

The Role of Information and Communication Technologies (ICT) in the Urban Adaptation and Socio-Academic Integration of Immigrant Students: The Case of Istanbul¹

Meryem Altundal¹ and Erhan Kurtarıç²

Abstract

This study examines the role of information and communication technologies (ICT) in the urban adaptation and socio-academic integration processes of immigrant students studying in Istanbul. Based on a literature-driven analysis, the research identifies the opportunities digital tools offer in areas such as language learning, social connection, and academic achievement. Simultaneously, it highlights structural barriers such as digital inequality, a lack of multilingual content, and limited digital literacy. The issue of "digital inequality" is particularly significant, as it extends beyond mere access to technology, encompassing disparities in the quality of that access and the skills necessary to use digital tools effectively. This suggests that providing devices alone is insufficient; a deeper, more systemic approach is needed to address these disparities. The theoretical framework brings together social integration, digital identity, and educational technologies in a relational manner, focusing on the local context of Istanbul. Findings suggest that when supported with inclusive and multilingual content, digital technologies can significantly contribute to the integration processes of immigrant students. Policy recommendations include digital literacy training, infrastructure support, and participatory policy development mechanisms. The emphasis on "participatory policy development" underscores a critique of conventional top-down strategies, advocating instead for the inclusion of immigrant students' own voices and perspectives in the formulation of solutions. This approach recognizes that effective ICT integration strategies must be co-created with the target community to genuinely address their specific needs and contexts, thereby fostering a sense of empowerment. This study argues that in the digital age, ICT should be considered a strategic tool for fostering the integration of immigrant students into society.

Keywords: Immigrant students, integration, information and communication technologies, Istanbul, digital inequality.

Introduction

Contemporary increases in international migration movements generate complex processes that necessitate immigrants' adaptation to new urban life. The phenomenon of migration profoundly affects not only the lives of individuals but also the history and structure of societies (Benček vd., 2022). Immigrants settling in a new country or city may face serious psychological and sociological adaptation problems in the post-migration period, beyond mere physical displacement (McAuliffe & Triandafyllidou, 2022). Children and youth, in particular, may intensely experience difficulties such as language barriers, adaptation anxiety, a lack of belonging, exclusion, and trauma when they reach school age in an unfamiliar environment (Canto & Wiese, 2018; McAuliffe & Triandafyllidou, 2022). These challenges are not isolated to the individuals; they can negatively affect both the educational success of

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¹ Yildız Technical University, meryem.6.altundal@gmail.com.

² Assoc. Prof. Dr., Yildız Technical University, erhankurtarıç@gmail.com.



immigrants and the state of coexistence with the host society (Çelik & Özlem, 2022; Simeon, 2022). Indeed, research reveals that problems with adapting to the school environment are among the most common issues in the education of immigrant students.³ The language barrier is also frequently emphasized as a critical obstacle in this process (Ekici & Tuncel, 2015; Gustafson & Cardozo, 2017), as insufficient language skills make it harder for students to achieve academically and socialize, thereby complicating adaptation. The difficulties faced by immigrant students, such as challenges in social interaction, feelings of being different or humiliated, exclusion by peers, and misunderstandings due to language and cultural differences leading to conflict, underscore the severity of the adaptation problems.³

Education is central to the adaptation process and is considered one of the most fundamental tools for the integration of immigrant children into society. The ability of immigrants to become part of the new society and adapt to its social structure is largely possible through education (Emin, 2019). Educational institutions, in this context, play an important role in fostering social cohesion and providing a crucial socialization process for students.⁴ Consequently, many countries develop policies for the education of immigrant children, aiming to support their school attendance and integration into the host country's education system. Turkey has similarly adopted inclusive education policies, integrating immigrant students into local schools (Güldalı & Özmen, 2022). However, despite these policy efforts, numerous studies indicate that significant practical difficulties persist (Tümtaş & Ergün, 2016; Ataşçı, 2019). This acknowledgment of a gap between policy intentions and on-the-ground realities suggests that solutions, including those involving ICT, must be understood within a complex and imperfect system, rather than being viewed as utopian fixes.

Adapting both to the city and socially to the community is seen as a prerequisite for overcoming the problems experienced by immigrants struggling with adaptation. To this end, various studies and campaigns are conducted in host countries that accept migration to enhance adaptation processes, and national and international funds are established for this purpose.

In terms of the success of adaptation processes, information and communication technologies (ICT) have, in recent years, begun to be seen as promising tools for facilitating immigrants' adaptation. The widespread use of digital technology in urban life is particularly actively utilized by university-aged youth. This demographic's familiarity with ICT suggests that interventions leveraging these technologies might be especially effective or require different approaches compared to other immigrant groups. This technology offers innovative solutions or potentials that can help immigrant students overcome some of the obstacles they face. Various international reports, including the World Migration Report 2022, also highlight the importance of harnessing technology's potential to support the social adaptation of immigrants (Stockman, 2019; McAuliffe & Triandafyllidou, 2022). Several studies in the literature show that information and communication technologies make positive contributions to the integration of immigrants into the new society (Kim, 2018; Abujarour vd., 2019).

This paper will examine the role of ICT use in the urban adaptation and socio-academic integration of immigrant university students receiving education in Istanbul. The concepts of social integration and education in the digital age will be discussed theoretically, the methodology and findings of the literature review will be presented, and finally, some



conclusions and recommendations will be put forward by evaluating policy and ethical dimensions.

Conceptual and Historical Background: Migration and Digitalizing Education in Istanbul

Istanbul has historically been a metropolis receiving intense migration both from within Turkey and internationally. Throughout the 20th century, waves of internal migration from rural Anatolia radically changed the city's demographic structure. In the last decade, however, particularly with the mass population movements triggered by the Syrian crisis, Istanbul has also become one of the centers for international immigrant and refugee populations. Since 2011, Turkey has applied an "open door" policy to asylum seekers from Syria, granting them temporary protection status (Göç İdaresi Genel Müdürlüğü, 2017). Consequently, the number of Syrians seeking refuge in the country quickly reached millions. As of 2023, the number of Syrians under temporary protection registered in Turkey is approximately 3.4 million, with 1.64 million of these being children aged 0-18 (Göç İdaresi Başkanlığı, 2023). By 2025, the number of Syrians under temporary protection registered in Turkey is approximately 2,911,525; current data on the number of children aged 0-18 is unavailable (Göç İdaresi Başkanlığı, 2025). Istanbul hosts a significant portion of this population, accommodating over half a million Syrian immigrants (Mülteciler Derneği, 2024). This situation shows that the city is a critical education center for school-aged immigrant children.

Initially, with the assumption that the arriving Syrians were "temporary," priority was given to meeting urgent needs such as shelter, food, and security (Kandemir, 2018; Çetiner & Günay, 2021). However, as the conflict conditions in the source geography prolonged and the likelihood of immigrants' permanence increased, there arose a need to develop policies aimed at the social adaptation of foreigners under temporary protection in the provinces where they reside (Çetiner & Günay, 2021). This policy shift from managing a temporary crisis to fostering long-term social adaptation marks a crucial turning point, elevating the importance of education and, consequently, the role of ICT within education to a more central and strategic concern. Although the effective local implementation of this policy change could not be fully ensured, it created a significant difference in transitioning from the previous period to the next. In this context, important steps have been taken in vital areas such as education and health. Legal and administrative regulations have been implemented for immigrant children's access to education and integration. For example, temporary education centers were established with directives issued in 2014, followed by the gradual enrollment of these children in state schools starting in 2016 (Emin & Nur, 2018). Thus, unlike many European countries, Turkey adopted an inclusive approach by choosing to integrate immigrant students directly into its own education system rather than in separate schools (Güldalı & Özmen, 2022). This choice, while ideologically commendable, inherently presents greater challenges concerning language barriers, curriculum adaptation, and teacher training, thereby increasing the potential utility of ICT as a support mechanism to manage diversity within mainstream classrooms. However, field studies have identified various problems in practice regarding language barriers, curriculum compatibility, and teacher training (Fatma, 2019; Erdem vd., 2017).

Digitalization, as experienced worldwide, has also become an integral part of education policies in Turkey. In recent years, Turkey has strengthened the technological infrastructure in schools with initiatives like the FATİH Project, and smart boards, tablets, and online

education platforms have become widespread.⁵ The FATİH Project aimed to equip classrooms with technology and facilitate technology-assisted education, with components including hardware, software, e-content, and teacher training, with a goal to provide equal opportunities in education.⁵ With the outbreak of the COVID-19 pandemic in 2020, remote education practices began to be used effectively in all educational institutions, were rapidly implemented nationwide, and digital platforms such as EBA (Eğitim Bilişim Ağı - Education Informatics Network) became basic educational tools for students.⁷ EBA, developed under the FATİH project, serves as a social educational platform offering diverse e-contents and aiming to support learning irrespective of time and location.⁷ This general digital transformation environment also affects the educational processes of immigrant students. On one hand, tools like mobile applications offering language support, online course materials, and social media groups allow immigrant students to access in-school and out-of-school learning opportunities. On the other hand, access to technological facilities requires both economic and physical infrastructure. Inequalities in this regard can disadvantage children from low-income immigrant families. Even in a large city like Istanbul, not all immigrant students have a computer or regular internet connection at home. The issue of unequal opportunities in accessing education was also voiced by citizens in various forms during the pandemic, and suggestions were made for educational institutions to develop alternative methods. Therefore, the effects of the digital divide on vulnerable groups require special attention. The success of national initiatives like the FATİH project and EBA platform in supporting immigrant students depends heavily on factors beyond mere infrastructure, such as content relevance, multilingual support, and teacher training in culturally responsive digital pedagogy. The existing digital transformation environment thus presents both an opportunity and a potential site of exclusion if not carefully managed for this demographic, particularly if national platforms do not inherently cater to their specific needs without adaptation.

In the Istanbul context, the intersection of migration and digitalization manifests concretely as follows: on one side, crowded schools hosting students from many different languages and cultures; on the other, a rich urban technology infrastructure that could facilitate these students' adaptation. With its high smartphone penetration and widespread internet use, Istanbul offers a relatively favorable environment for immigrant students to access digital resources (Kaufmann, 2018). Smartphone and social media use is particularly common among young immigrants, and digital communication has become one of the main tools enabling them to connect with both their own communities and the host society (Drolet & Moorthi, 2018; Alencar & Tsagkroni, 2019). Therefore, evaluating the role and importance of ICT use in the adaptation of immigrant students in Istanbul to urban life is critically important for understanding the intersection of migration and education policies in the city.

Theoretical Framework: Social Integration, Educational Technologies, and Digital Identity

Social integration can be defined as the process by which immigrants, both individually and as a group, are accepted by the host society and achieve full participation in social life (Penninx, 2003). Integration is a multidimensional concept encompassing different areas such as economic, social, cultural, and political participation. In this process, immigrants are expected to learn the language of the new society, find employment, internalize social norms, and interact with the local population. Integration is a two-way adaptation that requires the host society also to make efforts to accept immigrants, rather than imposing unilateral



assimilation. The emphasis on this "two-way adaptation" implies that ICT's role extends beyond merely changing immigrants; it also involves how technology can facilitate understanding and acceptance from the host society, potentially educating them about immigrant cultures and fostering empathy. Educational institutions are among the primary places where this mutual adaptation is built. Schools function as social laboratories for young immigrants to acquire language, form friendships, and learn the values of the host country. At the same time, the school environment is a ground where youth in the host society also gain familiarity with different cultures and develop a multicultural understanding. Therefore, social integration through education is the most important component of migration and adaptation policies.

The integration of information and communication technologies (ICT) into education is now accepted as a factor transforming learning processes. Educational technologies enable students to access learning materials according to their individual needs and to reach information by overcoming time and space limitations.⁹ When considered for immigrant students, digital learning tools offer great opportunities in areas such as learning the new language, reviewing subjects, or receiving support in their native language. For example, online language learning applications and interactive e-contents complement traditional classroom teaching, allowing immigrant students to practice language at home at their own pace. An OECD report emphasizes that the appropriate use of educational technologies can increase the school success and retention rates of immigrant students (OECD, 2015). A study conducted by Kim (2018) in the USA also showed that digital learning tools could significantly improve the academic performance of immigrant youth, especially in subjects like mathematics. These findings suggest that ICT-supported education can act as a catalyst in the academic integration of immigrant students.

The concepts of digital identity and digital citizenship refer to individuals' presence in digital environments, how they exercise their rights, and their participation in social life. Particularly through e-Government applications, online public services, and digital platforms, individuals' participation in economic, social, and political systems is increasingly becoming digitalized. This situation makes digital citizenship not only a technical competence but also a part of active citizenship and social belonging. According to Maitland (2018), digital citizenship is an important component of integration for all individuals, including immigrants, in terms of expressing themselves and exercising their rights through digital channels in the host society.

In this context, digital identity includes an individual's representation and interaction methods in the online world; for example, an immigrant student can reflect both their own cultural identity and the norms of the host society on their social media profile. This state of dual belonging can find more flexible and creative expression in digital environments. The capacity for ICT to support this "dual belonging" suggests it can be a powerful tool for navigating complex identity negotiations, potentially reducing assimilation pressure and allowing for a more hybrid sense of self, where one identity is not sacrificed for another. Online communities allow young immigrants to share their experiences and interact with their diasporas and local peers. Research shows that social media functions as "bridging capital," enabling immigrants to connect more easily with local communities (Dekker & Engbersen, 2014). For instance, a study in the Netherlands observed increased cultural information exchange and a strengthened sense of belonging through social media (Alencar & Tsagkroni, 2019). Similarly, in a cosmopolitan city like Istanbul, digital platforms allow immigrant

students both to maintain ties with relatives in their home countries and to form new friendships.

On the other hand, for digital participation to be successful, the level of digital literacy must be adequate. Digital literacy refers to an individual's ability to use information and communication technologies effectively and safely (Eshet-Alkalai, 2004). Digital literacy levels among immigrant students are heterogeneous; the technological infrastructure of their country of origin, their families' socio-economic status, and their own educational backgrounds play a decisive role in this regard. Therefore, integration policies are also closely related to the level of immigrants' digital skills. In this respect, it is possible to see training aimed at developing digital skills as an adaptation effort. Otherwise, while digital tools accelerate integration for society in general, they can create a second exclusion process for immigrants who cannot use these tools (Reichel *et al.*, 2015). This warning of a "second process of exclusion" is critical; as society digitizes, digital exclusion becomes synonymous with broader social and economic marginalization, making digital literacy a fundamental necessity for integration, not just a skill.¹ The lack of such literacy can compound existing disadvantages, creating a deeper chasm for immigrants.

Theoretically, the impact of ICT on the adaptation process depends on the interaction between an individual's digital capacities and the digital opportunities offered by society. Within this framework, this study aims to contribute to the relational analysis of social integration and digital citizenship discussions in the literature by examining the digital tool usage capacities of immigrant students in Istanbul and its effect on their social adaptation processes.

Method

This study is not based on direct field research but is designed as a qualitative review aiming to analyze trends in the use of information and communication technologies (ICT) by immigrant secondary school students in Istanbul in light of existing literature. The research adopts a theoretical case study perspective, with Istanbul chosen due to its high density of immigrant students and the diversity of its digital infrastructure. The choice of a literature-based analysis, rather than new empirical data collection, allows for a broad synthesis of existing knowledge, potentially identifying overarching patterns that individual studies might overlook and building a comprehensive picture of ICT's multifaceted role.

The information used in the study was derived from previous qualitative and quantitative studies on the adaptation processes of immigrant students in Turkey, their digital literacy levels, their access to ICT, and the effects of these technologies on socio-academic integration (e.g., see Alencar & Tsagkroni, 2019; Ataşçı, 2019; Khoja, 2020; Dekker & Engbersen, 2014). In addition to the analysis of these studies in the literature, the challenges faced by immigrant students and the opportunities offered by technology were evaluated by applying them to the Istanbul context.

In this method, data obtained from previous research were thematically classified; common themes and trends were identified using a content analysis approach (Braun & Clarke, 2006). This systematic approach to synthesizing the literature lends methodological rigor, aiming for reliability and validity in the identified themes, and positions the study as a scholarly contribution that maps the existing research landscape. This analysis process was supported



by inferences made from case studies and literature reviews. Survey and data collection methods used in quantitative studies were referenced to make inferences about possible trends. Thus, the aim was to develop a theoretical model of immigrant students' interactions with ICT within the Istanbul framework.

As the research does not include any direct participant data, it has been evaluated within ethical rules, and no personal data or private information has been included. This methodological approach allows for the development of insights into the current situation by deepening the information available in the literature.

Findings and Discussion

Findings on ICT Uses

Literature studies indicate that the vast majority of immigrant students own smartphones and are active internet users. For example, a study by Alencar and Tsagkroni in the Netherlands revealed that young Syrian refugees extensively used social media applications for communication and maintaining their social ties (Alencar & Tsagkroni, 2019). Similarly, Dekker and Engbersen's (2014) study, also in the Dutch context, showed that social media use was functional both in connecting with diaspora communities and in developing interactions with the host society.

Various sources document that immigrant students also actively use digital tools in language learning and course support processes. Khoja (2020), in his research with Syrian refugee students in Sweden, emphasizes that platforms like Google Translate and YouTube have become important tools for students to improve their language proficiency. However, the fact that these digital resources do not offer sufficiently inclusive and multilingual content from a pedagogical perspective limits some students' access, especially to academic content. This reveals a tension: while students may be adept at using social media and basic tools for informal purposes, this does not always translate into effective use of digital resources for academic learning, particularly if content is not inclusive or if deeper digital literacy skills are lacking.

A quantitative study by Kim (2018) in the USA reported that the academic performance of high school students of immigrant origin increased through technology; homework completion and class participation rates rose. This finding suggests that tools like game-based language learning applications can increase students' motivation. However, field studies conducted in many European countries and Turkey reveal that inequalities in access to digital tools are still a significant problem (Reichel, Siegel & Tudela, 2015). The research by Reichel et al., supported by the European Commission in Bulgaria, the Netherlands, and Spain, indicates that class-based differences in immigrants' access to technology play a critical role in the integration process. It is important to note that access to technology alone does not guarantee academic success; the quality of digital resources and the ability to use them effectively are also crucial factors.² Students from low-income families and minority groups are often less likely to have access to necessary digital technologies, which can lead to lower academic achievement.²

Opportunities for Integration

Digital technologies offer various opportunities for the social and academic integration of immigrant students. Alencar and Tsagkroni's (2019) research in the Dutch context revealed that social media platforms function as tools for immigrant youth to acquire cultural information and build social connections. Students state that expressing themselves in online environments is easier compared to face-to-face interactions, which contributes to social trust-building processes.

In terms of academic adaptation, digital learning platforms like EBA or special initiatives such as the Merhaba Umut application developed by Turkcell facilitate integration processes into the education system by offering resources that support students' language learning. The Merhaba Umut application, a mobile platform that translates basic Turkish expressions into Arabic, is frequently used, especially by newly arrived Syrian students (Turkcell, 2016).¹⁰ The success of such a targeted intervention likely stems from addressing a very specific need (basic Turkish for Arabic speakers) in a user-friendly format, suggesting that while broad platforms like EBA are important, niche applications can play a crucial complementary role in a diverse ecosystem of digital tools.

Encountered Barriers

The literature clearly shows that immigrant students face various challenges in the digital world. In Ataşçı's (2019) qualitative field study in Istanbul's Sultangazi district, limited access to digital tools was identified as one of the main factors preventing immigrant students from completing their homework and participating in online activities. Similarly, research supported by the European Union by Reichel et al. (2015) stated that deficiencies in digital access and literacy push immigrants into a disadvantaged position in both employment and education processes. Even when formal access to the internet exists, differences in the quality of that access or the skills to use it effectively create significant barriers, a concept known as "digital inequality" rather than just a "digital divide".¹¹

Furthermore, for students with low Turkish proficiency, the fact that educational content is largely in Turkish or English creates a serious barrier. It is also observed that experiences such as discrimination in online environments due to identity disclosure, exclusion via social media, or cyberbullying cause students to withdraw from digital platforms (West, Kraut & Chen, 2014). This highlights that the digital space is not inherently safe or neutral; it can replicate and even amplify real-world prejudices, posing a significant psychosocial barrier to integration. Such hostility undermines the potential benefits of ICT for social connection and information access, underscoring the need for digital citizenship education that includes online safety and critical media consumption.

Overall, the literature emphasizes that digital technologies hold transformative potential in integration processes; however, for this potential to emerge effectively, it is necessary to ensure digital skills, access to multilingual content, and safe usage conditions. Dekker and Engbersen (2014) revealed that social media is functional in establishing both strong ties (bonding capital) and weak ties (bridging capital). Digital media facilitate students' maintenance of solidarity with their own cultural communities as well as their connection with the host society.



The psychosocial effects of digital technologies are also noteworthy. A study conducted with Syrian youth in Canada found that social media and digital games were important support elements in coping with loneliness and developing a sense of belonging (Drolet & Moorthi, 2018). However, at the same time, excessive use of digital environments can lead to social isolation and a decline in academic performance in students, making the development of digital citizenship awareness crucial.

Policy and Ethical Evaluation

The contribution of immigrant students' interactions with digital technologies to their integration processes is not limited to pedagogical or social dimensions; it also represents an area that needs to be considered in terms of policymaking and ethical responsibilities. Findings in the literature show that digital inclusiveness has become a fundamental right for immigrant students (Ataşçı, 2019; UNHCR, 2019). This framing elevates the discussion beyond mere convenience, positioning digital access and literacy as essential for participation in modern society, akin to other basic rights, and thus strengthens the argument for state responsibility in ensuring digital equity.

Firstly, digital inclusiveness needs to be addressed as a special heading within Turkey's migration policies. Increasing digital access in education, health, and social services will facilitate immigrant students' access to information, their use of public services, and their participation in society. The literature points out that the digital divide is not only technological but also an element that deepens social inequalities (Reichel vd., 2015). In this context, institutions such as the Ministry of National Education and the Presidency of Migration Management can support immigrant students by developing programs to increase digital literacy and access.

Local governments, especially in regions with high immigrant density, can contribute to the digital integration process by providing publicly accessible and free internet access points. Furthermore, providing tablet, computer, and internet support to students in need through public-private partnerships is important in terms of equal opportunity. For example, applications like Turkcell's "Merhaba Umut" show that the private sector can contribute to digital integration within a social responsibility framework (Turkcell, 2016).¹⁰

From an ethical perspective, protecting the privacy of immigrant students and ensuring the security of their personal data in the development of digital services is critically important. The Personal Data Protection Law (KVKK) in force in Turkey protects the rights of immigrants in the digital environment, like all individuals. However, for these rights to be effectively implemented, public institutions and digital platform providers must actively assume responsibility.

Another important ethical issue is the preparation of digital content with cultural sensitivity. Educational materials being multilingual and inclusive ensures that immigrant students can access information without being excluded. This goes beyond technical provision, acknowledging that digital environments are social spaces where cultural respect is paramount. At the same time, establishing effective digital content moderation mechanisms against hate speech supports students' feeling safe in digital environments. In this context, offering e-government and education platforms with different language options is an important step towards ensuring digital equality.

Finally, digital integration policies need to be developed with an inclusive and participatory approach. The needs, experiences, and opinions of immigrant students should be directly included in these processes. This is a direct challenge to technocratic or top-down solutions, implying that sustainable and effective policies must be grounded in the lived experiences of the students themselves. Literature reveals that such participatory processes both increase policy quality and facilitate ownership by the target group. For example, feedback on the digital needs of immigrant students can be collected through workshops based on student representation or online surveys. Involving students ensures that interventions are relevant, culturally appropriate, and more likely to be adopted effectively, fostering a sense of agency.

In conclusion, providing the opportunities offered by digital technologies to immigrant students in a fair, safe, and accessible manner is of great importance not only for individual but also for social cohesion.

Conclusion and Recommendations

Literature findings reveal that digital tools offer significant opportunities for immigrant students; however, for these opportunities to be used effectively, certain structural and individual barriers must be overcome.

ICT can provide significant conveniences in adapting immigrant students to a new education system and social environment through functions such as individualizing learning, accelerating access to information, and expanding social networks. However, for these positive effects to materialize, ensuring access to technology, digital literacy, appropriate content, and safe usage conditions is critically important.

Based on literature-based analyses, the following policy and practice recommendations have been developed. Each recommendation aims to address a specific deficiency highlighted in the literature; it is anticipated that addressing this deficiency will enhance the digital integration capacities of immigrant students. The pragmatic and actionable nature of these recommendations, directly linking identified problems to concrete solutions and their expected contributions, makes the policy advice particularly strong.

Digital Literacy Training: A significant portion of immigrant students are reported in the literature to have insufficient basic digital skills, which limits their technology use (Ataşçı, 2019; Reichel vd., 2015). To address this, digital literacy courses for immigrant students and their parents should be offered through school guidance services. This activity is expected to increase students' ability to use digital tools effectively and safely, thereby contributing to academic and social integration.

Multilingual Digital Content Development: The limited availability of content in languages other than Turkish on education platforms makes it difficult for students with low Turkish proficiency to access digital materials. Therefore, national digital platforms like EBA should offer subtitles, voice-overs, or guide content in languages such as Arabic, Farsi, and Pashto. Multilingual content is expected to help students overcome language barriers, thereby increasing learning motivation and school success.

Access Support and Infrastructure Investments: Students with limited financial means experience serious problems accessing appropriate digital devices and the internet at home. Public-private partnerships should provide free tablets, computers, and mobile internet support to immigrant students. School computer laboratories should be made accessible



outside of class hours. These supports are expected to reduce the digital divide, enable students to access educational materials at home, and strengthen learning continuity.

Teacher Training: Teachers possess varying levels of digital pedagogical skills, which can affect the quality of support provided to immigrant students. The lack of knowledge and skills among teachers regarding technology use has been identified as a major barrier to successful technology integration 6, and it is crucial that teachers learn to use the internet effectively.¹ In-service training programs should include modules on ICT use in multicultural classrooms and translation-supported digital tools. Equipping teachers to use digital tools effectively is expected to support immigrant students' more active participation in lessons and their academic achievements.

Tailored Digital Applications for Immigrants: The number of mobile applications offering locally relevant, translation-supported, and interactive content for immigrant students is limited. Collaborations with technology firms should be established to develop applications that support immigrant students' language learning, cultural adaptation, and educational processes. Such applications are expected to support students' individual learning processes, accelerating both language development and adaptation.

Monitoring and Evaluation Mechanisms: A lack of data on the digital integration processes of immigrant students makes it difficult to measure the effectiveness of policies. This signifies an understanding that policy implementation is an ongoing process requiring feedback loops and data-driven adjustments. The Ministry of National Education (MEB) and the Presidency of Migration Management should collaborate to collect and evaluate data on student performance, digital access, and socialization levels. This will allow for better monitoring of application outcomes, dissemination of successful interventions, and improvement in areas that are lacking.

Participatory Policy Development: The views of immigrant students are not sufficiently included in the preparation of digital integration policies. Digital needs should be identified through mechanisms such as workshops with immigrant youth, online surveys, and student representation. This is expected to lead to the development of more realistic and sustainable policies that directly reflect the needs of the target group.

The following table summarizes these recommendations:

No.	Recommendation Title	Observed Deficiency	Proposed Activity	Expected Contribution
1	Digital Literacy Training	Literature indicates many immigrant students lack basic digital skills, limiting technology	Offer digital literacy courses for immigrant students and parents via school guidance services.	Increased ability to use digital tools effectively and safely, contributing to academic and social integration.

		use (Ataşçı, 2019; Reichel vd., 2015).		
2	Multilingual Digital Content Development	Limited non-Turkish content on education platforms hinders access for students with low Turkish proficiency.	Provide subtitles, voice-overs, or guide content in Arabic, Farsi, Pashto, etc., on national platforms like EBA.	Easier navigation of language barriers, increased learning motivation and school success.
3	Access Support and Infrastructure Investments	Students with limited financial means face problems accessing devices and internet at home.	Provide free tablets, computers, and mobile internet via public-private partnerships. Open school computer labs outside class hours.	Reduced digital divide, continuous access to educational materials at home, strengthened learning continuity.
4	Teacher Training	Teachers' varying digital pedagogical skills affect support quality for immigrant students.	Add modules on ICT use in multicultural classrooms and translation-supported digital tools to in-service training programs.	Effective teacher ICT use, supporting better student participation and academic achievement.
5	Tailored Digital Applications for Immigrants	Limited number of locally relevant, translation-supported,	Collaborate with tech firms to develop apps supporting language learning, cultural adaptation, and	Support for individual learning processes, accelerating both language



		interactive mobile apps for immigrant students.	education for immigrant students.	development and adaptation.
6	Monitoring and Evaluation Mechanisms	Data deficiency on immigrant students' digital integration makes it hard to measure policy effectiveness.	MEB and Migration Management to collaborate on collecting/evaluating data on student performance, digital access, and socialization.	Better monitoring of outcomes, dissemination of successful interventions, and improvement of deficient areas.
7	Participatory Policy Development	Immigrant students' views are insufficiently included in digital integration policy preparation.	Identify digital needs via workshops with immigrant youth, online surveys, and student representation mechanisms.	Development of more realistic, sustainable policies directly reflecting target group needs.

Table 1: Policy and Practice Recommendations for Enhancing ICT Role in Immigrant Student Integration

In conclusion, when supported by appropriate policies, information and communication technologies can become a powerful tool for both the integration of immigrant students into the education system and their social adaptation. This literature-based analysis in the Istanbul context is also instructive for similar large cities. To build an egalitarian and inclusive integration process in the digital age, ensuring access to technology and competence in its use for everyone is essential. This encapsulates the core argument: digital inclusion is not a luxury but a necessity for social justice in contemporary society.

The films of Turkish cinema during the AK Party's rule provide significant representations of the psychological, familial, economic, political, and ideological characteristics and tendencies of Turkish society during that period. However, what the director emphasizes is not necessarily the ideological and cultural aspects that the government may desire, but rather the dramatic or comedic popular stories. According to the top-grossing films since 2004, the Turkish film audience generally consists of secularists, urbanites, pro-Western individuals,

nationalists, and those seeking entertainment. In other words, as in the past, films during this period were presented to the tastes of these groups; ultimately, the Turkish film audience has developed accordingly. The films are made in line with audience expectations, and it can be observed that audience habits and film-watching practices formed in earlier periods have continued. Turkish cinema, guided by the dominant state ideology but not shaped by it, has remained in the civil sphere and can be seen as a form of cinema that often critiques everything through humor, perhaps even mocking it. This is because the most popular films, such as the Recep İvedik series, are neither films of the Islamist segments nor of the Atatürkist understanding that seeks to educate the public.

On the other hand, films that are not secular or pro-Western, and those that advocate ideologies opposing the dominant ideology, are believed to have a very low visibility and have not become mainstream. Even though governments have changed, and the system has shifted from the mainstream ideology to an opposing ideology, the old cultural hegemony has not been dismantled. It is still the secular cinema ideology that determines its audience. The society's form of entertainment resembles Western family entertainment, and the audience laughs at Western-style comedic patterns. It appears that a new cultural hegemony cannot be established in such a short period of 20 years.

Throughout Turkish cinema, including the Yeşilçam era, issues related to both individual and societal universal processes of modernization have been addressed and have existed in relation to these issues. As a result of modernization, the phenomenon of becoming an individual has found its place in cinema, and the individual's position in society has been depicted. Modernization, enlightenment, and secularism generally appear as a "decorative" element in cinema. However, the general storyline has aligned with the life of the Western, secular, and modern individual. At this point, it is necessary to move beyond the understanding that culture is determined by politics or that cultural hegemony is established by politics. At the very least, it is important to acknowledge that cinema has a dual influence in the process of cultural change. It has been found that Turkish cinema has not experienced a radical break from the ideological representation tradition of Yeşilçam or New Turkish Cinema in films that achieved box office success during the AK Party's rule. It is also striking that these films, which adopt a secular and pro-Western orientation, were produced during the AK Party period.

At the same time, it is known that Turkish citizens spend a significant time of their free time watching Turkish television series. The same methodical analysis can be made on these television series on their Ottoman and religious ideologism to illustrate any differences in the type of media consumed.

A country's economic position in the world, its politics, and the lifestyle of its people directly reflect on all popular culture products, including films produced in that country. Therefore, the production of films is directly influenced by the country's current reality, in other words, by the developments, events, and the dominant cultural and social life of the time. However, when examining the box-office record-breaking films during the 20 years of AK Party rule, some inconsistencies are observed. Either the AK Party has not been able to change society as much as anticipated, or the reflection of national realities on cultural products occurs not directly but through a long process of mediation.



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