

# Politics of the Past: Understanding the Role of Memory, Postmemory, and Remembrance in Navigating the History of Migrant Families

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## ABSTRACT

The importance of history as an HCI method has been gaining increasing attention in HCI literature. However, the mainstream historical sources (books, documentaries, etc.) and methods often risk (re)producing western colonial biases potentially providing a narrow one-sided perspective on history and detaching “sanitized facts” from people’s emotional accounts. While oral history and similar alternative methods are often used as a countermeasure, their applicability has remained underexplored in HCI, especially in a sensitive context, such as migration. We build on the rich body of social science work on collective memory to introduce a complementary way of navigating the past of the migrant families, and also reveal the corresponding challenges to advance this literature.

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Our interview study with 17 migrant families highlights how the politics of remembrance, family dynamics, and postmemory shape the past stories of migrant families. We discuss how these findings inform the HCI literature on migration, design, and postcolonial computing.

## CCS CONCEPTS

• **Human-centered computing** → **HCI theory, concepts and models.**

## KEYWORDS

Memory and History, Migrant Communities

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## 1 INTRODUCTION

A historical perspective or attitude that stresses the value of historical context and the impact of historical occurrences, concepts, and cultural advancements on comprehending the present and influencing the future is known as an *historicist sensibility* [117]. It implies that one must consider the historical context in which diverse aspects of human society, culture, literature, art, and other disciplines arose to understand them completely. In the field of HCI recently, a historicist sensibility is becoming a part of the discussion on the role that technology can have in supporting social awareness and justice for marginalized communities [17, 50, 117]. In their paper, Soden et al. [117] argue that understanding the history of computational technologies in the context in which they were designed, for whom and by whom will shed light on the past “as a source of design knowledge and experience.” However, because these knowledge sources are frequently created by people who hold a particular position of power in many circumstances, the traditional approach to understanding history from academic sources such as history books, documentaries, and the like runs the risk of biasing history from a limited perspective [11, 125]. Soden et al. [117] articulated various ways, challenges and limitations of incorporating a historicist sensibility into HCI research areas; however, such an agenda still awaits implementation. In this paper, we suggest the study of memory to complement the existing methods within HCI for knowing the past and developing a historical sensibility in the context of immigrant communities.

For those impacted by migration, immigration, and resettlement, memory, in all its manifestations—physical, psychological, cultural, and familial—plays a crucial role: memory restores continuity to the dislocations of individual and social identity, particularly in contexts such as the Americas, shaped in large part by migration and the memories of migrants [40]. To develop a historicist sensibility towards technology’s role in the migration experience, thus, using a purely historical lens could be counterproductive.

As a discipline, history emphasizes an objective analysis and reconstruction of the past [92]. A historical analysis’ focus on the legitimacy of sources and facts, however, runs the risk of dismissing the complex processes—sometimes through memories of the past, sometimes through aspirations, and others through forgetting [57, 127]—that enable migrants to construct the continuity they need to survive. A general lack of formalized material to comprehend parts of migrants’ pasts—e.g., their childhood can hinder the production of a historical view for this group. Further, in a national context, official efforts to record migrants’ “Collective memory”—institutions and practices that enable individuals’ identity and a sense of history, place and belonging” [125]—can be challenged and augmented by a range of interest groups, especially people in power, potentially ignoring the already marginalized demographics’ efforts to be part of national history [40, 125]. However, the often-colonial narrative of “grand” history is dictated by those holding power, and thus disabling the contribution to this history of personal, alternative narratives (“memory”) that come from those not in power, such as immigrants or displaced populations [47, 107]. Within this perspective, and in contrast to history as the dominant power’s overarching narrative, memory refers to the subjective data retrieved from different individuals about their past. As such,

it can empower migrants to share their voice and history, providing nuances to understand the history at a marginalized border. As there is no single definition of who are migrants for our study, we defined migrant as someone’s “movement into a new country to stay temporarily (sometimes for as little as a year) or to settle for the long-term.” In our paper, we also identified the children born to migrant parents in the host country as also migrants [6].

In this work, we propose the study of memory as a critical methodology for advancing a historicist sensibility as a result of our reflections while conducting a large transnational study on culture and memory preservation amongst migrant families. As we engaged with the memories of a total of 48 grandparents, parents, and grandchildren (from 17 families) from four different migrant communities in Canada and Ecuador, we saw the complexities of their individual and family histories emerge. In particular, our study supported us to develop a historicist sensitivity by enabling us to reflect on the different and complex reasons, values, and practices through which migrant families preserve their family history against the challenges of migration. In this paper, we offer the reflections that our interviews with Iranian, Venezuelan, and Bangladeshi families prompted, highlighting how a focus on memory enriches a view of history, which, in turn, sheds light on how to use (or not) past knowledge as a source for design. In doing so, we offer methodological contributions to HCI researchers working with vulnerable groups who are interested in integrating History into their research and design process. Specifically, through our reflections, we illustrate (1) the study of memory as a methodology to complement history as a mode of learning about the politics of the “past” in migrant households and (2) the complex challenges of learning about family histories through the lens of memory. Further, we discuss how a memory-based historicist sensibility can shape the technology design for migrant groups.

## 2 BACKGROUND

### 2.1 Migrant Studies and Technology Design

People migrate either out of personal choice (e.g. economic opportunity), or coerced due to economic/natural/political crises [27, 122, 123]. In many cases, technology can facilitate mobility and support migrants’ settling in the host country [24]. Prior work in HCI has predominantly studied the role of technology in meeting the pragmatic and emotional needs of migrants [23, 31, 108], e.g. to access government services in the host country [34], to establish social connections [28], to support skill acquisition [35], or to facilitate financial transactions [71]. Research on fulfilling emotional needs have investigated platforms for fostering the social wellness of different migrant groups [93], or studied the role of community activities in supporting migrant women’s health and wellness [22]. In the context of positive well-being for immigrant grandparents, Liaquat et al. [84] explored “the magic thing” methodology to explore how immigrant grandparents and grandchildren collaboratively design a family heritage board with stories and pictures. The authors identified that preserving heritage and culture plays a pivotal role in the intergenerational dynamics of immigrant families, influencing the nature of cultural exchange activities like shared storytelling and shaping the bonds between grandparents and grandchildren.

HCI and CSCW have acknowledged the socio-political nuances of various migrant communities and have recognized to engage them through culturally sensitive methodologies. For instance, Sabie et al. [109] argued that existing research methodologies focus mostly on collecting measurable, precise outcomes from immigrant participants, calling for methodological innovations and historical understanding of migrant communities, e.g. by collaborating with historians and anthropologists. Few other works exploring the socio-technical complexities of this space have identified how indicators such as race, financial background, education, and culture might influence the design of technologies seeking to meet migrants' needs [10, 12]. However, there is still a need for alternative research orientations that foster inclusive tech design through critical engagement with diverse migrant groups.

## 2.2 The Role of Historicism in HCI

Across disciplines, several scholars have studied the influence of one's understanding of the past on their approach to the present and the future [4, 7, 18, 58, 96]. In HCI, various scholars [3, 5, 16, 18, 44, 56, 78, 117, 120] have stressed how understanding the technology's context in which it was introduced helps avoid introducing past mistakes in new realities. Although there are several approaches to understanding the past, such as orality, memory, or history, often HCI scholars consider past studies synonymous with history [129], which can be limiting [15, 92]. The traditional approach to comprehending the past only from historical sources (books, documentaries, state museums, etc.) may narrow or bias our perspective, as these sources are often produced from positions of power [15, 92]. Further, such methods place History with an "H" (e.g., history of nations and other predominant forces) at the front and disregard history with an "h"; (e.g., the history of common people and their quotidian lives). For example, Chesneau has used the term "occultation" to refer to the state or an oppressing group exerting control over how the past has to be remembered [30]. Previous work in HCI and CSCW has also discussed the limitations of adopting historiography approaches without critical analysis to comprehending history, calling for challenges to present-ism as a part of due diligence [117].

Although scholars across disciplines call for the "de-elitisation" of history, often the proposed approaches continue viewing history as a linear, factual representation of the past with gaps that need to be completed. Ricoeur's "Hermeneutics of suspicion", for example, calls for consciously identifying missing stories in the historical narrative and acknowledges the invisible labour of people who had contributed to the creation of history [105]. Similarly, written letters from the nineteenth and twentieth centuries were used to complement history with an understanding of the everyday lives of European immigrants to America [48]. Subaltern and postcolonial scholars have extensively discussed how history as a discipline reflects the perceptions of history creators. Hence, continuous efforts are made to make it humane and honest [112]. Numerous historical repositories like museums and institutions have been attempting to honour and exhibit empathy for the historical narratives of migrants [59, 81, 118]. For example, The Five Faiths Project in Raleigh-Durham-Chapel Hill collaborated with the museum's

Asian art collection and borrowed artifacts to address shifting religious demographics [80]. Through community engagement, it documented various religions via photography, demonstrating the museum's role in community education similar to the Network Connections project at the Tucson Museum of Art and Historic Block [80]. This example highlights the distinction between memory and history while emphasizing the essential role of memory in comprehending history for migrants.

Several studies conducted across disciplines such as memory studies, psychology, linguistics, history, and other social sciences, have demonstrated many insurmountable challenges in understanding, factually reconstructing, and accurately reconstructing the past purely from a linear, factual view of History [90]. When interviewing key actors to collect pieces of the past, for example, the rosy view phenomenon can drive participants to forget or dismiss adverse events and negative emotions [11]. Reminiscence bump (defined as older adults' stronger recollection of memories from their early adult years [53]) can also interfere with past facts' collection. While technology could help by, for example, complementing qualitative interviews with sentiment analysis visualizations of users' longitudinal and aggregated social media data [63], it is still unlikely to fill all possible gaps. As HCI embraces historicism to resist narratives of technological determinism, it becomes critical to continue exploring perspectives for addressing these knowledge gaps.

## 2.3 Memory Studies as Historical Research

Memory in the form of narrative, pictorial images, textbooks, pamphlets, legal charters, wills, diaries, and statues provides information about the past. Barbie Zelizer has acknowledged the socially recognizable, three-dimensional form of memory that is both cerebral and sensual at the same time [132]: "[M]emory has texture. It exists in the world rather than in a person's head, and so is embodied in different cultural forms". Maurice Halbwachs identifies individual memory not as a personal affair, but as a function of collective memory, shaped by society's perception of the past and present [64]. While both history and memory are about making sense of the past, scholars have distinguished between these through the approach used to make sense of the past — history as a discipline offering analytical frameworks for looking at the past objectively, with memory being the subjective data retrieved from different individuals about their past [64]. In the ongoing debate about memory and history, some scholars refuse to accept memory as a legitimate source of knowledge because of its subjectiveness [8, 79]. Others value memory over history when understanding cultural nuances. According to Pierre Nova [95], memory is "open to the dialectic of remembering and forgetting, unconscious of its successive deformations, vulnerable to manipulation and appropriation, susceptible to being long dormant and periodically revived". In contrast, history is "the reconstruction, always problematic and incomplete, of what is no longer." Scholars have called for methodological and conceptual advances in approaches adopted for cultural memory processing. When seen through Nova's theoretical lens, critically exploring memory along with history opens new possibilities to study the past of people for whom cultural identity matters.

However, Memory studies as a discipline has its own limitations. While the act of "remembering" is often emphasized and positively

acknowledged in the construction of an immigrant's memory, the aspect of "forgetting" remains relatively under-explored in the immigrants' memory practices [101]. Extensive literature reveals that the memory narrative of immigrant communities entails a process of recollecting the past and a dialectic and frequent political interplay between remembering and forgetting [106]. Zelizer's perspective on memory's texture further reinforces the idea that memory transcends individual cognition, manifesting itself within a broader societal and cultural landscape [132]. In their analysis of how memories change over time, Bond et al. [20] explain how technology can highly impact how memories transform over time and generations. They call for transdisciplinarity to further understand the nature of these changes [20]. While several works in HCI have looked at digital technologies for retrieving people's memory [13, 32, 82, 94, 97, 121], very few have looked at critically evaluated memory as a method for accessing people's past [110].

## 2.4 The Study of Family Memories

Though different types of memories could be used for understanding the past, we specifically look at the possibilities that family memories hold for generating knowledge about the past of migrant communities. Similar to other forms of memory, family memories are created through an ongoing inter-generational memory-making process, but unlike many other forms of memory, they are shaped by inter-dependencies and emotional bonding among different members of the family [51]. Analyzing various academic perspectives on memory unfolds multiple innovative approaches that are in place for kindling family memory. Among them, various scholars have agreed on the potential of objects to function as triggers and conveyors of memories in the form of narratives [14, 60, 87, 89]. Furthermore, the capacity of objects to mutate according to circumstances, geographical displacements, and generations brings to light their totemic and evocative properties. For example, Malhotra demonstrated artifacts' power to retain a family's memory and its ability to function as a catalyst for kindling the narration of that memory [87]. In their work on how transgenerational memories can elicit counterfactual thinking, Green et al. [60] argue for a difference between objects and things: the latter are mnemonic representations that do not necessarily have specific functionality but elicit emotional connections with past or others' experiences. In the context of migration, individuals tend to assign emotional value to everyday objects, connecting them to memories of their motherland, thus, inadvertently turning them into "things" emotional connections to their motherland [89]. Ajit stresses how the emotional value of "things" can help family members transmit oral stories to their later generations [2]. However, members of these later generations often re-interpret the transmitted value to the point of making it elicit counterfactual memories and emotions: "things" that meant one thing to the member of one generation can mean something radically different to their descendants [60].

Though some of the previous works in HCI have looked at the family memory-making practices and values that have to be embedded in technologies that are designed to share family memories [73], not many have looked at the memories as a research methodology. Hence, our work explores the prospects and impediments that memory studies might hold as a culturally sensitive methodology

to design technologies for traditionally marginalized communities with rich socio-cultural nuances.

## 3 METHODS

To expand on the historical views through a view of memory in multigenerational immigrant households, we conducted semi-structured interviews (from July 2022 to July 2023) across 17 families belonging to three different migrant communities in Canada: Bangladesh (six families), Iran (five families), and Venezuela (two families). Additionally, we recruited four families from the Venezuelan community who had migrated from Venezuela to Ecuador. The ethnic and geographical diversity of our participants enriched our understanding of both shared and unique practices in memory practices. We started recruiting migrant families from Iran, Venezuela, and Bangladesh due to this demographic's increasing migration rate and visibility in Canada. As a part of the larger project, we recruited Venezuelan participants from Ecuador to understand Venezuela's migration crisis and its impact to not only Canada but also other neighbouring countries such as Ecuador. We positioned our recruitment for these three countries as the majority of the researchers of this project are also from the same communities and all the researchers share a migrant identity. The researchers spoke these communities' heritage language, facilitating the data analysis and preventing the loss of cultural nuances. As we were asking families about their memories related to migration, ethical consideration was taken at every step of the research to avoid any unpleasant memories that might cause negative emotions for the families. We recruited families with the goal of understanding intergenerational memory-keeping practices. Thus, any participant pair such as grandparents-grandchildren or parent-children were included in the study. This protocol is approved by the researchers' university's research ethics board.

### 3.1 Participants Recruitment and Procedures

We recruited the families through flyers posted in community centers, social media platforms, word of mouth, and researchers visiting different community events. Our recruited families' parents and/or grandparents had migrated from the home countries and either migrated to Canada and/or Ecuador permanently or travelled where their children and/or grandchildren were born or migrated. The grandchildren for this study were 18 years old or older.

The parents and grandchildren were living in Canada while the grandparents of some families were either visitors or had migrated to Canada as adults. In the Venezuela-Ecuador context while grandchildren were living in Ecuador most of the parents and grandparents were not located in Ecuador. Families were compensated according to their geographical nature and context (\$150 in Canada and \$40 in Ecuador). We have decided to compensate our participants for their time since, for each family the interviews lasted 2-3 hours. Compensating the participants for their time is a common practice in HCI (see example: [38, 100]) and social science research (see example: [29, 67]). This is also common practice across all types of research studies in Canada where the funding for this project is based, and thus subject to the national mandatory ethical framework [25]. Our institution's Research Ethics Board approved this compensation method – the amount of compensation is calculated



based on the hourly living wage in the area of our studies, which is the common formula used at our institution, resulting in compensation amounts that acknowledge the time participants have spent contributing to our research, without creating a monetary-based undue influence.

In this paper, we used GP for shorthanded grandparents, GC for shorthanded grandchildren, P for shorthanded parents, and families as F1, F2, etc. As we have multiple families from different communities we used B for shorthanded Bangladesh, I for shorthanded Iran, V for shorthanded Venezuela, and V\_E for shorthanded Venezuela families who had migrated to Ecuador from Venezuela. For example, the final code for grandparents from Bangladeshi family 1 will be coded as GP from B-F1 (see participant details in Table 1).

**3.1.1 Data Collection.** As we were primarily interested in exploring the memory practices within the migrant families, we started by conducting separate interviews with the grandparents, grandchildren and their parents. Each individual semi-structured interview lasted between 1-2hrs. We divided our semi-structured interview questions into four sections: 1) general questions on family dynamics and relationships, 2) inquiries about family migration stories and traditions, 3) discussions on culture, memory, and technology, and 4) questions about artifacts and how they connect to family history. This structure aimed to comprehensively understand the role of family, migration, and memory within different cultural contexts. We conducted the interviews either in person in the recruited families' homes or virtually over Zoom, depending on their availability and preferences. We note that some grandparents in our recruited families were living abroad during the time of our study; we interviewed them over Zoom. We informed the families upfront that we would audio record the sessions. We audio-recorded the interviews for further analysis.

For our study families refer to the grandparents, parents, and grandchildren. Some families' parents (or sometimes grandparents) were absent, as noted in the table where the parents' grandparents' position is empty. In a multigenerational household, family members were not always all present during the sessions. For example, for Iranian Family 1 we were only able to interview the grandchildren, but we included the data for analysis as the grandchild shared their memory and history. As part of a larger ongoing project, such data collection methodology helped us capture as many cultural and historical voices as possible, which will be continued in the future by inviting other communities to share their memory and historical practices.

Alongside the interviews, we conducted observations and asked contextual questions about various artifacts (e.g., Fig 2) presented to us by the families. The participants selected these artifacts as they reflect their memory practices and oftentimes portray intergenerational and migrational perspectives. With the participants' permission, we also audio-recorded the contextual inquiries and took photographs of artifacts.

At least one researcher was present throughout all the interviews. Interviews were conducted either in the participants' mother tongue or in English, based on their preferences. We should note that most of the grandchildren located in Canada preferred to be interviewed in English, while Grandparents chose to speak their

home country languages. We transcribed and translated the interviews and contextual inquiries into English for further analysis.

## 3.2 Data Analysis

We employed a general inductive approach for data analysis [69, 77]. The initial stage involved multiple readings of the transcripts, coupled with weekly discussions among the research team. Given the multicultural nature of our dataset, these discussions not only focused on common observations but also emphasized contextual differences that could influence our interpretation and subsequent analysis in relation to our understanding of family history, history, and memory. Each researcher started coding from these common observations and was informed by the readings. Some of these themes were predetermined and guided by existing literature, while others emerged during the course of analysis. Through such discussions, we identified 3 major themes that appeared for all the communities: Politics of Remembering, Family Dynamics, and Post-Memory. 6 researchers individually identified sub-themes under these three big themes. Following several rounds of such deliberations, we proceeded with open and axial coding [124] to identify various themes. The research team convened weekly to discuss both the predetermined and emergent themes, ultimately integrating these into our final findings. In this research, "Iranian" and "Persian" are employed interchangeably. In the discourse of national identity within the context of this research, Iranian participants in the interviews use this term to convey distinct historical and cultural connotations. This duality in identity tries to balance the rich tapestry of their Persian past with the complex realities of their present as citizens of the Islamic Republic [113]. Referring to Persian identity serves as a cultural anchor to a pre-Islamic era of glorious empires (e.g., Achaemenid Era [115, 131]), while using the term "Iranian" in recent decades refers to the coexistence of nationalism and Islamism. Individuals' deliberate reaffirmation of the Persian identity can imply a form of resistance to the Islamic regime's revolution [113]. Since 1979, the Islamic regime in Iran has attempted to replace the nationalistic pride rooted in the pre-Islamic history of Iran with a religiously unified identity and redefine national identity through the lens of Shi'a Islam and the concept of Umma (Islamic Community) [113].

## 4 REFLECTIONS AND INSIGHTS: THE ROLE OF MEMORY WITHIN MIGRANT FAMILIES' HISTORY

We present here our three emerging themes encompassing family memory and history preservation practices and highlight what is essential to understand their current practices, especially as revealed by the role of collective memory and history. Below, we first provide a positionality statement and then present the breakdown of the themes with sub-themes.

### 4.1 Positionality Statement

In the context of this research, positionality can be described as researchers' worldview, gender, race, cultural background, age, social status, etc. [70, 88]. Acknowledging researchers' and participants' identities, personal experiences, and social/environmental contexts is important as these factors might shape the research agenda [88].

Family ID	Number of GP	Number of GC	Number of P	Home Country	Host Country
B-F1	1	1	2	Bangladesh	Canada
B-F2	1	1	N/A	Bangladesh	Canada
B-F3	1	1	1	Bangladesh	Canada
B-F4	2	1	2	Bangladesh	Canada
B-F5	1	1	1	Bangladesh	Canada
B-F6	2	1	2	Bangladesh	Canada
I-F1	N/A	1	N/A	Iran	Canada
I-F2	2	1	2	Iran	Canada
I-F3	1	1	N/A	Iran	Canada
I-F4	1	1	1	Iran	Canada
I-F5	1	1	N/A	Iran	Canada
V-F1	2	1	N/A	Venezuela	Canada
V-F2	1	1	N/A	Venezuela	Canada
V_E-F1	N/A	1	1	Venezuela	Ecuador
V_E-F2	N/A	1	1	Venezuela	Ecuador
V_E-F3	1	1	N/A	Venezuela	Ecuador
V_E-F4	1	1	N/A	Venezuela	Ecuador

**Table 1: Participant Demographics**

Positionality can influence what researchers may “bring to research encounters, their choice of processes, and their interpretation of outcomes [55]”. The researchers of this study representing both Global North and South, have all experienced immigration at some point of their lives. We share most of non-Western or non-North backgrounds and conduct research under largely Western paradigms. Through engaging with a historically marginalized demographic in this study, we reflect how, as researchers and practitioners, we need to be aware of our own agenda and colonized views. As our identity often overlapped as insider/outsider by taking a reflexive approach [21] we tried to avoid the notion of “sympathetic to one’s own culture” [70]. We engaged in meetings and discussions to reflect on our study’s multi-directional nature and subjectiveness. In this process, by accepting and respecting the messiness, we understood the nuanced complexities associated with memory and history for migrant communities.

## 4.2 Politics of Remembering: Memory-Keeping Roles and Strategies

Our interviews highlighted how a key aspect of preserving family history was the memory-keepers. That is, those members of the family who know the family history and make continuous efforts to keep the family united, remembering these memories. In this section, we first reflect on the characteristics that these memory-keepers can exhibit and the politics behind their role; that is, what factors drive them to undertake the role of memory-keeper and what impact their role has on others as family history takes place. We then reflect on three different strategies—or forms of labor—that these memory-keepers put in place to keep a sense of family history alive. Our reflections highlight that, while we can investigate how technology can make artifacts digital, technology implementation for migration communities to foster memory and history creation requires deep investigation to avoid assumptions and unintentionally impose a burden on the memory-keepers.

*4.2.1 Dynamic Characteristics of Memory Keepers.* Prior research [57] indicates that not all family members are in charge of keeping the family history alive. However, our focus on memory-keeping allowed us to complicate the characteristics and role of the family historian. Across interviews, the role of women as memory-keepers was quite prevalent. GC from V\_E-F2, for example, shared how her grandmother was the one who kept a sense of family alive even after moving from Cuba to Venezuela:

“All this history, all this construction of history, from how they got to how they came from Cuba, how my grandmother (father’s mother) had to leave Cuba as my grandfather sent her from Venezuela so that she could come from Cuba because she already stayed with the children in Cuba. All that history is built through my grandmother.”

The case of the Iranian families we interviewed sheds light on how gender-based patterns can shift how the family history is appreciated and told. For all the Iranian families it was prevalent that grandchildren knew family stories through their mothers’ and/or grandmothers’ side. Further, the paternal side of the family history tended to be forgotten. For example, GC from I-F3 conveyed,

“I wish I knew more about my grandfather and he passed when I was a lot younger [...] I’ve always been around my mom’s family and never really met my dad’s. [...] I also wish I knew a bit more of the great grandparents’ history.”

Similarly, the parent from Iranian Family 4 shared,

“[...]through the stories of my grandmother and aunts who were older we could ask them about how our grandfather was like. So, the grandmothers played a major role, and we can say oral history first when my grandmother was alive [...]”

While most family members did not identify the grandfathers as the memory keepers, our view on memory highlighted that, when they were present, they did make strong efforts to transfer and preserve memories. They, however, often prioritized a more operational form of memory preservation. For example, GP (grandfather) from B-F4 engaged in a project for documenting his family history and translated it from multiple languages (due to the historical context: Bangladesh before its independence and its own language) to Bengali and English to keep track of his family history. He shared,

“He (grandfather’s father) made a family history in Urdu alphabetically [...] We could read it, but we could not understand it. But it was, you know, family history. So, it has been translated into English. And then I recollected it. And he wrote it up to five generations. And then I, myself, personally, took the initiative of making further up to ninth generation and I have transferred one to my daughter.”

In other cases, grandfathers stressed the preservation of cultural symbols and national history. The grandfather of the Iranian Family (I-F2) focused on ensuring the family would not forget their national history while learning about family memories from the grandmother. For example, Parent from I-F2 shared,

“It (teaching about Iranian culture) was mostly my father. My father was very proud of his Iranian heritage. My father teaches us through conversation, stories, and the memories they had. And the stories that were there among Iranians, it was about storytelling [...] That part (family memories), my mother says. My mother would repeat each memory over and over again from childhood to older ages. Sometimes it was repetitive, but it was sweet for us.”

Similarly, the grandfather of V\_E-F2 made sure his grandchildren learned about Venezuelan writers and poets and the history behind the city’s monuments. We also observed how memory keepers’ history-telling politics can influence their grandchildren’s desire to keep culture and history part of their identity. Such politics entail who are the memory-keepers, which part of the family history they share, and to whom. For example, in multi-generational families in Canada with more than one grandchild, we observe how at least one grandchild was interested in learning more about their family’s native language, culture, and history and becoming the future memory-keeper. For example, in B-F1, we observed among two grandchildren, the elder daughter emphasized the importance of holding onto Bangladeshi culture and history as this was important to her identity. Although both she and her brother grew up in the same household, the granddaughter was more accustomed to Bangladeshi culture, tradition, language and family history.

While the latter case suggests that the memory-keeper role and the enactment of memory-keeping is mostly a voluntary task, the case of Venezuelan families in Ecuador indicates it is critical to keep questioning those assumptions. In this case, institutional labour, role-model, and personal motivation were some of the factors that we saw leading to a family member undertaking the role of keeping the family memories alive, feeding into a sense of family history. For example, in the Venezuela-Ecuador case, all four granddaughters had grown up with their grandmothers while their parents had to

fulfill work functions and identified the grandmothers as family matriarchs they admired and wanted to model after. Granddaughter from V\_E-F1 explained how this impacted her view on the role of women within the family and their sense of responsibility in inheriting this role:

“[...] It is seeing the sacrifice of a woman who, worked as a street vendor, was a housewife, even worked as a cleaner of external houses, [...]and was still able to successfully raise an entire large family of which many ended up being professionals [...]”

“Look, implicitly, it ended up being me. It’s not like we had a consensus and look, we’re going to name (GC) as the one in charge of the photos, at least from her maternal family, no. But like this hobby, this desire of mine to take photos, videos and all these things was one, I don’t know, it was an activity that was implicitly put into me.”

*4.2.2 Emphasizing Visibility of Memories.* A recurrent strategy we saw was making cultural and historical artifacts visible for visitors and family members to see them and engage in conversation about them. However, the way of doing this and its goal differed depending on the context. For example, GC in B-F1, who was not brought up in Bangladesh but had travelled to this country and had close experiences with her family around Bangladeshi cultural artifacts, invested much effort in keeping her home visibly surrounded by Bangladeshi culture. Her mother and aunt had transferred the story behind Bangladeshi artworks, had narrated Bengali poetry to her as a child, while she had also learned about Bangladesh’s colourful paintings during her visits to the country, and decided to have her home decorated with these motifs to keep it as a constant reminder of her roots. The public/guest space of the house had curtains that had patterns reflecting Bangladeshi culture (see Fig 1) and in the room are Bangladeshi poetry books. She explained further:

“I know that in Bangladeshi culture, we use the block print often [...] like, bed-sheet, blanket, cushion, wall, curtains, anything. My youngest aunt painted here with the block which reminded me of the walls in Bangladesh.”

Similarly, we saw many Persian households using Persian carpets as a way to make visible their connection between cherished memories and new beginnings in unfamiliar terrains. A Persian carpet was consistently present in every participant’s home in this study, highlighting its universal resonance across varied living spaces. The profound cultural significance of these carpets is evident in the heartfelt narrations shared by the GC from I-F5 (see Fig 2):

“I love wall rugs [...]if it was on me, I would have filled all this wall with them. I love Persian carpets a lot!”

In other cases, making the past visible did not necessarily entail using artifacts. For example, the GC of V\_E-F1, who was born and brought up in Venezuela, sought to make culture and national history present for her nephews and nieces in Ecuador. To make this past visible for them, she resorted to more interactive, oral strategies, constantly testing them about their knowledge:

“Whenever I have the opportunity to interact with my cousins, I always tell them like, do you remember the





**Figure 1: GC Painted The Living Room Walls with Colours Representing Bangladeshi Art and Patterns (a) and (b); In Iranian Family GC highlighted his grandfather paintings taking place all around the house (c).**

Venezuelan anthem? [...] Do you remember what the flag looks like? Why do some put 7 stars on the flag and why do others put 8? [...] What is that historical change? [...]"

**4.2.3 Navigating the Politics of Bringing.** A second strategy our interviews highlighted was that of treasuring objects that migrants were able to bring when they left their countries. However, not everybody had the power and privilege to bring what they wanted when they migrated. Further, as we saw, not all objects that migrants bring are what they would have thought of as meaningful to bring but end up being important in the long run. For example, GC from V\_E-F3 explained how her most cherished object from back home was an artifact that her grandmother (her memory-keeper) asked her to bring:

"When I came here, I remember that my grandmother put a budare in my suitcase and I still have that budare. [...] So I always kept the budare because it is a souvenir."

As a result of migration, many families could not bring what they wanted to, or objects got lost with time and migration. Although the object was lost, the memory-keepers used tales to keep those objects alive as part of the family history. For example, in B-F1, when the grandparent was about objects that remind her of Bangladeshi culture, she mentioned an object named "Bogoli". As this object is rare now, and although the grandparent had memories associated with it, she did not necessarily have access to it.

**4.2.4 Finding Memories in the Mundane.** Given the distance from the setting where memories took place, participants often tried to bring those memories back by making associations between their memories and the mundane aspects of their environment, thus keeping their history alive. Interviews suggest there are many

different ways of connecting memories with the mundane. The B-F1, for example, kept with them mundane objects that had personal family stories directly connected to them. The grandchildren were especially proud of a plate and teacup (see Fig 2) for these objects represented a family story:

"[...] this is a wedding reception gift (during her parents' marriage) [...] This one (showing the plates), I knew it was from Bangladesh, but I didn't know the exact story. Now I found out, I learned the story from this dish. It's from my mom's grandma, [...] her memory, her family history that came from."

In other cases, participants shared making connections with public objects in their new setting. The mother of V\_E-F1 from the group illustrates this practice:

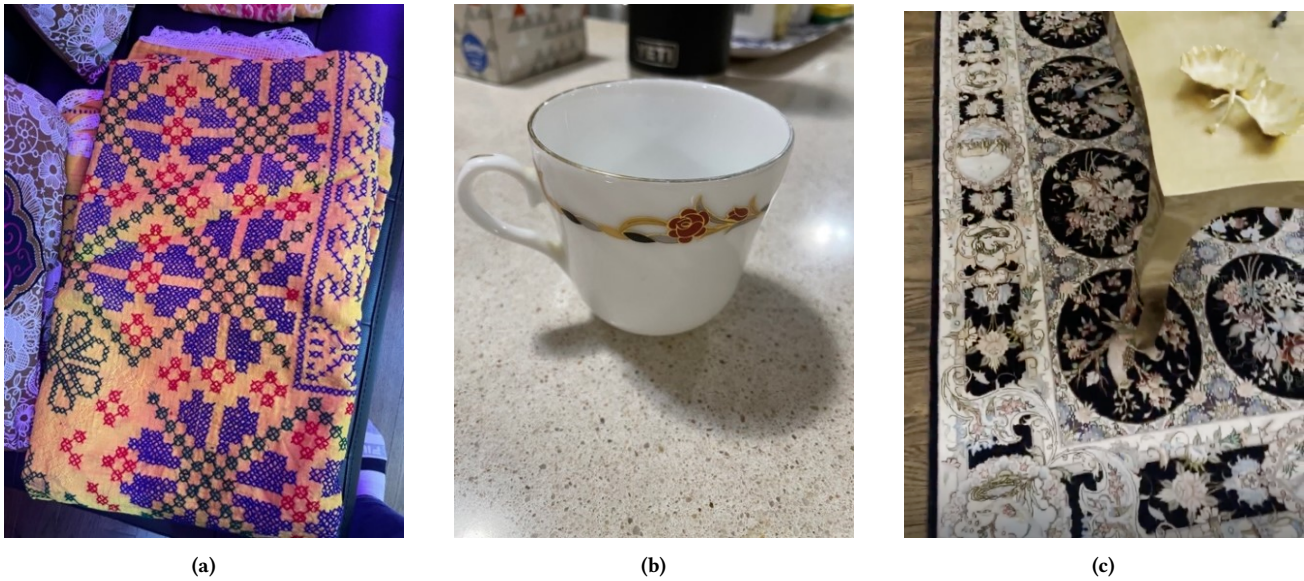
"There is a square on the Malecon [Guayaquil's waterfront promenade] where the [independence] heroes embrace each other[...]. These days I passed by a place and my son told me, mom! this looks like that street in Venezuela! [...] there are many places here that have transported me there."

Her daughter shared how technology sometimes also facilitates these types of connections:

"I do show them (their little cousins) [...] images of the map, [...] and [...] told them, do you remember this street where you lived? [...] they can see where they live, the school where they studied, even the dance academy where I worked [...] They are very receptive."

Across interviews, many families also used religion as a way to cope with the fragmentation implied in the migration experience and hang on to memories about their past and their families (B-F2, B-F3, V-F1, V\_E-F2, V\_E-F3). Religion also appeared as a method





**Figure 2: In Family 1 GC brought different objects such as “nokshi-katha” (a) and tea cup (b), and containing designs inspired by Bangladeshi culture. Persian carpets (c) also was visible in every household which is often associated with their Iranian identity.**

to remember Bangladesh for both grandparents and grandchildren from family 2. For example, both shared how the sound of Azaan (a prayer calling for Muslims) reminded them of Bangladesh. The GC of V\_E-F3 illustrated this further:

“Most of the time in the morning when I get up I always thank God, [...] I always give thanks. [...] because in spite of everything I am here, because my son is now Ecuadorian and he is learning new cultures.”

Music is also used as a strategy to facilitate cultural and national recollection. For example, the GC from the V\_E-F3, mentioned

“When I hear music in the street or in my neighborhood, I usually say- ah, that person over there is from Caracas because he is listening to salsa. Ah, look, that person over there is from the Venezuelan Llanos because he is listening to Llanera music and so I recognize the music, depending on the region of Venezuela.”

Music and both old and technologies to listen to music were also present in the Bangladeshi context. Another mechanism to craft new memories and family histories was cooking traditional food, especially for GP-GC Bangladeshi dyads (B-F2, B-F1).

Family history preservation often relies on designated “memory-keepers” within the family. These individuals actively work to preserve and share family history by remembering and sharing memories. Heritage was also embedded into the conversation for the families as they were describing their memories. Thus, it is critical to understand the motivations and impacts of these memory-keepers, cautioning against relying solely on technology to preserve history in migration communities, as it could inadvertently burden these key individuals without a deeper understanding of their roles and needs.

### 4.3 Family Dynamics

In this section, we reflect on the distributed nature of the family history and the role that migration can have in fragmenting the existing distribution, sometimes with irreparable consequences. The responsibility is often implied on the memory keepers to keep the family history alive by nurturing kinship against challenges such as distance, time, and family dynamics. In particular, we reflect on how different spaces and times, conflicting relationships and the distributed nature of migration often contribute to an awareness of collective memory-crafting practices through kinship. Migration can create stressors like economic changes [91], challenges of adapting to the host country’s culture, and shifts in family roles, gender norms, and decision-making patterns, potentially leading to conflicts in family dynamics [66, 116]. Research on migrant families emphasizes the impact of structural and cultural factors on intergenerational relationships, regardless of whether families reside together or are separated by borders [116]. Cultural aspects, such as norms, beliefs, and values, are crucial as they can either create or exacerbate intergenerational conflicts in some immigrant groups, which might be absent or less pronounced in others, with arranged marriages being a prominent example [54]. Considering these multiple layers of kinship, gathering alternate accounts and perspectives is essential to avoid unintentional biases while crafting collective family memory and history.

*4.3.1 Collective Memory and the Preservation of Family History.* The importance of kinship and relatives is echoed by grandparents and parents participating in this research. In I-F3, GP tried to explain the role of distant relatives in Iranian culture and her wish to preserve and pass down the family memories that exist collaboratively created with her relatives:

"I want to preserve the memories we had with our family, especially when we were in Iran. [...] We were close to them (extended family members) from every aspect, and I wish the kids could experience/do the same, but unfortunately, kids nowadays are hesitant to such experience, I try but they (children) do not listen to."

In migrant families, as members are distributed sharing of old and new memories occurs at family gatherings both in the home country or host country and on social media groups such as (Facebook, Whatsapp, etc.). In all the communities, participants, especially grandchildren, shared that their learning of memory and culture or crafting their family history is a product of the interaction among several family members. Also, grandchildren craft, reflect and reconsider their identity in relation to their extended family. For example, GC of V\_E-F1 shared,

"I learned the history of my family more than once, by word of mouth. In those meetings (family gatherings) they always talked about my grandmother, about her young life, against her circumstances.[...] So, it was in these meetings that I could see the history of my family and I could compare [...] how my cousins were growing, how I was growing. [...]"

Our data reflects sometimes the push for keeping this extended family history did not always come from grandparents or parents. The stress rather came from the memory-keepers, who, depending on the context of migration, could even be a grandchild undertaking the role as if it had been inherited from their grandparents. For example, GC from V\_E-F1 shared,

"In December I used to make videos, of all the family gatherings in the year [...]. So now in these WhatsApp groups, I post photos [...] it promotes oh, do you remember that day? Look, grandma was with the mariachis [...] Those stories are always emerging there. About what their lives were like, how they grew up, the context in which they grew up."

**4.3.2 The Toll of Distance.** With migration, the distribution of family history runs the risk of being fragmented. To fight such fragmentation, it requires effort from the memory keepers. For example, GC from V\_E-F2 talked about how she grew up with her grandmother who, despite being far away from her Cuban family, kept the narrative of the extended family alive with every action she could:

"When my grandmother received the letters from Cuba, she read them to all of us and that's how we found out in the news. Besides that, since she couldn't call each other all the time by phone, she sent and received telegrams when there was particular news [...] In my family it was normal to go to put a telegram, for example, my grandmother put the telegram for her family's birthday."

Distance from extended family members significantly impacts family dynamics, reshaping relationships, roles, and interactions within the family unit. In the I-F4, GC struggled to connect with her extended family who had recently migrated to Canada, as migration

had taken away the opportunity for years of mutual learning within the family:

"[...] we have my aunt who moved here a few years ago and my baby cousin. [...] I don't [...] get along with him as much as I would with someone my age and then. [...] it's like weird because we didn't have them growing up and they kind of moved here once like we were already grown up. So it's like hard to have that really like close relationship with them [...]"

In such scenarios often the memory-keepers fight against such narration fragmentation by actively taking actions through fostering kinship and vocalising their identities. For example, the memory-keeper (parent from I-F4) of the same family shared,

"[...] for me, they (immediate and extended family members) are family because I grew up in a very warm and affectionate family environment. My grandmother [...] was very friendly and warm-hearted [...] We grew up like that, which is why when I call my child, they don't answer and just text back [...] That's what's difficult for me [...]"

A similar importance of familial warmth and its correlation with the level of intimacy shared with distant relatives or family members beyond the nuclear unit was found in all Iranian family cases. Ultimately, despite the profound desires of parents and grandparents to uphold the legacies of their relatives, the memories of these family members have faded from the consciousness of their grandchildren. This evokes the poignant realization that certain memories, emblematic of family collectivism, might have been inadvertently left behind in the migration process.

**4.3.3 Technology's Role in Preventing Fragmentation.** We also noticed memory-keepers would leverage available technologies (such as, Whatsapp communication channels) to keep that connection with the extended family and with the memories they represent alive. In the case of Venezuelan migrants in Ecuador, where often the granddaughters undertook the role of memory-keepers, many participants shared how big WhatsApp groups had facilitated "fluid communication" for the distant cousins. We noticed similar trends in Bangladeshi and Iranian families where such communication channels were leveraged to maintain communication. For example, GC from B-F4 would learn about Bangladeshi history from her aunt, who designed interactive paper objects to teach her children about Bangladeshi culture and historical artifacts. Grandchildren from B-F2 shared,

"[...] we'd have a call and then I'd send everybody the link for this and then we would all join that room. And then I would play the TV episode and then we would have that tour running while we were on FaceTime with each other or a messenger video,[...] And then we would watch the show and we would talk simultaneously."

Besides continuing conversations such technology is also being used for capturing media of loved ones while travelling to their native country. Parent from I-F2 shared,

"[...] it is this mobile phone that holds memories and voice conversations we had, some of which we found

interesting and have kept, or videos and ceremonies we had, or our last day in Iran [...]"

Although such technology supported communication for extended family members, it also came with responsibilities for someone (often the memory-keepers) to constantly foster and put the labour to maintain communication over technologies. For example, GC from V\_E-F1:

"[...] if suddenly the WhatsApp group is very, very quiet, I look for a very old photo, and I share it around like, [...] That's to keep that spark because that's physically and emotionally demanding anyway. [...] and since we don't have this physical contact it's a little more difficult to balance as if you don't have a topic of conversation."

While technology supports communication via sharing photographs and updates, such technology also burdens the memory-keepers to supply a 'ticket-to-talk constantly.' While such imposed labour is often unintentional by the family members, it is also invisible. There is a gap in ways technology may foster kinship to support memory and history crafting in distributed families without burdening the memory-keepers. For migrated communities, distance and time are not the only reasons for having fragmented family memory and history. The internal family dynamics could also be complex and prevent family members from communicating with each other. In B-F3, GC shared how she did not get a chance to know about her paternal cousins due to family conflict and fear there might be missing family history and memory; for grandparents and parents the loss of kinship becomes more complicated due to resettlement (wars) and lack of techniques and convenience for preserving memory and history.

Migration can disrupt the distributed nature of family history, placing a significant responsibility on memory keepers to sustain it despite challenges like distance, time, and complex family dynamics. Such practice emphasizes the importance of acknowledging diverse perspectives and gathering alternative accounts to prevent unintentional biases in crafting collective family memory and history, especially considering the impact of different spaces, times, and conflicting relationships within kinship networks.

#### 4.4 Post-Memory

In the earlier sections, we described examples of family dynamics and politics of remembering, which helped us understand the dynamic nature of memory and memory-keepers and their strategies to continue crafting family history. However, due to the messy nature of the memory, all family members understand, interpret, and hold onto different parts of family history and memory. As we saw, sometimes individuals decide to forget or dismiss parts of their past to craft a new present and future. An important purpose of forgetting was to push back against the values and pain contained in the narration, both purposeful and implicit. On the other hand (non)forgetting was used as a strategy to re-purpose family memory and history to develop future knowledge and create identity. Other times, later generations reinterpret or re-purpose their families' memories to navigate the present. We also observed not only memory keepers but also other members of the families make different meanings and interpretations of the family history. Often

such crafting is enriched by personal motivation, others' agendas, and values of surroundings.

*4.4.1 Forgetting and (Non) Forgetting as a Way to Craft Family History.* Forgetting traumatic memories while emphasizing other pleasant memories is a part of family history crafting and should be recognized as such in the context of migration and family history crafting. Migration can often force family members to leave their home country to be with their other family members. However, for some family members, reiterating this pain could be harmful, and thus, they might avoid speaking about it. For example, the grandparents from I-F3 consistently emphasized that their life in Iran was genuinely comfortable and enjoyable and avoided speaking about the systemic factors that drove them to relocate to Canada:

"Our life in Bandar (a city in Southern Iran) was very good; we had no problems in Iran, and everything was great in terms of family gatherings. But then, one by one, our children started leaving, and I realized I couldn't bear to be separated from them."

While technology can often facilitate reminiscence of past locations or home country, our interviews suggest that sometimes it also allows to keep alive the memories that family members wish to forget. For example, Parent from V\_E-F1 constantly shared that remembering home was too painful and wanted to rather focus on acclimating to Ecuador. However, she confessed to using Google Maps to visit home and bring back those painful memories occasionally:

"if I want to see my house right now, I go to Google map and [...] get as close as possible to my house [...] I look at the green areas that my mother planted from here [...] I see the stadium (Interviewer, how do you feel after seeing it?) it depends, sometimes I feel more nostalgic and sometimes I stop and breathe and continue because I can't accommodate nostalgia, depression. [...]"

Forgetting can also come in the form of silence, hesitation and discretion. For example, the grandparent interview for V\_E-F4 was full of silence. We deduced that many omissions were to avoid nostalgia, to omit political issues and her granddaughter had warned us of such silences for traumatic reasons and negative experiences. Discretion was also noticed when questions were related to asking about families' experiences and current status in the home country. GC of V\_E-F1 frequently dismisses speaking about her socioeconomic situation here because it was much better in Venezuela and expresses sadness that this is the case.

"In my country, a wonderful oil-producing country with all the best opportunities, [...] and suddenly the person who has trained professionally is suddenly here, working on other things that are not related to their profession [...]"

(Non)forgetting appeared as a form of pedagogical intention. For example, GC from V\_E-F3 shared,

"[...]it's my turn to do what my grandmother did. My son is Ecuadorian, but he is not going to lose those Venezuelan roots. Our family nucleus is Venezuelan, so we are always speaking in our dialect, our words,

making our food and also our games, [...] We are always aware that we are Venezuelan."

(Non)forgetting the home country and history through teaching the native language was relevant in all Bangladeshi families—especially a pedagogical technique adopted by parents and grandparents to preserve and transfer cultural and family knowledge.

**4.4.2 From Past to Present and Future.** Our interviews allowed us to see how family members process, reinterpret, or re-purpose their family's memories, making meanings out of them. In B-F6, for example, GC heard stories of the Bangladesh 1971 war from his grandparents and parents. However, the experience was traumatic and a moment of pride for his grandparents. Grandparents, especially grandmother had a collection of old personal letters and pictures with significant leaders of that time, which facilitated the sharing of oral family stories associated with a national event to their grandchildren. Those objects carry the emotional weight of the grandparents' experience and prompt the grandchildren to learn more about this historical event. To show respect and compassion, the grandchild did not ask more about this historical war; instead, he relied on collecting historical information by watching documentary movies on the 1971 war. Grandchildren then explored other forms of media, such as reading articles on war and connecting with a freedom fighter over the internet to understand and experience the significance of the war, which became a big part of his Bangladeshi cultural identity.

The case of GC from V\_E-F2 sheds light on how memories can be repurposed dynamically, depending on the context where they are needed. GC is Venezuelan but her grandparents are Cuban. While she is often highly proud of being Venezuelan (e.g., she starts her classes showing her Ecuadorian students pictures of Caracas in Venezuela), she always prepares a traditional Cuban dish for Christmas. In other times, we saw how grandchildren had reinterpreted the memories of the experiences they lived with their grandparents. For example, GC from V\_E-F3 believes her grandmother, who is Peruvian, instilled in her a sense of being Peruvian but her GP actually confessed intentionally not doing so:

"Frankly, look, I did not transmit the traditions, the Peruvian things, because since my children studied from here, since elementary school we are more Venezuelan than Peruvian"

We assume GP in V\_E-F3 resorted to adaptation and assimilation of a new culture as a way to move on and also as a way to allow adaptations and diminish nostalgia.

Sometimes, such meaning-making is also influenced by the host country (Canada and Ecuador, for our study). We noticed that GP displayed religious affiliations for Iranian Families (I-F2, I-F5). Yet, during their interactions, any slight reference to their faith was quickly followed by assurances to the interviewee that they weren't deeply religious or open-minded, suggesting a perception that strong religious beliefs might be frowned upon. In a notable instance, the grandmother from I-F5, before taking a moment to pray, expressed to the interviewee her belief that Canadians might disapprove of her actions. However, she quickly added that praying was merely a habit for her. This behaviour suggests that these families

may feel a sense of unease or discomfort expressing this integral part of their identity in their new surroundings.

"I pray [...] they (Canadian) think I'm a devout follower, but no, I've been praying since childhood (implied merely as a habit)."

Migrant family members hold diverse interpretations and selective memories, sometimes choosing to forget or dismiss certain aspects to shape their present and future. This act of forgetting is often purposeful to counter certain values or pain within the family narrative, while (non)forgetting serves as a strategy to repurpose family memory, creating identity and future knowledge. This crafting of family history involves not only designated memory keepers but also various family members who contribute diverse meanings and interpretations influenced by personal motivations, external agendas, and surrounding values.

## 5 REFLECTIONS FOR HCI PRACTICE

In the above sections, we presented our reflection by discussing the themes: politics of remembering, family dynamics, and post-memory. We learned how not all family members are responsible for preserving and passing down the family history. Instead, there are memory keepers in those families on whom the role is often imposed. These memory keepers utilize many strategies to keep alive the family history but not without their own agenda or devoid of a political context. Such context can often favour the memory and history of parts of the family over others. Coupled with family dynamics and migration, we learned that while technology may support communication, it lacks facilitating a continuation of family history and memory without burdening the memory keepers. Lastly, by understanding the role of post-memory, we reflect on how these families re-imagine and re-build their identity in the host land and how their surroundings often challenge such identities. In the following subsections, we discuss how learning memory and history can inform multiple research orientations in migration and HCI.

### 5.1 Accepting the Messiness and Subjective Nature of Memory

In our research, one of the frequent reasons why one family member became the memory-keeper was the traditional labour distribution and cultural practices [43, 75]. Coupled with memory keepers' own politics and priorities, some voices were lost from the family history. We have especially noticed it on the paternal side for most participant families. In alignment with research on how voices often get lost due to the writing of history by those at the top of hierarchies [19], similar patterns appeared in our research: a memory-keeper is often appointed through (family-based) institutional structures. Similarly, we noticed these memory-keepers crafted the family history and narration with whatever tool, object, and artifacts were available to them – similar to a writing history approach as mentioned in other research [68, 117, 125]. This calls for a critical reflection in the field of HCI, where technology is often designed to support only memory keepers' agenda and often impose more labour on them.

In HCI, prior research has suggested many solutions and approaches (e.g., temporal evolution, explanation of autobiography,



using AR/VR, etc.) to support the interpretation of family stories across multiple generations [46, 83, 86, 99]. Jones and Ackerman [73, 74] brought the concept of ‘teller’ (who tells the family stories) and ‘listener’ (who only listens to the story) in a communicative setting. By incorporating memory, we learned that in migrant households, the role of memory-keepers is more dynamic. While such technology interventions might support (or burden) memory-tellers labour, from our findings we reflected on whose memories and narration we are preserving and whose narration we are excluding by doing so? How can technology support the complexities and messiness that come with preserving family history through memory without oversimplifying it? Extra care is needed while designing technologies for a demographic that has been historically marginalized, to avoid perpetuating colonial tech structures. For example, Long et al. [85] explored the role of informal learning spaces to foster AI literacy because they can potentially reach a wider audience and create environments where children and parents can learn together about such technologies. Such AI-based technologies can be envisioned to support multiple family members’ memory sharing or to automate some of the communication, thus presumably lessening the burden on memory-keepers. However, we need to critically reflect on such technologies’ colonial legacies as they often come with their biases and exclusionary nature.

## 5.2 Complementing The Grand Narrative (History) with Alternative Narration (Memory)

From our study, we learned that memory is subjective. In the context of migration, where families are distributed, such memory and family history also become fragmented. Within social and cultural studies, researchers discussed the concept of collective memory and counter-memory to challenge the hegemonic narration of history for marginalized groups [11, 87, 125]. Collective memory can offer a sense of belonging for groups who share a common understanding of history, identity and views; it excludes groups who do not share the same views. Conversely, counter-memory represents narratives and perspectives that challenge or counteract the prevailing narratives within collective memory [125]. It is the memory that questions, contests, or offers an alternative to the dominant historical accounts [11]. In our study, families often shared how family members struggle to maintain kinship due to migration and family dynamics. This resulted in many families, especially the younger generation, missing out on learning other family history and memory accounts. We suggest that collective and counter-memory can be critical tools for challenging dominant narratives and promoting a more inclusive account of the past. While the grand narrative (history) is often influenced by people who are in power, many historical sources such as museums and organizations have more recently been actively trying to respect and show compassion towards the alternative narration (memory), such as migrants’ history [59, 80, 81, 118]. For our families we also observed grandchildren relying on other media (e.g., movies on historical wars) when historically significant events are missing or simply too painful for grandparents to share. Thus, we suggest an integral approach leveraging historical sources and family memories for migrant communities.

Within HCI, technology design has focused on fostering reminiscence and designing spaces to foster a sense of belonging [39, 52, 61, 83, 130]. While this may foster positive emotions, we as researchers need to reflect on whose narration are we preserving and sharing with the next generation. By doing so, whose voices are we neglecting? As suggested by family history and culture researchers [11, 36, 65], “it is helpful to think of family history as a living, intergenerational negotiation with various presents, rather than a prized heirloom that is passed from one generation to the next unchanged.” Sometimes, it will not be possible to voice the missing accounts, but as researchers, these perspectives need to be acknowledged. Additionally, by reflecting on our study through the lens of memory, we learned that reminiscence often comes with emotional attachments that might not be positive. This is even more pronounced when migration occurs because of a (global) crisis. Even the digital footprint (e.g. using Google map to see ‘home’ in homeland which can no longer be called home) can foster negative emotions instead of nostalgia. This must be critically reflected in technology, as prior research has recognized how photographs shared in one context (e.g. reminiscence and memory) can be shared in a different context such as social media [9]. Thus, we call on HCI researchers to challenge dominant narratives through collective and counter-memory. The multidirectional nature of memory also highlights the need for HCI researchers to consider whose narratives they are preserving and the potential for technology to evoke complex emotions in the contemporary digital age.

## 5.3 Migrants Agency through Forgetting and (Non)Forgetting

In alignment with prior research [11, 36], family members in our study chose to forget either different parts of the family history and craft their own narration around it. We understood how different family members refrain from sharing traumatic memories and experiences. In addition, we also noticed family members taking a pedagogical approach to teach the home country’s culture, language, food and history to the younger generation. However, there is a lack of broader implications of forgetting and (non)forgetting in the field of HCI. Within intercultural studies [49, 103], researchers noted intercultural bullying for children of immigrants. This observation aligns with insights garnered from our literature review. For instance, Barbie Zelizer [132] argued that memory often manifests within the societal and cultural landscape of individuals. Additionally, Paul Rociur [106] discussed the intricate political interplay between remembering and forgetting, especially for migrants. These perspectives collectively highlights the complex dynamics surrounding identity negotiation and cultural adaptation among migrants. Thus, we call for a thoughtful examination of how various power structures intersect, and the tensions migrants face when exercising autonomy over their cultural and historical practices and identities.

HCI researchers have started incorporating culturally significant artifacts for collective sense-making for migrants with different cultural backgrounds [41, 111]. Prior research has suggested that incorporating cultural nuances into existing technologies can support marginalized groups’ engagement [98, 114]. Through memory

study, we learned how migrants' identities and cultural perspectives evolve with time, surroundings, and views of the host country. Thus, as researchers mindful of social justice, we should focus on designing technologies with fluid characteristics rather than with a static nature. We also invite researchers to understand individual memory, e.g. when we envision creating a VR/AR environment for culture and family history preservation, we need to be aware of the nuances of forgetting and (non)forgetting.

#### 5.4 Broader Implication of Memory

HCI researchers suggested alternative sensibilities to computational technologies' design and analysis process, especially to foster cross-cultural technology design in a broader context [72]. One such alternative emphasizes the need for historicist sensibility to design technologies and challenges HCI methodologies and ethics [17, 117]. This also has implications for challenging colonial approaches in HCI [1, 42, 45, 50, 62, 128]. For example, Erete et al. [50] combined black feminist epistemology with intersectional analysis to propose a critical framework which helped the authors address "underlying issues that are embedded in design processes and the HCI more broadly (e.g., racism, sexism, classism, and ableism)." The authors also discussed history as a lens to understand the oppression and colonial views embedded in the society that influence technology design. Through studying memory, we thus amplify the need for historicist sensibility by arguing that history is often insufficient to support social justice and postcolonial technology design for migrant communities.

The formation of migrants' identity is frequently subjected to challenges arising from the interplay of host / home cultures, belief systems, or socio-economic factors [40, 57]. Research within HCI has investigated strategies and interventions aimed at facilitating the transition experienced by migrants through the design of technologies and the implementation of community-based approaches [26, 34, 35, 109], often aiming to accelerate integration into the host society [109]. However, failure to incorporate critical dimensions such as memory and historicist sensibility in the design of such interventions can perpetuate migrants' harm and trauma. While empirical data and historical records can provide valuable insights into migratory patterns, they may not adequately address the emotional dimensions experienced by migrants. Memory can offer a complementary avenue of inquiry, providing a deeper understanding of the politics of memory preservation, dynamics within families, and the role of post-memory in curating identity and heritage. Without considering such nuances, relying solely on historical knowledge may obscure important aspects of the migrant experience.

## 6 CONCLUSION

In this paper, we presented a call for considering memory along with history as an important component of understanding family history in the context of migration. We started our paper by recognizing the growing significance and consideration of historicist sensibility within the field of HCI. Such sensibility emphasizes the limitations of mainstream historical sources and methods, which can inadvertently perpetuate Western colonial biases and isolate historical facts from the emotional narratives of individuals. While

oral history and similar alternative methods offer a promising countermeasure, their potential within HCI, particularly in sensitive contexts like migration, has been underexplored. Drawing from the extensive body of social science research on collective memory, our research introduces a complementary approach to exploring the histories of migrant families. It sheds light on the complexities of the politics of remembrance, family dynamics, and post-memory, which collectively shape the narratives of migrant families about their past. Through an interview study involving 17 migrant families, we have reflected on valuable insights that can significantly contribute to the HCI literature, particularly in the domains of migration, design, and postcolonial computing.

Besides presenting the potential risks of over-relying on historical sources, we would also like to mention the challenges associated with alternative memory-based methods. As it has also been discussed in literature, human memory has multiple limitations, and it is often difficult to find a coherent and objective narration of an incident through someone's memory [104]. Various studies showed that an individual's memory often presents a partial, subjective, and incomplete version of an incident [102]. Also, memories start fading over time [37]. Furthermore, some individuals are better than others in narrating their memories [76]. This is why understanding a topic, incident, or emotion that took place in the past is often challenging only through an individual's memory. Various methods have been developed to address these issues in the scholarly discipline of memory studies. For example, collecting memories from multiple persons around the same topic often provides a better idea [126]. Researchers have also tried to use visual cues, sensual triggers, and leading questions to help people find incidents from their memories, which often work well [33]. However, none of these methods are perfect, and none ensures a perfect narration of the past. We contend that perfection is not the ideal goal for us either. Instead, we believe that adding memory-based studies can improve the study of the past by juxtaposing to and contrasting against historical sources [119]. We believe that such a holistic approach can do better justice to the marginalized communities who are historically underrepresented in mainstream history. We also believe that our work supports and advances the HCI scholarship around the necessity of historical sensibilities both in terms of understanding the "present" and designing for the future. Although in our study we only explored memory as a complementary methodology to history, future research can explore both history and memory together as a methodology and suggest inclusive design guidelines.

As we move forward, it is imperative for HCI researchers to continue exploring and addressing the challenges and opportunities associated with incorporating alternative approaches like the one presented here to complement historical methodologies. By doing so, we can foster a more nuanced understanding of the past experiences of migrant families, promote cultural diversity, and develop more inclusive and empathetic technology solutions that better serve the needs of diverse populations.

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