Strategic Sectors | **Culture & Society**

Digitalization and Mobility. Artificial Intelligence Applied to Migration and Integration Policy

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From Ellis Island to Artificial Intelligence

Annie Moore's story can be an insight into the differences and similarities between traditional and digital migrations. It was 1892 when this little girl from Ireland landed in New York. According to many observers, she was the first of 12 million immigrants to pass through Ellis Island by 1954. Most of these immigrants were of European origin, seeking the *American Dream* in what was, much later, called the *Golden Gate*, but which was also a place of humiliation, harassment, deportation, rejection and hateful family divisions. Three years after arriving in the United States, Annie married a baker, had 11 children (five of them died of disease and malnutrition) and died at the age of 42 in poor economic and health conditions.

Perhaps little Annie's life would have been happier if her integration process had been entrusted to the artificial intelligence software that the United States created in 2018 and named Annie in her honour. The Annie software was developed by an international team of researchers from Worcester Polytechnic Institute (USA), Lund University (Sweden) and Oxford University (UK). According to them, Annie uses a sophisticated algorithm that combines the political-socio-economic characteristics of the host country, region or city with those of the individual refugee (age, disability, level of education, training, etc.) This guarantees a more efficient redistribution of newcomers compared to the one established by humans, for the simple reason that in less than an hour (as opposed to the half a day it takes an employee on average) it is possible to identify the optimal match between the place and the person in order to welcome, facilitate and speed up the latter's socio-occupational integration. This innovative refugee redistribution system has great potential because the algorithm described above has already been successfully tested to solve similar problems, such as selecting hospitals to which inexperienced doctors are first assigned. This is thanks to Alvin Roth and Lloyd Shapley, who were awarded the 2012 Nobel Prize in Economics for their decades of work on these mathematical models.

The Annie software is just one of the many digital and technological tools that are transforming the way migration flows are governed and managed in the 21st century. These are important and unprecedented innovations, but they are not enough to prevent the expectations of millions of immigrants, refugees and displaced persons from being ignored, as happened to the little Irish girl. There are at least two reasons for this. The first is that these technologies, like any form of modernization, are never win-win, they are both inclusive and exclusive (McAuliffe, Triandafyllidou, 2022). The second relates to the fact that even the digital space is now influenced by nation-state interests in a context of growing geopolitical tensions, exacerbated by the pandemic and the Russian-Ukrainian war.

The Digitalization of Human Mobility

All actors involved in migration processes use the new digital tools. Since the beginning of the 21st century, the mass diffusion of smartphones and social networks has created a revolution within the information and communication technology revolution. Com-

munication is becoming less and less one-to-one (e.g. a phone call) and more and more one-to-many, with Facebook, Instagram, Snapchat, Telegram, Twitter, etc. allowing one click to reach multiple recipients, known and unknown, directly and instantly. Unlike traditional mass media (e.g. TV), social media can help build real bridges, both personal and professional. For these reasons, not only traditional infrastructures (air terminals, railways, ports, etc.) are important for international migrants and asylum seekers, but also digital infrastructures: apps, websites, messaging and translation platforms, etc. (Dekker, Engbersen, 2012). They are tools that can facilitate the organization of the migration project and the integration process in the host country. However, these same tools can also become a weapon used by international organized crime, for example to control migration routes and ensure that migrants pay the traffickers the agreed price for organizing their journey once they reach their destination country. Conversely, digital tools can empower migrants to liberate themselves from traffickers, as shown, for example, by a New York Times investigation in August 2015. According to the report, in 2015, many migrants and asylum seekers along the Balkan route managed to avoid traffickers thanks to information on the safest routes they received via smartphone from friends and relatives who had previously successfully travelled the same route.

Migrants in the 21st century leave fingerprints as well as traditional footprints. A study by the Pew Research Institute in Washington analysed how migrants used social networks and smartphones to reach Europe along the Balkan route during the 2015 humanitarian emergency. It found, for example, that in August 2015 the most searched word in Arabic on the Turkish version of Google was *Greece*. In October 2015, the number of Arabic-speaking Syrians and Iraqis from Turkey to Greece reached an unprecedented record. The two months between the peak of searches for the word *Greece* on Google and the peak of arrivals in Greece is, according to experts, the average time it took migrants to organize their journey.

In addition to migrants and traffickers, states and international organizations, both governmental and non-governmental, also use the new information and communication technologies.

Take, for example, the case of the *I-Sea* application created by the company Gray for Food and the NGO Moas. Once downloaded to a smartphone, the application provides real-time satellite images of the Mediterranean and divides them into thousands of small sections, each of which is assigned to users willing to monitor it and report migrants' boats in need of assistance.

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UNHCR is also increasing its use of digital tools and developing its own secure online spaces for information, data and communication. It uses biometrics to provide identity documents, to distribute cash through ATMs and to enhance legal and protection functions. UNHCR experimented with the Profile Global Registration System (ProGres) digital database during the Kosovo crisis in the late 1990s, and since its official launch in 2002, it has been used to collect detailed information (name, surname, age, health problems, progress of asylum applications, etc.) on people seeking international protection. In many UNHCR camps the information collected through ProGres is cross-checked with biometric data, fingerprints and iris scans to avoid providing aid and assistance to those who falsely claim to be refugees. Looking ahead, UNHCR is exploring the use of technologies such as blockchain and artificial intelligence to see how they can be further integrated into its work (Terranova, 2022).

Migrant-receiving countries are also increasingly using digital tools to manage migration flows and improve the integration of new arrivals, as we have seen in the case of Annie software in the United States. For example, EU Member States, non-EU OECD countries and Georgia have increased their use of digital technologies especially as a consequence of the Covid-19 pandemic. The technologies used range from online appointment systems for residence permits and citizenship, to customer

service portals for submitting and tracking applications. Some states are using blockchain technology for migration management to enable the secure exchange of highly sensitive information, to connect different services and systems. Other states are using AI for language identification and assessment, identity document fraud detection and migration forecasting. In addition, the digitization of migration and related services raises issues of accessibility in the context of persistent digital divides within and between countries, as well as technological bias and the protection of personal data. (European Migration Network, 2022).

Conclusion: The New Frontiers of Digital Migration

These are important and unprecedented innovations, but they are not enough to prevent the expectations of millions of immigrants, refugees and IDPs from being ignored, as happened to the little Irish girl Annie who arrived at Ellis Island in 1892. There are at least two reasons for this.

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The first is that these technologies, like any form of modernization, are never win-win, they are both inclusive and exclusive. There are issues of digital divide, security and misuse of new digital tools in the field of migration. As UN High Commissioner for Refugees, Filippo Grandi, noted at the World Economic Forum Davos 2023, three-quarters of refugees are in developing or least developed countries, and millions live in rural areas where digital infrastructure is poor or non-existent. Refugees and IDPs need equal and meaningful access to the digital world, the power to run it and affordable hardware or services. The security of digital infrastructure must also be addressed. This ranges from stopping human trafficking networks from operating freely online, to preventing misinformation and ensuring the protection of personal data. Finally, the misuse of digital tools, especially against refugees and IDPs, must be avoided, ensuring full respect for the right to asylum and not creating new barriers to safety.

The above-mentioned contraindications to the use of digital tools in the field of migration are complicated by a second factor: the digital space is increasingly influenced by national interests in a context of growing geopolitical tensions, exacerbated by the pandemic and the Russian-Ukrainian war. The Internet began as a deterritorialized space and is increasingly becoming a territorialized one. The introduction of the term Internet in the mid-1990s was accompanied by the language of cyberspace. Cyberspace was seen as a transnational space, independent of national territorial space. It was during these years that the term *information superhighway* was coined, along with *cyberspace*, to explain how the online space could guarantee everyone access to information that had previously been the privilege of the elites of advanced countries. It was argued that these globalized information highways would allow data to flow wherever and whenever it was needed, making state borders increasingly redundant (Munn, 2020). Today's history, however, shows that the above vision of the Internet has been overcome in favour of an information sovereignty that sees the digital space as a territorial extension of national sovereignty.

It is a fragmented international scenario in which there is no space to foster the forms of intergovernmental cooperation needed to govern digital tools, which are, by definition, transnational. The private sector could provide a solution. A case in point is the Starlink satellites owned by American entrepreneur Elon Musk, who has put them at Ukraine's disposal to counter the Russian invasion. These are private satellites orbiting 340 miles above the Earth that provide an online connection capable of delivering ultra-high bandwidth with very low latency anywhere. They were originally designed to bring internet access to rural and poorly connected areas of the world. Accessing the Starlink network is as easy as downloading the app of the same name, which has become the most popular in Ukraine. (Schmidt, 2023).

Digital platforms and technologies managed by private actors could provide a link between communities living in opposing spheres of geopolitical influence. This would allow for the strengthening and emergence of communities that are no longer merely geographical, but aggregated according to transnational and trans-territorial functions and interests. It is a scenario based on a huge redefinition of the concepts of space and time, which could, although it will not be easy, favour the emergence of counter-powers (the transnational communities), capable of weakening the current, growing tendency of states to create borders, including in the digital space. Digital innovators, with their infrastructure and ideas could help the world to upgrade the humanitarian response for the 21st century, as the UN High Commissioner for Refugees, Filippo Grandi, has stressed since the beginning of his mandate.

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