

Privacy and Security in Online Social Media

Course on NPTEL

NOC21-CS28

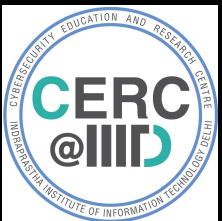
Week 3.2

Ponnurangam Kumaraguru (“PK”)

Full Professor

ACM Distinguished Speaker

fb/ponnurangam.kumaraguru, @ponguru



App details

- API Key
- API Secret
- Access token



Tutorial: Twitter API



Topics that we will cover

- Overview of OSM
- Linux / Python / Twitter API / Mongo DB / MySQL
[Hands-on]
- **Trust & Credibility**
- Privacy
- Social Network Analysis, NLTK [Hands-on]
- e-crime
- Plotly / Highcharts / Geo-location analysis
[Hands-on]
- Policing
- Identity resolution
- What next – Deep learning, machine learning, NLP, Image analysis

How do we define privacy?



Westin's 3 categories

- Fundamentalists, 25%
- Pragmatists, 60%
- Unconcerned, 15%



You thought that on the Internet nobody knew you were a dog...



...but then you started getting personalized ads for your favorite brand of dog food

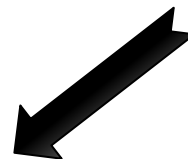
#privacyindia12 Methodology



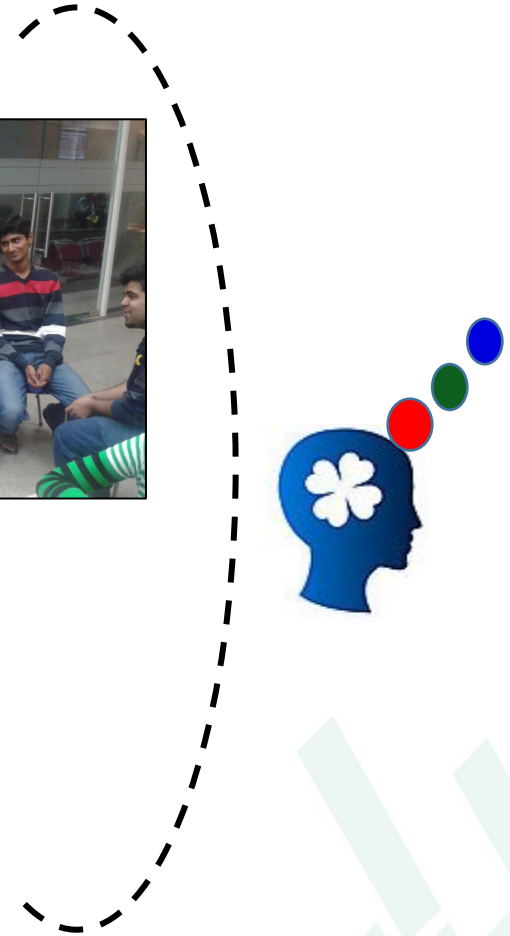
20 Interviews



4 FGDs

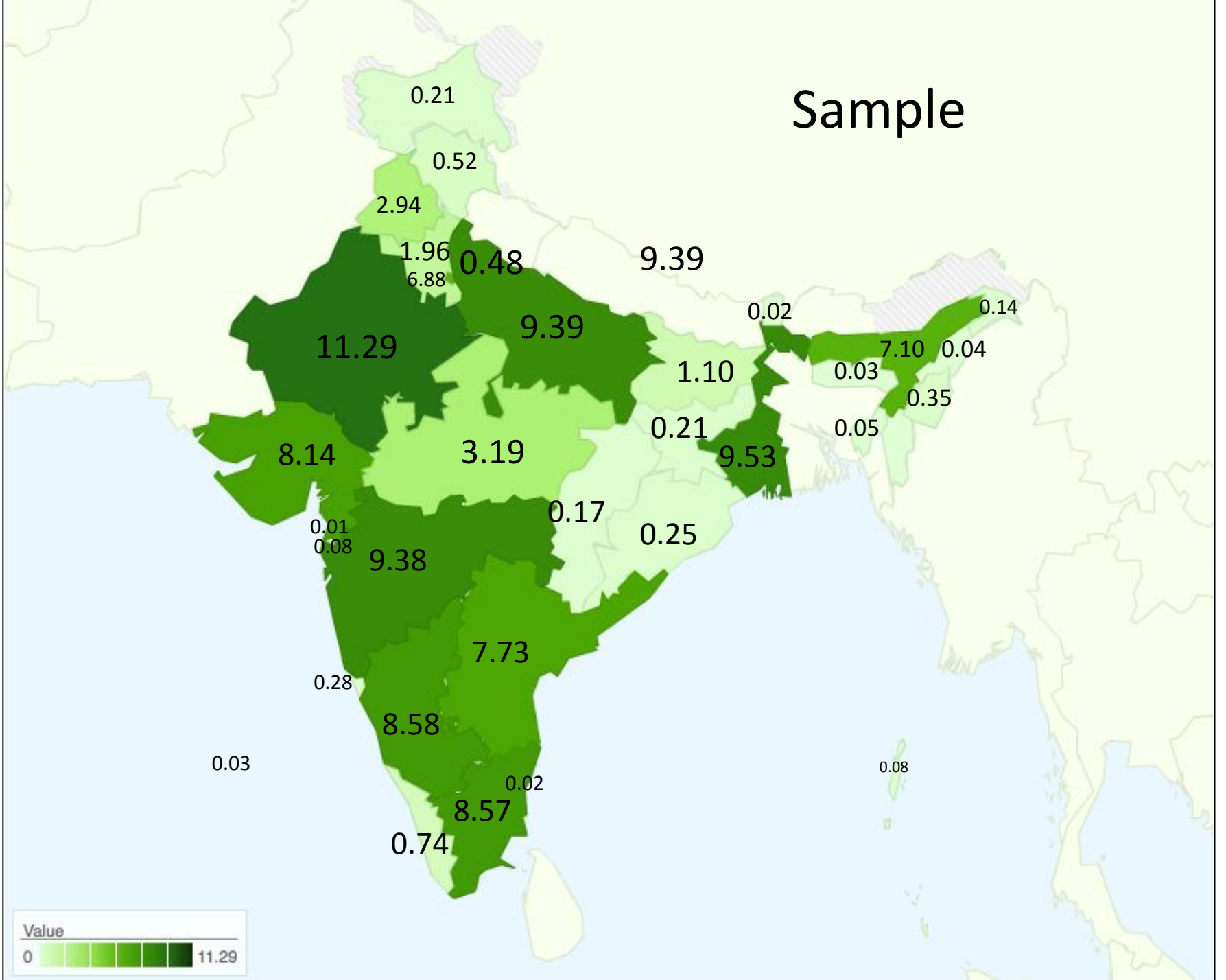


10,427 Surveys



18 months!

Sample



Demographics

| Age (N=10,350) | |
|---------------------------|-------|
| <18 | 1.54 |
| 18-24 | 21.31 |
| 25-29 | 32.20 |
| 30-39 | 25.90 |
| 40-49 | 14.09 |
| 50-64 | 4.46 |
| 65+ | 0.50 |

| Gender (N= 10,232) | |
|---------------------------|-------|
| Male | 67.57 |
| Female | 32.43 |

Internet & Social Media

What do you feel about privacy of your personal information on your OSN?

| | Q42, N = 6,855 |
|--|----------------|
| It is not a concern at all | |
| Since I have specified my privacy settings, my data is secure from a privacy breach | |
| Even though, I have specified my privacy settings, I am concerned about privacy of my data | |
| It is a concern, but I still share personal information | |
| It is a concern; hence I do not share personal data on OSN | |

Internet & Social Media

What do you feel about privacy of your personal information on your OSN?

| Q42, N = 6,855 | |
|--|-------|
| It is not a concern at all | |
| Since I have specified my privacy settings, my data is secure from a privacy breach | 42.13 |
| Even though, I have specified my privacy settings, I am concerned about privacy of my data | |
| It is a concern, but I still share personal information | |
| It is a concern; hence I do not share personal data on OSN | |

Internet & Social Media

What do you feel about privacy of your personal information on your OSN?

| | Q42, N = 6,855 |
|--|----------------|
| It is not a concern at all | 19.30 |
| Since I have specified my privacy settings, my data is secure from a privacy breach | 42.13 |
| Even though, I have specified my privacy settings, I am concerned about privacy of my data | 23.84 |
| It is a concern, but I still share personal information | 8.02 |
| It is a concern; hence I do not share personal data on OSN | 6.71 |

Internet & Social Media

If you receive a friendship request on your most frequently used OSN, which of the following people will you add as friends?

| Q43, N = 6,929 | |
|---|--|
| Person of opposite gender | |
| People from my hometown | |
| Person with nice profile picture | |
| Strangers (people you do not know) | |
| Somebody, whom you do not know or recognize but have mutual / common friends with | |
| Anyone | |

Internet & Social Media

If you receive a friendship request on your most frequently used OSN, which of the following people will you add as friends?

| Q43, N = 6,929 | |
|---|-------|
| Person of opposite gender | |
| People from my hometown | |
| Person with nice profile picture | 10.12 |
| Strangers (people you do not know) | |
| Somebody, whom you do not know or recognize but have mutual / common friends with | |
| Anyone | |

Internet & Social Media

If you receive a friendship request on your most frequently used OSN, which of the following people will you add as friends?

| Q43, N = 6,929 | |
|---|-------|
| Person of opposite gender | 27.39 |
| People from my hometown | |
| Person with nice profile picture | 10.12 |
| Strangers (people you do not know) | |
| Somebody, whom you do not know or recognize but have mutual / common friends with | |
| Anyone | 2.99 |

Internet & Social Media

If you receive a friendship request on your most frequently used OSN, which of the following people will you add as friends?

| Q43, N = 6,929 | |
|---|-------|
| Person of opposite gender | 27.39 |
| People from my hometown | 19.51 |
| Person with nice profile picture | 10.12 |
| Strangers (people you do not know) | 4.99 |
| Somebody, whom you do not know or recognize but have mutual / common friends with | 8.31 |
| Anyone | 2.99 |

<http://precog.iiitd.edu.in/research/privacyindia/>

Different types of Privacy issues in FB?



Thank you

pk@iiitd.ac.in

precog.iiitd.edu.in

fb/ponnurangam.kumaraguru