

Virtual Traces and Techno-Control of Migrants in Europe

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Abstract

The development of increasingly advanced surveillance techniques and the strategic use of artificial intelligence are now intimately linked to the control of migration flows and are often a major cause of discrimination and violation of human rights and dignity. Yet such violations continue to occur amidst considerable economic investment and little oversight, in a legislative vacuum, and almost always with very little understanding of the technologies and the impact they have on the people and communities affected at the border. The article investigates all these aspects, which are still unclear, and little discussed in the institutional world and the public sphere in general.

The methodology is linked to in-depth study and critical analysis of current literature on the presented topic. Comparisons between different realities and open questions will be made in order to understand the social and political gaps that are difficult to identify in this historical period.

It is essential to reflect on the ethical and social issues related to the digital tracking of migration flows. The failure of institutions to act and the lack of attention of scholars and authorities would increase the risks migrants run on their journey. Migrants often lose control over their movements and choices and suffer the consequences of the decisions of systems that are considered innovative but which in the long term prove to be opaque and inefficient.

Keywords: surveillance, migration policies, Europe, ICT, international migration

1. Introduction

In 2019, the number of refugees reached 74.5 million: a figure that has almost doubled since 2010. Unlike in the past, many of them are no longer able to rebuild their lives.

Today, according to European Commission, populations are no more mobile than in the past. Although there were 272 million migrants in 2019 and 93 million in 1960, the proportion of those leaving to the rest of the world's population has remained broadly constant over time, hovering around 3%. What has grown is rather the total number of people living on the planet, some 7.7 billion.

We can, however, speak of ours as the "age of migration" if, as Stephen Castles (1993) suggests, we mean by this the fact that in recent years the movement of populations has become the field on which some of the most important games for political consensus are played. Let's look at the USA of former President Donald Trump, or Europe of the so-called refugee crisis of 2015, and Italy itself.

Over the last two decades, the topic of migration has been chewed up and digested by the public rhetoric of half the world. Stereotypes and prejudices have become tools for the criminalization of the human right to mobility and thus, more and more, migrant workers and refugees have been made the scapegoat of a failed economic system. To try to get out of the doldrums of superficial readings, we have tried in this issue to bring the theme back to its natural dimension: the global one. Humanity was born nomadic, and in part continues to be so, out of necessity and desire.

2. Managing/Preventing (Irregular) Mobility

Over the last decade, it has been decided to build new walls, limit movements, restrict the granting of visas and criminalize NGOs.

"Man is not a stone", Polynesians taught anthropologist Raymond Firth in the early 1920s, to explain the strength that led them to face dangers and fears to cross the borders they felt constrained by (Remotti, 2010). Even today, most migrants move in search of something: a job, a reunion, the chance to study. Yet, the number of those who, preferring to stay, are instead forced to flee from wars, persecution, desertification, and adverse weather conditions are increasing.

In 2019, there were almost 80 million, ten more than the previous year. More than 13 million people have fled Syria alone in ten years of war. Researchers calculated that 80 percent of the variability in the flow of migrants coming from the Sahel, the African region of origin of almost all migrants heading for Italy via Libya, can be explained by weather and climate factors and in particular by the increase in average temperatures (Mastrojeni, Pasini 2017).

It is increasingly difficult to distinguish between the different profiles of those who travel because, sooner or later, almost all of them find themselves sharing the same irregular and dangerous mode of travel. All of them are 'clandestine', forced to turn to traffickers and

facilitators of all kinds (Buoncompagni, 2021a).

Regular migration has become almost impossible due to increasingly restrictive policies. It is from this awareness, which is held by experts but not by the public, that it would perhaps be useful to start reforming, at least, the legal framework regulating immigration in Europe. So as not to respond only with bans, walls, barbed wire, and weapons to the many who walk.

Every interaction an immigrant has with public authorities requires the collection and processing of personal data. A flow that puts those concerned in an almost constant state of surveillance. An example of this system taken to the extreme has been implemented by the British government in recent years and aims to make the country inhospitable to immigrants by pushing them to leave, not to attempt the journey or transfer. Measures that could soon affect EU citizens as well. In a series of non-public agreements, the UK Home Office requested personal data held by hospitals, schools, employment centers and used it to trace immigrants - adults and children - who potentially do not have proper papers. Everyone should be able to access essential services such as education and health without fear of the consequences.

There is an urgent need to regulate and monitor the entities - public and private - involved in the collection, analysis, and use of data and to ensure that they respect principles and standards on personal data protection, as well as human rights. More than 30 years after the fall of the Berlin Wall, Europe is stronger today than it was then. There are more than sixteen walls on the Old Continent, mostly built to counter migration (Brown, 2010).

3. Migration Strategies and Policies of Walled Europe

There is the construction of a floating barrier in the Aegean Sea to block the disembarkation of migrants from Turkey on the island of Lesbos and the adoption of photo-traps along the border between Friuli Venezia Giulia (Italy) and Slovenia to identify in real-time the desperate people trying to reach the heart of Europe via the Balkan route.

These are just a few of the latest proposals in European border defense policy.

The Berlin Wall seemed a distant memory. When on 9 November 1989 a breach was made in the then most famous wall in the world, the European Union did not yet exist.

A new era was dawning.

Yet 30 years later, Europe is stronger than it was then. Before that extraordinary event, there were 16 fences around the world. Today, on the Old Continent alone, there are 16 walls. Half of the Member States have built one along their borders. And if we add technological barriers to the physical walls, from reinforced concrete to iron curtains, the number rises even higher.

People have always built walls and barriers to defend themselves. In Europe, even before the Berlin Wall was erected in 1961, there were the walls of Gorizia in 1947, torn down in 2004, the wall of Cyprus, still standing to separate the Turkish and Greek areas, and the so-called peace lines, the barriers built-in 1969 in Belfast to guarantee "peace" between Catholics and Protestants. In 2013, the Northern Ireland government promised to remove them, but to date,

their removal is still not complete.

What is surprising, however, is the exponential increase in the barriers built in Europe since 2012 as migration flows have increased. In 2015 alone, the year of the migration crisis, seven barriers were erected in the Old Continent. All of them with a single motivation: the fight against immigration [4,5].

It should not be surprising, therefore, if in recent years securitarian rhetoric has put forward worrying proposals.

The latest frontier in barrier engineering comes from Greece, which at the end of January announced the construction of a floating wall in the Aegean Sea to block the arrival of migrants. The project involves a barrier between Turkey and the island of Lesbos, 2.7 kilometers long and 110 centimeters high, 50 centimeters of which are above water level. The amount of the project put out to tender is around 500,000 euros.

A policy in line with the positions of conservative Prime Minister Kyriakos Mitsotakis, elected in July against his predecessor Alexis Tsipras, partly on the promise of strengthening Greece's borders. Among other measures, as soon as he was elected Mitsotakis took steps to withdraw access to public health care from asylum seekers and undocumented migrants.

According to UNHCR, 74,613 migrants arrived in Greece in 2019, compared to 11,471 arrivals in Italy and 50,508 in the previous year. The situation in Lesbos, an earthly paradise turned into hell for migrants landing there, is increasingly untenable. Médecins Sans Frontières' report on the Moria refugee camp is merciless: more than 15 thousand people trapped in a camp made for 3 thousand. At least 140 children with chronic, complex, and life-threatening illnesses have been deliberately denied access to adequate medical care by the Greek government.

But what exactly is the role of the European Union?

Despite the recent increase in landings in Greece, the number of migrants continues to remain well below the peak recorded in 2015 when more than one million migrants arrived in Europe by land and sea along the entire Mediterranean route (Greece, Spain, Italy, Malta, and Cyprus) (1,032,408 according to UNHCR), of which 861,630 in Greece alone and 153,842 in Italy. The European Union came to Greece's rescue and in 2016 signed an agreement with Turkey to block departures. A choice strongly contested by humanitarian organizations, but which the EU has never questioned. On the contrary: the latest political decisions it has only strengthened its stance against so-called irregular immigration.

Recent news has come from the European Commission, where the Union's multiannual financial plan for 2021-2027 is currently being discussed: an increase from 13 to 35 billion for the Migration, Asylum and Border Fund, together with a 90 billion development fund, 10% of which is dedicated to the control of flows. On Thursday it will be the turn of the European Council to meet and discuss it.

Then there is Horizon 2020, the European Commission's funding program to support and promote research. The EU has decided to invest the funds earmarked for technological development in a project with an emblematic name. It is called Roborder, from the word's

'robot' and 'border', and it is a border control program carried out by deploying a fleet of drones. The website states that Roborder aims to develop an autonomous border surveillance system with unmanned mobile robots including air, water, submarine, and ground vehicles. Officially, the project is part of a broader framework that also includes marine pollution detection.

However, the main objective is to detect and recognize illegal border activities (link: [https://roborder.eu/the-project/aims-objectives/.](https://roborder.eu/the-project/aims-objectives/))

Finally, there is the issue of Frontex, the agency founded in 2004 to assist member states and Schengen countries in protecting their external borders.

The obsession with border and migration control has led the EU to strengthen its powers and extend its mandate. Again, a first step was taken as a response to the 2015 migration crisis when the Commission proposed transforming Frontex into a European Guard, composed of the European Border and Coast Guard Agency and the national authorities of the member states. Not content, in September 2018 the Commission proposed to strengthen the new Agency as well. The new regulation, agreed by the European Parliament and the Council, entered into force in December (PRS, 2017).

The main changes include the establishment of a permanent corps of 10,000 border guards by 2027 and a total budget of €10 billion over seven years. After all, Europe has more than 13,000 kilometers of land borders and almost 66,000 kilometers of coastline.

As well as limiting dependence on the resources of the Member States, the strengthened Agency will be able to support return procedures in the Member States by identifying third-country nationals staying illegally in the EU and helping national authorities to obtain their travel documents.

Not only blocking irregular entry, therefore.

The new body will be deployed from 2021. The officers will be responsible for border surveillance, the fight against organized crime, and migration management.

There will also be a rapid intervention pool in case of emergencies such as the one in 2015.

4. Data, Software, and Digital Traces of Migrants

Digital data and the traces that each of us leaves in the virtual environment at the moment of connection constitute an increasingly efficient and recognized political-institutional tool for tracking migration flows in Europe.

Governments use the information contained in mobile phones as a means of verifying the identity and information given by asylum seekers: this is possible thanks to tools that allow the extraction of data from smartphones, including contacts, calls, messages, and geolocation (Benedicto, Pere 2018).

However, this practice interferes with the right to privacy and cannot be considered necessary or proportional, two essential requirements when it comes to the processing of personal data.

Moreover, it cannot be considered reliable and is often vitiated by prejudices and lack of knowledge of the migration phenomenon: phones can be lost, exchanged, shared by many people at different points along the way. Using this technique to refute the claims of an asylum seeker is ineffective. Germany, Denmark, Austria, Norway, Belgium, and the UK are among the countries that have laws to collect and analyze data as part of asylum procedures. But beware: these technologies are also progressively being used by police forces in the performance of their daily duties (PRS 2017; Benedicto, Pere 2018; Latonero 2019, Buoncompagni 2021b).

The extraction of data from mobile phones is part of a broader trend of surveillance tools used on migrants and refugees that often has dubious scientific bases.

In Europe, this also includes the use of technologies that would be able to determine, for example, whether a person is lying based on the analysis of 'micro-expressions', or whether they actually come from the country they claim (through voice analysis), or whether they have correctly stated their age (based on bone structure (Buoncompagni 2021b; Gallagher, Jona 2019).

The European Union's research and innovation program 'Horizon 2020' has funded, among others, iBorderCtrl, defined as an innovative project to enable faster and more accurate border control. According to the description, among other features, the tool can unmask liars, or rather, the goal is to create a kind of lie detector that can detect the lives of those who cross the European border. iBorderCtrl then tries to prove whether the traveler is telling the truth or not. As a concrete example of its use, we can imagine a non-EU traveler arriving at the border of an EU country and being confronted with a facial recognition system that asks direct questions. If the software picks up that the traveler is telling the truth it will give a QRcode that will allow the person to pass the border.

Otherwise, if the software senses that the person is lying, it will ask for some biometric information, such as fingerprints and facial recognition, and then send the person to a human border agent for further checks. According to iBorderCtrl members, the first tests have achieved a 75% success rate, but during the trial, the goal is to reach an 85% success rate.

At present, however, the results obtained are completely unreliable, as journalistic investigations have shown.

Briefly mentioned here is the 4.5 million euros that have been poured into the virtual policeman project to judge the honesty of travelers. The technology is described as "not credible" (Buoncompagni 2021b; Gallagher, Jona 2019).

This is the case of "Silent Talker": a virtual policeman designed to reinforce Europe's borders by subjecting travelers to a lie detector test before they are allowed to pass through customs.

Before you arrive at the airport, using your computer, you log onto a website, upload an image of your passport, and are greeted by an avatar of a brown-haired man wearing a navy-blue uniform. The next step is to give your verbal answers to questions about your origin and citizenship, and the virtual policeman uses your webcam to scan your face and eye movements

for signs of lying.

At the end of the interview, the system gives you a QR code that you must show to a guard when you arrive at the border. The guard scans the code using a handheld tablet device, takes your fingerprints, and examines the facial image captured by the avatar to see if it matches your passport. The guard's tablet displays a score out of 100, telling him or her whether the machine has judged you to be truthful or not.

A person who is deemed to have tried to fool the system is classified as 'high risk' or 'medium risk', depending on how many questions they are found to have answered incorrectly. The journalist who tested the system before crossing the Serbian-Hungarian border earlier this year gave honest answers to all questions but was deemed a liar by the machine, with four out of 16 false answers and a score of 48.

Travelers deemed to be dangerous may be denied entry, although in most cases they would never know whether the avatar test contributed to this decision.

The results of the test are generally not communicated to the traveler.

The magazine *The Intercept* obtained a copy of the test from its reporter sent into the field, only after having submitted a request for access to the data under European privacy laws.

The virtual policeman is thus the product of a project called iBorderCtrl, which involves security agencies in Hungary, Latvia, and Greece. Currently, testing of the lie detector is voluntary and the pilot project is expected to end in August. If successful, however, it could be implemented in other EU countries, a potential development that has sparked controversy and media coverage across the continent.

iBorderCtrl's lie-detection system was developed in England by researchers at Manchester Metropolitan University, who say the technology can detect the "micro gestures" a person makes while answering questions on their computer by analyzing facial expressions, gaze, and posture.

An EU research program has invested around €4.5 million in the project, which is run by a consortium of 13 partners, including the Greek Centre for Security Studies, the Leibniz University of Hannover in Germany, and technology and security companies such as BioSec of Hungary, Everis of Spain, and JAS of Poland.

Researchers at Manchester Metropolitan University believe the system could be the future of border security. In an academic paper published in June 2018, they said that avatars such as their virtual policeman "will be well suited to detecting deception in border crossing interviews, as they are effective extractors of information from humans".

However, some academics are questioning the value of the system, which they say relies on pseudoscience to make its decisions about the honesty of travelers.

Ray Bull, a professor of criminal investigation at the University of Derby, has assisted British police with interview techniques and specializes in methods of detecting deception. He told investigative journalists at *The Intercept* magazine that the iBorderCtrl project was "not

credible" because there is no evidence that monitoring micro gestures on people's faces is an accurate way to measure deception.

In recent years, following the refugee crisis and the wave of terrorist attacks in France, Belgium, Spain, and Germany, police and security agencies in Europe have come under increasing political pressure to monitor migrant movements more effectively. Border security officials on the continent say they are trying to find new, faster, and more efficient ways, using artificial intelligence, to check the travel documents and biometric data of the more than 700 million people entering the EU each year.

The European Commission, the executive arm of the EU, has allocated a proposal of €34.9 billion for border control and migration management between 2021 and 2027. Meanwhile, in September last year, EU lawmakers agreed to set up a new automated system that will screen citizens from visa-free third countries, including the US, to determine whether they should be allowed to enter the EU.

Predictive policing software is used by law enforcement agencies to determine where and when a crime might take place and who is most likely to commit it.

These programs are created through algorithms that analyze historical data sets: an analysis may indicate areas with high crime rates or where certain types of crime have been reported. We might be tempted to consider these programs as neutral - it is technology, after all - but this is not the case: the data is incomplete and flawed by stereotypes, so much so that it ends up feeding prejudice into the justice system.

The result is a vicious circle whereby, for example, police forces are sent out to patrol disproportionately to the need in poorer neighborhoods or those with a greater number of immigrants, creating an environment of fear. Often, such software is not regulated by precise laws, making it difficult to understand how it works and to question it. Moreover, as with social media monitoring, knowing that you are potentially being monitored leads to self-censorship and may lead you to avoid certain places in your neighborhood or change your habits.

5. Conclusions

In the management of migration processes, we see increasing use of biometric data, i.e., data related to one or more physical and/or behavioral characteristics.

One example is Eurodac, the European fingerprint database for asylum seekers and persons apprehended when irregularly crossing an external EU border. It is used to compare fingerprints and determine which member state is responsible for handling the relevant asylum application following the so-called Dublin Regulation. The European Commission's recent proposal for a new Asylum and Migration Pact includes a proposal to expand it. But mistakes and inconsistencies in these systems, often characterized by a total lack of transparency, can create huge problems that affect people of certain ethnicities and ages the most.

Another recent example and the case for discussion concerns the facial recognition of migrants.

By facial recognition, we mean systems that collect and analyze biometric data about a person's face.

The collection of these images allows them to be compared with elements contained in various databases containing images obtained from other sources, to find a match. One of the objectives is to identify someone.

The extensive use of this extremely invasive tool by police and private companies has revolutionized the way we control and monitor our society ethnic minorities: facial recognition has very high error rates (in some cases up to 95 percent) for these groups who, as a result, have often experienced a pervasive police presence in their communities. The term artificial intelligence is used to refer to a wide range of applications and techniques with varying levels of complexity and autonomy.

The lack of a clear definition is a major challenge: different types of artificial intelligence present different ethical and regulatory issues and can infringe on the right to privacy and other fundamental rights in many ways.

Technology can be used to identify people who want to remain anonymous, profile people using nationwide data, and make decisions about their lives. These tools are used in the context of migration in many ways: from issuing visas to identifying refugees in sensitive contexts.

In this context, security companies play an essential role, providing a wide range of technological 'solutions' and services to governments around the world. ICE, the immigration enforcement agency at the heart of the Trump administration's zero-tolerance policies on immigration and family separation, has for years used companies that produce surveillance systems capable of intercepting communications across the US.

In addition, many countries with advanced defense and security expertise transfer expertise and tools to governments and agencies around the world, including some of the most authoritarian regimes. China, EU, and national governments, Israel, the United States, and Russia are among the main actors in these dynamics along with the global surveillance industry (PRS, 2017).

These processes facilitate human rights violations and corruption, strengthen and legitimize, on the one hand, authoritarian regimes and asymmetrical forms of power; on the other hand, a large amount of funds and resources for the development of markets and security policies that produce surveillance tools and 'new invisibles'.

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Note

Note 1. European Commission (2016), *Intelligent Portable Border Control System*. Retrieved from: <https://cordis.europa.eu/project/id/700626/it>

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