

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 one's 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 India 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.