

# The Impact of Technology on Migration

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## Abstract

Living in a foreign land is conceivably nerve-wracking that includes a lot of abrupt changes that produce security risks for migrants. They have to deal with substantive social changes associated with major cultural gaps. This research centers on immigrants in Azerbaijan and was carried out through a cross country semi-structured interviews. The outcomes show that immigrants will in general change their inclinations on ICT use in the host country. Primarily utilization of ICT is found to significantly affect immigrant's intercultural adjustments.

Keywords: *Technology use, online risk, Information and Communication Technology (ICT), immigrants, integration, Digital inclusion.*

## 1. Introduction

The procedure of settlement in another country can be exceedingly demanding and tense, involving fast changes and adaptation to novel surroundings. Immigrants require numerous sorts of information to get aligned, adjusted to their new culture and environment. Information empowers them to meet their prompt needs and tackle their day to day issues [1].

Information and Communication Technologies (ICTs) are broadly familiar for enhancing the availability of everyday information, offer the opportunity to communicate with loved ones, social interaction, acquire knowledge also in the sense of recreation and enjoyment [2]. While ICTs have been observed to assist immigrants' integration into the host society and has the capacity of strengthening interpersonal relationships [3]. It facilitates them to overtake mental instability, isolation, and depression.

The immigrants are progressively more engaged in communication and information networks that go beyond physical or spatial boundaries. In the absence of sufficient information, immigrants may suffer and influence by high public anxiety and moral panic and at the risk of discrimination, harassment, and government surveillance [4].

## 2. Literature Review

How migrants around the globe use ICTs in their day-to-day lives has been studied widely, displaying a network of individuals who dynamically participate in technology for a diverse purpose. ICTs, in particular, cell phones, PCs, and the Internet, are the most significant information sources for migrants, since they ease transnational encounters to a great extent [5]. ICTs empower migrants to form their "global" network by growing the "local" (information behavior that set up ways of dealing with stress in their host nations) and "global" (participation in communication activities with their nations of origin) aspects in their regular day to day existences [6]. ICTs facilitating easy approach to ethnic media and local news sources that help migrants monitor news internationally in their home countries and locally in their host nations [7]. ICTs additionally encourage quick, long distance contacts with family or friends who stay in their native countries [5, 8], local

people in their area [9], and settled immigrants with earlier migration experiences [10, 11]. Appropriately, ICTs help migrants to perceive and be involved in their host nation, enabling them to work adequately in new society [12].

We live in a time period of mass observation and unique personal data collection, as confirmed by the Snowden NSA leaks [13], targeted publicizing [14] and huge amounts of online personal sharing [15] Wherefore, misapprehension about data streams [16,17,18], misapprehension of defensive measures [19,20], and context violations [21,22] these matters are aggravated when individuals are uninformed of the dangers in question, or don't completely comprehend their impact. In a broader sense, Slovic finds that obscure risks are seen as less dangers [23]. Moreover, when technology risks are uncertain, researchers have discovered that trust in organizations and platforms fills in as a critical heuristic in directing individuals to abrogate potential concerns. Different studies examining marginal risk perception, found that if individual data may somehow be public, people will invest less in securing themselves [24]

Although ICTs are key element in the lives of many transnational migrants few researches have focused on technology use by immigrants in Azerbaijan, compared to the existing prior work done for ICT use among migrant around the world.

### 3. Study Design

Between Jan and March 2020, we have conducted 17 interviews with immigrants (14 women, 3 men) in Baku, Azerbaijan. These were managed in-person at a participant's home and in spaces trusted by them (e.g., a park or restaurant). The interviews were audio-recorded and were lasted 30 minutes on average, ranging from 20 to 40 minutes. Before reaching out to potential participants, we spent several week developing relationships with local immigrant rights organizations and community allies to assess how we could best reach migrants while protecting their privacy.

We have developed the semi-structured interview protocol throughout iterative literature review and discussions with associates of the immigrant community. In order not to be indicative of sensitive issues, so we began all interviews by concentrating on technology use in general, preventing mention of privacy and security. We have asked about participants routines, daily lives, community activities and immigration stories. We then asked them to explain their daily technology use: which devices or platforms do they use, how regularly, and for which activities. We asked participants about obstructions or concerns with the way they use technology. If it did not come up logically, then we have asked whether they had apprehensions about technology given the bigger challenges of the community. Lastly, we invited them to share any final opinions or concerns about the technology and demographic data was collected after the interview by questionnaire.

Notwithstanding our best efforts to obtain participants with variety in age, gender, and occupation, our sample was conquered by women with children (76%) in their thirties and forties (median 38). Most of the participants told us about their journey to the Azerbaijan (see the Table 1)

Practices ranged from taking 2 days to up to 1 month to cross from origin to the destination. Most effectively arrived as required, but a few arrived only after the multiple efforts.

<i>ID</i>	<i>Gender</i>	<i>Age</i>	<i>Origin</i>
P1	F	30-40	Afghanistan
P2	F	35-40	Afghanistan
P3	F	30-40	Afghanistan
P4	F	40-44	Afghanistan
P5	M	35-40	Afghanistan
P6	F	40-44	Afghanistan
P7	F	30-34	Afghanistan
P8	F	40-44	Afghanistan
P9	F	30-34	Yemen
P10	F	30-34	Yemen
P11	M	35-39	Yemen
P12	F	35-39	Syria
P13	F	18-20	Syria
P14	F	50+	Syria
P15	F	20-24	Pakistan
P16	M	30-34	India
P17	F	35-39	Iran

Table 1. Participants demographics

3.1. Limitations:

Gender and place of residence, between other variables, can considerably shape immigrants’ experience of illegality and integration [25, 26]. Our participants were commonly women who all had been in the Azerbaijan for over 5 years and men, individuals who recently entered the country, as well as immigrants in other areas, may show other technology use forms or risk perceptions. Additionally, research with “hidden populations” is challenging. Our sample is small and should not be interpreted as representative. Instead our research was experimental and provides initial perception into technology’s role for immigrants.

**4. Findings:**

The following you can see our findings in three categories: daily offline life as it relates to immigrant status; common digital tech use; and issues associated with privacy and security. Lots of our participants told proudly about how well they have combined into their local societies and their struggles to live normally. Trusted places such as universities, schools, parks, hotels and libraries serve as safe areas. The recent magnification of immigration implementation has also strengthened lots of our participants’ commitment to assisting other community members defend themselves by sharing important info with them.

4.1. Discussion:

Consistent with the previous literature [26], our findings show that the immigrant community is certainly vulnerable in lots of ways and our participants experienced this susceptibility acutely. While some of them try to live their lives normally offline, but others go to huge lengths to moderate risks. In their ICT use nonetheless, few of the participants worried almost and do reasonably little to speak their vulnerability. Whereas this behavior is consistent with the general findings on

confidentiality practices [27, 28], it is in obvious contrast to our research population's level of vulnerability, the possible consequences of exposure, and the extreme protecting measures many of them take offline.

#### 4.2. Recommendations and Implications:

According to our findings, we have identified perceptions and recommendations for the digital security training, organizing community and tech design, which may help not just immigrants but vulnerable communities overall.

- By developing community-appropriate learning resources; lots of our participants felt that their digital knowledge was not as advanced as they would like. We see a chance for the educational resources regarding digital security established for immigrant groups that incorporate their personalities as parents, individuals and immigrants. Indeed, all our participants were excited to improve their tech literacy and protect themselves better. Though, they don't seem to look for existing online resources, which means that accumulating resources online however optimized for the mobile is inadequate. Instead, awareness could be carried into the community and preferably in the group's primary language; participants conveyed strong interest in in-person educations and workshops on tech use. Such struggles should be carefully considered, organized and led by trusted community associates as well as support organizations.
- Taking precautions with the organizational interaction practices; associates should be aware of the threats of possibly revealing info about members in vulnerable groups. Parties that hold data about their clients and the community members may unintentionally put immigrants at risk and those that have interest in protecting immigrants at their community, such as universities, schools, activist groups and public libraries, should assess their technology practices for example, special care should be acquired when collecting phone numbers specified that their exposure could simplify locating the individuals.
- To Build new tools isn't priority, whereas designing new tech is a frequent impulse to assist vulnerable communities and it is less successful [29]. According to our interviews, it looks doubtful that our participants and their communities would accept new tools or applications of their own decision. In fact, this community is basically not using fine grained privacy settings additional suggests that the current privacy settings and the tools may not be appropriately meeting the user's needs. Moreover, apps meant at this community would stand out as opinion targets for the immigration enforcement and instead, the concentration should be on improving current tools and on making security as well as privacy features more noticeable and usable.
- We found that this mobile-primary group carries and stores many of their digital info on their smart phones and if lost, investigated or confiscated, the smart phones may put the holder and others at the risk. Whereas many smart phones are now fully encrypted and the proliferation of the usable authentication instruments, like fingerprint and face recognition, may reduce practical security, as an individual could be bound to unlock a phone with the biometric markers if detained [30]. So, more researches should focus on resources to enable info hiding on-demand and reasonable deniability on the smartphones. A good example in that direction is the feature in Apple's iOS 11: by quickly pressing the home key 5 times temporarily disables finger-print authentication then forces passcode entry [31].
- Making info flows and audiences further transparent and the improbability about the online risk of the exposure provides to concern and stress for the most of participants. The clearness of who has access to the info and what units participate in info flows requires additional research attention. Previous researches have shown that the privacy nudges can raise awareness of social media post's audience [32]. Researches on rising awareness and precise understanding of info flows would help not only immigrants but also the Internet users overall.

- Limiting the exposure of identifying info and the service suppliers could decrease privacy concerns in the group settings by reducing what group members can understand about each other. For example, while messaging applications may rely on telephone numbers as identifiers and the numbers should not be visible to everyone in shared groups, making it more tough to extract group members' contact info and the service providers and researchers have to study and consider how preferred affordances of the social media platforms could be sustained while providing the chance for vulnerable communities to keep their identity on the platform.

Companies, like Facebook, should identify that they are serving a variety of the vulnerable communities, most of whom consider the platforms provide a secure space. They may want to contain the role of guardian as well as protector of those groups. Platforms could attempt to provide virtual safety, and this would mean reexamining what info their services gather, share, share, and expose to another users, so in order to decrease opportunities to harm the vulnerable communities with the data that they have been delivered with. We hope that big companies such as Facebook, as transnational corporations, would attempt to protect all of their users regardless of the socio-political and physical borders.

## 5. Conclusion:

For the immigrants whom are living in Azerbaijan, typical struggles of the immigration and integrations are intensified by a fear of detection and deportation. How the immigrants perceive and administer status-related threats in technology use hasn't been clearly understood before. Within our interviews with the 17 immigrants, we provide perceptions into this community's tech use practices as well as risk perceptions and defensive strategies. We found that many struggles to interpret awareness and risk modification strategies that they employ in the physical planet to tech use and the online atmosphere. Because of uncertain risks of the various types, many do not fully believe how their behavior online may imitate risks of discovery and for others, tech use is related with pressures amongst convenience, intimate appointment and self-censorship and community contribution. Additionally, we found latent yet unclear concerns about what the others in their network may inadvertently disclose about them so these tensions and margin turbulences generate stress that might affect the well-being of themselves as well as their families.

Our findings show an opportunity for design and establishment of educational resources and the design of the transparency as well as privacy mechanisms. Also, community organizations, like schools or universities, mosques as well as service providers, such as Facebook, also have an important role to play in mitigating, or potentially exacerbating, risks from tech use for immigrant communities and vulnerable communities more broadly.

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