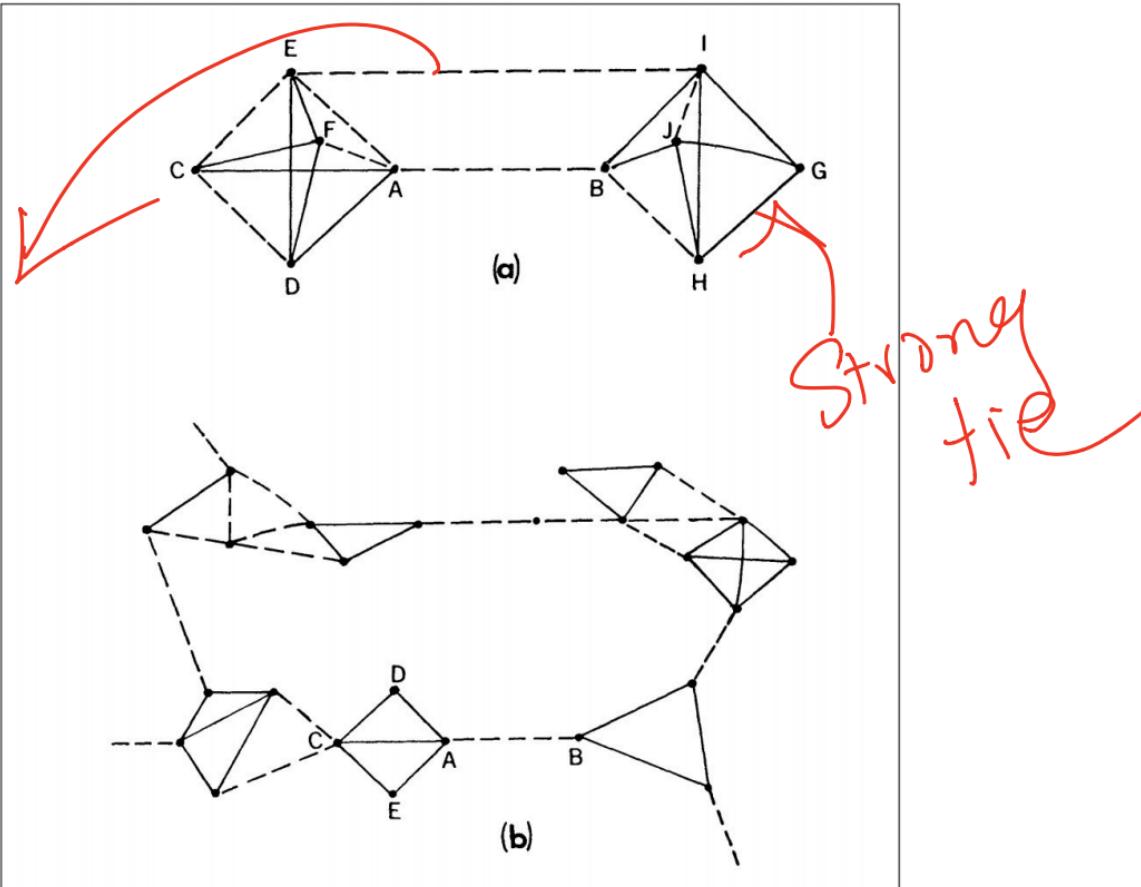


Six degrees of separation

- Random person -- You
- Small world phenomenon
- Facebook?



3.5



The Strength of Weak Ties¹

Mark S. Granovetter

Johns Hopkins University

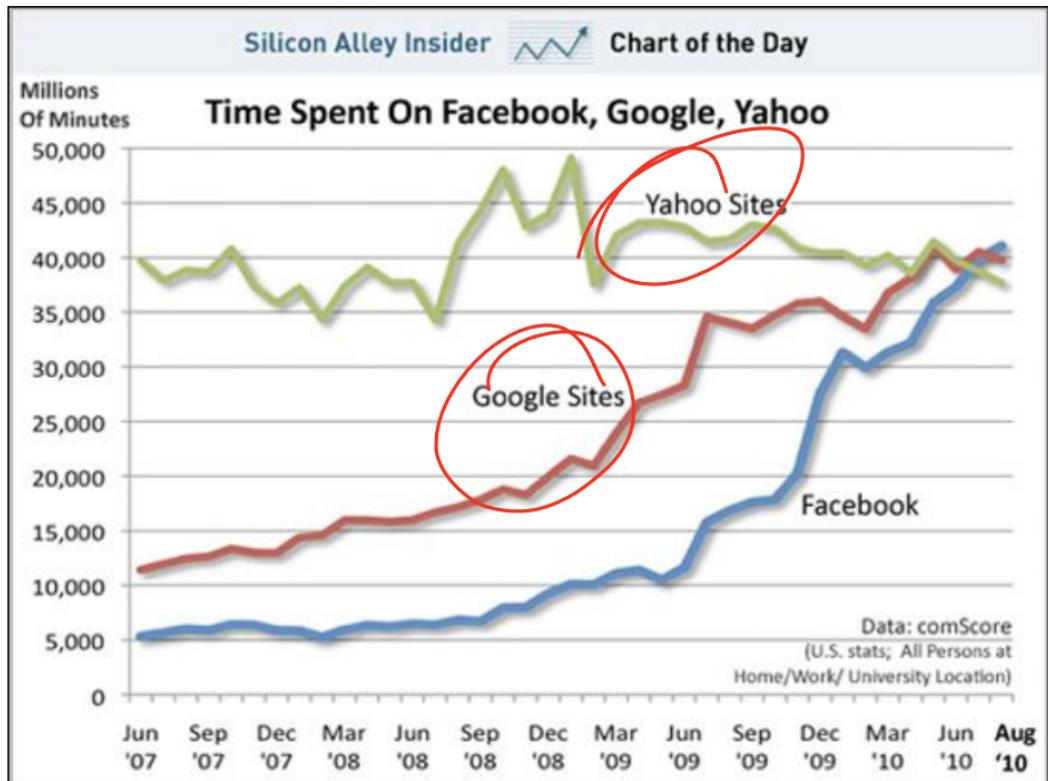
Analysis of social networks is suggested as a tool for linking micro and macro levels of sociological theory. The procedure is illustrated by elaboration of the macro implications of one aspect of small-scale interaction: the strength of dyadic ties. It is argued that the degree of overlap of two individuals' friendship networks varies directly with the strength of their tie to one another. The impact of this principle on diffusion of influence and information, mobility opportunity, and community organization is explored. Stress is laid on the cohesive power of weak ties. Most network models deal, implicitly, with strong ties, thus confining their applicability to small, well-defined groups. Emphasis on weak ties lends itself to discussion of relations *between* groups and to analysis of segments of social structure not easily defined in terms of primary groups.



Velocity
Variety
Volume
Verbosity
Value

4 (5) V's of Social Media?

Growth of Social Media



History of Social Media



A photograph showing a US Airways airplane partially submerged in the Hudson River after a water landing. Passengers are seen in small boats and rafts being evacuated from the aircraft. The New York City skyline is visible in the background under a cloudy sky.



jkrums

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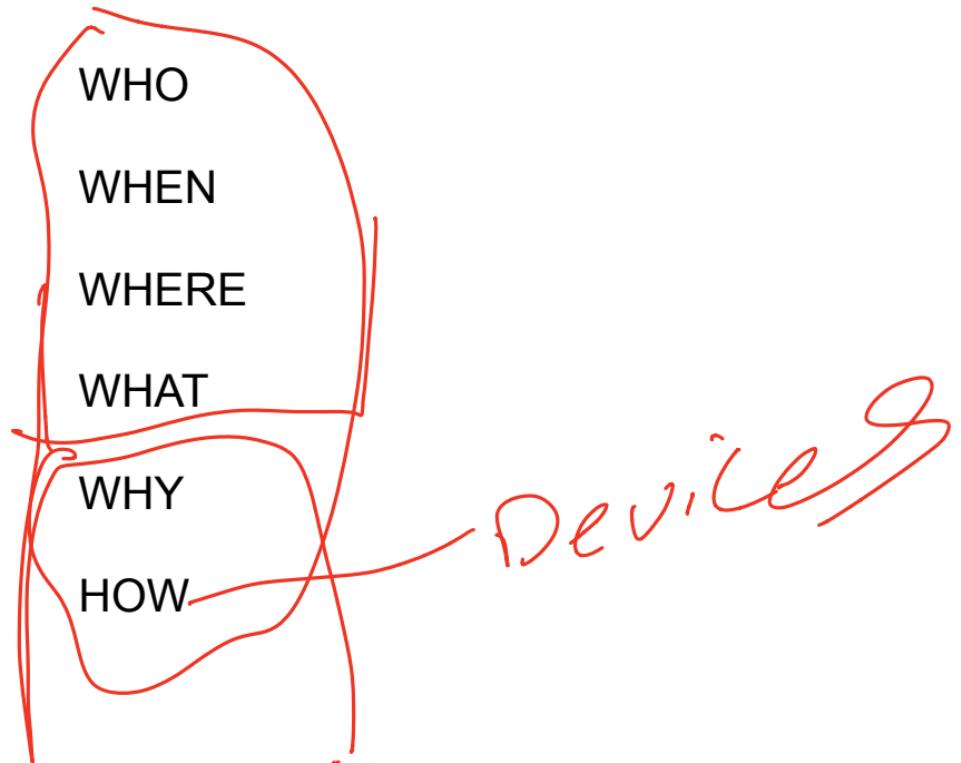
<http://twitpic.com/135xa> - There's a plane in the Hudson. I'm on the ferry going to pick up the people. Crazy.

What is a #? Why use it?

SEO Traffic
#BLQ

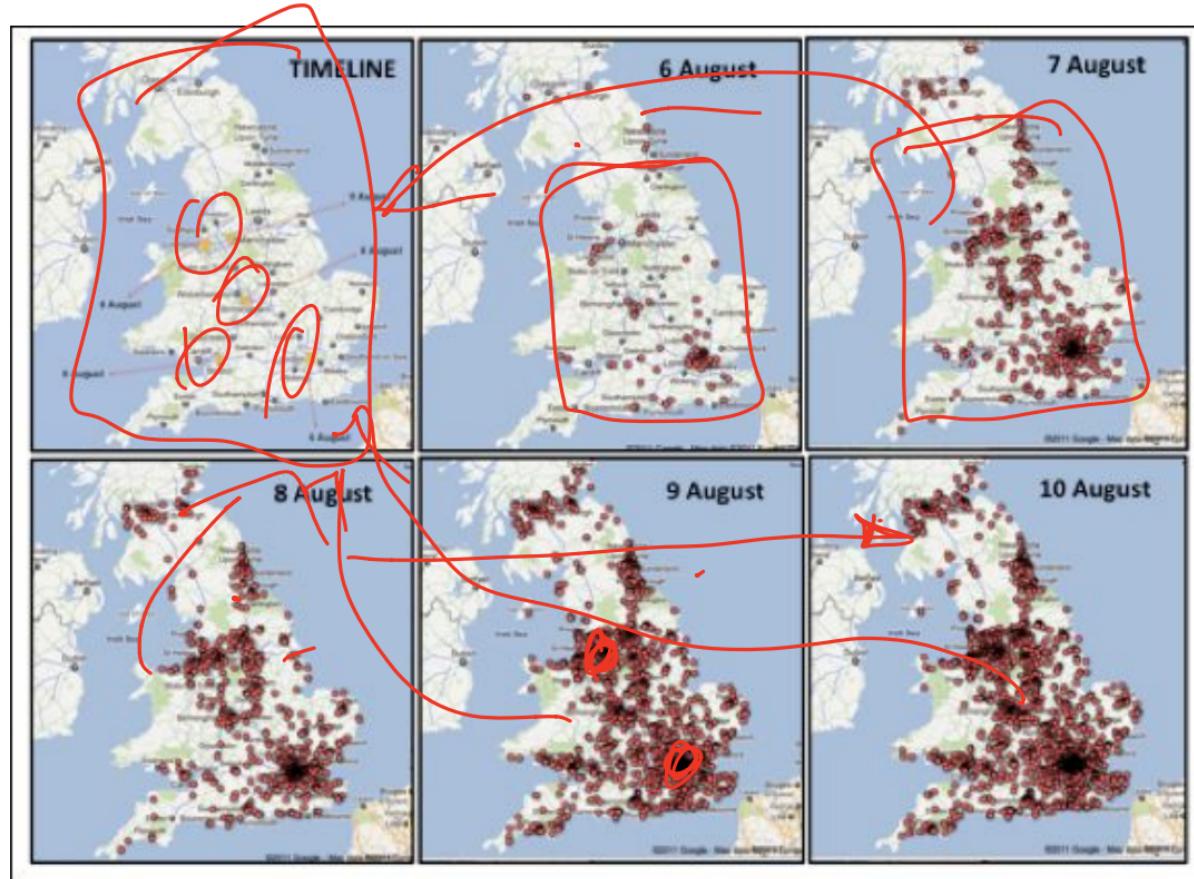
1. #love
2. #instagood
3. #photooftheday
4. #fashion
5. #beautiful
6. #happy
7. #cute
8. #tbt
9. #like4like
10. #followme
11. #picoftheday
12. #follow
13. #me
14. #selfie
15. #summer
16. #art
17. #instadaily
18. #friends
19. #repost
20. #nature
21. #girl
22. #fun
23. #style
24. #smile
25. #food

From Social Media Data



Potential Vision

~~Minor Hotel Report~~
~~Accident Log~~



Case Studies

2012 Delhi gang rape

From Wikipedia, the free encyclopedia

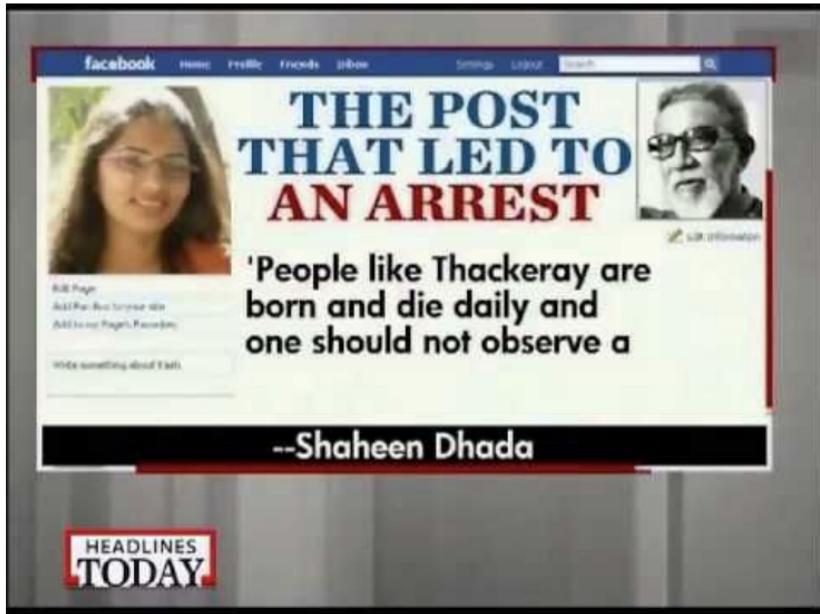
The **2012 Delhi gang rape** case involved a **rape** and fatal assault that occurred on 16 December 2012 in **Munirka**, a neighbourhood in **South Delhi**. The incident happened when a 23-year-old female **physiotherapy** intern, Jyoti Singh Pandey^[2] was beaten and **gang raped** in a private bus in which she was travelling with a male friend, Awindra Pratap Pandey. There were six others in the bus, including the driver, all of whom raped the girl and beat her friend. Thirteen days after the assault, she was transferred to a hospital in **Singapore** for emergency treatment, but died from her injuries two days later.^{[3][4]} The incident generated widespread national and international coverage and was widely condemned, both in India and abroad. Subsequently, public protests against the **state** and **central** governments for failing to provide adequate security for women took place in New Delhi, where thousands of protesters clashed with security forces. Similar protests took place in major cities throughout the country. Because India does not allow the press to publicize a rape victim's name, the victim has become widely known as Nirbhaya, meaning "fearless", and her life and death have come to symbolize women's struggle to end rape and the long-held practice of blaming the victim rather than the perpetrator.

Case Studies

Arias Spring



Case Studies: Bal Thackeray



Facebook post on Shiv Sena Chief Bal Thackeray: Girl says she will not visit FB, 9 held for vandalism

Shaheen Dhada and Renu were arrested for posting comments opposing the Mumbai shutdown. However, they were granted bail after they furnished personal bonds, police said.

TNN | Updated: Nov 20, 2012, 06.41 PM IST



MUMBAI/DELHI: One of the girls held for posting comments on Facebook questioning the shutdown in Mumbai for Shiv Sena Chief Bal Thackeray's funeral today said she will never again visit the social networking site while police arrested 9 Shiv Sainiks for vandalising her uncle's clinic.

Case Studies: Shami Witness

The image shows a Twitter profile for the account @ShamiWitness. The profile features a large, bold graphic where the words "SHAMI" and "WITNESS" are stacked vertically. The "A" in "SHAMI" and the "I" in "WITNESS" overlap. To the left of the graphic is a small black and white portrait of a person with short hair. Below the graphic, the account name "Shami Witness" and the handle "@ShamiWitness" are displayed. The Twitter interface includes standard metrics: 129K tweets, 807 following, 17.7K followers, 17.5K favorites, and 2 lists. There are buttons for "Follow" and "Settings". Below the main header, there are tabs for "Tweets", "Tweets & replies", and "Photos & videos", with "Tweets" being the active tab. A "Pinned Tweet" section is visible. On the right side, there is a "Who to follow" sidebar with a link to "View all" and a single suggestion for "Raghav Bahl" (@Raghav...).

TWEETS 129K FOLLOWING 807 FOLLOWERS 17.7K FAVORITES 17.5K LISTS 2

[Follow](#)

[Who to follow · Refresh · View all](#)

Raghav Bahl (@Raghav...)

Case Studies: UK Riots

the guardian

UK riots 'made worse' by rolling news, BBM, Twitter and Facebook

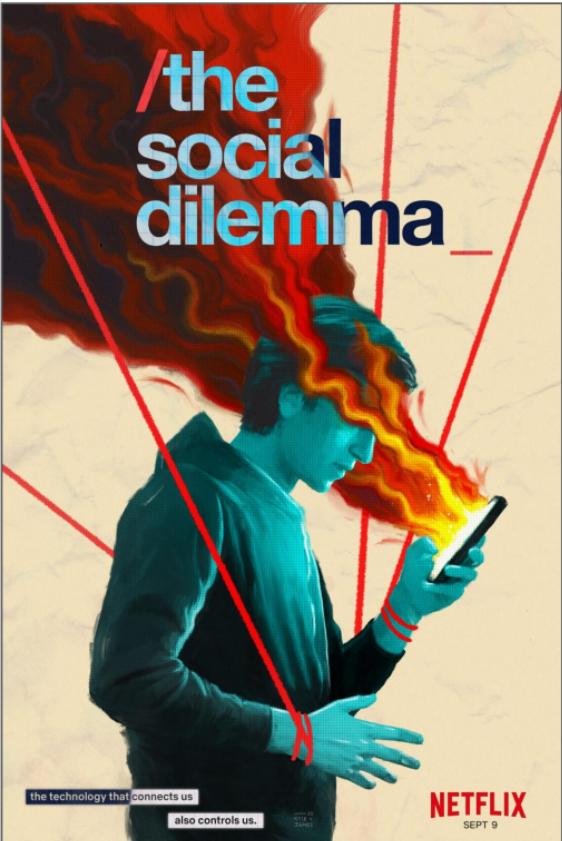
Government panel says disorder was fuelled by TV and social media but warns against closing social networks during unrest

Josh Halliday

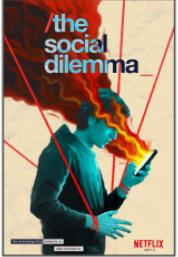
guardian.co.uk, Wednesday 28 March 2012 11.16 BST



Viral violence: Facebook and other social media blamed for inciting unrest during the UK riots. Photograph: Matthew



Source: Netflix



Source:
Netflix

- X Good aspects of Now → (+)ives.
- X How you release & How it's expected to go.
- X False News with consequences
- X Hacking epidemic in case of fake News.
- X Tools defining the Social fabric.
- X Selling users.
- X if you are paying for the Product, you are the Product
 - ↳ Change in your own behavior & perception of the product
- X engagement growth advt. Grabs
- X growth hacking
- X depression increased.
- X Destabilize the fabric of Society

The Great Hack

<https://www.netflix.com/title/80117542>



Congress - Marc Zuckerberg



<https://www.youtube.com/watch?v=t-IMIGV-dUI>

Shadow Profiles

A
B
C
JX
Insta



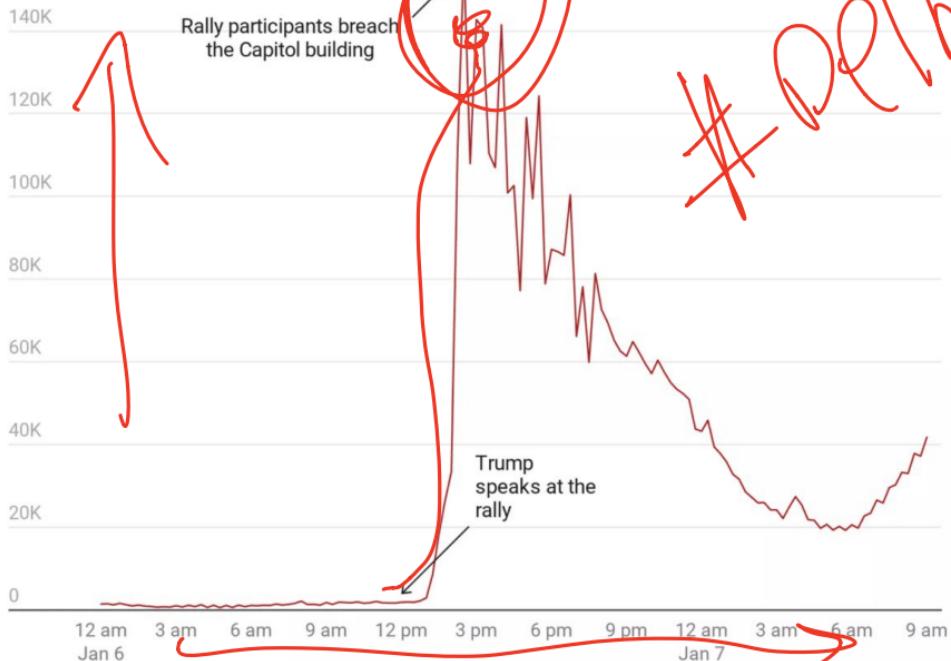
<https://www.youtube.com/watch?v=JiTQkbLzKUc>



Supporters of President Donald Trump after they stormed the Capitol building in Washington, Jan. 6, 2021. Republicans who spent years putting off a reckoning with Trump's behavior are now confronting the prospect that the storming of the Capitol by his supporters could linger for decades as a stain on the party. (Jason Andrew/The New York Times)

<https://indianexpress.com/article/world/us-capitol-hill-siege-live-updates-7139212/>

Mentions of unrest jumped after Trump's "Save America" rally speech



Zignal Labs tracked mentions of unrest-related terms like "storm the Capitol" on social media and across the internet.

Source: Zignal Labs

recode BY Vox

<https://www.vox.com/recode/22221285/trump-online-capitol-riot-far-right-parler-twitter-facebook>

Capitol (Pat)riots: A comparative study of Twitter and Parler

HITKUL, IIIT - Delhi, India

AVINASH PRABHU*, DIPANWITA GUHATHAKURTA*, JIVITESH JAIN*, MALLIKA SUBRAMANIAN*, MANVITH REDDY*, SHRADHA SEHGAL*, and TANVI KARANDIKAR*, IIIT - Hyderabad, India

AMOGH GULATI* and UDIT ARORA*, IIIT - Delhi, India

RAJIV RATN SHAH, IIIT - Delhi, India

PONNURANGAM KUMARAGURU, IIIT - Delhi, India

On 6 January 2021, a mob of right-wing conservatives stormed the USA Capitol Hill interrupting the session of congress certifying 2020 Presidential election results. Immediately after the start of the event, posts related to the riots started to trend on social media. A social media platform which stood out was a free speech endorsing social media platform Parler; it is being claimed as the platform on which the riots were planned and talked about. Our report presents a contrast between the trending content on Parler and Twitter around the time of riots. We collected data from both platforms based on the trending hashtags and draw comparisons based on *what* are the topics being talked about, *who* are the people active on the platforms and how *organic* is the content generated on the two platforms. While the content trending on Twitter had strong resentments towards the event and called for action against rioters and inciters, Parler content had a strong conservative narrative echoing the ideas of voter fraud similar to the attacking mob. We also find a disproportionately high manipulation of traffic on Parler when compared to Twitter.

Additional Key Words and Phrases: Social Computing, Data Mining, Social Media Analysis, Capitol Riots, Parler, Twitter

1 INTRODUCTION

Misinformation of the United States of America's presidential election results being fraudulent has been spreading across the world since the elections in November 2020.¹ Public protests and legal cases were taking place across

What you should aim as part of the course?

Try out all labs and exercise that we are posting

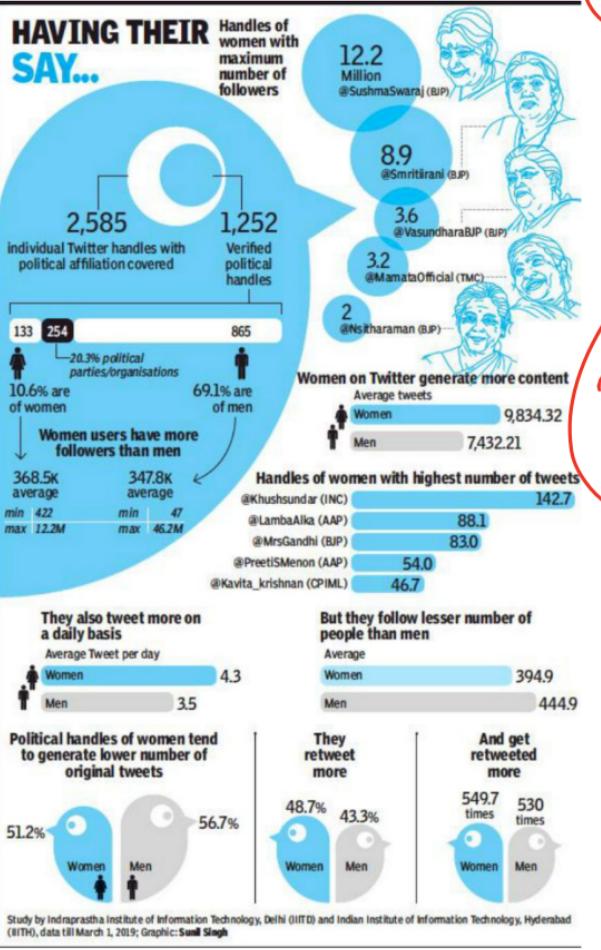
TAs will have Office hours, please attend them

I am planning to do some similar Live / Online lecture through the semester,
please attend

Be active on the mailing, I plan to use them to inject lot of ideas, and thoughts

MLP
Network

HAVING THEIR SAY...



Chowkidar? India's Got Quite A Few Of Them

To be or not to be a chowkidar has never been such a politically loaded question as it is. From the opposition pushing for a change of guard and the PM and his Cabinet embracing it to the media's fascination with the term, it's clear that the political class has embraced the term. In fact, it's been adopted by a host of other sectors, from the private to the public, and even the unorganised.

India has one of the highest ratios of security guards to cops

Country	Ratio
India	83:1
South Africa	71:29
US	71:29
Japan	65:35
China	65:35
UK	61:39
US	58:42
Russia	57:43
Germany	50:50

One factor behind India having a large pool of private security guards could be the low police-to-people ratio in the country, which has 150 police personnel for every 100,000 people

CATEGORY/NO. OF GUARDS

Category	No. of Guards	Salary
Top 10 players 5-6 lakh	5-6 lakh	₹8,000-₹9,000
Other organised 8-9 lakh	8-9 lakh	₹7000-₹8,000
Unorganised 46-49 lakh	46-49 lakh	₹4,000 approx

Meanwhile, 'chowkidar' is trending on social media

30% of a total of 1,268 verified political accounts on Twitter have added Chowkidar to their handles, including, surprisingly, three Congress handles which later changed it

229,364 followers added Chowkidar to their name, including, surprisingly, three Congress handles which later changed it

404,006 tweets contained the hashtag #MainBhiChowkidar with 130,290 handles posting these tweets

Source: Ficci, PwC, E&Y, IIIT, Media reports

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NEWS / CITY NEWS / DELHI NEWS / POLITICS / GET A HANDLE ON THIS: WOMEN CALLING POLL SHOTS ON TWITTER

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EXPAND THINK HOME LOAN. THINK ICICI BANK KNB

Get a handle on this: Women calling poll shots on Twitter

Mohammad Ibrar | TNN | Updated: Mar 21, 2019, 08:04 IST

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 Representative image

NEW DELHI: It is politically prudent perhaps to give women their place in politics. After all, as research with Twitter data shows, handles of women on the platform have more followers on average than men and these handles also generate more content than men do. And even if the handles of women produce less original content, their retweets and engagement are high on Twitter, making them an asset for political parties especially in the coming general elections.

PM Modi loses 100,000 followers, Rahul 9,000 in November Twitter drive

Twitter had carried out a similar exercise globally in July last year which saw the prime minister's follower count going down by around 3 lakh

Neha Alawadhi | New Delhi
Last Updated at February 11, 2019 09:07 IST



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Battleground Twitter: Verified political handles up 1,663% in 5 yrs

**CHIRPING
AHEAD...**

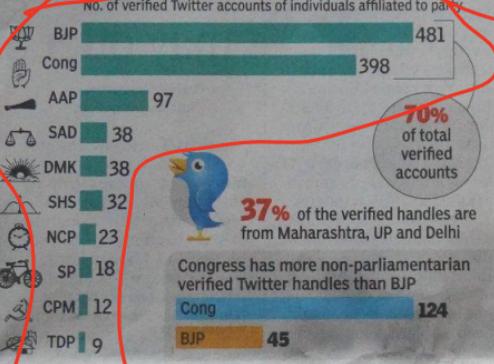
No. of verified
Twitter accounts

71
Till 2014
election

1,252

Till Mar 4,
2019

IN 2018, CONG CREATED 41 TWITTER HANDLES IN A SINGLE DAY THAT GOT VERIFIED



Mohammad.Iibrar
@timesgroup.com

rified handles originated in Maharashtra, Uttar Pradesh and Delhi, making them the hub of online realpolitik.

The research was initiated in IIIT-D in September 2018 by eight students and a principal researcher to assess the impact of social media on the 2019 general elections. "We analysed over 21 million posts by roughly a million handles since the 2014 Lok Sabha polls," said Ponnurangam Kumaraguru, associate professor in both the institutions.

Research conducted by students and scholars at the Indraprastha Institute of Information Technology (IIIT), Delhi, and the International Institute of Information Technology, Hyderabad, also found that 37% of the ve-

we have been collecting data for these handles from late 2018 through the Twitter Application Programming Interface," Kumaraguru said.

He said that of the chosen handles, 1,252 political handles were found to be verified. "It is interesting to see such a large number of verified accounts for this year's election," the professor said. "In comparison, when we analysed the Twitter data for the 2014 elections, we found only 71 verified Indian political handles. This shows how big a jump there has been in the number of such handles."

Kumaraguru said that the team also examined the handles for their state representa-

tion, party affiliation and Lok Sabha / Rajya Sabha affiliations. "We found that more than 70% of the verified accounts of BJP and Congress accounts put together. If AAP is included, the figure goes up to 78%," he explained. "This indicates social media is important for the national parties. We are keen to analyse the data to study interesting patterns like diversity of topics and the manner in which the campaigns are carried out."

Congress, which has lagged BJP on social media, picked up its game last year when its leaders created 35 new Twitter handles in a single day and which were later verified.

Picture time!

Thanks for attending the class!



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<http://precog.iitd.edu.in/>



@ponguru