Privacy in India: Attitudes and Awareness V 2.0

Ponnurangam Kumaraguru ("PK") Niharika Sachdeva

> PreCog-TR-12-001 Nov 22, 2012

Indraprastha Institute of Information Technology, Delhi Okhla New Delhi, 110 020

©2012 PreCog All rights reserved

This research was partially funded by International Development Research Centre (IDRC), Canada entitled "Privacy in India." Any opinions, findings, conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of the funding agencies and others who supported the study. For any inputs / feedback / clarifications / correspondence, write to pk@iiitd.ac.in.



Privacy is the claim of individuals, groups or institutions to determine for themselves when, how, and to what extent information about them is communicated to others.

... each individual is continually engaged in a personal adjustment process in which he balances the desire for privacy with the desire for disclosure and communication ...

 \sim Dr. Alan Westin, Privacy and Freedom, 1967

Acknowledgments

Given that our work on "Privacy in India: Attitudes and Awareness" received a warm welcome among the community in 2005 and thereafter, we were always keen to do a larger study to understand the privacy perceptions of people in India and create a bench-mark for empirical data for the same. We would like to thank International Development Research Centre (IDRC), Canada for supporting the research through a Pan-South-Asia project on privacy. We would personally like to thank Vickram Crishna for inviting PK to write a proposal on this topic, while PK was still a graduate student at Carnegie Mellon University, USA. Thanks to Gus Hosein from Privacy International / London School of Economics to work closely with us throughout the project and giving us valuable inputs as and when needed.

There are many many people who have helped us in formalizing this study, and collecting data. Thanks to Supriya Singh to review the first draft of the protocol for the interviews and focus group discussions. We would like to thank all the members of PreCog who have given us continued support throughout the project; special thanks to Aditi Gupta, Srishti Gupta, Siddhartha Asthana, Deepansha Sachdeva and Anuradha Gupta. Many others around the country have helped us with data collection, we hope, we have covered you here, if we miss, it is totally because of our mistake: Nandkumar Saravade, Sucheta Dalal, Nagarjuna Gadiraju, Ravi Singh Pippal, Shashikala Tapaswi, Dharma Prakash, Shyam Sundar, Divya Bansal, Lakshmi Santhanam, Sunil Abraham, members of Advisors Council of CSO Forum, NASSCOM, DSCI, Raghu Raman, Burgess Cooper, Anuradha Das Mathur, members of the Pan-South-Asia privacy project. We thank Mala Bhandari for conducting the initial studies and focus group discussions. We thank our family members for being with us for this endeavor.

Even though others have contributed to this work, we are responsible for the content, conclusions, errors, or omissions in this report.

Contents

1	Exe	ecutive Summary	2
2	Inti	roduction	5
	2.1	India today	5
	2.2	Cultural status of privacy in India	5
	2.3	Motivation and rationale	7
	2.4	Methodology	7
	2.5	Main contributions	7
3	Inte	erviews	8
	3.1	Interview sample	8
	3.2	Interview methodology	8
	3.3	Interview conclusions	9
4	Foc	eus Group Discussions	12
	4.1	FGD sample	12
	4.2	FGD methodology	12
	4.3	FGD conclusions	13
		4.3.1 Inferences from the discussion	13
		4.3.2 Marking information as personally identifiable information	15
		4.3.3 Marking Facebook privacy settings	15
5	Sur	rvey 1	L 9
	5.1	Survey sample	19
	5.2	Survey methodology	19
	5.3	Survey conclusions	20

6	Conclusions	48
7	Appendixes	52

List of Figures

3.1	One of the interviews that we conducted in Delhi	10
4.1	One of the focus group discussions (18 – 24 years group)	14
4.2	General privacy settings in Facebook	16
4.3	Advanced privacy settings in Facebook	16
4.4	Request for permissions by a Facebook application	18

List of Tables

3.1	Demographics of the participants in the interviews	9
4.1	Gender and education characteristics of the participants in the Focus Group Discussions (FGD)	13
4.2	Percentage of participants marking the data as Personally Identifiable Information (PII)	17
4.3	Percentage of participants marking the data as Personally Identifiable Information (PII)	18

Chapter 1

Executive Summary

India, world's largest democracy, has witnessed enormous development in information technology over past few years. It has become a necessity to share personal information for every service, from getting a mobile phone connection to registering for online banking. India being a collectivist society (one of the developing countries part of BRIC ¹ nations), has different expectations of privacy than other developed nations. The concept of privacy in India has not been investigated in detail, and we also lack empirical data with respect to privacy perceptions among Indian citizens. Recent developments in the Indian scenario e.g. privacy bill, UID project signify a need for privacy awareness and understanding in Indian masses. It is also important for policy makers to comprehend sentiments and opinion of masses for structuring effective laws and policies for the citizens of India. Our study focuses on understanding privacy perceptions and expectations of Indian citizens. In the first phase, we conducted interviews among 20 participants and 4 focus group discussions with 31 participants, to collect qualitative data about the privacy perceptions. In the second phase, we developed a survey questionnaire to collect quantitative data. We collected responses (10,427) from various cities in India. We hope the understanding developed through the responses collected during the study, helps decision makers and technology developers in producing customizable solutions and laws for Indian users. Also, it will help us in identifying conflicting nature of users in their expectations and practices on privacy matters.

Key takeaways from this research work are stated below; these are drawn from the interviews, focus group discussions, and surveys that we conducted to study the privacy perceptions in India. As far as our knowledge goes, this is the largest ever study on privacy perceptions in India, we also believe that, this is the case around the world too. ²

• General Privacy:

- Participants related to communication privacy and Internet privacy mostly, when asked about the first reactions for the word "privacy." Participants showed more concerns

¹BRIC is an acronym which refers to the four countries - Brazil, Russia, India and China

²The main intent for this technical report is to give the raw data that we collected, and some preliminary analysis without delving deeper into the analysis and implications of the conclusions. We hope the reader will read the report by referring to the appropriate appendixes, as referred in the report. We are working on an academic paper with this data.

- about privacy through mobile phones, and Internet than other forms of privacy issues (physical, territorial, work place, etc.).
- Majority of the participants felt passwords to be the most protected Personally Identifiable Information (PII) and then, financial information (bank, credit card details). In comparison to this, religion, mobile phone number, and health related information were rated as less protected PII.
- Privacy awareness about issues in public places was low. Participants were not aware of various privacy issues related to cameras in public places, and others taking pictures in public places.

• Mobile Phones:

- Mobile phones are becoming the next destination for storing private information. Participants stored personal information like passwords, credit card numbers, Permanent Account Number (PAN), PINs, etc. Privacy seems to be the primary concern for not storing personal information on the mobile phones for the rest.
- Majority of the participants felt comfortable with the protection provided by the mobile service providers.
- Most participants tend to delete the information on phone (e.g. contacts, messages, videos, audios, etc.) before discarding the devices.
- Privacy invasion through somebody specifically taking picture of the individual is of more concern than pictures / videos taken through CCTV and the likes.

• Internet and Online Social Media:

- About 40% of the participants would never save / share personal information in / through emails. Privacy seems to be the primary reason for this behavior.
- Survey participants were more aware about privacy policies and tend to read these policies more than the earlier study in 2004.
- Minority of the participants had "no privacy concerns" with online social networks.
 Majority of the participants felt pictures to be the most privacy invasive data on the OSNs.
- About 5% of the survey participants tend to accept friend requests from strangers or people whom they dont know, but just have common friends. This behavior seems to be same even with the third party applications.

• Financial Privacy:

- Participants were aware of privacy issues related to financial data; thanks to various financial frauds and thefts that has created the awareness.
- About 15% of the survey respondents felt that the credit cards should display personal information like name, date of birth, and phone number.
- About 80% of the survey respondents were aware of identity theft issue through credit cards.

• Government:

- Citizens have misinformed mental models of the privacy situation; e.g. Participants felt there were privacy laws where as there is no privacy law in India.
- About 17% of the survey participants said that personal information collected by UID and NATGIRD projects will not be misused.
- Trust in the government has reduced from 2004.

Chapter 2

Introduction

2.1 India today

India is one of the leading IT services provider to the businesses across the globe with USD 60 billion outsourcing industry [12]. It has experienced considerable growth in the domestic sector, which emerged as a vital IT investor. The predicted increase in the IT spending in the country is 16.3% (USD 43.57 billion in 2012), as reported by IDCs report Indian IT Market Overview Report-2012 [19]. According to the report, expected IT spending in Small and Medium Enterprises (SME) would grow by 43% by 2015. These developments have attracted huge Government investments into IT enabled sectors. Government agencies are spending more than USD 10 billion in several of e-Governance projects [12]. Celnet's report [5] 'Payment in India is going e-way', mentioned 30% of the total transaction are e-transactions and 75% of the total payment to be in the form of electronic payments. India was ranked 6th in the world with 61.338 million Internet users in 2009 [1], and is predicted to have the 3rd largest Internet user base by 2013 (Forrester's Research) [11]. Internet penetration is at about 7.1% but is marked to be rising exponentially. With the increase in the number of Internet users and increased penetration of technology in modern India's individual, the exposure to the e-threats and privacy breach has increased as well. These threats can cause potential damages to financial, social, and personal interests of the individuals, e.g. targeted advertising. The commercialization with e-facilities has lead to development of a large sector involved in targeted advertising. Realizing the frustration and annoyance caused by such services and to protect the users, schemes e.g. National Do Not Call registry and regulatory guidelines for banking industry, were introduced. This got some respite for the users but was not of much significance. The panorama of consumer privacy in the country changed with proposed amendments in IT Act, getting privacy to the table of discussion among various fraternities e.g. legislation, social communities in the country. The last few years also witnessed conceptualization of countrywide projects such as UID (Aadhar) and NATGRID (National Intelligence Grid).

2.2 Cultural status of privacy in India

Indian culture may play a significant role in shaping attitudes about privacy. Cultural values are known to affect a population's attitudes about privacy [2], [4], [10], [18]. Hofstede developed a

number of cultural values indices to measure cultural differences between societies. According to Hofstede, India is a collectivist society with lower Individualism Index (IDV) and higher Power Distance Index (PDI) compared to the US, which is an individualist society with higher IDV and lower PDI. Hofstede has shown that individuals in collectivist societies have more trust and faith in other people than individuals in individualist societies [13], [14]. Anecdotal evidence of Indians' tendency to trust that their personal information will not be misused can be found in recent Indian popular news media reports that Indians are largely unaware of the extent to which databases of personal information are sold and traded among companies. When informed of this practice, the news media reports that individuals are often shocked and outraged. News magazine India Today, featured a cover story titled "Privacy on Sale," illustrated with a cover photo of a man with a bar code stamped on his head [3]. The Times of India featured a special report on "The Death of Privacy" [20]. Similar stories have been showing up in the Western press for several years, but have only recently appeared in India. The Indian joint family tradition [9], in which it is common for households to include multiple brothers, their wives, and their children (all living in a relatively small house by US standards), results in more routine sharing of personal information among a wider group of people than is typical in the US. Information that might typically be disclosed only to ones spouse or parents in the US is more frequently shared among uncles, aunts, and cousins in India. In addition, as it is common for Indian businesses to be owned and operated by large extended families, personal financial information is typically shared fairly widely among Indians.

The urban cities in India support a large population base. Each year witnesses increased migration from rural to urban areas [1] leading society towards urbanization. India originally is a collectivistic society, exhibiting a culture of joint families and life driven by rules and norms of the society, but the increased urbanization is influencing society towards individualism. An increase in the Individualism Index (IDV) marks the beginning of individualism in India Society and also accounts for the increased awareness about individual rights. In spite of large proportion of population being uneducated and illiterate, the government is making constant efforts to get all individuals under IT enabled services and projects e.g. UID, NATGRID. Mobile phones have come out as an evident tool for large communities and has hence become inevitable for the individuals not to use services on the mobile phones. Increasingly services such as banking, insurance, telecom are introducing Information Technology (IT) enabled services increasing the purview of IT on life. Various studies in the past [15], [16], [17], [21] have shown Indian population to be less sensitive to the privacy in comparison to countries of the world, significantly because of the collectivistic nature of Indian society. However, increased exposure to technology could lead to change in this behavior. In 2009, the Government of Indian launched the national database, a Unique Identification number (UID), which aims at providing unique numbers to all individuals. The numbers are assigned based on the biometric information of the individuals e.g. iris, fingerprints, etc. The project rose concerns in the country regarding privacy of the data collected as it had major privacy challenges to handle e.g. De-duplication, maintaining a large centralized database against privacy breach, etc. Another aspiring project, NATGRID by the government faced significant opposition due to the involved threats to the privacy of the Indian individuals.

2.3 Motivation and rationale

Given the background of lack of empirical data on privacy perceptions in India and the country becoming a major player in many spheres, we felt it as an utmost importance to study the privacy attitudes and awareness in India. There are many studies done across the world on privacy [4], [6], [7], [8], [13], [14], [18], [21] but a very few in India; one of the first ones done on this topic are [16], [17]. Most of the studies are focussed on the US or the European Union. One of our primary motivation was to get India in the world map of privacy discussion; towards achieving this goal, we have attempted to create a bench-mark for privacy perceptions in India and we hope this type of study will be done in a longitudinal basis to understand the changes in the privacy awareness in the society over the years.

2.4 Methodology

To achieve the above mentioned goals, we followed a typical research methodology approach of conducting the interviews, succeeded by the focus group discussions and finally, a large survey. We describe below a quick snapshot of the methodology.

- Interviews: To get qualitative insights onto what people think about privacy and what topics to study in detail, we conducted 20 interviews among various stakeholders in Delhi and National Capital Region (NCR). The conclusions from interviews helped us in designing FGDs and later the surveys. More about the methodology in Section 3.2.
- Focus group discussions: Using the interviews, we developed the FGD protocol. We conducted 4 FGDs (each of it having about 8 participants) among various stakeholders of privacy. More about the methodology in Section 4.2.
- Survey: Using our understanding from interviews and FGDs, we developed a protocol to conduct survey among large participants. In total, we have about 10,427 completed participants; one of the largest studies conducted on privacy in India. More about the methodology in Section 5.2.

2.5 Main contributions

Our main contributions are as follows:

- To the best of our knowledge, this is one of the largest study on privacy perceptions in India. ¹
- We have developed an empirical understanding of privacy perceptions and awareness with a sample of 10,427 participants across India; and have developed a bench-mark for privacy perceptions through this study.

¹We also believe that this is one of the largest surveys in the world, specifically focused on privacy.

Chapter 3

Interviews

Our interest in doing the interviews was to get an insight on what Indian citizens perceive about privacy. In order to understand the privacy perceptions, we kept the questions of the interview to be open-ended and let the participants speak about their reactions. In this chapter, we discuss about the interviews we conducted and the privacy results along with the insights from the interviews. Section 3.1 describes the sample that we had in the interviews; Section 3.2 describes the methodology that we used in collecting data; Section 3.3 concludes with some of the takeaways from the interviews.

3.1 Interview sample

We recruited participants through word-of-mouth from Delhi (in India) region. We completed 20 individual interviews lasting for about 120 mins each. We had 9 females and 11 males in the interview. The participants were spread across various walks of life (e.g. age group, education, and occupation). Table 3.1 gives some of the important demographics of the participants. Complete screening questionnaire that we used for the interview with the results is presented in *Appendix 1: Interview - Background Questionnaire*. We had about 88 questions in the interview. We define N as the number of participants interviewed during the study.

3.2 Interview methodology

Administrator of the study met with the participants in different places (e.g. coffee shop, at participants home, etc.) and did the interviews. We used the screening questionnaire to select the participants for the interviews. Figure 3.1 shows one of the interviews that we conducted in Delhi. All 20 interviews were recorded, transcribed for our analysis. Questions were compartmentalized into different sections like general privacy, mobile phone privacy, credit cards / ATM privacy, websites / Internet / online social networks, and government. Appendix 2: Interview - Questionnaire gives the entire protocol that we used in the interviews. No personal information (name, email address, etc.) that would re-identify any subject was recorded with the interview data. We used randomly generated numbers to identify the subjects in our notes so as to maintain subjects' pri-

Table 3.1: Demographics of the participants in the interviews. Values in the table are in percentage.

	N=20
	Percentages
Gender	
Female	45
Male	55
Age	
20 - 24	10
25 - 29	10
30 - 39	35
40 - 49	25
50+	20
Marital status	
Single	40
Married	60
Education	
Less than graduate	5
Graduate	20
Post graduate	40
Ph.D.	10
Professional	25
Occupation	
Student	10
Work from home	10
Job in public sector	15
Job in private sector	30
Housewife	5
Business	10
Civil engineer	5
Journalist	5
Management	5
NGO	5

vacy. We got all the participants sign a consent form before taking part in the interviews and we compensated all participants for their time and efforts. We collected the data in January 2011.

3.3 Interview conclusions

In this section, we present our analysis of general understanding and concerns about privacy; awareness about privacy and technology; concerns about mobile phones; knowledge of privacy laws, and privacy in various government projects; and knowledge of privacy issues related the Internet and online social media services.



Figure 3.1: Picture of one of the interviews that we conducted in Delhi.

When participants were asked about privacy in general (Question: "When you hear the word privacy, what comes to your mind?"), seven of them mentioned 'privacy from other people,' seven mentioned some form of 'information privacy' (e.g. Internet, telephone, etc.), one mentioned 'being let alone' and one mentioned there are multiple definitions of privacy and it is very complicated to explain – e.g. "Everybody has a different definition of privacy." "we define different spheres around us and it would involve different levels of privacy." While discussing what personal information constitutes, most of the participants mentioned economic status or income, and their age. One participant mentioned "I cannot share my phone number but can share my email ID." Majority of the participants thought privacy is going to become an issue in future; one participant mentioned "I, being a student, do not consider privacy so important in life, but am sure that 10 years down the line, it would hold tremendous importance for me. By then a lot would have happened in my life that I would like to keep private to myself." Other student participants had similar views. Another participant who had a similar sentiment mentioned "In future, I don't know how it will play. It is a scary though for me because in future, 10 years down the line, there would be no concept like personal, everywhere some or the other form of information will be available about you."

Most participants were ignorant about various privacy issues related to the Internet and online social media. For example, about 75% of the participants had never read the privacy policy on any website that they interact with and about the same percentage of participants had never read the privacy policy of a website before sharing his / her personal information. About 50% of the participants have changed their default settings on a social network that they use. Participants were unaware of their information on social networks and on the Internet – "I do not know where my photos or information would be going online." Another common behavior among participants were, they changed their behavior online over the time (less concerned to more concerned) – "Initially I had for all. Now the privacy settings are friends."

One of the patterns, that we saw across participants was that, all of them felt very concerned about financial privacy. About 75% mentioned that they don't disclose any credit card details to 'anybody' over the phone. Fifty percent of the participants have not read the privacy policy of their credit card and only one participant said that he / she has read the policy. About 50% of the participants said no to "Do you think the ATM centers provide enough privacy for making money

transactions?" We also believe that various financial organizations and media have played a great role in creating awareness about the financial privacy issues to citizens. Most of them credited their understanding of the issue to either financial organizations or the media – "No, I never give credit card details to anybody over the phone. All credit card agencies have instructed not to give credit card details to anyone on phone so I do not."

While discussing about the awareness and existence of privacy laws and various government projects in India, a common reaction was "Yes government has all kinds of information but under various heads, it is not consolidated." Participants, in general assume the government to protect them and take care of their information, for example, one participant, said "The government is not expected to auction my personal information to anybody and everybody. If at all anyone gets an access, it will definitely bother me." More number of participants were aware about the UID project compared to NATGRID project. One of the participant mentioned "It is important to have this kind of facility in our country. It is police / security project." regarding NATGRID.

Chapter 4

Focus Group Discussions

In this chapter, we present the details from Focus Group Discussions (FGDs) that we did to understand the privacy perceptions of the users. Section 4.1 describes the sample of participants who were part of the FGDs; Section 4.2 describes the methodology that we used in collecting data through FGDs; Section 4.3 concludes with some of the takeaways from the focus group discussions.

4.1 FGD sample

In total, we conducted four FGDs, each of which lasted for about 3 hours. Table 4.1 presents some characteristics of participants from the FGDs. Complete screening questionnaire that we used for the FGD with the results is presented in *Appendix 3: FGD - Background Questionnaire*. We conducted four FGDs in Delhi; our aim was to conduct each FGD with different stakeholders of privacy. We did one with age group 18 - 25 years, student community (FGD1); one with 46 + years (FGD2); one with 26 - 35 years, working professionals / industry (FGD3); one with 26 - 35 years, academia (FGD4). In total, we had 31(represented as N in this section) participants for the FGDs.

4.2 FGD methodology

Through word of mouth, we recruited participants for our FGDs. We used the Screening Questionnaire (Appendix 3: FGD - Background Questionnaire) for recruiting participants into the study. We screened only those participants who were in the category of people that we were looking for (e.g. 18 – 24 years participants for that group of study). We conducted the four FGDs in four different locations; we worked it out with different organizations (academics / industry organization) to have a room where we could do the FGDs. We asked about 20 questions in the FGD and we got consent forms signed by each of the participants before starting the FGD. We also compensated the participants for their time and efforts.

Figure 4.1 presents one of the FGDs that we did among students in Delhi. We used voice recorders to tape the discussion; we introduced ourselves and gave a brief background on the goals of study and then started with asking some basic questions. We tried to get each of the participant to

Table 4.1: Gender and education characteristics of the participants in the Focus Group Discussions. Values in the table are in percentage.

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
		P	ercenatge	es	
Gender					
Female	50.00	50.00	62.50	57.14	54.84
Male	50.00	50.00	37.50	42.86	45.16
Education					
Less than graduate	25.00	25.00	0.00	0.00	12.90
Graduate	50.00	25.00	37.50	0.00	29.03
Post graduate	25.00	25.00	50.00	42.86	35.48
Ph.D.	0.00	0.00	0.00	57.14	12.90
Professional	0.00	25.00	12.50	0.00	9.68

speak their views about each of the questions that were posted to the group. Appendix 4: FGD - Moderator Guide has the questionnaire for the FGDs. As and when we felt the discussion was going in a different direction, we would request participants to discuss about the privacy implications. All FGD audios were transcribed and analyzed. We conducted the studies in April and May, 2011.

We also asked them to fill a form (see Appendix 5: FGD - Personally Identifiable Information) that we had given them as a printout, to identify which one of these they would classify as Personally Identifiable Information (PII). "Please tick, what according to you is Personal Information (Personally Identifiable Information)?" We also showed printouts of three Facebook setting pages for them to mark their own settings; the three screenshots that we presented included – basic privacy settings (Figure 4.2), detailed privacy settings (Figure 4.3), and the request for permission while allowing / disallowing third party applications (Figure 4.4).

4.3 FGD conclusions

In this section, we discuss (1) the inferences from the discussion that we had with the participants;

- (2) the outcomes of the task for marking information as personally identifiable information; and
- (3) takeaways from the task on marking privacy settings in Facebook.

4.3.1 Inferences from the discussion

Participants repeatedly mentioned that privacy is not something easy to define and may vary according to the context and the individual. One participant mentioned, "Notion of privacy, as such is very vague." Most participants defined it as "something" or "some information" they do not want to share with others. We got similar reactions from all our FGDs. There was a lack of awareness about the privacy laws in India, a common response we got was "there are some cyber laws on privacy, but what exactly we do not know" or "there are no privacy laws in India. We are not aware of any." Most of the participants were responding to the questions from the security



Figure 4.1: Picture of one of the focus group discussions; this was the 18-24 years group.

point of view (unauthorized access, data being stolen, etc.) and not privacy. Even after repeated emphasis on privacy, participants in FGD3 and FGD4 talked about security and not privacy.

Almost all participants in FGDs were annoyed by the spam SMSs that they receive; on an average, most of the participants received 3-4 spams a day. A common sentiment on this was "It is intrusive." and they believed that none of the government policies (e.g. TRAI) are going to help reduce the problem. It is not just the spam SMS is a problem, it is also the spam calls, one of the participant said "When we are working we get unnecessary calls. XXXX ¹ Company, about property, etc. It creates unnecessary tension when my phone rings at odd hours, I am sleeping and in middle of the night I might get a call of no relevance to me." All participants who mentioned this issue think that their phone numbers are getting leaked to various parties, which is a privacy issue. Some participants also talked about privacy related to location inference through mobile phones. One participant said "I think with my phone [GPS location] anybody can come to know about my location and therefore interferes with my privacy."

Some participants (specifically the elderly people) in the FGDs were not on online social media, most of them did not feel the need for being on these services. One of the participant, mentioned, "I dont feel necessity to post pictures therefore [I] not on Facebook." Among the participants on social media, nobody has read the privacy policy of these services. One of the academician remarked, "I believe that even if I made these privacy settings, I am not sure if what I want is actually happening. I had removed a friend but still I am not sure how they got to see my details." showing

¹Anonymized to preserve the privacy.

the sentiment that it is of no value even if we update the privacy settings. Some participants also mentioned "These [online social media services] things are misused a lot." as reason for not being on online social media services.

Camera in mobile phones seemed a big concern for the female participants, one female participant even shared an incident when one of their friends recorded some funny picture / video of them and posted it online on Facebook. One girl said, sometimes they even feel people recording a video or clicking a picture, but "they cannot do anything about it."

Most people said they use credit and debit cards, but said they would avoid using online banking and money transactions, as they do not have much faith in the online process. One participant shared an experience, when an identity theft with respect to a credit card happened to his friend – A credit card was delivered to an address after the person had moved from that address, hence that credit card was taken by someone else, and used for shopping, and the concerned person (his friend) got to know only at the end of the month when he received the bills.

4.3.2 Marking information as personally identifiable information

During the FGDs, we presented a list to the participants for them to identify whether they are PII or not. Appendix 5: FGD - Personally Identifiable Information has the content that we presented to the users for them to mark. Table 4.2 presents the percentage of participants who marked the information as PII from each of the FGD; last column in the table presents the total of all the four FGDs. From the Table, we see that most of the participants (more than 90%) considered these information as PII: Bank account number, Credit card number / Debit card number, Property details, Passport number, and Email and other Passwords. This shows a lot of emphasis on financial / information details among citizens. Participants considered Gender, Religion, and Category-SC / ST / OBC / General as the least in terms of PII. We found a clear difference between the professionals from industry and academia participants; no piece of information was considered as PII by academia while maximum pieces of information was not at all considered personal (0%) by industry professionals.

4.3.3 Marking Facebook privacy settings

Photographs seemed the most sensitive information people consider as private on Facebook. Facebook privacy setting handouts: all participants had seen and modified the main privacy settings page of Facebook (Figure 4.2), but when we showed the second handout of Facebook privacy settings (the level 2 settings, Figure 4.3), only one participant had seen that page. Rest did not know that they can even control those privacy settings on Facebook (the screenshots were taken in the month of March).

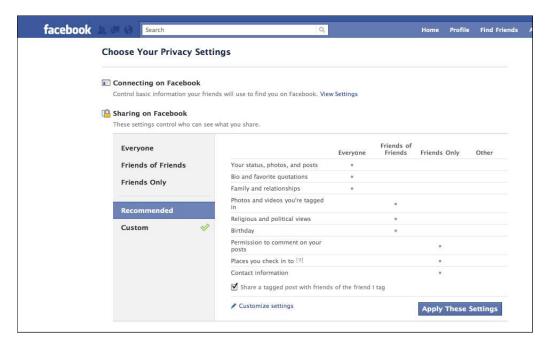


Figure 4.2: General privacy settings in Facebook.



Figure 4.3: Advanced privacy settings in Facebook.

Table 4.2: Percentage of participants marking the data as Personally Identifiable Information (PII). One participant in FGD2 did not provide the information, therefore effective value for FGD2=7 and total=30 for this response.

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
		P	ercenatge	es	1
Full name	12.50	14.29	0.00	28.57	13.33
Designation	12.50	0.00	75.00	28.57	30.00
Date of Birth	62.50	14.29	12.50	57.14	36.67
Birth Place	37.50	0.00	0.00	28.75	16.67
Caste	12.50	14.29	0.00	14.29	10.00
Gender	12.50	0.00	0.00	14.29	6.67
Religion	12.50	0.00	0.00	14.29	6.67
Family member names	62.50	28.57	0.00	71.43	40.00
Photograph (Hard copy)	75.00	85.71	50.00	85.71	73.33
Marital status	37.50	14.29	0.00	28.57	20.00
Photograph (Digital copy)	100.00	71.43	50.00	85.71	76.67
Permanent address	62.50	28.57	0.00	71.43	40.00
Passport photocopy	75.00	100.00	62.50	85.71	80.00
Temporary address	50.00	0.00	0.00	42.86	23.33
Voters card photocopy	100.00	100.00	75.00	71.43	86.67
Educational qualification	0.00	28.57	0.00	14.29	10.00
Category-SC/ST/OBC/General	12.50	0.00	0.00	14.29	6.67
Ration card photocopy	50.00	85.71	50.00	71.43	63.33
Phone number (landline)	87.50	57.14	25.00	57.14	56.67
ID card photocopy	62.50	85.71	75.00	85.71	76.67
Mobile number	75.00	85.71	37.50	71.43	66.67
CV / Resume	25.00	85.71	12.50	57.14	43.33
CVV number	25.00	71.43	100.00	42.86	60.00
Photocopy of other identify proofs, like	87.5	100.00	50.00	71.43	76.67
PAN card etc.					
Bank account number	100.00	100.00	100.00	100.00	100.00
Medical records	50.00	85.71	0.00	71.43	50.00
Credit card number / Debit card number	100.00	100.00	87.50	100.00	96.67
Property details	75.00	100.00	100.00	100.00	93.33
Ration card number	50.00	57.14	25.00	42.86	46.67
Tax details (House / income etc.)	87.50	85.71	50.00	85.71	76.67
Vehicle registration number	62.50	85.71	12.50	42.86	50.00
Academic grades or marksheet copy	50.00	71.43	0.00	28.57	36.67
Passport number	75.00	100.00	62.50	100	83.33
Your bank name	37.50	57.14	25.00	42.86	40.00
Your phone service providers name	0.00	28.57	12.50	28.57	16.67
Email and other Passwords	100.00	100.00	100.00	100.00	100.00
Fingerprints and other biometric details	75.00	71.43	25.00	100.00	66.67

Table 4.3: Percentage of participants marking the data as Personally Identifiable Information (PII).

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
		P	ercenatge	es	
Pancard number	87.50	100.00	62.50	100.00	86.67
ATM pin number	100.00	100.00	100.00	100.00	100.00
Organization / Institutes Name					
and other details like phone number, address etc.	25.00	42.86	25.00	57.14	36.67
Salary	75.00	71.43	75.00	85.71	76.67
E-mail address	25.00	85.71	12.50	42.86	40.00



Figure 4.4: Request for permissions by a Facebook application.

Chapter 5

Survey

After completing the interviews and FGDs, we developed the survey questionnaire and collected data from different parts of India. In this chapter, we present the results from the data that we collected. Section 5.1 describes the sample of the participants who were part of the survey data collection; Section 5.2 describes the methodology that we used in collecting data; Section 5.3 concludes with some of the takeaways from the survey.

5.1 Survey sample

In total, we collected data from 10,427 survey respondents; to the best of our knowledge, we believe this is one of the largest study on privacy in the world, and definitely in India. As our goal was to collect data from different walks of life, we did data collection in school, universities, organizations, metro stations, households, etc. We collected data from different parts of India. Our sample consisted of respondents from different cities in India; we travelled to multiple cities to collect the data and we also took help from different organizations to collect the data. Our data consists of respondents from every state and union territory in the country, except for one state.

5.2 Survey methodology

We collected data through different means – using web, and physical printouts. We collected data from July 2011 until April 2012. Before starting to do the actual data collection, we did pilot data collection for about 70 surveys. Appendix 6: Survey - Questionnaire gives the actual questionnaire that we used for data collection. Majority (60%) of the participants got to know about our survey through various research market organizations that we worked with to collect the data and about 31% of the respondents got to know it through "friends and acquaintances." Majority of the participants (63%) filled the survey in "Public space e.g. shopping mall, cinema, market, and park" and about 28% filled it in their campus or organization.

5.3 Survey conclusions

Here, we present each of the questions presented to the participants, along with the percentage of participants who responded to the options presented to them. We have presented N, the sample for each of the questions in the survey. Since the questionnaire were also filled in physical copies where we did not have any control over the participants; some of the mandatory questions were also skipped. If the N is not present in the question / table, please assume that it is 10,427. All values in the tables are in percentages.¹

Section 1: General Privacy

1. When you hear the word privacy, what comes to your mind?

	N=10,372
Bodily privacy (e.g. your physical body)	32.54
Communication privacy (e.g. calls received or dialed	48.33
through telephone)	
Information privacy (e.g. information exchanged on the	51.24
Internet)	
Territorial privacy (e.g. your living space, working space)	31.59
All of the above	28.43
Others	0.68

¹There is a possibility of \pm 0.01 rounding error.

2. Which of the following information is personal to you that you would NOT like to share?

	N=10,377
Annual house hold income	53.64
Bank account details	64.63
Credit card number	68.18
Date of birth	5.80
Email address	6.25
Family details	14.86
Full name	2.03
Health and medical history	27.17
Landline number	8.42
Marital status	3.95
Mobile number	13.45
Passport number	64.45
Passwords	88.39
Personal income	62.77
Pictures and videos featuring self	18.67
Physical details - height, weight, eye colour	8.47
Postal mailing address	5.51
Religion	2.70
All of the above	3.65
Others	2.00

3. Does privacy for you change with situation and context, i.e. what information you share with whom may be different at different time and context?

	N=9,633
Yes	52.79
No	17.83
May be	29.38

4. With whom would you share the following information?

	Friends	Family	Relatives	Society	Banks	Government	Everybody	Nobody
Annual house hold income (N=10,403)	17.30	58.32	15.42	2.17	7.44	21.40	2.54	35.01
Bank account details (N=10,390)	7.53	47.82	6.83	1.10	24.24	14.14	1.14	43.46
Credit card number (N=10,349)	5.02	38.65	3.75	0.91	10.66	5.05	1.31	54.66
Date of birth (N=10,371)	31.38	40.03	27.91	7.59	13.54	12.85	54.54	1.67
Email address (N=10,360)	32.36	39.69	26.74	6.44	11.85	9.98	51.57	1.81
Family details (N=10,348)	35.47	50.46	39.22	6.47	8.17	11.57	32.24	5.54
Full name (N=10,354)	20.74	26.45	17.93	5.92	9.75	10.09	68.98	1.17
Health and medical history (N=10,336)	26.79	59.66	27.96	2.85	3.99	5.97	14.42	17.94
Landline number (N=10,352)	36.45	44.41	36.57	5.63	11.38	8.74	47.34	2.11
Marital status (N=10,295)	27.06	34.05	25.14	7.84	9.58	10.02	57.89	2.15
Mobile number (N=10,342)	39.54	43.80	34.90	5.57	16.54	12.54	46.31	3.79
Passport number (N=10,319)	9.00	34.49	6.85	1.35	5.36	11.22	4.2	55.73
Passwords (N=10,308)	2.1	13.38	1.3	0.52	0.80	1.01	1.24	83.97
Personal income (N=10,308)	12.1	41.99	9.43	1.43	5.04	6.16	2.9	51.55
Pictures and videos featuring self (N=10,322)	44.81	56.53	34.74	3.02	2.12	3.47	23.75	10.09
Physical details- height, weight, eye colour (N=10,363)	33.97	50.75	29.84	3.74	3.74	6.14	34.85	6.19
Postal mailing address (N=10,351)	32.05	41.29	29.46	00.9	15.04	15.46	47.16	2.77
Religion (N=10,349)	18.12	25.84	19.16	6.40	8.07	8.94	61.94	3.46

5. Imagine you are walking through a shopping mall, where you observe a camera capturing the movements of people in the shops, what would be your reaction? (Choose one which is applicable)

	N=10,299
I would not change my actions	49.75
I would try to avoid the camera	27.22
I would never go to the shopping mall again	7.98
If at all, a camera captures my movements, I would be curi-	14.25
ous to know the reasons for capturing the video	
Others	0.80

6. How much do you agree / disagree with these statements?

		N=10,415			
	Strongly	Agree	Neutral	Disagree	Strongly
	agree				Disagree
Consumers have lost all control	23.66	52.97	15.94	5.84	1.13
over how personal information about					
them is circulated and used by com-					
panies					
Most businesses handle the personal	13.76	44.87	27.37	13.49	1.97
information they collect about con-					
sumers in a proper and confidential					
way					
Mobile phones can be privacy inva-	14.42	55.17	21.35	7.75	0.63
sive					
Landline phones can interfere with	14.29	45.4	27.18	11.39	1.00
individuals privacy					
Websites can hinder privacy by col-	20.23	50.99	20.60	6.41	0.84
lecting personal information					
Credit cards can be privacy invasive	18.98	44.93	24.99	9.40	0.93
Phone banking can invade privacy	15.95	47.24	24.71	9.14	1.57

7. Consider a scenario where you visit a coffee shop which provides a free Wi-Fi connectivity for its customers. It doesn't ask for password for connectivity. Would you access the Wi-Fi facility to log-in your email?

	N=10,343
Definitely would	19.72
Probably would	33.88
Not sure	11.58
Probably not	10.56
Definitely not	24.26

8. Imagine for checking your results of an entrance exam you went to the institute and saw that the results have been displayed on a notice board with your name, marks and category (general / OBC / SC) mentioned.

	N=10,402, FC = Feel Comfortable				
	Always	Usually	Sometimes	Rarely	Never
	FC	FC	FC	FC	FC
How would you feel about	34.42	41.87	11.53	4.31	7.74
your marks being displayed					
on the notice board					
How would you feel about	35.22	35.53	9.63	5.9	13.05
your category (general /					
OBC / SC) being displayed					
on the notice board?					

9. While traveling in long-distance trains, a reservation chart with details e.g. last name, first name, age, gender, boarding station, destination, seat number, PNR number for each passenger is displayed on the platform and the compartment. How would you feel about your information being displayed as in this scenario?

	N=10,164
Always feel comfortable	36.74
Usually feel comfortable	43.43
Sometimes feel comfortable	8.06
Rarely feel comfortable	4.45
Never feel comfortable	7.33

Section 2: Mobile Privacy

10. Do you save personal information in your mobile phone?

	N=10,323
Yes	52.49
No	43.56
Don't remember	3.94

11. What is the personal information which you dont mind storing in your mobile phone?

	N=5,637
Business related information (meeting details)	24.68
Credit card number(s) / ATM card number(s) / PIN	26.20
number(s)	
Information e.g. date of birth, PAN number, ID number,	30.51
account number	
Password(s)	25.00
Videos, photographs, etc.	64.57
All of the above	10.40
Others	2.29

12. What are the reasons for which you dont store personal information on your mobile phone?

	N=5,925
Worried about phone being stolen / lost	40.08
Concerned about somebody accessing the phone at work, or	38.51
outdoors without permission	
Concerned about somebody accessing the phone at home	24.86
without permission	
Dont feel the need	34.16
All of the above	9.91
Others	0.41

13. Imagine you visited a mobile service provider (e.g. Vodafone) to buy a new mobile connection; they asked you to fill a form giving details e.g. name, date of birth, ID proof. Which of the information given below you would share with them, if they are NOT mandatory fields?

	N=10,093
Alternative address proof	42.46
Another contact number	33.71
Educational qualification	24.56
ID proof	67.18
Permanent address proof	30.12
Photograph(s)	63.51
Proof of place of work	18.19
Parents details	8.33
All of the above	8.23
None of the above	4.00
Others	0.26

14. How much do you agree / disagree with these statements?

	Strongly	Agree	Neutral	Disagree	Strongly
	agree				Disagree
Mobile service providers give	13.52	49.69	20.86	13.06	2.87
reasonable protection for the					
information they collect					
(N=10,379)					
Mobile service providers can keep a	11.40	53.92	22.24	10.61	1.82
record and can access the					
information exchanged through					
mobile phone (N=10,373)					
Phone conversations can be tapped	20.64	47.53	21.19	7.90	2.72
by mobile service providers in					
national interest (N=10,363)					
Mobile service providers can share	20.01	47.40	19.90	9.06	3.03
the customers information with					
government organization when					
required, even without informing					
the customers (N=10,366)					
Mobile service providers can share	14.07	33.24	22.04	19.43	11.23
private information you provide					
them with third parties					
(N=10,305)					

15. Do you use phone banking services to check your balance in the account?

	N=10,349
Yes, it is safe to use	15.73
Yes, because I dont have a choice	8.53
No, because I fear information may be leaked through phone	21.11
tapping	
No, because I am not sure of who is on the other side	33.93
Others	20.69

16. Would you use phone banking services to transfer money from your account?

	N=10,291
Yes, it is safe to use	12.77
Yes, because I dont have a choice	6.89
No, because I fear information may be leaked through phone	22.71
tapping	
No, because I am not sure of who is on the other side	37.34
Others	20.29

17. While exchanging information on mobile phone, what according to you, is the extent of confidentiality provided by the mobile service provider for information being exchanged?

	N=10,204
Very high	11.49
High	37.50
Neutral	24.60
Low	9.77
Very low	1.69
I don't know	14.96

18. What do you do before you sell your mobile phone?

	N=10,299
Copy the details and other information from SIM card and	12.64
phone memory	
Copy the information from SIM card and phone memory	40.40
and then delete information	
Delete all information that is stored in the mobile phone	31.30
Delete only specific details e.g. phone numbers and messages	4.89
Dont do anything	6.68
Others	4.08

19. While exchanging information on land-line phone, what according to you, is the extent of confidentiality provided by the land-line service provider for information being exchanged?

	N=10,260
Very high	8.25
High	37.41
Neutral	26.51
Low	10.98
Very low	1.84
I don' t know	15.01

20. While moving in a shopping mall, imagine you see somebody taking your picture using a mobile phone, what would be your reaction?

	N=10,249
No reaction	32.27
I dont like a stranger taking my picture without my permis-	48.94
sion	
I dont like being photographed at all in public places	17.34
Others	1.45

21. While travelling (i.e. in roaming), the mobile service providers use regional languages to present information e.g. user busy, phone switched off. For example, if your phone connection is from Delhi and if you are traveling in Mumbai, the messages are presented in Marathi. Would you consider this feature as privacy invasive?

	N=10,335
Strongly agree	10.02
Agree	43.97
Neutral	22.94
Disagree	19.24
Strongly disagree	3.83

Section 3: Credit Cards

22. Do you have a credit card issued in your name?

	N=10,297
Yes	57.18
No,but I have used them	11.94
No, I don't use them at all	30.88

23. Do you lend your credit cards to others?

	N = 6,191
Yes	34.58
No	65.42

24. To whom do you lend your credit card for using it?

	N=2,716
Children	10.38
Friends	26.33
Parents	53.68
Relatives	3.94
Professional Colleagues	10.24
Spouse	29.23
None	0.88
Others	2.91

25. Whose (owned by whom) credit card would you also use?

	N=5,760
Children	4.90
Friends	20.47
Parents	43.11
Professional colleagues	2.43
Relatives	5.59
Spouse	19.10
None	8.85
Others	20.02

26. Whose (owned by whom) credit card would you use?

	N=2,655
Children	7.83
Friends	27.19
Parents	57.15
Professional colleagues	6.44
Relatives	9.15
Spouse	16.50
None	10.17
Others	2.82

27. What is true for you with respect to using credit cards in today's world?

	N=7,023
It is unavoidable	20.12
It is handy; use it frequently for various purposes e.g. shop-	39.70
ping, petrol pumps, and grocery shops	
Use only for specific tasks e.g. online ticketing	17.04
Use as a back-up for emergency situations	22.70
Others	0.44

28. Imagine that you went to a restaurant to have food with your friends / family. Which of the following is true if you make the payment of the bill through your credit card?

	N=7,099
You would give the card to waiter, for making the payment	19.31
If you can go youself, you would take the card yourself to	39.94
cash counter, get it swiped in front of you	
If you cannot go yourself, you would give the card to waiter	14.45
and check the details of bill carefully	
You would give it only to the waiter only if its a trustworthy	9.14
restaurant	
You know it can be misused, but cannot do anything about	3.83
it	
You would not like to use credit card to make the payment	13.11
Others	0.21

29. Do you think credit cards should display the details e.g. name, phone number, date of birth on them?

	N=7,069
It should not display any personal information, as it makes	32.75
information public	
It should display only relevant details required for identifi-	44.80
cation	
It should display all details as these are required for verifi-	14.68
cation	
It does not bother me	7.36
Others	0.41

30. Do you think it is possible for anybody to steal your identity and impersonate you, using your credit card?

	N=7,066
Yes, it is fairly easy	44.52
Yes, but its not easy	35.58
No, its not possible under any circumstance	14.53
I have never thought about it	5.00
Others	0.37

31. Imagine you go to withdraw money from ATM; while you are withdrawing money, you notice other people peeping into the ATM while you enter the PIN. How would you consider entering details of your account in this scenario?

	N=7,050
Definitely would	17.76
Probably would	30.95
Not sure	9.25
Probably not	16.17
Definitely not	23.15
I have no other choice	2.72

32. Imagine you go to withdraw money from ATM; how would you consider using the ATM center if there are two machines in the same center and someone else is using the other machine?

	N=7,068
Definitely would	25.78
Probably would	39.09
Not sure	10.74
Probably not	7.98
Definitely not	13.09
I have no other choice	3.32

Section 4: Internet and Online Social Network

33. On visiting various websites, a lot of personal information is collected. How comfortable do you feel sharing below mentioned information with any website?

	FC = Feel Comfortable				
	Always	Usually	Sometimes	Rarely	Never
	FC	FC	FC	FC	FC
Annual house hold income	7.83	9.29	6.68	13.56	62.63
(N=7,544)					
Bank account details	3.02	6.72	6.08	11.31	72.88
(N=7,554)					
Credit card number	3.08	6.10	6.41	10.54	73.87
(N=7,523)					
Date of birth (N=7,503)	32.96	30.57	17.26	10.36	8.85
Email address (N=7,517)	33.38	32.37	16.80	10.10	7.36
Family details (N=7,469)	20.98	24.30	17.26	17.15	20.31
Full name(N=7,492)	42.33	27.55	14.80	8.78	6.54
Health and medical history	16.64	18.28	17.47	22.17	25.44
(N=7,500)					
Landline number (N=7,504)	22.40	29.38	19.35	13.15	15.71
Marital status (N=7,492)	34.26	27.28	17.39	10.52	10.54
Mobile number (N=7,511)	24.5	26.24	18.63	14.42	16.22
Passport number (N=7,505)	4.76	7.98	5.18	13.03	69.05
Passwords (N=7,497)	2.79	4.08	3.17	6.36	83.59
Personal income (N=7,450)	4.20	9.96	6.27	9.54	70.03
Pictures and videos featuring	21.67	23.82	18.8	13.8	21.91
self (N=7,443)					
Physical details - height,	26.15	27.89	18.59	12.50	14.88
weight, eye colour (N=7,515)					
Postal mailing address	30.73	28.44	17.56	11.54	11.72
(N=7,510)					
Religion (N=7,486)	39.87	25.09	15.26	9.47	10.31

34. Have you ever removed cookies in your browser after using the Internet?

	N=8,149
Often	22.24
Sometimes	33.99
Hardly ever	5.13
Never	23.36
Not familiar with cookies	7.57
Don't know	7.71

35. Which of the following email services do you use?

	N=7,926
Gmail	80.18
Hotmail	24.78
Official email	16.16
Yahoo mail	49.66
Do not use any email services	4.77
Others	2.76

36. Do you exchange personal information, e.g. bank account numbers, passport details through your email?

	N=7,581
Yes, frequently	14.21
Sometimes	26.51
Only in emergency	18.26
No, not at all	38.52
I don't remember	2.51

37. Do you save personal information, e.g. bank account numbers, passport details in your email for future use?

	N=7,565
Yes, frequently	15.36
Sometimes	24.35
Only in emergency	12.97
No, not at all	44.57
I don't remember	2.75

38. What are your privacy concerns while exchanging / saving personal information through email services?

	N=7,546
I have no concerns	18.75
I believe that the privacy of my data is maintained	40.70
I am concerned, but I do not have a choice	22.26
I am concerned so I don't save/exchange	14.68
Dont know	3.60

39. Do you read the privacy policy of an e-commerce website e.g. PayPal, eBay, bank websites while creating an account?

	N=7,814
Yes, I do	34.00
I browse through it	33.91
Never	24.29
Don't remember	6.99
Others	0.81

40. Do you read the privacy policy of an email provider while creating an account?

	N=7,836
Yes, I do	34.48
I browse through it	31.20
Never	27.63
Don't remember	6.29
Others	0.40

41. Which of the following OSN services do you use?

	N=8,222
Facebook	71.55
Google +	48.36
LinkedIn	17.92
MySpace	10.64
Orkut	31.56
Twitter	18.20
YouTube	40.53
Do not use any	16.10
Others	0.36

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

	N=6,855
It is not a concern at all	19.30
Since I have specified my privacy settings, my data is secure	42.13
from a privacy breach	
Even though, I have specified my privacy settings, I am con-	23.84
cerned about privacy of my data	
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

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

	N=6,929
Colleagues	61.97
Family Members	71.21
Friends	79.03
People from my hometown	27.39
Person of opposite gender	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	8.31
mutual / common friends with	
Anyone	2.99
Others	0.74

44. Have you ever modified your default privacy settings on your OSN website?

	N=6,892
Yes, I have modified my privacy settings	63.19
No, I have never changed default settings	21.08
I dont remember	10.95
Don't know	4.77

45. Do you have a Facebook account?

	N=6,898
Yes	85.1
No	14.89

46. What privacy settings do you have for the following information on Facebook? Please provide your response to the best of your knowledge.

	Not	Friends	Friends	Network	Everyone	Customized
	Shared		of			
			Friends			
Age	13.24	40.64	7.65	2.44	33.14	2.89
Date of Birth	7.36	44.59	8.68	4.60	31.89	2.88
E mail ID	6.49	44.17	10.96	4.91	30.77	2.7
Gender	2.97	32.49	11.46	5.70	45.95	1.45
Location	5.77	33.13	12.48	5.70	39.83	3.09
Marital Status	8.13	32.59	12.33	4.98	39.08	2.89
Name	4.22	25.28	10.82	4.83	53.13	1.72
Other Profile	5.95	40.34	13.12	6.32	30.37	3.91
Information e.g.						
education and work						
details						
Pictures / Photos	7.18	48.95	11.14	5.41	21.02	6.29
Religion	8.96	32.18	10.96	5.41	40.20	2.28
Videos	11.01	45.41	10.40	5.27	21.20	6.71

47. Do you read the permission box that appears when you first access any third party application e.g. FarmVille, Mafia Wars?

	N=5,920
Yes, I see but I don't read it and just allow, otherwise I	22.22
cannot access the application	
Yes, I read the permissions the application asks, but always	28.44
"allow" the application	
Yes, I read the permissions the application asks, and accord-	19.34
ingly decide to "allow" or "not allow" the application	
I do not remember seeing any such permission box ever	9.61
No, I will never allow third-party application to access my	7.92
personal information	
No, I dont use third party applications	12.47

48. When would you use third-party applications on an online social network?

	N=5,885
When a friend recommends an application	40.56
When I see the application on my friend's news feed / wall	37.66
When online social network recommends an application	18.15
When I randomly stumble on some interesting application	19.01
Others	6.07

49. Have you connected / inter-linked your various social networking accounts together e.g. Facebook, Twitter, YouTube, Buzz, Orkut?

	N=6,869
Yes	46.15
No	44.91
I do not know of any such linking service	8.94

50. Do you think it is possible for somebody to steal your identity on your social network website i.e. create a profile with your name, pictures and details?

	N=6,882
Yes, it is possible, but it has never happened to me	60.39
Yes, it is possible, and it has happened to me	24.03
No, it is not possible	10.07
Don't know	5.51

51. Do you read the privacy policy of an OSN provider while creating an account?

	N=6,890
Yes, I do	46.33
I browse through it	27.45
Never	18.30
Don't remember	7.92

Section 5: Government initiatives / Legal aspects of privacy

52. Does the Indian constitution have a provision for privacy of Indian citizens?

	N=10,315
Yes, I know about it	34.44
Yes, but I dont know what it is	27.61
Not sure, I assume there is a provision, but, I am not aware	22.63
of it	
I do not know about this kind of a provision	12.26
No, there is no provision	3.06

53. Do we have privacy laws in India that protect Indian citizens privacy?

	N=10,330
Yes	49.01
No	27.34
Not sure	23.65

54. Are you aware of Unique Identification Number (UID), a Government of India initiative for every citizen in India?

	N=10,318
Yes	67.23
No	21.11
Heard about it, but do not know the details	11.66

55. How much do you agree with the statement?

	Strongly	Agree	Neutral	Disagree	Strongly
	agree				Disagree
Personal information and biometric	9.55	46.79	25.78	12.69	5.18
data e.g. fingerprints, iris scan					
could be accessible to other private					
corporate through UID with whom					
you would NOT like to share this					
information otherwise (N=7,202)					
Government agencies could have	12.18	43.11	26.76	15.07	2.88
access to details e.g. banking, land					
records, Internet logs, phone					
records, arms records, driving					
license, property records,					
insurance, and income tax records					
which can be misused by					
government agencies (N=7,193)					

56. Are you aware of the NATGRID (National intelligence Grid) project?

	N=10,126
Yes	27.70
No	58.89
Heard about it, but do not know the details	13.41

57. How much do you agree with the statement?

	Strongly	Agree	Neutral	Disagree	Strongly
	agree				Disagree
Projects such as NATGRID (Na-	13.07	45.85	21.38	18.15	1.55
tional Intelligence Grid) which can					
access details and movement records					
of an individual, can be misused by					
government agencies (N=3,228)					

Section 6: Demographics

58. How old are you?

	N=10,346
Less than 18 years	1.54
18 – 24 years	21.31
25-29 years	32.20
30-39 years	25.90
40 – 49 years	14.09
50 – 64 years	4.46
65 and above	0.50

59. What is your nationality?

	N=10,204
Indian	99.73
Others	0.27

60. Which of the following state do you belong to (State of origin)?

	N=10,350
Andaman and Nicobar	0.08
Andhra Pradesh	7.73
Arunachal Pradesh	0.14
Assam	7.10
Bihar	1.10
Dadra and N. Haveli	0.08
Daman and Diu	0.01
Delhi	6.88
Goa	0.28
Gujarat	8.14
Haryana	1.96
Karnataka	8.58
Himachal Pradesh	0.52
Jammu and Kashmir	0.21
Lakshwadeep Islands	0.03
Kerala	0.74
Madhya Pradesh	3.19
Maharashtra	9.38
Manipur	0.35
Mizoram	0.00
Meghalaya	0.03
Nagaland	0.04
Odisha	0.25
Puducherry	0.02
Punjab	2.94
Rajasthan	11.29
Sikkim	0.02
Tamil Nadu	8.57
Tripura	0.05
Uttar Pradesh	9.39
West Bengal	9.53
Jharkhand	0.21
Chattisgarh	0.17
Chandigarh	0.06
Uttarakhand	0.48
Others	0.43

61. Choose the states where you have lived in the past five years:

	N=10,341
Andaman and Nicobar	0.15
Andhra Pradesh	8.17
Arunachal Pradesh	0.29
Assam	7.18
Bihar	0.77
Dadra and N. Haveli	0.12
Daman and Diu	0.01
Delhi	11.65
Goa	0.34
Gujarat	8.08
Haryana	2.86
Karnataka	9.85
Himachal Pradesh	0.45
Jammu and Kashmir	0.26
Lakshwadeep Islands	0.07
Kerala	0.59
Madhya Pradesh	4.04
Maharashtra	12.07
Manipur	0.44
Mizoram	0.12
Meghalaya	0.77
Nagaland	0.21
Odisha	0.29
Puducherry	0.10
Punjab	3.45
Rajasthan	12.15
Sikkim	0.21
Tamil Nadu	8.76
Tripura	0.40
Uttar Pradesh	9.69
West Bengal	11.00
Jharkhand	0.31
Chattisgarh	0.26
Chandigarh	0.21
Uttarakhand	0.73
Others	0.41

62. What is your gender?

	N=10,228
Male	67.57
Female	32.43

63. What is the highest level of educational degree you have received?

	N=10,289
Less than High school	9.75
High School	24.74
College Graduate	46.16
Post Graduate	16.19
Doctorate	1.34
Others	1.83

64. What is your profession?

	N=10,242
Computer / IT related	18.65
Housewife	13.25
Manufacturing / Business	28.77
Professional (Doctor, CA, etc.)	2.67
Student	20.20
Teaching / Research	4.75
Others	11.72

65. What is your occupation?

	N=10,253
Business / self employed	28.11
Job in private sector	26.30
Job in public sector	5.91
Not employed	11.04
Student	22.76
Others	5.87

66. In which of the following places do you use a computer?

	N=9,583
College	19.59
Cyber Caf	26.90
Home	55.94
Library	7.85
School	5.49
Work / office	36.94
All the above	5.08
Others	18.65

67. For what purpose do you use computers?

	N = 9,357
Entertainment / Gaming	59.39
Exchanging e-mails / instant messages	61.55
Official / Work purpose	50.66
Online social networking	51.58
Purchasing products online	18.32
Word Processing	23.58
World Wide Web / Internet browsing	50.56
Others	17.38

68. Do you own a personal computer?

	N=10,083
Yes	59.63
No	40.37

69. How long have you been using computers?

	N=7,850
0-2 years	16.23
More than 2 to 3 years	27.83
More than 3 to 5 years	16.38
More than 5 years	34.92
Don't remember	4.64

70. How long have you been using the Internet ?

	N=7,798
0-2 years	18.83
More than 2 to 3 years	27.39
More than 3 to 5 years	18.56
More than 5 years	30.52
Don't remember	4.71

71. How often do you use the Internet?

	N=7,692
Always connected	21.24
Several times a day	37.48
Once a day	11.88
Several times a week	14.22
Once a week	9.19
Several times a month	2.70
Once a month	1.52
Few times a year	1.76

72. Which of the following electronic communication media and devices you use?

	N=10,300
Credit / Debit card	55.40
Internet	67.18
Landline phone	33.24
Mobile phone	89.37
Mobile banking	13.62
Online Social Networks	42.14
All of the above	4.49
Others	0.20

73. Which of the following electronic communication media and devices you use?

	N=10337
College / office	16.72
e-mail	5.70
IIIT -Delhi website	4.44
9 dot 9	1.80
Newspaper	2.06
OSN	13.74
Through friends and acquaintances	0.41
Others	64.29

74. Which of the following electronic communication media and devices you use?

	N=9511
Online on Survey Monkey	7.98
In your campus / organization	28.85
Public space e.g. shopping mall, cinema, market, and park	0.00
Others	8.81

Chapter 6

Conclusions

The concept of privacy in India has not been investigated in detail, and also lack of empirical data with respect to privacy perceptions among Indian citizens. Recent developments in the Indian scenario e.g. privacy bill, NATGRID, UID project, signify need for privacy awareness and understanding in Indian masses. It is also important for policy makers to comprehend sentiment and opinion of masses for structuring effective laws and policies for citizens of India. Our study focuses on understanding privacy perceptions and expectations of Indian citizens. In the first phase, we conducted interviews among 20 participants and 4 focus group discussions with 31 participants in total, to collect qualitative data about the privacy perceptions. In the second phase, we developed a survey questionnaire to collect quantitative data. We collected responses (10,427) from various cities in India which could help in creating an information base for masses and policy makers, showcasing the true (perceived) picture of privacy in India on various platforms e.g. mobile phone, credit cards, online social networks, and government related issues.

Key takeaways from this research work are stated below:

- Citizens have misinformed mental models of the privacy situation; e.g. some portion of the participants felt that there is a law which protects them where there is no privacy law in India, but.
- Most participants felt passwords to be the most protected Personally Identifiable Information (PII) and then, financial information (bank, credit card details). In comparison to this, religion, mobile phone number, and health related information were rated as less protected PII.
- Mobile phones are becoming the next destination for storing private information. Participants stored personal information like passwords, credit card numbers, Permanent Account Number (PAN), PINs, etc. Privacy seems to be the primary concern for not storing personal information on the mobile phones for the rest.
- About 5% of the survey participants tend to accept friends request from strangers or people whom they dont know, but just have common friends. This behavior seems to be same even with the third party applications.
- About 80% of the survey respondents were aware of identity theft issue through credit cards.

- \bullet About 65% of the survey respondents felt comfortable to use the ATM center with more than one machine in it.
- About 5% of the survey participants tend to accept friends requests from strangers or people whom they dont know, but just have common friends. This behavior seems to be same even with the third party applications.

We are in the process writing a more academic style paper on reasons, and implications of the results from this data. We are also working on comparing the numbers from this study to the numbers with 2004 study from India and compare our results with other prior privacy studies around the world.

Bibliography

- [1] The world factbook. https://www.cia.gov/library/publications/the-world-factbook/geos/in.html.
- [2] Bellman, S., Johnson, E. J., Kobrin, S. J., and Lohse, G. L. International Differences in Information privacy concerns: A global survey of consumers. *The Information Society 20* (2004), 313 324.
- [3] Bhupta, M. Privacy on sale. India Today International.
- [4] Boni, M. D., and Prigmore, M. Cultural Aspects of Internet Privacy. In *Proceedings of the UKAIS 2002 Conference* (2002).
- [5] CELENET. Payment in India is going e-way. http://www.celent.com/reports/payments-india-going-e-way.
- [6] CRANOR, L. F., REAGLE, J., AND ACKERMAN, M. S. Beyond Concern: Understanding Net Users' Attitudes About Online Privacy. Tech. rep., Retrieved June 18, 2005, http://www.research.att.com/resources/trs/TRs/99/99.4/99.4.3/report.htm, September 25-27, 1999.
- [7] Culnan, Mary J, G. R. M. The culnan-milne survey on consumers & online privacy notices. http://www.ftc.gov/bcp/workshops/glb/supporting/culnan-milne.pdf.
- [8] Culnan, M. J. Georgetown internet privacy policy survey:report to the federal trade commission. http://www.msb.edu/faculty/culnanm/GIPPS/mmrpt.PDF.
- [9] ENCYCLOPEDIA BRITANNICA ONLINE. The joint family. Retrieved Aug 4, 2005., http://www.britannica.com/eb/article?tocId=26070.
- [10] FJETLAND, M. Global Commerce and The privacy clash. *The Information Management Journal* (January/February 2002).
- [11] FORRESTER. Forrester forecast: Global online population to hit 2.2 billion by 2013. http://www.pressreleasepoint.com/node/310679/pdf.
- [12] Godse, V. Policy paper: Privacy in india. DSCI (May 2010).
- [13] Hofstede, G. Cultural and Organizations Software of the Mind Intercultural Cooperation and its importance for survival. 1991.

- [14] HOFSTEDE, G. Geert Hofstede Analysis. Retrieved Oct 2, 2004., http://www.cyborlink.com/besite/hofstede.htm.
- [15] ION, I., SACHDEVA, N., KUMARAGURU, P., AND CAPKUN, S. Home is safer than the cloud! privacy concerns for consumer cloud storage. In *Symposium on Usable Privacy and Security* (SOUPS) (2011).
- [16] KUMARAGURU, P., AND CRANOR, L. Privacy in India: Attitudes and Awareness. In Proceedings of the 2005 Workshop on Privacy Enhancing Technologies (PET2005) (30 May 1 June 2005).
- [17] KUMARAGURU, P., CRANOR, L. F., AND NEWTON, E. Privacy perceptions in india and the united states: An interview study. *In The 33rd Research Conference on Communication, Information and Internet Policy (TPRC)* (September 2005).
- [18] SANDRA J MILBERG, ET AL. Information privacy: Corporate management and national regulation. Organizational Science, 2000 INFORMS 11, 1 (January-February 2000), 35 57.
- [19] SPENDING IN INDIA TO GROW AT 16.3% TO \$43.57 BN IN 2012: IDC., I. http://articles.economictimes.indiatimes.com/2012-07-23/news/32804967_1_enterprises-investments-idc-india-senior-analyst.
- [20] Suraiya, J., and Vikas, S. The death of privacy. Times of India. http://timesofindia.indiatimes.com/articleshow/991395.cms.
- [21] WANG, Y., NORCIE, G., AND CRANOR, L. Who is concerned about what? a study of american, chinese and indian users privacy concerns on social network sites. TRUST.

Chapter 7

Appendixes

Appendix 1: Interview - Background Questionnaire

All values are in percentages, N=20

- 1. Gender
 - Male: 45
 - Female: 55
- 2. Age (In years)
 - <20:0
 - 20-24: 10
 - 25-29:10
 - 30-39:35
 - 40-49 : 25
 - 50+: 20
- 3. Marital Status
 - Married: 40
 - Single: 60
- 4. Which state/city do you originally belong to?
 - UP: 25
 - \bullet Rajasthan : 10
 - Orissa: 5
 - Maharashtra: 5
 - Delhi : 35
 - Bihar : 5

- Kerela: 5
- West Bengal: 5
- Punjab : 5
- 5. Which state/city do you currently live?
 - UP:55
 - Maharashtra: 5
 - Delhi: 40
- 6. Educational Qualifications:
 - Less than Graduate : 5
 - Graduate: 20
 - Post Graduate : 40
 - Professional (Doctor/Engineer): 25
 - Ph.D.: 10
 - \bullet Other: 0
- 7. Do you have any technical qualification? Have you studied the subject of computer science as an academic course?
 - Yes: 50
 - No: 50
- 8. Occupation
 - Student: 10
 - Job in public sector : 15
 - Job in private sector : 30
 - Operate from home: 10
 - Housewife: 5
 - Other: 30
- 9. Personal Income (approx)
 - Upto Rs. 50,000/month: 40
 - Above Rs. 50,000/month: 15
 - None: 45
- 10. Do you own a credit card?
 - Yes: 80
 - No: 20

11. Do you buy things/do transactions online?

Yes: 55No: 45

12. Do you save your credit card information on websites where you buy things/do transactions online (Amazon, Skype, online banking)?

Yes: 15No: 85

13. Do you leave your laptop, mobile phone or wallet in the car?

Yes: 45No: 55

14. Have you ever changed the privacy settings in your browser?

Yes: 45No: 55

• Don't Know: 0

15. Have you ever created a web page?

Yes: 25No: 75

• Don't Know: 0

16. Whom of the following do you trust more? Sort by giving numbers where 1 is the most trusted is the least trusted.

	1	2	3	4	5
Family	85	15	0	0	0
Friends	5	80	15	0	0
Relatives /	5	25	70	0	0
Acquaintances					
Government	0	10	30	45	15
Any other	85	10	0	5	0

17. Have you fixed someones computer for them when they were having problems?

Yes: 25No: 75

• Don't Know: 0

How much do you agree/disagree with each of the following statements?

18. I accept that my information might not remain private if I store it on an online website.

Strongly agree: 75
Somewhat agree: 25
Neither / Not sure: 0
Somewhat disagree: 0

• Strongly disagree: 0

19. I expect to have the same legal ownership rights over my data if stored online as when stored on my computer.

Strongly agree: 85
Somewhat agree: 10
Neither / Not sure: 0
Somewhat disagree: 5

• Strongly disagree: 0

20. It concerns me that my medical information is being seen today by many organizations beyond those that I go to for health care services.

Strongly agree: 40
Somewhat agree: 40
Neither / Not sure: 20
Somewhat disagree: 0
Strongly disagree: 0

21. If privacy is to be preserved, the use of computers and Internet must be sharply restricted in the future.

Strongly agree: 5
Somewhat agree: 15
Neither / Not sure: 20
Somewhat disagree: 5
Strongly disagree: 55

22. Government can generally be trusted to look after our interests.

Strongly agree: 10
Somewhat agree: 25
Neither / Not sure: 35
Somewhat disagree: 10
Strongly disagree: 20

23. I have personally been the victim of what I felt was an improper invasion of privacy.

Strongly agree: 10
Somewhat agree: 20
Neither / Not sure: 15
Somewhat disagree: 20
Strongly disagree: 35

24. I am very concerned about the threats to personal privacy today.

Strongly agree: 45
Somewhat agree: 35
Neither / Not sure: 20
Somewhat disagree: 0
Strongly disagree: 0

Appendix 2: Interview-Questionnaire

- 1. When you hear the word privacy, what comes to your mind?
- 2. By the word privacy, if you mean keeping your personal information to yourself, then what all would constitute 'personal information' according to you.
- 3. How important is privacy for you and why?
- 4. Do you think it is your basic right to have privacy?
- 5. If yes, whom do you think you need to have privacy from?
 Family / Friends / Relatives / Colleagues / Formal institutions/ Government / any other
 If Family, who is family for you?
- 6. Where do you think privacy is required? List the areas where you think privacy must be exercised?
- 7. In Indian culture, we tend to ask/probe our friends and relatives on personal life/issues, do you think it is correct for others to ask such questions?
- 8. In the context of above question, how do you handle such situations?
- 9. Do you have a personal phone, mobile?
- 10. Where did you buy your mobile from?
- 11. Did your service provider ask you for personal information? Did you divulge any?
- 12. Do you ever fear that the basic information given to the service provider may be shared by him with others?
- 13. There are inbuilt cameras in mobiles these days. Does your mobile have a camera? What do you use it for?
- 14. If somebody takes your picture with his/her mobile, how do you react?
 - With your knowledge:

Do you mind / ask him the purpose / have it taken merrily / donot react

- Without your knowledge:
- Do you mind / ask him the purpose / have it taken merrily / donot react
- 15. Do you think they will share your pictures? If yes, would you like it?
- 16. Has it ever occurred to you that the picture taken by other's mobile may be misused?
- 17. Do you find phone banking risky in nature?
- 20. Do you think these marketing/promotional/unsolicited calls breach your privacy?• If yes, how?
- 21. Do you answer/respond to these marketing/promotional/unsolicited calls?

- 22. What do you think one can do to reduce these marketing/promotional/unsolicited calls?
- 23. If Do Not Call Registry was not mentioned in the previous answer Are you aware of Do Not Call Registry? If Do Not Call Registry was mentioned in the previous answer
 - Is it protecting your privacy?
- 24. How many SMS spams do you get everyday?
- 25. What can one do to reduce these SMS spams?
- 26. Are you aware that mobiles provide location-based services. Your movement/position can be tracked and informed by the service provider. Do you approve of this facility?
- 27. Do you think that the location based facility makes you vulnerable for misuse?
- 28. There are many polls/surveys being conducted via SMS service on mobiles. Do you participate in them?
- 29. Do you think your participation in these competitions such as the ones organized via radio or T.V. would expose your identity to those whom you are not concerned with?
- 30. Do you have a credit card? If yes, what do you use it for?
- 31. Do you ever disclose your credit card details to anybody over phone?
- 32. Are you afraid that the person at other end of the phone will convey/share your information with others?
- 33. Do you think your ATM card is fool proof?
- 34. Do you think the ATM centers provide enough privacy for making money transactions?
- 35. Do you think credit cards must display your name, phone No., date of birth and address etc.?
- 36. Do you give/lend your credit card for usage out of your sight? When you pay in a restaurant, do you mind having it swept in your absence?
- 37. Have you read the Privacy Policies of your credit card provider?
- 38. How often do you use / surf Internet and for what purpose?
- 39. Do you surf unknown websites?

 Do you divulge your personal information if sought at any website? If yes, which ones?
- 41. Have you ever used Internet to file your Income Tax return?

- 42. At the end of each website, there is a mention about their privacy policy. Do you ever read it? Do you think that the service providers abide by the text written as their privacy policy?
- 43. Do you read the privacy policy or verify authenticity of a website before giving your personal information?
- 44. Has it ever happened that you divulged the information sought on a website and you saw it in another form on another or same website? For example your name and the comments given by you for a certain event / happening.
- 45. Which kind of information must be kept secret by the service provider? Is it the name, age, gender, address, phone no., occupation etc.
- 46. Are you aware of the following security provisions at websites / Internet?
 - Cookies
 - Auto passwords save
 - Privacy settings
- 47. Which social network sites do you use / have account?
- 48. What do you do on these sites?
- 49. What are your privacy settings? Have you ever changed from the default privacy settings?
- 50. Did you ever change your privacy settings? Self / Friends / Friend of Friend / All / Any other
- 51. Do you know that when you upload your personal data and pictures on social websites, it gets stored therein?
- 52. Have you ever wondered what happens to this data when you close your account on that website?
 - Do you think you are at risk due to your friends (because they could share information about you) on social networks?
 - Anything else that you would like to add about social networks?
- Do you think that this strategy impeaches your privacy by letting strangers know your interests? Is there any redressal system whereby you can lodge a complaint in case of such scenarios?
- 54. These days, the strategy of Behavioral marketing is in vogue. The service provider studies your surfing behavior and bombards you with advertisements/websites, which may be related to your query. Do you agree with this kind of Behavioral targeting by service providers like Google?
- 55. Does our Indian Constitution have a provision for privacy?

- 56. As a citizen, are you aware what are the privacy laws in India that protect your privacy?
- 57. Are you aware of the government's initiative for UID?
- 58. Do you think it is proper for each citizen to have a UID?
- 59. Do you think the information like name, age, date of birth address etc. collected by UID is relevant?
- 60. Do you feel that UID would make public the personally identifiable information of a person?
- 61. Do you fear that your personal information and biometric data would be readily accessible to others (authorities) through UID?
- 54 Do you think UID:
- a) Is beneficial to you?
- b) Is beneficial to security agencies?
- c) Breaks privacy?
- d) Prone to misuse by government?
- e) Helps govt. to improve service delivery?
- 63. Since UID involves many service providers like health, finance, insurance etc. do you think, sharing your basic information with whom would be a breach of your privacy?
- 64. Do you know about NATGRID -- National Intelligence Grid project of the Indian government?
- 65. What do you know about NATGRID?
- 66. Does it cause any privacy issue for you?
- 67. Do you think NATGRID:
 - a) Is beneficial to you?
 - b) Is beneficial to security agencies?
 - c) Breaks privacy?
 - d) Prone to misuse by government?
 - e) Helps govt. to improve service delivery?
- 68. Do you think having government agencies having details like land records, Internet logs, phone records, arms records, driving license, property records, insurance, and income tax records is a breach of your individual privacy?
- 69. Do you trust that the safety and security mechanisms put in place by the government to prevent misuse of your data would be enough?
- 70. Do you think projects like UID and NATGRID, which can monitor each and every action/movement of yours can be misused by the following:
 - a) Government agencies to harass innocent people
 - b) Corporate targeted marketing

- c) Criminals blackmailing and other crimes
- 71. Do you think that divulgence of your personal information on a card such as UID would enhance / improve the country's security scenario?
- 72. People sometimes say: 'Data security and privacy are not really a problem because I have nothing to hide. Please tell me what you think of this argument?
- 73. Do you know what identity theft is?
- 74. Are you concerned about identity theft? If so, how large is your concern? Have you ever experienced such a situation, if yes, what action did you take?
- 75. Which of the following do you do to avoid data theft:
 - Shredder?
 - Check credit reports how often

Do you know a victim of ID theft? Did it change your behavior?

- 77. Have you observed the video surveillance cameras at metro stations, shopping malls and other places which track your movement and activities?
- 78. Do you wonder who sees these video clips and for what purposes?
- 79. Do you think this is a breach of your personal privacy?

 Consider technologies that exist today, or that soon might be developed. Are there some that you think pose a threat to privacy or data security? What potential harms concern you about those technologies?

Determine what you like to read. Is that possible? Prompts:

- Do you think there are laws about doing this?
- Do you think there should be laws about doing this? If so, what should they be?

Is it possible for companies that provide people with internet access to keep copies of all the e-mails their customers send or receive, and all the web sites they visit?

- Do you think they should be allowed to sell that information to other companies who want to use it for marketing?
- Do you think they should be allowed to make that information available to the police whenever the police get a warrant?
- Do you think they should be allowed to make that information available to the police or government officials whenever they ask to see it?
- 82. Please think for a few minutes and select a store or a company from which you often buy things. Take a few minutes and tell me everything you think they know about you. I don't actually want the specific information just the categories of information like your name, gender, address, and so on. Write down a list of what they report without any prompting.

Prompt:

- Anything else?
- Is there any other kind of information they may know about you?

- 83. Now tell me how you think they could abuse that information and how likely you think it is that they will do that.
 - Prompt:
 - How would you express that quantitatively? One-tenth? One-third? Certain?
 - Anything else?
- 84. Consider the company selling that information to another organization such as a bank or insurance company or potential employer. Now tell me how you think they could abuse that information and how likely you think it is that they will do that.

 Prompt:
 - How would you express that quantitatively? One-tenth? One-third?
 Certain?
 - Anything else?
 - How would you express that quantitatively? One-tenth? One-third? Certain?
- 85. Now consider the Indian government, as a whole all the different parts of it. Again take a few minutes and tell me every-thing you think they know about you not the specific information, again just the categories of information like your name and so on. Write down a list of what they report without any prompting.

 Prompt:
 - Anything else?
- 86. Now tell me how you think that some part of the government could abuse that information and how likely you think it is that they will do that.

 Prompt:
 - How would you express that quantitatively? One-tenth? One-third?
 Certain?
 - Anything else?
- 87. Please think ahead a few years. If technology continues to develop the way it is now, please tell me what additional things, if any, the company you told me about, and the Indian government, will be able to know about you?
- 88. This is my last interview question. I'd like to go back to an earlier topic / question. Now that you've had a chance to think more about your personal data and the issues of privacy and security, what privacy concerns do you have now, if any? Do you have more or less concerns as you did at the beginning of the interview?

Appendix 3: FGD-Background Questionnaire

All values are in percentages, N=31

1. Specify your age

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Age					
18-25	100.00	0.00	0.00	0.00	25.81
26-35	0.00	0.00	100	100	48.38
46-55	0.00	37.50	0.00	0.00	9.67
56+	0.00	62.5	0.00	0.00	16.13

2. Specify your gender

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Gender					
Female	50.00	50.00	62.50	57.14	54.84
Male	50.00	50.00	37.50	42.86	45.16

3. Select your marital status

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Single	100.00	0.00	37.50	42.86	45.16
Married	0	100.00	62.50	57.14	54.84

4. Which state/city do you originally belong to?

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Bihar	25.00	0.00	0.00	0.00	6.45
Delhi	50.00	0	12.50	71.43	32.26
UP	12.5	100.00	25.00	28.57	41.94
West Bengal	0.00	0.00	12.50	0.00	3.23
Manipur	12.50	0.00	0.00	0.00	3.23
Haryana	0.00	0.00	25.00	0.00	6.45
Madhya Pradesh	0.00	0.00	12.50	0.00	3.23
Kerala	0.00	0.00	12.50	0.00	3.23

5. Which state/city do you currently live?

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Delhi	100.00	0.00	37.50	100.00	58.06
Haryana	0.00	0.00	62.50	0.00	16.13
UP	0.00	100.00	0.00	0.00	25.81

6. Please specify your educational background

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Education					
Less than graduate	25.00	25.00	0.00	0.00	12.90
Graduate	50.00	25.00	37.50	0.00	29.03
Post graduate	25.00	25.00	50.00	42.86	35.48
Ph.D.	0.00	0.00	0.00	57.14	12.90
Professional	0.00	25.00	12.50	0.00	9.68

7. Is any of your degree in the field of computer science / information technology

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Yes	0.00	12.50	25.00	28.57	16.13
No	100.00	87.50	75.00	71.43	83.87

8. Please specify your occupation

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Teaching	0.00	0.00	0.00	57.14	12.90
Retiered	0.00	37.50	0.00	0.00	9.68
Student	100	0.00	0.00	14.29	29.03
Research scholar	0.00	0.00	0.00	14.29	3.23
Operate from home	0.00	0.00	0.00	0.00	3.23
Housewife	0.00	37.50	0.00	0.00	9.68
Job in Public sector	0.00	12.50	0.00	14.29	6.45
Job in Private Sector	0.00	12.50	100.00	0.00	25.81

9. Please select your personal income range (approx).

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Above Rs. 50000 / Month	0.00	0.00	25.00	28.57	12.90
Upto Rs. 50000 / Month	0.00	62.50	75.00	57.14	48.39
None	100.00	12.50	0.00	14.29	32.25
Did not answer	0.00	25.00	0.00	0.00	6.45

10. Do you own a credit / debit card? Either your own or an add-on card

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Yes	75.00	50.00	87.50	71.43	70.97
No	25.00	50.00	12.50	28.57	29.03

11. If yes, how often do you use your credit card?

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
Daily	0	0	0	0	0
Once in 3-4 days	12.50	12.50	12.50	0	9.68
Once in a week	12.50	37.50	37.50	14.29	25.81
Once in a month	25.00	0.00	0.00	42.86	16.13
More than once a month	12.5	0.00	0.00	14.29	6.45
Did not answer	37.50	50.00	50.00	28.57	41.94

12. Which of the following do you use?

12. Which of the following do you door				
FGD1	FGD2	FGD3	FGD4	Total
N=8	N=8	N=8	N=7	N=31
37.50	0.00	71.43	0.00	25.81
50.00	12.50	37.50	57.14	35.48
25.00	12.50	37.50	57.14	32.26
0	12.5	0	14.29	6.45
	N=8 37.50 50.00 25.00	N=8 N=8 37.50 0.00 50.00 12.50 25.00 12.50	N=8 N=8 N=8 37.50 0.00 71.43 50.00 12.50 37.50 25.00 12.50 37.50	N=8 N=8 N=8 N=7 37.50 0.00 71.43 0.00 50.00 12.50 37.50 57.14 25.00 12.50 37.50 57.14

13. Please mark below how often you use the following websites?

		Open	Once in	Open	Mutiple	Once in a	Never Use
		Daily	3 4 days	Weekly	times a day	month	
	Google	12.50	0.00	25.00	50.00	0.00	0.00
	Yahoo	37.50	0.00	25.00	12.50	0.00	12.50
	Facebook	12.50	0.00	25.00	50.00	0.00	0.00
DOD1	Twitter	0.00	0.00	0.00	0.00	12.50	50.00
FGD1	YouTube	37.50	0.00	12.50	12.50	25.00	0.00
	Others	0.00	0.00	25.00	12.50	12.50	0.00
	Google	0.00	0.00	0.00	0.00	0.00	75.00
	Yahoo	0.00	0.00	0.00	0.00	0.00	75.00
	Facebook	0.00	0.00	0.00	0.00	0.00	75.00
ECDa	Twitter	0.00	0.00	0.00	0.00	0.00	75.00
FGD2	YouTube	0.00	0.00	0.00	0.00	0.00	75.00
	Others	0.00	0.00	0.00	0.00	0.00	75.00
	Google	62.50	0.00	25.00	12.50	0.00	0.00
	Yahoo	0.00	12.50	37.50	0.00	0.00	0.00
	Facebook	12.50	0.00	12.50	12.50	25.00	37.50
EGDa	Twitter	25.00	0.00	50	12.50	0.00	12.50
FGD3	YouTube	12.50	0.00	37.50	0.00	37.50	12.50
	Others	25.00	0.00	12.50	0.00	25.00	0.00
	Google	28.57	0.00	28.57	42.86	0.00	0.00
	Yahoo	42.86	0.00	0.00	14.29	14.29	14.29
	Facebook	0.00	0.00	42.86	28.57	0.00	0.00
DOD 4	Twitter	0.00	0.00	0.00	0.00	0.00	71.43
FGD4	YouTube	14.29	0.00	14.29	0.00	28.57	0.00
	Others	14.29	0.00	14.29	0.00	0.00	0.00
	Google	25.81	0.00	19.35	25.81	0.00	19.35
	Yahoo	19.35	3.23	16.13	6.45	3.23	25.81
	Facebook	6.45	0.00	19.35	22.58	6.45	29.03
m · 1	Twitter	6.45	0.00	12.9	3.23	3.23	51.61
Total	YouTube	16.13	0.00	16.13	3.23	22.58	22.58
	Others	9.68	0.00	12.9	3.23	9.68	19.35

14. Do you own a mobile phone or a land-line phone?

J F F F								
	FGD1	FGD2	FGD3	FGD4	Total			
	N=8	N=8	N=8	N=7	N=31			
Mobile phone	87.50	37.50	75.00	85.71	70.97			
Landline phone	0.00	50.00	0.00	0.00	3.23			
Both	0.00	12.50	25.00	14.29	22.58			
None	0.00	0.00	0.00	0.00	0.00			
Did not answer	12.50	0.00	0.00	0.00	3.23			

15. What all features do you use on your phone?

FGD1	FGD2	FGD3	FGD4	Total
N=8	N=8	N=8	N=7	N=31
50.00	12.50	87.50	100.00	58.06
50.00	25.00	37.50	0.00	29.03
62.50	0.00	75.00	57.14	48.39
12.50	0.00	0.00	14.29	6.45
12.50	12.50	0.00	0.00	6.45
	N=8 50.00 50.00 62.50 12.50	N=8 N=8 50.00 12.50 50.00 25.00 62.50 0.00 12.50 0.00	N=8 N=8 N=8 50.00 12.50 87.50 50.00 25.00 37.50 62.50 0.00 75.00 12.50 0.00 0.00	N=8 N=8 N=8 N=7 50.00 12.50 87.50 100.00 50.00 25.00 37.50 0.00 62.50 0.00 75.00 57.14 12.50 0.00 0.00 14.29

16. Do you know about the debate surrounding privacy concerns in AADHAAR or UID (Unique Identification Number) project of Indian government?

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
I am not aware this project	0.00	25.00	12.50	42.86	19.35
Heard about it, but do not know the details	62.50	37.50	62.50	42.86	51.61
I agree with the privacy concerns being raised	25.00	12.50	25.00	14.29	19.35
I do not agree with the privacy concerns being raised	0.00	12.50	0.00	0.00	3.23
Did not answer	12.50	12.50	0.00	0.00	6.25

17. Do you know about the debate surrounding privacy concerns in NATGRID (National Intelligence Grid) project of Indian government?

	FGD1	FGD2	FGD3	FGD4	Total
	N=8	N=8	N=8	N=7	N=31
I am not aware this project	25.00	75.00	62.50	100	74.19
Heard about it, but do not know the details	62.50	0.00	37.50	0.00	16.13
I agree with the privacy concerns being raised	0.00	0.00	0.00	0.00	0.00
I do not agree with the privacy concerns being raised	0.00	12.50	0.00	0.00	3.23
DId not answer	12.50	12.50	0.00	0.00	6.45

Appendix 4: FGD - Questionnaire

Things to ensure before FGD begins:

- Two recorders are in place (charged and tested)
- Copies of following should be ready:
 - FGD questionnaire: 4 copies
 - Two OSN section sheets, Consent form, Receipt bill: for each participant
- Plain sheets, blank name tags and pens

Just after the focus group:

• Pay the participant and get signature on a paper – Get signature in the .xls sheet

FGD:

Good afternoon everybody! Topic of today's focussed group discussion is to study the perceptions of privacy in India. Firstly we would like to thank you all for taking out time to participate in our study. We will introduce the four moderators (as those present for the study) for today's focus group:

- Dr. Mala Bhandari, Sociologist
- Aditi Gupta, Ph.D. Student, IIIT, Delhi
- Niharika Sachdeva, M.Tech. Student, IIIT, Delhi
- Dr. PK, Assistant professor, IIIT, Delhi

We are here just to facilitate the session today. We are interested in hearing your point of view even if it is different from what others might express. Please keep in mind there are no right or wrong responses, we are just interested in what you have to say about the different topics discussed today. The discussion is scheduled for about 1.5 hours. We are going to make every effort to keep the discussion focused and within our time frame. If too much time is being spent on one question or topic, I may move the conversation along so we can cover all the questions. As a protocol, in order to maintain the decorum and avoid missing out on any important comments, we will request all of you to speak one at a time during the FGD.

We will be audio taping the discussion because we don't want to miss any comments. We will only be using first names today and there will not be any names attached to the comments on the final report. You may be assured complete confidentiality.

Does anyone have any questions at this point?

Please introduce yourself with your first name and if you can also write your name on the name tag that would be appreciated. Let's go around the table.

In the first section we will ask some guestions on:

General Perceptions about Privacy

- 1. When you hear the word privacy, what comes to your mind? [Go around the table to get comments from each participant] Prompts:
 - a. Anything else?
 - b. Any other thoughts about the word privacy?
- 2. Do you have any (other) concerns about privacy? If so, please tell me about them. We are not asking you to tell us about any specific private information, just about the general kinds of concerns you may have. Prompts:
- a. If anything interesting comes up in answer to this question, probe more.

Now, we will discuss privacy issues related to use of: Mobile / Landline Phones:

3. Do you think mobile phones / landlines service providers invade your privacy in any way?

Prompts:

- a. What kind of privacy issues?
- b. In case, you have different concerns for mobile and landlines, please mention them separately.
- 4. Take a moment to think, and tell us about all the personal information your phone service provider have about you.
 - a. We often get calls / SMSes from third party service providers, with whom we have never shared our data or phone number, like companies offering home loan, food discounts, etc.
 - i. What do you think about it?
 - ii. Why do you think it happens?
 - iii. If people mention SMS spam, ask more about how many spam SMS they receive and what they do in order to stop

them.

5. In todays world, mostly all mobile phones have features like cameras, bluetooth, wifi, etc. In what all ways do you think they pose a privacy threat.

6. If somebody clicks a photograph or shoots a video around you from the

camera in their mobile phone, what is your reaction to it?

Prompts:

a. Would like to share some experiences when something like this has happened?

Next section, focusses on privacy concerns on:

Online Social Networks and Internet:

- 7. What do you think are privacy issues while using an online social network, like Facebook, Twitter, YouTube, etc.?
- 8. What all-personal information (like birthday, address, phone number, pictures, etc.) do you provide on an online social network.
- 9. [Give each participant a printout of privacy settings page of a social networking website, currently the sheet has default Facebook privacy settings] Please mark your current privacy settings for your account information on an OSN, while doing so can you please also say why you have such a setting?
- 10. [Give each participant a printout of permission requesting page by an application on Facebook] While using social networking sites, if you play games or use third party applications, you must have seen a screen like this appear. Which of the following permissions do you "allow" the application or "not allow" applications to access.
- 11. Criminals may use your personal information to create an identity and impersonate you on the Internet. Do you think such a scenario is possible?

Prompts:

a. If yes, how?

Now, we will discuss some privacy issues while using:

Credit Cards

12. When we shop or eat at a restaurant, many a times, we pay through credit cards instead of making cash payment. What all are your privacy concerns while using the credit card?

Prompts:

- a. If people mention some scenarios in which they have lost their credit card, probe more about what were the consequences or what action people take.
- 13. Do you think someone can create another identity, by misusing / stealing your credit card details.

Prompts:

- a. If yes, how do you think it can happen?
- b. What are your concerns?
- 14. Many of us use credit card for online banking, paying bills or buying products. How secured or protected do you feel while using such web services for online money transfers?
 - a. Please share your experiences while doing such a transaction.

Now, we would like to probe a little into your views about: **Government initiatives / Legal aspects of privacy:**

- 15. What are your views on Privacy Laws in India? Prompts:
 - a. Do you know what are your rights with respect to privacy.
- 16. In last six months, please state some scenarios, in which you have felt apprehensive about sharing your personal information with government agencies?

Prompts:

- a. For example, while filling your income tax, or opening a bank account, etc.
- 17. The UID and NATGRID projects in India are being supported and advocated by the Indian Government. In what ways do you think government agencies having all your details about bank accounts, physical movement, activities, etc. can be misused?
- 18. What policies and actions should the government enforce to maintain or protect your personal privacy?

Prompts:

- a. So do you feel most of the above measures are already enforced by the government.
- b. If no, then how and why do you trust the government.
- 19. Where would you report (which authorities), if you have privacy issues with the following:
 - a. Private agencies
 - b. Government agencies

Now to conclude our focus group, this is our final discussion question.

Conclusion

20. Now that you've had a chance to think more about your personal data and the issues of privacy, what privacy concerns do you have now, if any? Do you have more or less concerns as you did at the beginning of the interview?

Thank you for your time and efforts. We are just about out of time. Are there any final comments/suggestions that anybody has before we close? The information you have provided us will help us in understanding privacy perceptions of people in India.

Appendix 5: FGD - Personally Identifiable Information

PII is defined as any information about an individual maintained by an agency, including (1) any information that can be used to distinguish or trace an individuals identity, such as name, Social Security number, date and place of birth, mothers maiden name, or biometric records; and (2) any other information that is linked or linkable to an individual, such as medical, educational, financial, and employment information. Please tick, what according to you is Personal Information (Personally Identifiable Information)?

Full Name	ATM pin number
Designation	Organisation/Institutes Name and other details like phone number, address etc.
☐ Date of Birth	Salary
Birth Place	Photograph (Hard Copy)
Caste	Photograph (Digital Copy)
Gender	Passport photocopy
Religion	☐ Voters Card photocopy
Family member names	Passbook photocopy
Marital status Permanent Address	Ration card photocopy
Temporary Address	☐ ID card photocopy
Education Qualification	CV/Resume
☐ Category-SC/ST/OBC/General	Photocopy of other identity proofs, like PAN card etc.
Phone number (Landline)	Medical records
Mobile Number	Property details
CVV number	Tax details (House/Income etc.)
Pancard number	Academic Grades or marksheet copy
Bank account number	Your bank name
Credit card number / Debit Card number	Fingerprints and other biometric details
Ration Card number Vehicle registration Number	Your phone service provider's name
Passport Number	Email and other passwords

E-mail address
Vehicle registration number
Others Please Specify

Appendix 6: Survey – Questionnaire

Privacy Perceptions in India

The study Privacy Perceptions in India, an initiative by **PreCog @ IIIT-Delhi** is focused on understanding and analyzing various privacy perceptions and concerns of Indian citizens. The questions span across, privacy in general, mobile / land-line phones, online social networks, credit cards, ATM cards, and government involvement in individuals' life.

Ten survey participants will be periodically selected to win exciting prizes (i-pod, digital cameras, etc.), as a token of appreciation for their efforts. We will disseminate the results from the study on public forums. All data collected during this survey will be anonymized and aggregated for dissemination of the results. Your answers are treated confidentially and used for research purposes only.

Thank you for your time in filling the survey. Please feel free to write to us at privacystudy@iiitd.ac.in for any suggestions or feedback. In total, there are 6 sections, and on average it should take about 30 minutes to complete the survey.

				Section 1	of 6: Gene	ral Priva	cy			
1.	. When you hear the word privacy, what comes to your mind? (Choose all that apply)									
	Bodily privacy (e.g. your physical body) Communication privacy (e.g. calls received or dialed through telephone) Information privacy (e.g. information exchanged on the Internet) Territorial privacy (e.g. your living space, working space) All of the above Others (please specify)									
2. Which of the following information is personal to you to Annual house hold income Bank account details Credit card number Date of birth Email address Family details Full name Health and medical history Landline number Others (please specify)					Marital sta Mobile nu Passport Password Personal i Pictures a	atus mber: number s income nd videos feat letails – height iling address	turing self		у уу)	
3.	Does privacy for different at different	•	-				~	hare with wh	om may be	
	CYes			○ No			C May be			
4	. With whom would	d you share	e the follo	wing informa	ation? (Cho	oose all th	nat apply)			
		Friends	Family	Relatives	Society	Banks	Government	Everybody	Nobody	
	Annual house hold income									
	Bank account details									

	Friends	Family	Relatives	Society	Banks	Government	Everybody	Nobody
Credit card number								
Date of birth								
Email address								
Family details								
Full name								
Health and medical history								
Landline number								
Marital status								
Mobile number								
Passport number								
Passwords								
Personal income								
Pictures and videos featuring self								
Physical details e.g.height, weight, eye colour.								
Postal mailing address								
Religion								
 5. Imagine you are walking through a shopping mall, where you observe a camera capturing the movements of people in the shops, what would be your reaction? (Choose one which is applicable) C I would not change my actions C I would try to avoid the camera C I would never go to the shopping mall again C If at all, a camera captures my movements, I would be curious to know the reasons for capturing the video C Others (please specify) 								
•	6. How much do you agree / disagree with the following statements? (Choose one which is applicable) o Consumers have lost all control over how personal information about them is circulated and used by							

companies
Strongly agree Agree Neutral Disagree Strongly disagree

	○ Most businesses handle the p	ersonal informa	ation they collect about	t consumers in a p	proper and	
	confidential way					
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
	C	0	0	0	0	
	∘ Mobile phones can be privacy	invasive				
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
	Ö	0	0	Ö	0	
	 Landline phones can interfere 	with individual	e privacy			
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
	Ottorigiy agree	Agree	C	Disagree	Ottorigiy disagree	
	· ·	~		~	•	
	 Websites can hinder privacy b 	y collecting pe				
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
	0	0	0	0	0	
	○ Credit cards can be privacy in	vasive				
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
	C	0	0	Ö	0	
	 Phone banking can invade pri 	vacy				
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
	0	0	0	0	0	
7.	Consider a scenario where you visit doesn't ask for password for connect which is applicable)					
	Definitely would	Probal	blv would	Not sure		
	Probably Not	C Definit				
		20	,			
8. Imagine for checking your results of an entrance exam you went to the institute and saw that the respect to the institute and the respect to the institute and the respect to the respect to the institute and the respect to the respect						
	 How would you feel about your 	marks being di	splayed on the notice b	ooard?		
	C Always feel comfortable	C Usuall	y feel comfortable	© Sometime	es feel comfortable	
	Rarely feel comfortable		feel comfortable	30111011111		
	- Naiely leel comfortable	INCVE	icci cominiditable			
	o How would you feel about your	category (gene	ral / OBC / SC) being (displayed on the n	otice board?	
	C Always feel comfortable	C Usuall	y feel comfortable	○ Sometime	es feel comfortable	
	Rarely feel comfortable		feel comfortable	201110		
	,					

9.	9. While travelling in long-distance trains, a reservation chart with details e.g. last name, first name, age, gender, boarding station, destination, seat number, PNR number for each passenger is displayed on the platform and the compartment. How would you feel about your information being displayed as in this scenario (Choose one which is applicable)?								
	C Always feel comfortable	0	Usually feel comfortable	Sometimes f	eel comfortable				
	Rarely feel comfortable	0	Never feel comfortable						
		Section 2	2 of 6: Mobile phone priva	<u>cy</u>					
No	w, you will look at mobile phone p	rivacy secti	on.						
10.	Do you save personal information	n in your mo	obile phone? (Choose one v	which is applicable)					
				Don't remember (Go	to Qn. 13)				
11.	What is the personal information Go to Qn. 13)	which you	don't mind storing in your m	obile phone?(Choose	all that apply and				
	☐ Business related information ☐ Credit card number(s) / AT ☐ Information e.g. date of bir ☐ Password(s) ☐ Videos, photographs,etc. ☐ All of the above ☐ Others (please specify)	ΓM card nui th, PAN nu	mber(s) / PIN number(s) mber, ID number, account	number					
12.	What are the reasons for which yeapply)	ou don't sto	ore personal information on	your mobile phone? (d	choose all that				
		dy accessir	ost ng the phone at work, or out ng the phone at home witho		sion				
13.	Imagine you visited a mobile serve to fill a form giving details e.g. natishare with them, if they are NOT	me, date of	birth, ID proof. Which of the	e information given be					
	☐ Alternative address proof		☐ Photograph(s)					
	Another contact number		☐ Proof of place	•					
	Educational qualification		Parents' deta						
	☐ ID proof		All of the abo						
	Permanent address proof		☐ None of the	above					
	Others (please specify)								
14.	How much do you agree / disagre o Mobile service providers g		se statements? (Choose on able protection for the infor						
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
	0	0	0	0	0				

0	Mobile service providers can keep a record and can access the information exchanged through mobile phone								
	Strongly agre	ee Agree	Neutral C	Disagree C	Strongly disagree				
0	Phone conversation Strongly agreement		y mobile service provide Neutral	rs in national intere Disagree	st Strongly disagree				
0		oviders can share the	customer's information	with government org	anization when				
	Strongly agre	•	Neutral	Disagree	Strongly disagree				
0	Mobile service pro Strongly agre	•	vate information you prov Neutral	vide them with third Disagree C	parties Strongly disagree				
15. Do y	ou use phone banki	ng services to check	your balance in the acco	ount? (Choose one w	hich is applicable)				
16. Wou	No, because I am Others (please spe	not sure of who is onecify) nking services to tran	leaked through phone ta the other side nsfer money from your ac		e which is applicable				
0	Yes, I don't have a No, because I fear No, because I am r	choice information may be I not sure of who is on	eaked through phone tap	. •					
	• •	•	e, what according to you being exchanged? (Choo		* *				
	Very high	High C	Neutral	Low	Very Low				
c	I don't know								
18. Wha	t do you do before yo	ou sell your mobile pl	none? (Choose one whic	ch is applicable)					
6	Copy the information Delete all information	on from SIM card an on that is stored in the	from SIM card and phoned phoned the memory and the memory and the memory and the mobile phone numbers and messages	· ·					

Others (please spe	ecify)				
19. While exchanging informations by the land-line service p		-	-	•	vided
Very high	High	Neutral	Low	Very Low	
C I don't know	0	О	0	С	
20. While moving in a shoppi would be your reaction?		· ·	aking your picture u	sing a mobile phone, wh	at
No reaction					
☐ I don't like a stranç ☐ I don't like being p ☐ Others (please spe	hotographed at a	II in public places			
	• / -				
21. While travelling (i.e. in roa e.g. user busy, phone sw in Mumbai, the messages (Choose one which is ap	itched off. For example are presented in	ample, if your phone	connection is from I	Delhi and if you are trave	
Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
С	0	0	0	С	
		Section 3 of 6: Cre	edit Cards		
Now, you will look at credit cards, or debit cards or their	•	n. In this section, we	will use term credit	cards for ATM cards, cre	∍dit
22. Do you have a credit card	l issued in your n	ame? (Choose one v	which is applicable)		
C Yes [Go to Qn. 23]					
No, but I have use	=	=			
No, I don't use the	m at all [Go to se	ction 4 of 6]			
23. Do you lend your credit c	ards to others? (0	Choose one which is	applicable)		
C Yes (Go to Qn. 24) (No (Go to Qn. 25)			
24. To whom do you lend you	ur credit card for u	using it? (Choose all	that apply)		
☐ Children☐ Relatives☐ Others (please sp	ecify)	Friends Professional collea		arents pouse	
25. Whose (owned by whom	credit card would	d you also use? (Cho	oose all that apply a	nd go to Qn. 27)	
☐ Children☐ Professional colle	agues [] Friends] Relatives	<u>=</u>	arents pouse	

	Others (please specify)		
26. W	/hose (owned by whom) credit card w	ould you use? (Choose a	all that apply)
	☐ Children ☐ Professional colleagues ☐ None	☐ Friends ☐ Relatives ☐ Others (please spec	☐ Parents ☐ Spouse
27. W	/hat is true for you with respect to usir	ng credit cards in today's	world? (Choose one which is applicable)
	It is unavoidable It is handy; use it frequently for volume only for specific tasks e.g. of Use as a back-up for emergency Others (please specify)	online ticketing y situations	opping, petrol pumps, and grocery shops
	nagine that you went to a restaurant to a restaurant to a ke the payment of the bill through yo	•	nds / family. Which of the following is true if you one which is applicable)
		take the card yourself to ould give the card to wait ter only if it's a trustworthy cannot do anything about ard to make the paymen	cash counter, get it swiped in front of you er and check the details of bill carefully y restaurant ut it
	o you think credit cards should displag ne which is applicable)	y the details e.g. name, p	hone number, date of birth on them? (Choose
	It should not display any personal It should display only relevant de It should display all details as the It does not bother me Others (please specify)	etails required for identific ese are required for verifi	cation
	o you think it is possible for anybody t Choose one which is applicable)	to steal your identity and	impersonate you, using your credit card?
	Yes, it is fairly easy Yes, but it's not easy No, it's not possible under any c I have never thought about it Others (please specify)		
		A T A A A A A A A A A A A A A A A A A A	

31. Imagine you go to withdraw money from ATM; while you are withdrawing money, you notice other people peeping into the ATM while you enter the PIN. How would you consider entering details of your account in this scenario? (Choose one which is applicable)

Probably not		Definitely	not	C I have n	C I have no other choice	
			•	-	enter if there are two e which is applicable)	
C Definitely wo		C Probably v		○ Not sure		
C Probably no	t	C Definitely r	not	C I have n	o other choice	
Now, you will look at le 33. On visiting various below mentioned i	nternet and Online websites, a lot of	e Social Network (personal informa	•	ion. ow comfortable c	lo you feel sharing	
	Always feel comfortable	Usually feel comfortable	Sometimes feel comfortable	Rarely feel comfortable	Never feel comfortable	
Annual house hold income	0	С	0	С	0	
Bank account details	C	0	0	С	0	
Credit card number	C	С	С	C	0	
Date of birth	0	0	0	0	0	
Email address	0	0	0	0	0	
Family details	0	0	0	0	0	
Full name	0	0	0	0	0	
Health and medical history	0	0	c	0	0	
Landline number	0	0	0	0	0	
Marital status	0	0	0	0	0	
Mobile number	0	0	0	0	0	
Passport number	0	0	0	0	0	
Passwords	0	0	0	0	0	
Personal income	0	0	0	0	0	
Pictures and videos featuring self	0	С	С	0	0	
Physical details- height, weight, eye colour.	0	c	c	c	0	

C Probably would

Not sure

C Definitely would

	Postal mailing address	0	C	С	С	0	
F	Religion	С	0	0	С	0	
34.	Have you ever removed	d cookies in your	browser after usin	g the Internet? (Choose one wh	ich is applicable)	
	C Often		C Sometimes		C Hardly eve	er	
	Never		Not familiar wit	th cookies	O Don't know	W	
35.	Which of the following e	email services do	o you use? (Choose	e all that apply)			
	☐ Gmail		☐ Hotmail		Official e	mail	
	☐ Yahoo mail		Others (please	e specify)			
	☐ Do not use any e	email services [C	Go to Qn.39]				
	Do you exchange perso (Choose the one which		e.g. bank account	numbers, passp	ort details throu	igh your email?	
	Yes, frequently		 Sometimes 	° (Only in emergen	су	
	No, not at all		C I don't rememb	per			
	Do you save personal in (Choose the one which		bank account numb	pers, passport d	etails in your em	nail for future use?	?
	Yes, frequently		Sometimes	° (Only in emergen	су	
	No, not at all		C I don't rememb	er			
	What are your privacy of (Choose the one which I have no concer I believe that the I am concerned, I am concerned of Don't know	is applicable) ns privacy of my d but I do not have	ata is maintained e a choice	personal inform	ation through er	mail services?	
	Do you read the privacy account? (Choose one	•		e.g. PayPal, eBa	ay, bank website	es while creating a	an
	C Yes, I do		C I browse through	gh it	Never		
	C Don't remember		C Others (please	specify)			
	Do you read the privacy applicable)	policy of an em	ail provider while c	reating an accou	unt? (Choose or	ne which is	
	C Yes, I do		C I browse throu	~	Never		
	Don't remember		Others (please	specify)			

41	. Which of the follow	ing OSN service	es do you use	e? (Choose all w	hich apply)			
	☐ Facebook ☐ MySpace ☐ YouTube ☐ Do not use a	any [Go to section	☐ Ork ☐ Oth	ogle+ cut iers (please spe	cify)	☐ LinkedIn ☐ Twitter 		
42	. What do you feel a	bout privacy of y	your persona	I information on	your OSN? (Choose one v	vhich is applicable)	
	© Even though © It is a concer © It is a concer	specified my pr , I have specifie n, but I still shar n; hence I do no	d my privacy re personal in ot share personal	onal data on OS	oncerned ab	out privacy of	my data	
43	. If you receive a frie as friends? (Choos		on your most	t frequently used	I OSN, which	of the followi	ng people will you a	bb
	Strangers (p	oposite gender eeople you do no whom you do no	•	Person with	my hometov nice profile p e mutual / co	oicture	s with	_
44	. Have you ever mod	dified your defau	ılt privacy set	ttings on your O	SN website?	(Choose one	which is applicable)	
	C Yes, I have r C I don't reme	nodified my priv mber	acy settings		have never t know	changed defa	ult settings	
45	. Do you have a Fac CYes [Go to C		•	○ No [Go to Qn. 49	9]		
46	. What privacy settin the best of your kno	•		•	on Facebool	Please prov</td <td>vide your response t</td> <td>0</td>	vide your response t	0
		Not shared	Friends	Friends-of- Friends	Network	Everyone	Customized	
	Age	0	0	0	0	0	0	
	Date of birth	0	0	0	0	0	0	
	E mail ID	0	0	0	0	0	0	
	Gender	0	0	0	0	0	С	
	Location	0	0	0	0	0	0	

Marital status	0	0	0	0	0	0
Name	0	0	0	0	0	0
Other profile information e.g. education and work details	0	c	0	0	c	c
Pictures / Photos	0	0	0	0	0	0
Religion	0	0	0	0	0	0
Videos	0	0	0	0	0	0
☐ When I see th☐ When online☐ When I rando	se one which I don't read it e permissions e permissions mber seeing a er allow third-p e third party a de third-party a de the commend ne application social networ	is applicable) It and just allow It the application	y, otherwise I can asks, but always asks, and access my an an online social an application as an application as application application	annot access ays "allow" th cordingly deci personal info all network? (all	the application e application de to "allow" o	or "not allow" the
49. Have you connected YouTube, Buzz, Ork	d / inter-linked	your various s			ogether e.g. Fa	acebook, Twitter,
CYes	`	No	,	ି l do not kn	ow of any suc	h linking service
50. Do you think it is poswith your name, pict		•	•	•	network websi	te i.e. create a profile
C Yes, it is possC Yes, it is possC No, it is not poC Don't know	ible, and it ha					

51. Do you read the privacy policy of an OSN provider while creating an account? (Choose one which is applicable)

Yes, I do		U I bro	wse through it			
Never	○ Never ○ Don't remember					
	n 5 of 6: Gover	nment initiatives / L		vacy		
						
Now, you will look at governme	ent initiatives / le	egal aspects of privac	y section.			
52. Does the Indian constitution	n have a provisi	on for privacy of India	an citizens? (Choose	e one which is applicable)		
CYes, I know about it						
CYes, but I don't know	what it is					
C Not sure, I assume the	•		re of it			
CI do not know about t	his kind of a pro	ovision				
No, there is no provi	sion					
53. Do we have privacy laws in	India that prote	ect Indian citizens' pri	vacy? (Choose one	which is applicable)		
CYes	С	No	C Not sure			
54. Are you aware of Unique Io (Choose one which is appli		nber (UID), a Govern	ment of India initiativ	ve for every citizen in India		
C Yes [Go to Qn. 55]			○ No [Go to Qn. 56]	1		
C Heard about it, but d	o not know the		•			
riodia aboden, baca			1			
55. How much do you agree w	ith the statemen	t? (Choose one whic	h is applicable)			
 Personal information corporate through UID value 		• • •		accessible to other private otherwise?		
Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
0	0	0	0	0		
•	driving license,		•	ds, Internet logs, phone e tax records which can be		
Strongly agree	Agree ©	Neutral	Disagree	Strongly disagree		
56. Are you aware of the NATO	GRID (National i	ntelligence Grid) proj	ect? (Choose one w	hich is applicable)		
C Van 10 - 4 - 0 - 571			ON- to- t	a a ational CI		
 Yes [Go to Qn.57] Heard about it, but of 	do not know the	details[Go to section	○ No [Go to s	section 6]		
v i icaiu about it, but t	ao not know the	acianal GO 10 SECTION	· · •]			

57. How much do you agree with the statement. Projects such as NATGRID (National Intelligence Grid) which can access details and movement records of an individual, can be misused by government agencies? (Choose one which is applicable)

U	0	O	· ·
	Section 6 of 6: De	emographics	
Now, you are in the demographics 58. How old are you? (Choose one			
C Less than 18 years C 30 - 39 years C 65 and above	© 18 - 24 ус © 40 – 49 у	,	
59. What is your nationality? (Cho	ose one which is applicable)		
ି Indian	C Others (p	lease specify)	
60. Which of the following state do	you belong to (State of origin)? (Choose one which is app	licable)
C Andaman and Nicobar C Bihar C Goa C Himachal Pradesh C Madhya Pradesh C Meghalaya Punjab C Tripura C Chhattisgarh C Others (please specify) 61. Choose the states where you h	Andhra Pradesh Dadra and N. Haveli Gujarat Jammu and Kashmir Maharashtra Nagaland Rajasthan Uttar Pradesh Uttarakhand	C Arunachal Pradesh Daman and Diu Haryana Lakshwadeep Islands Manipur Odisha Sikkim West Bengal	C Assam C Delhi C Karnataka C Kerala C Mizoram C Puducherry C Tamil Nadu C Jharkhand
Andaman and Nicobar Bihar Goa Himachal Pradesh Madhya Pradesh Punjab Tripura Chhattisgarh Others (please specify)	☐ Andhra Pradesh ☐ Dadra and N. Haveli ☐ Gujarat ☐ Jammu and Kashmir ☐ Maharashtra ☐ Nagaland ☐ Rajasthan ☐ Uttar Pradesh ☐ Uttarakhand	Arunachal Pradesh Daman and Diu Haryana Lakshwadeep Islands Manipur Odisha Sikkim West Bengal	Assam Delhi Karnataka Kerala Meghalaya Puducherry Tamil Nadu
62. What is your gender? (Choose C Male	one which is applicable) C Female		

Agree

Neutral

Disagree Strongly disagree

Strongly agree

	C Less than High school C Post Graduate C Others (please specify)	C High Schoo	ol [©] Coll	ege Graduate
64. \	What is your profession? (Choose one Computer / IT related Housewife	e which is appli	cable) Professional (Doc Student	tor, CA, etc.)
	Manufacturing / Business Others (please specify)		C Teaching / Resear	
65. W	hat is your occupation? (Choose one	which is applic	able)	
	Business / self employed		C Job in private sector	or
	Job in public sector		Not employed	
	○ Student		Others (please spe	ecify)
66. In	which of the following places do you	use a compute	r? (Choose all that app	oly)
	☐ College☐ Library☐ All the above☐ Others (please specify)	☐ Cyber Caf	ř é	☐ Home ☐ Work / office
67. Fo	or what purpose do you use computer	rs? (Choose all	that apply)	
	☐ Entertainment / Gaming☐ Exchanging e-mails / instant me☐ Official / Work purpose☐ Online social networking	ssages	☐ Purchasing produ☐ Word Processing☐ World Wide Web☐ Others (please sp	/ Internet browsing
68. D	o you own a personal computer? (Cho	oose one which	is applicable)	
69. H	low long have you been using compu		one which is applicable	9)
70. H	ow long have you been using the Inte	rnet ? (Choose	one which is applicable	e)
	© 0-2 years	C More than	2 to 3 years	[©] More than 3 to 5 years
	C More than 5 years	C Don't reme	mber	
71. H	ow often do you use the Internet? (Ch	oose one whic	h is applicable)	
	C Always connected C Several times a week C Once a month	Several tin Once a we Few times	ek	C Once a day Several times a month

72. Which of the following electronic communication media and devices you use? (Choose all that apply)

☐ Credit / Debit card☐ Mobile banking☐ All of the above☐ Others (please specify)	☐ Internet ☐ Mobile phone	☐ Landline phone ☐ Online Social Networks
73. How did you get to know about this surve	ey / study? (Choose all that appl	y)
☐ College / office ☐ e-mail ☐ IIIT-Delhi website ☐ 9dot9 ☐ Others (please specify)	_ •	ds and acquaintances
74. Where did you fill the form? (Choose one Online on Survey Monkey In your campus / organization Public space e.g. Shopping Mall, Others (please specify)	Cinema, market, and park	
Ten survey participants will be periodically so to take part in the lucky draw, please specify are a winner. All data collected during this suresults. Your answers are treated confidential information for any other purposes but to confidence.	an email address or phone nun urvey will be anonymized and ag ally and used for research purpo	nber where we could contact you, if you gregated for dissemination of the
Email address Contact number		

Thank you for your time!!