### Privacy and Conflicting Identities in the Context of Punjabi Canadians

by

Faqia Iqbal

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The following individuals certify that they have read, and recommend to the Faculty of Graduate and Postdoctoral Studies for acceptance, the thesis entitled:

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submitted by Faqia Iqbal in partial fulfillment of the requirements for the

### **Examining Committee:**

degree of Master of Science in Computer Science

Dr. Ivan Beschastnikh, Associate Professor, Computer Science, UBC

Supervisor

Dr. Dongwook Yoon, Assistant Professor, Computer Science, UBC

Supervisory Committee Member

### Abstract

Many of us have experienced the need to filter the information we share with the world. There is a dearth of research in the field of privacy in the context of non-WEIRD populations and immigrants living in WEIRD (Western, Educated, Industrialized, Rich, and Democratic) societies. In this thesis, I explore how Punjabi Canadian adults navigate the potential conflicts between their two cultural identities and how this affects their digital privacy decisions. I identify the social and cultural factors that influence the privacy choices of Punjabi Canadians, and how these individuals react to the resulting social sanctions. These sanctions may limit their freedom and their right to privacy both in physical and virtual settings. I conducted 12 interviews with Punjabi Canadians and used constructivist grounded theory to elicit themes related to the "What," "Why," and "How" of their privacy choices and behaviours.

I found that the collectivist nature of the Punjabi culture is reflected in their privacy regulation practices, which involve the family as well as the individual. There was an asymmetry of information flow between the Punjabi and Canadian sides of an individual's social circle. This was highlighted by the norm of physical and social gender segregation among Punjabi Canadians, where the Punjabi side was more often kept in the dark about activities that involved gender mixing. I also found that women participants were especially fluent in privacy-preserving practices, which may be due to their being held to a higher standard than men, facing greater surveillance, and having more familial responsibilities and restrictions on their clothing and mobility. The Punjabi culture represents a significant portion of South Asian culture while the Canadian culture represents North American culture. Hence, the findings of this study are relevant to immigrants in North America, especially from South Asia. Apart from immigrants, they are also transferable to other populations experiencing conflicting identities.

# Lay Summary

My thesis looks at how people from Punjabi backgrounds living in Canada manage their cultural identities as both Punjabi and Canadian and how this impacts their decisions about their digital privacy. I interviewed 12 Punjabi Canadians in Canada and discovered that their culture affects how they handle their privacy. The research found that the amount of information that is shared with the people in a person's social network who identify with the Punjabi culture and those who identify with the Canadian culture is not equal. I also found that women were especially good at protecting their privacy and proposed some explanations for this. The results of this study will be useful for understanding how other groups with mixed identities handle their digital privacy.

## Preface

This dissertation is an original, unpublished, independent work by the author, Faqia Iqbal. This study was approved by BREB (UBC Research Ethics Board) under UBC BREB number H21-00285 and PAA number H21-00285-A001.

# Table of Contents

A۱	ostra	ict .					•	•	•	٠	•		٠	٠	•	•			٠	•	•	•	•	•	٠	•	ii
La	y Su	ımmar	<b>y</b> .																								iii
Pr	efac	e																									iv
Ta	ıble (	of Con	tents	s .																							v
Li	st of	Tables	s .																	•							vii
A	cknov	wledge	men	$\mathbf{ts}$									•														viii
De	edica	tion																									ix
1	Intr	oducti	ion																	•							1
2	Bac	kgroui	nd										•														4
3	Met	thodol	ogv																								6
	3.1	Why S																									6
	3.2	Study																									7
		3.2.1																									8
	3.3	Partic																									8
	3.4	Analys																									9
	3.5	Resear																									10
4	Fine	$\operatorname{dings}$																							•		12
	4.1	Collec 12	tivist	nat	ure	of	pr	iva	су	re	gu	lat	tio	n	in	Ρ	ur	ıja	bi	-C	aı	ıa	di	aı	ns		
		$\frac{12}{4.1.1}$	Mor	.:		4	•			lo e			h.,		4	· la .	:	<b></b>	c								13
		4.1.1	Mor		_	•			-				•					·		_							19
		4.1.2	Inte		enc	ер						_									so	Cl	aı	a	c-		13
		419	tivit	.y. ekee	 	• •															1	•	•	•	•	•	13 14
		4.1.3	Gat	ekee	pın	ıg (	)I S	SOC	ıaı	11	160	пa	p	OS	UΠ	пg	Ŋ	y 1	laI	111	ıУ		٠	٠	٠	٠	14

		4.1.4	Self-imposed censorship	15
	4.2	Physic	cal and social gender segregation as a norm for Punjabi-	
		Canac	lians	16
		4.2.1	Gender segregation in Punjabi culture	16
		4.2.2	Discouraging gender mixing	17
		4.2.3	The role of tech in gender mixing	18
		4.2.4	Privacy leakage and its consequences	19
	4.3	Priva	acy fluency in Punjabi-Canadian women as a defense	
		mecha	nism	20
		4.3.1	Rules of public conduct for women	20
		4.3.2	Restrictions on women's clothing and mobility	21
		4.3.3	Creating Online Safe Spaces	23
5	Rela	ated V	Vork	27
	5.1		cy Concerns and Privacy Management	27
	5.2		cting Identities and their effect on Privacy Management	29
	5.3	Cultur	ral Identity in the context of Immigrants	30
	5.4	Techn	ology Use and Privacy Perceptions outside the West     .	31
6	Des	ign In	nplications	34
7	Con	clusio	n	36
$\mathbf{B}^{i}$	bliog	graphy		37

# List of Tables

3.1 Interviewed participants							rticipants	Interviewed	3.1
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For my parents, Asma and Iqbal: for giving me wings For my sister, Paloma: for her silent support And for Ozair: for his love and patience

### Chapter 1

### Introduction

Privacy is a multifaceted concept that is influenced by a number of factors and holds importance for different individuals and fields of research for a variety of reasons. For an individual, protecting their informational privacy is a way to assert control of how they wish to present themselves to whoever they want, to whatever extent and in whichever context [14] [40]. This is why privacy is a key issue in the context of social media, which can be a powerful tool for self-expression and self-identity. How a person manages their privacy and self-disclosure on social media is related to their need for self-identity, as supported by Goffman's theory of self-presentation [17]. In other words, their decisions about what personal information they share on social media are related to their desire to have a clear sense of themselves and to present a certain image of themselves to others [40].

Privacy, by virtue of being a social construct, varies across different cultures and time periods. In collectivist societies, where the emphasis is on the needs and goals of the group rather than on the individual, individuals may be more willing to sacrifice their personal privacy for the good of the group, whereas in individualistic societies, individuals may place a higher value on their own personal privacy. In immigrant communities, where individuals from one culture have assimilated in another culture, their priorities might vary depending on their bicultural identities. Therefore, the concept of privacy is not fixed, but rather it is shaped by the cultural context in which it is understood and practiced.

The problem, however, is that most major social media platforms are based in the United States and their privacy settings were designed based on western privacy values, catering to those from WEIRD societies. Western societies have been dominant in the production and dissemination of knowledge, allowing them to impose their values and perspectives on other societies. This has led to a bias towards Western perspectives in the study of privacy and a lack of attention to the privacy values and traditions of non-Western cultures. This is the collective result of the dominance of Western academic institutions and research methodologies, and the privileged position of Western societies in the global hierarchy.

As the world becomes increasingly interconnected and globalized, it is important for privacy technology to be able to operate across different cultural and geographic boundaries, and value dimensions. This includes not just non-western communities but a distinct and gradually growing user group of immigrants in western cultures with non-western backgrounds who face a conflict of cultural identities. To develop inclusive privacy technology, it is necessary to engage in dialogue with people from different cultural contexts to provide a nuanced and accurate understanding of the privacy issues they face. In recent years, there has been an effort to understand the privacy perspectives and practices and use of technology in non-western cultures. I have discussed some of the important works in the related work in Chapter 5. My study is aligned with the goal of these studies but focuses on a different population.

In my thesis, I aim to bring clarity to the privacy concerns and privacy-preserving practices of young adults belonging to the Punjabi community of Canada. Even though the individuals of this community are living in the western, individualistic culture of Canada, they are still connected to their Punjabi, collectivist roots. I inspect how Punjabi Canadian adults balance their two cultural identities and investigate how their identities may or may not conflict with each other. Further, I explore how this impacts their digital privacy decisions. For the purpose of this study, privacy is defined as the right to being free from intrusion, disturbance, or interference by others, in one's communication with others, online activity, decisions, and everyday activities. This definition encompasses the right to both information and individual privacy.

The Punjabi Canadian population is unique in that it consists of individuals from a South Asian, collectivist culture living in a western, individualistic culture. We need to be familiar with their social system to get a sense of their privacy concerns and the reasons behind their privacy choices. Since the individuals in this population are at varying stages in the process of acculturation, the existing literature is not enough to develop an understanding of the social structures that influence their everyday lives. Hence, my first research question is: 1. What are the social structures that impose sanctions on Punjabi Canadians (PCs) when they make digital privacy choices?

Once we know what social structures impose sanctions on PCs, we need to know what privacy hurdles they face as a result of them. What rules and restrictions do they need to follow, why do they need to follow them, what different forms do these restrictions take, and which aspects of an individual's life do they apply to? All of these questions are summarized

in my second research question, which is: 2. What is the nature of the sanctions that PCs experience in the privacy context as a result of social structures?

Finally, we need to investigate how PCs respond to the sanctions they face. What steps do they take to safeguard their privacy and freedom, what are they willing to compromise or not compromise on and how do they balance their culture with Canadian culture? I intend to examine all of the above in the last research question: 3. How do PCs adapt their privacy choices in response to such sanctions?

Overall, by investigating the social structures that impose sanctions on PCs, the sanctions they experience, and how they adapt their privacy choices in response, we can gain a better understanding of the challenges and complexities they face in safeguarding their privacy. I conducted this investigation by interviewing 12 PCs living in Vancouver. I then utilized constructivist grounded theory to uncover themes connected to this topic [10].

I found that the collectivist nature of the Punjabi culture is reflected in their practices of privacy regulation, which are not limited to the individual but involve the family as well. There was an asymmetry of information flow between the Punjabi and Canadian sides of an individual's social circle, highlighted by the contradictory norm of physical and social gender segregation among PCs. I further found that women participants were especially fluent in privacy-preserving practices which can be attributed to their being held to a higher standard than men, facing greater surveillance, having more familial responsibilities and more restrictions on their clothing and mobility.

This topic is especially interesting to me because I myself am part of the PC community as I will elaborate on later in my positionality statement in Section 3.5. The findings of this study are not just relevant to immigrants but are transferable to any population experiencing conflicting identities since such individuals are motivated to develop creative security strategies that stretch the limits of existing privacy settings in typical applications. I study their strategies to provide insight into privacy issues faced by all such immigrant communities from collectivist societies in Canada.

In the next chapter, I introduce the reader to Punjab, Punjabis in Canada, and the Punjabi culture, to provide context to the research questions.

### Chapter 2

## Background

The region of Punjab comprises of an area located in northwestern India and an area situated in present day northeastern Pakistan. The province of Punjab was divided between India and Pakistan in 1947 at the time of their independence from the British Empire, but the Punjabi culture of both sides of the border remains similar. Cultural aspects such as dress, food, films and folklore to music, poetry, and dance, are common but perhaps the biggest uniting factor is the Punjabi language. Punjabi identity has conventionally been characterized by linguistic, geographical, and cultural factors. It is not tied to historical origin or religion, but rather refers to individuals who reside in the Punjab region or have a connection to its population, and those who speak Punjabi as their first language. This includes both Pakistani and Indian individuals [36]. Before the partition, even the religions were evenly distributed in Punjab, but now the Pakistani side holds a majority of Muslims, with a minority of Christians, while the Indian side holds a majority of Sikhs and a minority of Hindus. The culture of Punjab is influenced by all the major religions of the region.

There is a large population of Punjabis living outside of Punjab, especially in the UK and Canada. Punjabi immigrants first arrived in Canada in the late 19th century and initially had a hard time due to their small numbers and the discrimination and racism they often encountered [39]. As a result, many immigrants felt the need to bend in favour of the majority culture to be accepted. Today Canada has the 2nd highest number of Punjabis living outside India and Pakistan [19]. There are a total of 942,170 PCs, making up 2.593% of the total Canadian population, the 2nd highest number of which is present in Vancouver, British Columbia, with the 1st and 3rd highest being in Toronto and Calgary respectively [20].

Punjabi culture is highly collectivist, with an emphasis on social harmony and conformity. In collectivist cultures, people often have a strong sense of belonging and identity based on their group membership, and they may prioritize group goals and norms over their own personal desires and needs [38]. People take pride in their family's history and traditions and may see their family connections as an important part of who they are. Strong family

ties are considered your social capital and independence from the family is not considered a strength, but is perceived as selfish. Since the family unit is so closely-knit, any action that vilifies the individual reflects badly on the entire family [37]. This is why decisions are made with the good of the family in mind, with a greater consideration of social norms than individual attitudes [38]. This means that the family plays a role in decision-making, especially when it comes to important life events, such as marriage and career choices [37]. In Punjab, like in most collectivist cultures, uniqueness is not celebrated but is made to conform to family and social pressure. Children are given the lesson of staying true to their cultural values and not straying off the beaten path. Overall, there is a greater regard for society's opinion, and an effort to maintain a good reputation and healthy social connections.

All in all, Punjabi culture is characterized by the Punjabi language and a strong emphasis on community and social cohesion. Cultural practices such as language, clothing, food, and others are shared by individuals on both sides of the India-Pakistan border. There is also a significant population of Punjabis living outside of the Punjab region, particularly in the UK and Canada. Punjabi families are typically close-knit, with family ties and traditions being held in high regard. Family members are often involved in decision-making around significant life events. Despite the political division between India and Pakistan, the shared culture of the Punjabi people serves to bring people together across national boundaries.

### Chapter 3

## Methodology

I used constructivist grounded theory [10] in my study since I required a qualitative research method that was well-suited to the study of complex social phenomena and was useful for generating a theory that is grounded in the data. Constructivist grounded theory is a variation of grounded theory [16] that combines the principles of grounded theory with constructivism. I favoured constructivist grounded theory over traditional grounded theory since it recognizes that the researcher's own perspective and preconceptions influence the data collection and analysis process. I was thus encouraged to be reflexive and transparent about my Punjabi background [Section 3.5] which was bound to colour my position since it is such a huge part of my identity and one of the main reasons why I chose this topic in the first place. This ensured that the theories generated were grounded in the data and were not simply the result of my own biases. By contrast, in traditional grounded theory, the researcher is generally expected to be objective and unbiased in the construction of the theory.

The study was conducted in Vancouver, British Columbia, Canada, with participants who identified as Punjabi – belonging to the province of Punjab in either India or Pakistan. This chapter is divided into five sections. First of all, in Section 3.1 I present the reasons behind PCs as my choice of population. Then, I expand upon the Study Design in Section 3.2, i.e the framework for conducting the study and collecting data. Next, I describe the method and the criteria for participant recruitment in Section 3.3. This is followed by Section 3.4, Analysis methods, which explain how the data was analyzed to answer the research questions. Finally, I present my Researcher Positionality as it relates to my research in Section 3.5.

### 3.1 Why Study Punjabi Canadians?

I chose PCs as my population because it holds a personal significance for me. Since I am a part of this community, I understand it from within and their privacy concerns resonate with me. I was also better equipped to conduct

research on PCs as opposed to any other immigrant community for the same reason.

Pakistan and India both consist of various different ethnicities, different regional languages, and a variety of different cultures. Since the aim of the study is to explore the effect of conflicting cultures, and not nationalities, Punjabis are an ideal choice. National and cultural identity is often conflated, hence it is convenient to dismiss the same nationality as the cause for the similarities between our participants from the very start.

Additionally, Punjabis in Canada make up a significant portion of the total population, with almost a million PCs accounting for 2.6% of Canada's population [19] [20]. The culture of Punjab represents a major chunk of the population of South Asia, while the Canadian culture is representative of North American culture. As such, the results of this study would be directly applicable to a much larger population of immigrants living in North America and indirectly applicable to non-western immigrants living in western countries, all of whom deserve attention from the research community.

### 3.2 Study Design

I used a qualitative approach for this study and conducted semi-structured interviews with 12 PC individuals. The interviews were conducted one-on-one and the participants were encouraged to be alone during that time so that they would be comfortable speaking freely, without interruptions or fear of being overheard. All meetings were held over zoom. The interviews were approximately one hour long and were conducted in either English, Urdu, Punjabi, or Hindi, as per the participants' preference.

Each interview started by asking general questions about the participant's academic and professional background, when and how they moved to Canada, and their family structure. This was followed by more personal questions about the person's childhood, rules and restrictions set by their guardians and their religious and cultural practices. Finally, the conversation shifted to their use of technology and social media, specifically their privacy practices and behaviours. They were encouraged to share incidents related to privacy breaches and their struggles with surveillance or snooping.

In December 2021, I conducted a pilot study consisting of 10 interviews using a different set of questions. This not only gave me a chance to refine the interview questions but also allowed me to better structure my interview and highlight potential gaps or wastage in data collection by helping me gauge how the questions were received and how much information I was getting

out of them. I will not detail the findings of these pilot interviews.

#### 3.2.1 Ethical Considerations

The study was approved by UBC's Behavioural Research Ethics Board (BREB). Prior to the interviews, the participants were briefed on the type of information that would be collected and how it would be used through an Introduction Letter. The interviews were recorded with the participants' consent. Instead of recording names, each participant was given a unique ID which was used to refer to them. The recordings of the interview were stored in a local server at UBC where only the researchers working on the study could access them.

### 3.3 Participant Recruitment

I recruited participants who were 18 years or older, were of Punjabi descent, and were living in Metro Vancouver, British Columbia. The participants were recruited through i) social contacts, ii) word-of-mouth, and iii) Facebook community groups. I targeted young (under 35 years of age) and educated (attended a post-secondary institution) participants since they were more likely to use and understand social media and have experience with privacy settings. This theoretical sampling was followed so that I might get better insight into the research questions. Some latter participants snow-balled from earlier participants.

I initially shared the Introduction Letter briefing the purpose of the study with the participants via email. If they responded favourably, I sent them the consent form to sign. The interviews were scheduled based on the availability of both the interviewee and interviewer. No compensation was provided to any of the participants.

I took care to recruit a group of participants that belonged to both the Indian and Pakistani sides of Punjab, were representative of the religious majorities of the region, and were gender-balanced. Six participants each belonged to the Indian and Pakistani sides of Punjab. All participants from Pakistan were Muslim, while there were four Sikhs and two Hindus from India. Two participants belonged to low-income backgrounds, while the others were from mid to high-income families. All the participants identified as cisgender. A total of seven women and five men were interviewed. Their age range was 20-34 years old. The participant information is summarized in Table: 3.1, with the names anonymized. I reference the names when I

quote what different participants said during their interviews in Chapter 4: Findings.

Participant	Gender	Age	Religion	Origin country	Status in Canada
Ali	M	34	Islam	Pakistan	2nd-generation immigrant
Aditi	W	25	Hinduism	India	International student
Simran	W	23	Sikhism	India	1st-generation immigrant
Shaarif	M	25	Islam	Pakistan	International student
Wali	M	31	Islam	Pakistan	1st-generation immigrant
Minahil	W	25	Islam	Pakistan	International student
Amreek	M	24	Sikhism	India	1st-generation immigrant
Manpreet	W	20	Sikhism	India	International Student
Sartaj	M	32	Sikhism	India	1st-generation immigrant
Sanjana	W	30	Hinduism	India	1st generation immigrant
Ayesha	W	23	Islam	Pakistan	International student
Maha	W	25	Islam	Pakistan	International student

Table 3.1: Interviewed participants.

### 3.4 Analysis Methods

The interviews were first transcribed and translated into English. Any culturally specific terms were written down in brackets in front of their English translations.

I followed an inductive approach [10] and allowed the themes to emerge from the data without letting my research questions sway me. I first familiarized myself with the data by reading through the interview transcripts. I then conducted open coding, which led to a rough codebook of categorical codes. Each interview transcript was discussed with my fellow researchers in collective memoing sessions.

Next, I performed semantic and interpretive coding in excel sheets. This step was done with one excel sheet per interview where each row contained the transcription of one response and the columns mirrored the categorical codes derived during the first round of open coding. A response was defined as an answer or set of statements made by the participant after a question is asked by the interviewer. The 'question' could also be a prompt or a continuation of an earlier question such as "..and does this happen often?" or "can you give me an example of that?". The coder listened to the mp4

recording of the interview while coding to get a more nuanced knowledge of each response.

I also conducted affinity diagramming to develop and refine the codebook further. Once I had the final codebook, themes were defined by grouping the recurrent and most interesting codes together. In further iterative rounds of coding, I went back to each participant and scanned the data for each theme. Since only one researcher did the coding process, I did not calculate inter-rater reliability.

### 3.5 Researcher Positionality

I am a young woman from Punjab, Pakistan studying at a Canadian university. I am the first woman in my family to leave my country to study abroad. I have many identities and I have been balancing them all for a long time but moving to Canada was my first experience with living in a place where the culture and the language were not my own. The PC community is of special interest to me since I myself am a part of it. I not only share the culture but am also fluent in Urdu, Hindi, and Punjabi, which helped me connect with the target population.

My first contact with PCs was with the international students at UBC who were exploring a whole new way of life for the first time, just like myself. What interested me, and pushed me towards this particular research study, was how they decided to curate their online social life such that they shared with each of their social group only what was 'culturally acceptable' to that particular group. From here on out, I started to notice the nuances and differences in the family culture of second and third-generation PCs and my mind turned toward my present research questions. I thought it was fitting to conduct research that focuses on a non-WEIRD population using the platform of a western university.

Being a part of the Punjabi culture and knowing the language was an advantage for me during this study since the participants did not need to explain many of their values and traditions to me from scratch. It also helped me recruit participants and build rapport with them. However, I felt that it affected my ability to bracket my personal experiences and made it challenging for me to keep my personal insight separate during the data collection process. I countered this by making sure I probed deeper into their answers in order to make certain phenomena, that we both might have an implicit understanding of, are clear to a cultural outsider. I then discussed the interviews with two non-Punjabi individuals namely my supervisor, Ivan,

and Ph.D. student, Paul, to get their insights and to counter any of my own biases.

### Chapter 4

## **Findings**

This chapter is divided into three parts, each dedicated to one of the major themes that emerged during my analysis. Section 4.1 explains how the collectivist nature of Punjabi culture is reflected in their privacy regulation practices, which involve not only the individual but also their family. Section 4.2 discusses the asymmetry of information flow between the Punjabi and Canadian sides of an individual's social circle, which was highlighted by the norm of physical and social gender segregation among PCs. Lastly, Section 4.3 describes how women participants demonstrated a high level of proficiency in privacy-preserving practices, which can potentially be attributed to the fact that they are held to higher standards than men, face greater surveillance, and have more familial responsibilities and restrictions on their clothing and mobility.

# 4.1 Collectivist nature of privacy regulation in Punjabi-Canadians

The family influences a PC's online privacy practices, just like other aspects of their life. Regulation of the digital privacy of a PC individual, as seen through the interviews, was not limited to their personal judgment but extended to that of other family members who helped them manage it. These authority figures were usually the participant's parent, sibling, or other close relatives. They regulated the privacy of the participant by various means, some welcomed and some unwelcomed by them. Through surveillance and interference, these authority figures kept a check on the participant's online activity and ensured that they were being mindful of their culture and familial responsibilities when posting on social media. Well-integrated participants depended on these regulators for consultation before posting certain content and conducted self-checking, as well.

### 4.1.1 Monitoring of smartphones by authority figures

The most common authority figures to conduct surveillance were parents, specifically mothers, who went through messages, pictures, and social media accounts on their child's phones. This was common when the participants first started using phones and could be seen as a 'training period' where the child was learning how to use social media under the supervision of a parent. In some cases, participants reported having shared their phone with a parent or sibling as another way to learn before being trusted with their own. While most participants found this to be frustrating, a few, like Simran <sup>1</sup>, accepted it without question and were of the opinion that it was good for them. During this time, in cases where the child was found doing something unacceptable, they were reprimanded and punished to ensure that they would not do it again. For example, Simran's sister had her phone confiscated for multiple days after it was found that she had been adding strangers to her Snapchat account.

A hierarchy of authority figures was observed in multiple instances where the parents kept a check on the messages and social media posts of an elder child, who in turn kept a check on the younger sibling. The elder sibling was responsible for ensuring that younger siblings were using social media responsibly and to keep the parents informed. In the case of Maha, her elder sister used to go through her messages and her Twitter account to see whether Maha was telling the truth about her different outing plans. A similar pattern was seen where fathers were the authority figure in the house with mothers keeping a regular watch over children, and only extreme cases of rule-breaking being reported to the father. This form of direct checking usually occurred in the participant's teens and was more common for women than men. It became less frequent as the participants grew older, and was replaced with interference i.e., questioning, verbal restrictions, and suggestions.

## 4.1.2 Interference by authority figures in everyday social activity.

Authority figures in a PC household also use questioning, restrictions, and giving suggestions as a way to keep family members in check. All family members keep in touch on a regular basis, and parents are especially aware of their children's whereabouts, who they are with and what they are doing, as long as they are living together. Participants said that they always told

<sup>&</sup>lt;sup>1</sup>This is the anonymized name of the participant, as listed in Table: 3.1

their parents where they were going and with whom and had to share their plans before getting permission. They had to follow curfew and women especially could not stay out late. Even now, participants who live away from their parents said that they speak to them every day and share their everyday activities.

Apart from their whereabouts, family members also kept track of who the children were talking to and what they were sharing on social media. Almost all participants said that if they are on a call in front of their parents, they get asked who they were speaking to. Ali said that he was questioned about the woman friend he was speaking to and was later told by his father to keep his distance. Women especially got comments on the pictures they shared. Some were not allowed to share their own pictures up until a certain age, and once they were, family members sometimes disapproved of the kind of pictures they shared. For example, Maha's maternal aunt asked her to take down a picture of herself since she did not think it was modest enough. In other instances, family members advised the participants to remove a post or change its privacy settings because they felt it was inappropriate to be shared with the selected audience. Sometimes parents and siblings kept track of what the participants were posting, without ever commenting on it. Manpreet's parents were aware of her posts even though they were not on social media themselves. Whenever she posted something, her brother showed her post to the entire family from his account. This collective nature of viewing posts and then discussing them later on as a family struck me as quite fitting of a collectivist culture.

Family members are also known to guide each other to protect themselves against other family members. If a particular person in a family is known for gossiping or spreading rumours, then family members advise each other to block or restrict them online to avoid unpleasantness. Ali's sister directed him in such a manner and also nudged him towards password-protecting his phone when around family.

#### 4.1.3 Gatekeeping of social media posting by family

Individuals feel the need to consult with their family members before posting content on social media. It is a way to ask permission and guidance at the same time. This is common if they are exploring something new, or suspect that it was something they can get into trouble for posting later on and think it best to confirm beforehand. The person who participants turned to for consultation most often was their mother. Most, particularly women, identified their mother to be their confidant and shared most about their life

with her. "I'm obsessed with my mother", Aditi said, as she told me how she stayed in touch with her mother every day through Whatsapp calls. Similarly, Sanjana said, "I tell my mom everything", despite the fact that she too regarded her as an authority figure.

Participants depended on their mom's judgement, sometimes even more than their own. If their mother vetoed their post or gave them a reason to not post it, they wouldn't. Simran would frequently consult her mother on whether she looked too 'modern' before posting a picture of herself on Instagram and greatly valued her opinion. She conveyed this by saying, "If my mother convinces me that a picture is not good, I'll just take it off". Similarly, Minahil and Ayesha both had consulted their mother on the 'appropriateness' of a picture before sharing it on Instagram. Sometimes though, it was not a matter of getting a post approved but just having another set of eyes to confirm that it was sufficiently modest. Manpreet, for example, consulted her sister-in-law, who was close to her in age and almost like a sister, about what music to add to her TikTok videos, such that the lyrics were clean, "I share [the song] with my sister-in-law and ask her how it will look, that it wouldn't look dirty."

### 4.1.4 Self-imposed censorship

Participants who understand what their mothers approve of and no longer need to consult with her anymore have self-imposed checking. Multiple participants expressed that the reason they did not consult their mothers anymore was that they already knew what her opinion would be and never went against it. Such participants usually knew from experience and the values that have been ingrained in them since childhood, which course of action was most appropriate in a given situation. They also understood the cultural expectations enough to predict the response of their general audience on social media. As a result, they did not post content that could be considered offensive, controversial, or hurtful. As Simran put it, "I don't post anything that can get disapproved." Sometimes participants posted something but later thought better of it, for example, Ayesha said, "Sometimes you share a post, and you don't really think about it, for example, a joke that may be inappropriate, but then I later feel that I have added too many people on Facebook, and they are going to judge me, so I delete it." Another way to deal with this included curating the audience for posts that could offend a particular group of people. For example, since Sanjana's in-laws do not drink alcohol for religious reasons, she hides related posts specifically from them to avoid souring the relationship.

In the Punjabi culture, there is an emphasis on maintaining relationships, even if they are disadvantageous for individuals [38]. Individuals are expected to be courteous, especially to elders, and are not allowed to say anything controversial or act in a way that would damage the relationship. Participants steered clear of taboo topics such as sex, gender diversity, pregnancy, etc in family group chats even if they were vocal about relevant issues with their friends. They also restrained themselves from talking back to elders of the extended family on topics that are considered non-negotiable, such as religion. Friend requests by family members are difficult to ignore because, as Sanjana put it, "it doesn't look good", and is considered rude to not accept them. Individuals want to remain on good terms with family members while at the same time maintaining their privacy. Some participants found a way around this problem by accepting friend requests and restricting the person. Others added them on Facebook since they never use it anymore anyway.

Overall, from my interviews, I found that the regulation of privacy in PC households is collectivist in nature.

# 4.2 Physical and social gender segregation as a norm for Punjabi-Canadians

The interviews highlighted some norms of the Punjabi culture such as the importance of family, restrictions on gender mixing, modesty in dressing, arranged marriage, and the importance of maintaining family honour among others. For the most part, PCs can live their lives parallel to the Canadian people while still following their own norms. However, it is not possible to function in Canadian society while avoiding gender mixing. There is no concept of restriction on gender mixing in Canadian culture, unlike Punjabi culture where gender segregation is the norm in most learning institutions, weddings and funerals, places of worship and religious gatherings, and family get-togethers.

#### 4.2.1 Gender segregation in Punjabi culture

Gender-mixing is discouraged in the Punjabi culture, and in the South Asian culture as a whole. The reasons for enforcing gender mixing restrictions on men and women are slightly different, with more accountability demanded from women. The primary reason women are physically and socially segregated from men who are not their kin is to guard their honour and purity.

This is because the Punjabi culture is influenced by the major religions in the region, all of which advocate modesty. In Hinduism, for example, the daughter is regarded as the 'honour' of the home, which is to be guarded by the men of the family [9]. Even in places where they must mingle, women are chaperoned by men in the family. Underpinning these practices is the idea that both men's and women's sexuality need to be externally restrained because intercourse outside of marriage is seen as undermining family stability and destroying family honour [25]. This notion is inherently collectivist and has little value in individualistic cultures such as that of Canada. Hence, gender segregation, while regarded as necessary in Punjabi culture, is a foreign concept in Canadian culture.

Additionally, families place restrictions on men because interacting with women implies the potential of a romantic connection, which in turn implies the potential for marriage. The parents do not want their sons to marry a woman they don't know and don't approve of. Arranged marriage, of the parent's choice, is still the norm in the Punjabi culture and while most parents no longer have complete control over them, marriage decisions are still intergenerational in nature [6]. This too does not hold true for most western cultures, where marriage is seen as a way to solemnize the love between two individuals.

#### 4.2.2 Discouraging gender mixing

Most Punjabis still prefer to send their children to gender-segregated learning institutions and if they can't, then they advise them to keep their distance from students of the other gender. The same advice is given to international students when moving to Canada for studies. Women specifically are asked to be careful in how they dress and behave at their universities so as to not attract men's attention. In some cases, as with Simran, it is taboo for women to talk about boys in front of the family. The implication is that it would be immodest to even discuss the opposite gender because she would be expressing an interest in it. On the other end of the spectrum, Sartaj was comfortable speaking to his girlfriend in front of his father. However, this was an exception and was only possible after his father passed on the baton of being the authority figure in the house to Sartaj. In his own words: "I would be talking to my girlfriend, and my dad used to be sitting next to me listening; my dad is very cool. Till I was a kid, he was a cruel leader but when I became the leader, he became like my younger brother". It is important to note that the lax rules only applied to Sartaj and not his younger sister, who was not allowed to have a boyfriend and ultimately

got married as per her family's choice. The rules of gender mixing are set harder for the women since it is their modesty and honour that reflects the family's honour, not the men's.

### 4.2.3 The role of tech in gender mixing

There is a dearth of physical spaces in South Asia where men and women can meet and interact safely and without judgment, outside the supervision of their families. While men enjoy greater freedom with regard to going out with friends, many women are not given the same allowances (see next section), so their mobility is restricted to learning institutions and their homes. However, with the growing popularity of smartphones and the introduction of low-cost internet packages, nearly everyone gained access to an internet-enabled device. Being in the same physical space was no longer a requirement as teenagers and young adults turned to technology to explore new avenues for gender mixing in virtual spaces.

As mobile phones became essential for a social life, parents felt that it was essential to keep a check on them. To protect their privacy, young users started cultivating certain privacy-preserving behaviours. When asked whether she kept a password on her phone, Aditi replied, "Of course, because there were so many boys texting me, if she [mom] read those, you know what would have happened?", hinting at the trouble she would get into if her mother knew her password and had access to her conversations. On the other hand, Simran's mom has always known her password and used to keep an active check on her phone when she was younger to ensure that she was not texting boys. At the age of 21, she still describes texting a boy as 'fishy' behaviour — something she isn't allowed to do — and ensures that her mother cannot read such texts by logging out of the mobile application where the texts exist.

Upon moving to Canada, especially as international students, individuals were free to interact with the opposite gender both in person and online. However, evidence of gender mixing had to be hidden from their parents and family members who disapproved. For this purpose, they employed new privacy behaviours. Shaarif said that there is a part of his life in Canada that is hidden from his parents. When probed, he explained, "It's nothing bad. Like, I have a lot of women friends here, and I talk to them like my other friends." While he admitted that he doesn't know how his parents would react if they read his texts, he would delete them before ever handing his phone over. Similarly, Aditi's dating life stays hidden from her grandparents as she makes sure to crop her boyfriend out of pictures before sharing them

in the family Whatsapp group chat. Sanjana was scared to even use her phone in front of her parents when she was dating, lest they ask questions about who she is texting. Now that she is married to her then-boyfriend, she is lax about her privacy since there is, "Nothing to hide after marriage".

### 4.2.4 Privacy leakage and its consequences

Despite efforts to remain discreet, sometimes there are leaks in privacy due to overlooked privacy settings on social media, excessive parental surveillance, or privacy breach in the shape of people taking screenshots of private information and sharing it. Participants opened up about the consequences they had to face when this happened to them. Shaarif avoids posting pictures with his women friends on Facebook but does not regulate the pictures he is tagged in by others. As a result, he was tagged in a picture with four women friends at the Aurat March (Women's March) in Lahore. One of his brother's friends took a screenshot of it and forwarded it to his brother, who then shared it in the siblings' Whatsapp group. Shaarif said that he was teased and lightly chastised by his elder brothers over it but was able to convince them not to tell their parents, especially their mom. He was spared the scolding he would have gotten if his mother saw him in the company of multiple women, advocating for the rights of women and the LGBTQ community. Homosexuality is considered Haram in Islam and is a criminal offence in Pakistan. Even the Women's March is viewed in a negative light by many conservative families and seen as a way of rebelling against tradition and promoting indecency and moral corruption in youth.

Simran's sister had her phone confiscated for multiple days after her parents found messages from boys on her Snapchat account. What is curious is that Simran hinted that her sister probably deserved it for adding unknown people to her account. It seemed justified to her that her sister was being blamed and punished for simply 'receiving' flirty messages or conversation starters from men, something that was not altogether in her control. This is another example of the uneven attribution of blame in the case of an interaction between the genders.

In another incident narrated by Shaarif, he spoke about a response he gave to a post on Facebook that talked about how his university has a lot of 'Fahashi' (indecency) and "Behayi" (immodesty) owing to co-education. In his response, he shared how boys who come from all-boys schools learn how to interact with women and be more respectful towards them in co-education. His brother's friend tagged his brother in the comments of the post and said, "Look at what's happened to your brother". Shaarif took im-

mediate action, about which he said, "After that, I blocked him and deleted his comment. I just made sure that he can't see my post." The conservative opinion is that co-education is wrong and being seen as advocating for co-education can be detrimental to one's public image as people may perceive one as being immodest to want to be in close proximity with the opposite gender. Because of these restrictions and the consequences of breaking those restrictions, young PCs are careful to hide any evidence of gender mixing from their parents and family members who disapprove.

While I expected the conflicting cultural identities of PCs, namely Punjabi and Canadian, to result in control of the flow of information from both sides, i.e., one cultural identity being hidden from the social circle of the other cultural identity, this is not the case. The only aspect of their Canadian life that the Punjabis felt insecure about was their clothes, so they preferred to wear western clothes in public to avoid questions and comments. There was no mention of hiding their cultural attire in the virtual settings. There was an information flow asymmetry because PCs were employing privacy practices to hide their adoption of western values from the Punjabi side of their social circle. These values were mainly related to restrictions on gender mixing. This resulted in a segregation of their audience for all gender-mixing related content to be divided into Canadian and those influenced by Canadian values versus those who held on to Punjabi values exclusively. This norm divided the audience of their posts into two, with restrictions on viewing posts only on the latter.

# 4.3 Privacy fluency in Punjabi-Canadian women as a defense mechanism

In my analysis, I found that being held to a higher standard than men, facing greater surveillance, having more familial responsibilities and more overall restrictions had led women participants to be especially fluent in privacy-preserving practices. In this section, I discuss the rules and restrictions they face related to their behaviour in public [section 4.3.1] and their clothing and mobility [section 4.3.2]. Finally, I describe the different techniques women use to create online safe spaces for themselves as a response [section 4.3.3].

#### 4.3.1 Rules of public conduct for women

Punjabi women face greater scrutiny by society, which is more critical of them than for men. Women are expected to behave in a way that befits their role of upholding their family's honour in all social settings from a very young age. Apart from its association with the family's reputation, the reputation of a woman is fragile owing to the high standard on which women are judged in comparison to men. It is for this reason that the burden of familial responsibilities is heavier for the women of a household. Additionally, if the reputation of the woman is damaged, it can be detrimental to the odds of her getting good arranged marriage proposals, making it a highly undesirable prospect for her parents. Ayesha alluded to this when asked why her parents put so much stock in the gossip of distant relatives when she said, "Then we won't get good proposals".

Because of this societal pressure, women do not have much margin for error. They are expected to remain calm, composed, and modest, and not call attention to themselves especially when out in public. This is conveyed in what Aditi said about her mother, "She [my mother] said there is no need to laugh so much when you're outside in a public market..". There is also an expectation from women to stay quiet, keep their opinions to themselves, and not speak out of turn in front of elders and especially in front of the men of the house. This is regarded as insolent and perceived as disrespectful. It is the reason why Ayesha's mother asked her to contain herself in front of her uncles, saying "Girls shouldn't speak so loudly".

In addition to their behaviour in front of others, women are also expected to take on the role of a caretaker at home. Apart from taking an interest in their assigned gender roles of cooking and cleaning, they are expected to be more mature and also share in the emotional burden of their parents. From helping out in the kitchen on Eid while the men sit in the drawing room like Maha, to staying home with parents while their brother goes on a trip with his school friends like Manpreet, women are expected to be more caring, more understanding, and therefore more sacrificing.

#### 4.3.2 Restrictions on women's clothing and mobility

When asked about restrictions and rules, none of the men participants mentioned anything related to their clothes. Even when speaking about religious or cultural events, it is a matter of preference for men. By contrast, every woman participant had some incident, comment, or restriction to share regarding their choice of clothes. These comments came not just from their parents or authority figures within their family unit, but more often from the extended family. It is considered acceptable for members of the extended family, particularly aunts, to comment on the appearance of younger women in the family so much so that participants went to family gatherings

expecting it to happen. Maha, who is from an educated, upper-middle-class family, said that her maternal aunt influences her mother to be more strict with her, saying that her dress isn't modest enough. Similarly, Ayesha said her mother ingrained in her from a young age that she had to be careful of how she dressed at family gatherings and not to put too much makeup on, otherwise she would be giving the family fodder for gossip. In her own words, "They [parents] also tell me if you are wearing this or if you are with a certain friend, then do not post on your Facebook, and show it to the whole family. They are like you know how our culture is, people talk and stuff."

This obsession with women's clothing stems from the collectivist ideology of maintaining family honour, as discussed earlier. Modesty in dress is a cultural practice that is present not only in Punjab but in South Asia as a whole. An attempt to dress in a more western way is seen as a sign of moral deterioration. This is evident from the reservations Shaarif's parents had about sending him to a University where the women students were allowed to dress 'liberally'. This is why many Universities enforce dress codes to ensure that students dress modestly. National University of Sciences and Technology (NUST) Pakistan, for example, does not allow women students to wear T-shirts, sleeveless shirts, shorts, or excessive makeup and states that students should wear "Sober and decent clothing" [2]. Punjab College, on the other hand, has a uniform that all students are expected to wear, which for women is traditional clothes [1].

Societal pressure forces women to dress according to the definition of modesty of the extended family and greater social circle. This translates to their families controlling their clothing and other aspects of their appearance. Punjabi women who came to Canada with their family unit remained under surveillance, while those that came to Canada as international students gained relative freedom due to being physically separated from their families. Still, they have to be careful of what they share with their families and anyone else who might relay information to them.

The same concerns of maintaining family honour, as discussed before, limit women's mobility, as well. More often than not, women are not allowed to go out at night, or to go out alone. Many participants expressed frustration at these limitations which continued well into adulthood. Minahil said that she yearned to be independent and for that purpose, she learnt how to drive but was not allowed to take the car out alone until she started working at the age of 24. Getting permission to go on school or University trips is even harder, with parents using emotional blackmail to keep their daughters from going, and the daughters in turn telling lies in order to be allowed to go.

Policing what women wear or where they go is not always an issue of morality or modesty alone as stated in some earlier work [9]. As in the case of Aditi, whose mother was okay with her wearing short skirts as long as she was at home, or on school campus. Outside of that, she had to be accompanied by someone. The traditional reasons for being chaperoned are also discussed in an earlier section, however, another concern is that of security. It is not safe to wear short clothes in many public areas in the subcontinent because women face sexual harassment from men, which can escalate to physical harassment. The rape incidents in India [23] are some of the highest in the world, which makes parents fear for the safety of their daughters.

### 4.3.3 Creating Online Safe Spaces

All of the restrictions they face in their real and virtual life make women more concerned than men about what they share with their families on social media. This concern comes from the knowledge that they will be held accountable for any negative comment or backlash on their online activity. The different standards that men and women have to deal with are reflected in their privacy practices. As found in previous literature [26], women are more aware and conscious of their online privacy than men and employ more security practices to ensure this privacy. In order to protect their freedom, women created online Safe Spaces for themselves. In doing so they become more fluent in privacy settings and techniques. This was seen in my interviews where women had significantly more knowledge of privacy practices and a set of rules and patterns that they followed in order to safeguard their privacy. These Safe Spaces were out of the reach of judgmental family members and anyone else who threatened their privacy was also weeded out. The majority of women participants had very clear privacy rules and explained them in a cogent way. It was clear that they had given much thought to the protocols they followed when adding someone or sharing something with their online social circle. On the contrary, men had to think about their answers and had vague privacy policies.

#### Curating social media friend's lists

Women participants curated the audiences of their different social media accounts according to the content they shared on each of them. Instagram and Snapchat were the most popular choices for sharing selected content with a close social circle. Facebook on the other hand acted as a Rolodex of contacts for most participants, both men and women, where they added people that they did not want to add to their other, more active, social media accounts. The criteria used by women for adding individuals was based neither on their location, nor on their status as friends or family or work colleagues, but simply on trust. Women participants added only those individuals to their most private social media platform whom they felt were non-judgemental and could be trusted to not share their pictures. As Minahil put it, "If I think that someone will comment something on my picture that I wouldn't want to hear, then I won't add them [on instagram], including relatives or friends".

Some participants excluded their close family, such as their siblings, and in the case of Ayesha and Aditi, their mothers. Other most commonly excluded people were elder relatives, older cousins, and anyone who had a reputation for tale-telling or being conservative. Ayesha said, "I think it [adding someone] has more to do with trust. You know, it's like there are some people I knew from school... Then there are some cousins you know will judge you, or exaggerate everything. For example, if I am hanging out with a man friend, they will exaggerate that I was doing something wrong." On the other hand, men participants added anyone they had met in person, with a few expectations such as Amreek, who only added people his age, and Sartaj, who had removed a few relatives that he didn't get along with in real life.

#### Multiple accounts: different accounts for different audiences

Females sometimes further segregated their audience by having multiple accounts on the same platform. These included accounts for writing about their life without family members being able to read these posts, to cater to an entirely different social circle that was not added to their general-purpose account, or to post pictures that were either too many or too revealing to be shared with their general circle. For example, Simran had to create a separate account for her religious community because she did not want them to read the "Trashy, or sexy" comments on her regular account. As she put it, "I have two legit accounts... The only purpose of making the other account was to add members of my [religious] community... they said 'you're on insta but you don't add us'. Well, I add pictures and I don't want you to see them!.... so, I had to create another account where I wouldn't post my own pictures as much as the other [account]."

Maha had three Instagram accounts, and the audience of one of them was all women so she could share pictures which she was uncomfortable

sharing with men. She very clearly explained what she needed each of the three accounts for, "One is the main account, which is for regular stuff. Then I have a finsta [Fake Instagram] account. There I post some random things, like some thoughts and feelings, and random unfiltered pictures. I have very few people there, like 10-15 people. I have an art account, and there I post some paintings and pictures. I am a bit insecure as to what people will think of the drawing, so I have a smaller account." She also had two Twitter accounts, one personal and one for academic posts. While a few men participants also made multiple accounts, they never used them.

#### Blocking and restricting online threats

Just like passes made by strangers in real life, women have to deal with strangers on social media, as well; and, their parents are as concerned about the latter as they are about the former. While none of the men participants I interviewed had received unsolicited messages on social media, it is something that every one of the women I interviewed had experienced. It is so common that it was almost an afterthought for most of them to mention that they had blocked multiple persistent men on Facebook and Instagram.

Women use the Blocking and Restricting features of Facebook and Instagram not only for strangers and lesser-known individuals but also for family members who pose a threat. Sanjana said that, "[I block], unknown people, if they are video calling or messaging [me], and the known people, when I hear that they have said something about me to my parents, then I restrict them." Similarly, Ayesha said that she blocks relatives who gossip about the clothes she is wearing in her Instagram posts. Restricting is more common in cases where women are afraid of offending family members, so they keep them as friends but hide their posts from them.

Other reasons for blocking individuals included message harassment by an ex in the case of Aditi and fundamental disagreement with their religious or political ideology. Ayesha said, "I block a lot of people for the content they share like mostly religious views that don't align. For example, during Aurat March [Women's March], they posted some really shitty stuff that I did not agree with, so I removed them." Participants also blocked individuals who had sexual harassment complaints against them.

#### Avoiding surveillance by authority figures

In order to avoid surveillance by family members, women used multiple lines of defence. The very first type is password-protecting their personal devices. Aditi said that she would never tell her mother her password, "Not even if I die." For individuals whose parents' privacy beliefs were similar to their own, this deterrent was enough to circumvent physical checking of the phone. Parents then used roundabout routes like questioning and other forms of interference to keep watch over their activity. Others participants had to resort to hiding or deleting information on their phones to avoid negative repercussions. This mostly involved deleting text messages from the opposite gender, deleting pictures of their covert friend's outings, or logging out of social media apps so their parents could not access them. Sanjana and her sister, for example, used to 'clean' their phones before returning home from their hostel so they were ready to be inspected by their father. She shared this by saying, "...my dad used to come and ask for the password [of the phone] when we used to come back from the hostel, we used to delete stuff and bring it clean. We were scared of our parents and didn't use a phone that much in front of our parents..." None of the men participants had ever been asked to hand over their phones for inspection so they had never had to develop similar privacy practices.

Owing to the absence of many of the restrictions faced by women participants, men participants had a much more relaxed attitude towards privacy and had never developed the same rigour in their privacy practices. While previous work has spoken about how women are more likely to adopt privacy settings [26] and that those who used privacy settings more often ended up being more fluent in them, there was no reason given for the former. I extend this prior work with an explanation of the motives behind the use of privacy settings and the effect it has on fluency not just around privacy settings but also on privacy behaviours of PC women.

#### Chapter 5

#### Related Work

Existing closely related work falls into four interconnected themes: section 5.1 privacy concerns and privacy management, section 5.2 conflicting identities and their effect on privacy management, section 5.3 cultural identity in the context of immigrants, and section 5.4 technology use and privacy perceptions outside the West. There is a clear knowledge gap in the existing literature: the privacy concerns of populations with conflicting cultural identities have been largely ignored. The same is true for privacy management by individuals who balance two cultures. In my thesis, I aimed to address this gap.

#### 5.1 Privacy Concerns and Privacy Management

Before attempting to understand the unique privacy concerns of the PC population, it was important to explore the existing literature on privacy concerns and privacy management. This was essential to identify what was unique about the former. As expected, most of the work in this field was done with western populations in mind.

Madden [26] studied the ways in which Facebook users manage their privacy settings and the information they share with different people in their networks, highlighting differences with gender and age. The research revealed that users are increasingly proactive in "pruning" their accounts and that women users generally have stricter privacy settings. In my study, I addressed similar questions, especially related to how individuals control the flow of information to different people in their network, but in the context of PCs and without limiting my study to Facebook. In addition to this, I explored the reasons behind this control. My research supports the finding by Madden that women have a better understanding of and are much more likely to use privacy settings.

Similarly, Bartsch et al. [7] discovered that time spent online on Facebook and the frequency of adjusting privacy settings was positively correlated with a greater understanding of online privacy issues. A better understanding of online privacy led to users feeling more secure while using Facebook and

implementing further privacy settings. I found evidence of the former in my study, as I saw that women were more literate in privacy practices than men because they had to employ privacy settings more often. They also kept changing them over the years to cater to their increasing number of friends and followers and changes in their personal privacy policies. There was no evidence to suggest that they felt more secure than men due to this.

Bullingham et al. [8] found that, in the context of blogging and the Second Life online game, rather than adopting a new identity online, participants tended to try to recreate their offline selves online. However, they did engage in editing certain aspects of their identity. This confirms the idea from Goffman's work [17] that people consciously choose to present a particular identity when in a public setting, such as online. According to him, people have the desire to present themselves in a positive light and to create the desired impression on others, a phenomenon he calls "impression management" [18]. Goffman's theory of self-presentation is helpful in understanding how people present themselves online and in online environments, with its ability to easily edit and curate one's identity, can contribute to the development of Goffman's framework [8]. According to him, individuals have a "front region" and a "back region," with the front region being the public face they present to others and the back region being the private, more personal aspect of the self. My work shows how individuals show different "front regions" to different individuals through the use of privacy techniques and privacy settings on social media. This can be challenging for individuals with conflicting identities, as they may need to constantly manage and re-negotiate their different identities in different social situations.

Similarly, Merunková et al. [30] demonstrated how people use social media, particularly Facebook, to create and maintain a certain image of themselves to others by carefully selecting and curating the content they post and the language they use. They may also delete content that does not align with this image. This is the same way participants in my study maintained different cultural identities in front of different audiences: by curating the content and language shared. I also uncovered privacy behaviours such as content deletion and content hiding that were used to maintain one's image. Schau et al. [22] also explored Goffman's theory of self-presentation, but in the context of personal websites instead of social media sites.

Other work [14] [40] also focused on Facebook to explore how selfpresentation is regulated by means of privacy. The prevalent use of Facebook in conducting privacy management research informed my decision to ask more questions related to the privacy settings on the platform in my interviews so that I might be able to make a comparison. However, I found

that while Facebook was the first social media site most participants joined, they had since moved on from it to Instagram or Snapchat and no longer used it to share content. The authors found that the default privacy settings provided by social networking platform designers may lead to a phenomenon known as "context collapse," [27] as described by Marwick and Boyd, where different privacy-sensitive contexts are not taken into account in access control mechanisms. I found evidence of this in my study, where segregation of audience was needed before sharing content. Participants could not share every piece of content with all of their friends or followers. Even employing relatively obscure privacy settings, such as the Close Friends List feature for Instagram Stories proved either insufficient or inconvenient for them. Participants had to create multiple accounts on the same platform to cater to their different social groups. In my study, I attempted to find the reason behind this need for audience segregation, and the extent to which it related to their conflicting cultural identities. The failure of the "one-size-fits-all" privacy approach is additional evidence that research on the privacy concerns of individuals with conflicting identities is needed in order to create better designs.

## 5.2 Conflicting Identities and their effect on Privacy Management

In my study, I focused on the conflicting cultural identities of the PC population and the effect on their privacy management strategies. Since the motivation behind privacy management of individuals with conflicting identities of any nature will be similar, logic dictates that it will give rise to comparable privacy practices. It is for this reason that I explored research on this topic.

A recent study by Afnan et al. [4] looked into Muslim-American women's perception of digital privacy risks in the context of government surveillance, Islamophobia, and social surveillance. Muslim women are a minority group in America, with a religious identity that conflicts with that of the majority. My study touches on social surveillance in the context of PCs, uncovering much of the same privacy concerns with regard to the disclosure of identity. The study talks about balancing different social circles on social media while trying not to offend any, the same as ours. It also talks about gendered expectations and taboos in Islam. I show that many of those are cultural phenomena in Punjab and are not just limited to Muslims. Finally, the paper discusses protective strategies adopted by women. My study does the

same in addition to contrasting them with strategies adopted by men.

A significant amount of literature related to this topic is focused on the LGBTQ+ community, which is another example of a group that wants to hide or manage their conflicting identities online. Geeng et al. [12] used semi-structured interviews to find the privacy concerns and strategies employed by LGBTQ+ individuals who use multiple SNSs and were not completely out on each site. I also explored the privacy strategies of PCs who expressed their identities differently on each of the SNSs they were using. However, while the study [13] highlighted the different privacy settings available on different sites as the reason for different outness, my analysis found that the difference was due to the different audiences curated by the participants on different sites.

Other studies [29] [28] present similar findings with respect to the use of identity management strategies online. McConnell et al. [28] conducted interviews with LGBTQ+ youth on Facebook and found that they faced negative reactions and consequences when they shared their identities online. This led to a negative impact on their emotions and relationships. I found that the same was true for PCs when they shared information that conflicted with their Punjabi cultural identity. The backlash came from their Punjabi social circle and was both verbal and practical in the sense that it sometimes curtailed their freedom of expression for the future. Due to the collectivist nature of the Punjabi culture, the impact of the backlash was also not just on them but their entire family unit.

# 5.3 Cultural Identity in the context of Immigrants

While my work focuses on Punjabi immigrants in Canadian, previous work has considered other immigrant populations both in Canada and the United States. I reviewed these works to learn how cultural identity manifests in immigrants.

Comănaru et al.'s study [11] aimed to understand how young adults from immigrant backgrounds describe and express their bicultural identities. The research uncovered variations in the way different age groups view bicultural identities, and highlighted the significance of acknowledging that bicultural individuals are not all alike but can be shaped by various personal and contextual factors. Participants in my study also showed a range of bicultural identity orientations that depended on their socio-economic background and family dynamics among other factors. There were concrete generational dif-

ferences that were evident not only from the privacy-related disagreements between immigrant parents and their children, but also from the way participants described their parent's beliefs, language, and tech savviness.

Benjamin et al. [15] also offered their perspective on how second-generation youth faces conflicts due to cultural differences while developing their identity, independence, and close relationships. This may involve conflicting cultural expectations from their heritage and mainstream cultures. I found this to be true since participants described their struggle with restrictions on mobility and gender mixing. To function in a culture with norms contradictory to their own, they turned to the privacy practices I have described in my findings.

Sekhon et al. [34] demonstrated that the values and honour of the family play a significant role in shaping the behaviours, choices, and emotions of second-generation Punjabis. They also set clear guidelines for what is acceptable and unacceptable in terms of conduct, consumption, and actions. The parents of these individuals try to influence them with their traditional values when making decisions which can create a sense of internal conflict and possibly lead to resentment as they try to balance two different ways of life. Likewise, participants in my study discussed heavy parental involvement in both marriage and career-related decisions. Maintaining the honour of the family entailed various restrictions on the clothing and mobility of women, as well as on gender mixing. There was an expectation, sometimes non-negotiable, to respectfully obey parental decisions, which led to resentment.

Another paper [35] focused on the conflicting cultural identities of Indian Punjabis in the UK. The frustrations and challenges faced by them on a daily basis are discussed and provided context for why the study of their privacy behaviours is unique and needed. My study focused on both Indian and Pakistani Punjabis in Canada and how their conflicting identities panned out in the virtual world.

## 5.4 Technology Use and Privacy Perceptions outside the West

An individual's culture influences a wide range of factors that directly impact their understanding of privacy and the use of technology. Traditionally, much of the research on privacy perceptions and technology use has focused on western cultures. However, in recent years there has been a shift toward exploring the non-western perspective. A recent paper by Naveed et al. [32] looked at religion and gender as factors affecting privacy notions and practices in Pakistan. The aim of their study was to provide insights for HCI researchers on how to design privacy features for non-western contexts. While there are many similarities between this paper and my work, they worked exclusively with low-income, low-literary population Muslim populations whereas I worked on mid to high-income populations of Indian and Pakistani Punjab living in Canada. My work focuses on the implications of conflicting cultural identities on privacy behaviour, and not just the effect of a single culture and religion.

Another paper by Ahmed et al. [5] explored the efficacy of a design for sharing mobile phones while maintaining the privacy of all sharers in the Bangladeshi context. The authors discussed gendered privacy, one of my main themes, and the greater interference and questioning faced by women related to their technology use. My study goes one step forward to explore the implications of this greater interference for women's privacy fluency. This paper is also an example of researchers designing to cater to a non-western culture, which is one of the motivations behind my thesis.

In another paper [3], the authors examined the way Arab Gulf citizens understand and approach privacy, with a particular focus on the influence of Islamic and cultural traditions on privacy norms. I found a similar emphasis on respect and modesty in my analysis, which shows how Islam, in addition to Hinduism and Sikhism, has influenced the culture of Punjab.

Ibtasam et al.'s research [21] showed that a Pakistani woman's interaction with technology is shaped by gender roles within the family, as well as by broader cultural, social, and religious factors. These forces influence the roles that various family members play in introducing, teaching, and maintaining technology, as well as in controlling and restricting its use. While the study focused on women in low-income households in Pakistan, I interviewed both genders in mid to high-income Punjabi households in Canada. Access to technology was not an issue for these individuals, however, there were gendered expectations related to its use with more restrictions and monitoring on women than men.

Similarly, Sambasivan et al [33] presented the findings of a qualitative study conducted in India, Pakistan, and Bangladesh, which explored the strategies used by individuals to maintain individuality and privacy while frequently sharing and being monitored on devices by family and social connections. Both this work and the study by Ibtasam et al. are significant because the authors encourage developers to consider the household dynamics that shape Muslim women's use of technology and to be aware of South Asian social norms and values while designing technology for inclusion in

these regions. This aligns with my motivation with regard to individuals with norms and values different from the majority.

Karusala et al. [24] talked about the collective nature of privacy in a collectivist culture, with a focus on women's privacy. I talked about it as one of my themes, while staying inclusive of both genders. Another paper [31] also explored the concept of collective privacy with middle-income technology-equipped households in India and discussed how privacy 'gurus' in each household provided technical knowledge and helped individuals manage their privacy.

In the next chapter, I address the design implications of my findings.

#### Chapter 6

### Design Implications

Several design interventions can be made to give PCs, and other populations with conflicting identities, more control over their privacy using the findings of this study. The interventions can be of two kinds, namely physical and cyber-physical. Physical interventions are more important for those who are in close proximity to authority figures and are trying to escape the monitoring of smartphones. Cyberphysical interventions will benefit all individuals, but especially those who face scrutiny over the content they share.

In western, and sometimes non-western, cultures, passwords act as the major deterrent for physical access to someone else's personal devices. However, this does not apply to the majority of my participants. Another intervention popularly used is smartphones taking a picture of anyone who fails to unlock the phone a few consecutive times. This is only useful if the owner is in a position to confront the snooper, which may not be the case for PCs. Hence, physical interventions are needed for individuals who are expected to share their passwords and cannot stop authority figures from accessing their phones. One such intervention is the use of dual accounts on mobile phones, similar to the admin account and guest account on computers. Entering one password should unlock the guest version of the contents of the mobile phone, which should look indistinguishable from the admin version other than the lack of personal or sensitive information. The same applications should be present, in their logged-out state. Message inboxes may be shown to be empty, or else contain dummy texts. This way, authority figures will be satisfied and individuals will still be able to protect their privacy.

In terms of cyber-physical interventions, there is a need to provide more granular control over who can see a user's posts and stories. Instagram was the most popular social media site with my participants but it currently doesn't give control over who can see a post. Many participants stick to stories and avoid posting on the feed because posts can be shared with either all or none of the followers. Instagram should allow users to control the visibility of their posts on a per-post basis. This should include the option to make a post visible only to approved followers or to hide it from specific users or groups.

Another possible intervention is more advanced features for hiding likes and comments by certain users from everyone but yourself. This will help in situations where you do not want others to know that you associate with those persons or want them to read their comments. This will help in situations where authority figures have instructed an individual to keep their distance from someone. It would also have helped in Simran's case, who did not want her religious community to read the 'trashy' comments of some of her friends and had to create a separate account for this reason. Additionally, there should be an option to hide your list of followers and those you follow for the same reasons.

A loophole for people viewing your posts and stories even if you don't allow them to is someone else sending them a screenshot of it. Instagram does not inform users when screenshots are taken of their posts and stories. If it starts sending users notifications of screenshots, this will be a deterrent for people who share your posts forward and cause an unwanted breach of privacy. It would be even more helpful if screenshots are not allowed to be taken in the first place.

Moreover, there is a need to improve the user interface for managing privacy settings. This could include making the privacy settings more accessible and easier to understand, as well as providing clear explanations of what each setting does and how it affects the visibility of a user's content. Currently, participants are unaware of some of the obscure privacy settings.

Since cyber-physical interventions are more sophisticated than physical interventions, they might require training to implement them properly. Training videos should be offered by social media platforms properly guide users and take advantage of privacy settings. Education on privacy can also be offered to immigrants by immigration services or local government.

Overall, this study has identified several areas where design interventions can improve digital privacy for PCs and other populations facing conflicting identities. By addressing these challenges, we can help ensure that all individuals have the ability to protect their privacy and control their digital footprint. There is a need for further effort to assess the needs of immigrants and other populations facing conflicting identities. A deep understanding of their privacy concerns is needed to better design and develop technology that is accessible and user-friendly for all populations.

### Chapter 7

#### Conclusion

Privacy is a complex concept that is influenced by a variety of factors and is of significance to different individuals and fields of research for a range of reasons. However, the concept of privacy is not fixed but is shaped by the cultural context in which it is understood and practiced. Therefore, as the world becomes increasingly interconnected and globalized, it is important for privacy technology to be able to operate across different cultural and geographic boundaries and value dimensions. To develop inclusive privacy technology, it is necessary to engage in dialogue with people from different cultural contexts to provide a nuanced and accurate understanding of the privacy issues they face. That knowledge can then be used to design technology that is inclusive and accessible to all populations. My study contributes to this goal by examining the privacy concerns and practices of young adults in the Punjabi Canadian community.

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