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Border surveillance: biometric technologies and personal data in Latin American migration

Vigilancia fronteriza: tecnologías biométricas y datos personales en la migración latinoamericana

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ABSTRACT: The study aims to understand how the development of biometric technologies and systems by the U.S. Government surveils migrants and asylum seekers from Latin America. In the methodology, I applied a qualitative approach with a descriptive level. I used the observation technique for the conference on migration and surveillance in Latin America, and the notebook as an instrument. Also, I used the documentary analysis technique, with the paraphrase card instrument for the five (5) scientific articles related to migration and surveillance. The results I obtained show that: (i) the use of biometric technologies at the U.S.-Mexico border by the U.S. Government would present risks to the fundamental rights of migrants and asylum seekers from Latin America, such as the right to privacy, (ii) the collection of biometric data through the CBP One application would facilitate the surveillance of migrants and asylum seekers from Latin America, and (iii) the exchange of biometric data that would be taking place between the U.S. Government and the Latin American Governments, would constitute a critical violation of the fundamental rights of migrants and asylum seekers from Latin America. I concluded that the use of biometric technology for surveillance purposes, which the U.S. Government would carry out or would intend to carry out on migrants and asylum seekers from Latin America, would constitute a serious violation of the fundamental rights of this group.

Keywords: migration; surveillance; borders; biometric data; migrants

RESUMEN: *El objetivo del estudio fue entender cómo el desarrollo de tecnologías y sistemas biométricos, por parte del Gobierno de EE.UU. estaría siendo empleado para vigilar a personas migrantes y solicitantes de asilo provenientes de Latinoamérica. En la metodología, se aplicó un enfoque cualitativo con nivel descriptivo. La técnica de la observación se usó para la conferencia sobre migración y vigilancia en América Latina, y como instrumento, se empleó el cuaderno de notas. También, se usó la técnica del análisis documental, con el instrumento de ficha de paráfrasis para los cinco (5) artículos científicos vinculados al tema de migración y vigilancia. Los resultados fueron: (i) el uso de tecnologías biométricas en la frontera de EE.UU. y México, por parte del Gobierno de EE.UU., presentaría riesgos para los derechos fundamentales de las personas migrantes y solicitantes de asilo de América Latina, como el de privacidad, (ii) la recolección de datos biométricos, a través del aplicativo CBP One, facilitaría la vigilancia de personas migrantes y solicitantes de asilo de Latinoamérica, y (iii) el intercambio de datos biométricos, que se estaría dando entre el Gobierno de EE.UU. y los Gobiernos de Latinoamérica, constituiría una vulneración crítica a los derechos fundamentales de personas migrantes y solicitantes de asilo. Se concluyó que, el empleo de tecnología biométrica con fines de vigilancia, que haría o pretendería efectuar el Gobierno de EE.UU. a personas migrantes y solicitantes de asilo de Latinoamérica, constituiría una grave vulneración a los derechos fundamentales de este grupo.*

Palabras clave: *migración; vigilancia; fronteras; datos biométricos; personas migrantes.*

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1. Introduction

It is well known that there is increasingly advanced control of the borders that divide Western states from their developing counterparts. The most researched example is the border separating the United States (U.S.) and Mexico where there are large fences and increasing monitoring through sophisticated technologies. In this regard, such control has been reflected in the implementation of high-

powered lighting, high steel walls, body heat, and displacement detectors, in addition to video surveillance systems (Nevins, 2002, cited in Pécoud & de Guchteneire, 2006).

Likewise, there have been studies that have mentioned that the migratory policies recently issued by the Government of Mexico to monitor the borders should have been considered given the effects of these on the interests of the U.S. Government. It has also been highlighted that the Mexican Government would have issued such policies under the direct influence of its peers in the North (i.e., coordinated pressure) (Fernández-Rodríguez & Freie, 2024).

It should be mentioned that such policies include the use of technological surveillance systems, which would be deployed by the U.S. Government, the Mexican Government, and also other Latin American governments. Thus, to have more context on the surveillance with biometric technologies and systems that the U.S. Government in particular would be carrying out, it will first be important to understand the U.S. position on immigration reform, which has been focused on two levels: (a) granting a legal solution (U.S. citizenship), and (b) enforcing immigration rules by strengthening the border, and reducing the number of irregular workers in the labor force. At the same time, the U.S. Government has provided immigration options, such as asylum and refugee status. However, it should be noted that there have been more than 100,000 requests for asylum from unaccompanied minors from Central America; and only 5% of the requested asylum has been granted (Orozco, 2019).

On the other hand, it should be noted that in 2020, during the COVID-19 pandemic, the number of Latin American and Caribbean migrants heading to the U.S. decreased. Nevertheless, by the year 2022, it was reported that 2.4 million irregular migrants were at the U.S.-Mexico border (a large percentage of them from Latin America and the Caribbean). And, almost 50% of these migrants were Mexican adults and citizens of the Northern Triangle States. Faced with this reported number of migrants, the U.S. Customs and Border Protection (CBP) applied for deportation under Title 42 of the U.S. Code, which allowed it to restrict the access of immigrants to the country in the context of a health emergency, such as COVID-19 (Hanson et al., 2023).

Regarding the problems and importance of Title 42 in the current migration of the U.S.-Mexico border, Del Monte (2023) pointed out that this document only took as a threat the entry of undocumented migrants, which, therefore, lacked scientific and political support to counteract the pandemic (i.e., the health emergency would have been taken as a pretext for the application of deportation). In addition, this measure endangered the lives of people in vulnerable situations, due to their imminent deportation. However, Title 42 also made it possible to accelerate the procedure for humanitarian appointments to request asylum. This situation has evolved to date. For example, as of May 11, 2023, the deadline for the application of such a measure had an expiration date; generating at the same time, that there was talk of new immigration policies that could have various consequences for migrants in their journey across the U.S.-Mexico border.

It was important to have, briefly, the context of the migration of irregular migrants and asylum seekers, to discuss the technological surveillance that would be carried out at the border. It is particularly for this group of people that, for some time now, the U.S. Government has been thinking about, or is already using, biometric identification systems, such as face and voice recognition, and other forms to monitor, such as spying on social networks. All this without arresting people (Biometric Technology Today, 2019). Moreover, such surveillance would be going further and applied to any person (migrant or not) who enters or intends to enter the U.S.

For example, in the words of Katzenstein, (2023), the U.S. Government, to carry out mass surveillance of immigrants and asylum seekers, would have invested money in database design, infrastructure development, financing, payments to suppliers, research development, technology development, purchase of cameras, airport scanners, fingerprint reading systems, iris scanners, surveillance devices, and ankle GPS. And, if so, this would be surprising and worrying, especially

because, currently, surveillance would be simpler and less expensive, due to technologies of free access and voluntary exchange (such as social networks).

What is expressed in the previous paragraph could be compared, in a way with the idea of Sherman-Stokes (2024), who mentioned that the Department of Homeland Security (DHS) has been continuously using social networks to watch and monitor non-U.S. citizens (not necessarily those who are migrants, such as tourists). An example of this would be the monitoring of social networks of those who apply for a visa. Additionally, CBP would be requiring travelers to provide their social networks, a situation that was intensified during Donald Trump's term in office. In addition, the DHS would be employing additional data mining with more expansion. It is also noted that the Immigration and Customs Enforcement (ICE) would have more than 900 databases of its own, and more than 10 billion biographic records; having at the same time, accessibility to all types of information in the country through the multi-jurisdictional joint information centers, which bring together data from various sources and subjects. And, it is with all this infrastructure that the transit of people entering or wishing to enter the country would be monitored.

Consequently, the best-known case so far, and the one that has been reported by international organizations defending migrant rights as a possible surveillance instrument due to the mishandling of migrants' data (including the potential use of biometric data), is the CBP One application. This application was conceived to optimize the security of U.S. borders, and so far, it has made migrants send certain information about their trips before crossing the borders. And, since January 2023, migrants who remained at the southern border of the U.S., because they lacked the required documentation to enter the U.S., have been able to obtain appointments to request asylum under the humanitarian prerogative of Title 42, at certain wharves (CNN Español, 2023).

It should also be recalled that the New York Times, in January 2020, published a report that the U.S. security forces had been using an application of the Clearview AI company, which allowed identifying people through an invasive facial recognition system. To do so, the company would have used a database of three billion images, which it allegedly accessed through freely accessible web platforms. This procedure of identification with images would have been done through a mechanism known as website scraping (data extraction and collection on the web). Moreover, the month after the publication of this report, an alleged list of the company's clients was leaked, including ICE, the U.S. Secret Service, and U.S. law enforcement agencies (Miyamoto, 2020).

The actions described so far would imply a risk for migrants in an irregular situation and potential asylum seekers who would potentially be subject to surveillance, especially if we take into account that not many of them have effective management of the technologies they rely on when making their migratory journey. And, proof of this deficient handling of technologies by migrants was reflected in a survey by the International Organization for Migration (2023), which found that of 531 migrants from Central America, Mexico, and the Dominican Republic, those who used ICTs the most for their migratory journey were between 26 and 35 years of age (whose handling of these technologies was deficient). Meanwhile, those over 46 years of age did not use them much, and the latter group could be more at risk of being monitored for not knowing how to protect their privacy when handling technological devices (although it must be said that all those who use technologies in their migratory transit would be at risk of being monitored).

Thus, given the above, the following question arises: How is the development of biometric technologies and systems by the U.S. Government being used to monitor migrants and asylum seekers from Latin America? Therefore, the objectives of this research are:

- Understanding how the development of biometric technologies and systems, by the U.S. Government, would be employed to monitor migrants and asylum seekers coming from Latin America.

- Understanding the risks of using biometric technologies and systems to monitor migrants and asylum seekers from Latin America at the U.S.-Mexico border.
- Finding out how the U.S. Government would be collecting biometric data of Latin American migrants and asylum seekers at the U.S.-Mexico border.

Conducting this research is transcendental since migration, particularly that of the Latin American population at the U.S.-Mexico border, has always been a matter of concern, whether due to social or cultural factors, among others. And, even more so now border control would involve the use of biometric technologies and systems that could have serious implications on the rights of migrants and asylum seekers.

2. Theories associated with the topic

These are the concepts associated with the research problem, which aims to understand how biometric technologies and systems monitor people on the move in Latin America.

2.1. Development of digital borders

Over the years, the U.S. Government has been developing various mechanisms for border security. Briefly, Operation Jumpstart in 2006 during the term of office of former President G.W. Bush was used to secure the U.S.-Mexico border. There was also the Secure Border Initiative to protect the border using technological mechanisms. Additionally, under former President Barack Obama, the Southwest Border wall system was applied, which used many physical and technological objects through software and other telematic materials to protect the border and prevent border crossings. And many other different mechanisms (Ramos, 2018).

Nowadays, however, the most recent designs and uses of technological tools for monitoring migration and safeguarding border security have had unfortunate consequences for migrants. This has opened the debate in both the academic and activist worlds, because the research that has been carried out shows how migrants and refugees are being used to develop control and surveillance technologies, under the premise of safeguarding border security (Korkmaz, 2022). Thus, for example, **Table 1** describes the types of technologies used for such surveillance, including, of course, the controversial use of biometric identification, which is increasing every day.

Table 1. Technologies for migration control and surveillance

Control and surveillance technologies	Description of its use
Video surveillance systems	It enables surveillance of border areas through cameras, which transmit live transmissions to a monitoring room. This technology helps detect certain patterns, thus alerting the operators of these systems of any irregular situation within the visual area captured by the cameras.
Displacement/motion detectors	They identify and report information regarding the appearance of humans, vehicles, and other objects in specific border areas, and warn the operators of these systems about them. Such detectors also detect smuggling conduits or instruments.
Intruder detection systems	They help detect whether humans or cars are crossing the border illegally and without authorization. These systems use various technologies, such as video cameras, displacement detectors, scanners, heat sensors, and multispectral figures.
Biometric recognition systems	Biometric identification systems help to identify people through unique physical characteristics (facial recognition, fingerprints, iris recognition scanners, etc.). They are used to corroborate the identity of those who cross the border area and to identify individuals required by the authorities.

Baggage/Suitcase and Cargo Scanners	They detect and provide information regarding dangerous or illegal items in the baggage and cargo of vehicles crossing the border zone. To do so, they use technological X-ray systems and other detection procedures, allowing the operators controlling these systems to view them.

Note. This table has been adapted from "New technologies for border control and security" by Ayala, et al., 2023, pp. 16-17.

Of all these types of control and surveillance technologies, as mentioned above, the biometric identification systems are causing the most concern in various sectors (academics and networks of activists in favor of the human rights of migrants). Why is this so? The answer would be that, although States have the right and obligation to protect their border security, this should be done while respecting the rights and civil liberties of migrants, which implies not violating their privacy and right to the protection of their data (such as biometric data). Additionally, to avoid a wave of arbitrary criminalization based on bias.

Moreover, this design of technologies applied at the borders would be established as a response to the pressures experienced in the critical areas of the borders. And it is precisely because of this crisis that migrants are often subjected to biometric identification systems through fingerprinting and face recognition. These biometric data collected from migrants leads to the development of large data sources with which they are being identified, inspected, and registered (Amelung, 2021, cited in Amelung & Galis, 2023).

2.2. Biometric technology, biometric data, privacy and intimacy

Biometric technologies have been used to monitor borders to have a mechanized, fast, secure, and efficient customs clearance procedure. Nonetheless, their use would bring ethical, socio-cultural, and legal complications. This is because, although the biometric data collected provide automatic and detailed recognition to identify individuals, their improper use would lead to serious security and privacy issues (Abomhara et al., 2021).

What biometric data would be used for the surveillance of migrants? Well, these data belong to the category of sensitive personal data, whose collection is done through a specialized technical procedure linked to the bodily, physiological, or behavioral peculiarities of an individual which helps to identify a person or corroborate their identity through face images or fingerprints (Ministerio de Justicia y Derechos Humanos, 2021).

Here the question is: why would governments want to use biometric systems in migration surveillance? According to Piedra, (2023), in terms of transparency, these data provide effective authentication, corroborating the identity of individuals without requiring the manual typing of passwords. Also, unlike passwords or aliases, it is not easy to manipulate biometric attributes, so, for immigration authorities, this would be a secure means of monitoring someone in particular. And, at the same time, there are different ways to exercise biometric surveillance, such as the use of fingerprint scanners, voice recognition sensors, and iris recognition technologies. Which would jeopardize the privacy of migrants or impose restrictions on their civil liberties.

Moreover, Burbano et al., (2021) pointed out that such biometric systems have been implemented with the supposed premise of providing security to society, although also as has become clear for surveillance, with these tools having refined designs that only the most modern technologies possess. But, although their development and application would have been justified by security issues, with their objective of surveillance, they would be colliding with the right to privacy of individuals.

Thus, the use of biometric systems for data collection without really knowing each of the objectives for which the information is being collected from people would entail serious risks in terms of privacy, security, and freedom. This is because generally there would be no idea of the legal and

socio-cultural implications that its implementation would bring to citizens. Therefore, the notion of the dangers that may exist in the protection of personal data, freedoms, and rights to privacy and intimacy of individuals is lost (Pato & Millet, 2010, cited in Quintanilla, 2020).

For example, in Central American States, Mexico, and the Dominican Republic, there are no regulations or regional guidelines on the protection and management of biometric data that belong to the citizens. Therefore, such a lack of legislation would create threats for everyone, specifically those in vulnerable contexts, such as migrants (International Organization for Migration, 2023). Hence, the lack of adequate regulation and, therefore, of a culture of personal data protection, especially for Latin American migrants who are on their way to countries such as the USA, could lead to the violation of their basic rights since it is not clear what data they can or cannot share with technologies that use biometric systems (Pérez, 2020).

Thelander (2022), referring to the right to privacy, which could be violated with the use of biometric systems, mentioned that this right is safeguarded concerning the use of biometric technology, as long as there are no justified exceptions provided by the States. He also concluded that the International Covenant on Civil and Political Rights guarantees the right to privacy against unlawful and arbitrary intrusions, except for justified reasons. However, despite this clarification, the legislative bodies of the States have not yet specified the clear form of protection of this right in the face of the most evolved technologies such as biometrics, thus putting the right to privacy at risk.

2.3. Risks of the use of biometric technology at borders

Using technologies as monitoring and surveillance tools has led to people crossing borders being seen as a social danger. This is because, through the use of political tactics and anti-migration messages, migrants have come to be seen as a threat. Adding to such tactics the deployment of innovative surveillance technologies and tools are being used against them today, creating further stigmatization (Sadik & Kaya, 2020).

These innovative technologies for monitoring and surveillance in border areas have progressed to the point where it has become feasible for monitoring to be done remotely, depersonalizing migrants at the mercy of the political and security decisions of governments, without even respecting their rights. Therefore, it can be said that monitoring systems, such as biometric and scanning systems used at ports and airports, would segregate a group of people (migrants) as if they had fewer rights. In other words, such technologies would make a difference between those who have rights and those who do not (González, 2020).

Why, in general, did governments begin to use biometric systems? First of all, it should be noted that their use would have been practically mandatory because these systems allow the development of certain documentation or procedures for people, from birth, to make effective the exercise of their citizenship (Santi, 2018). And, in addition, as expressed above because these systems would allow an effective authentication of individuals. However, biometric systems and technologies would have failed to meet the goals for which they were originally conceived (for example: security reasons) because they would constantly be making mistakes in properly identifying people, and would be useful to perpetuate ethnic, racial, or gender disparities due to the identification biases of their systems. It is because of such inaccuracies that marginalization and arbitrariness are being reproduced. And, in the case of biometric monitoring at airports, certain parts of the community (migrants) are regularly put at risk. In this sense, it can be said that biometric technologies would be generating manifestly racializing and segregationist consequences, which should be investigated in depth (Magnet, 2011, cited in Schindel, 2018).

2.4. Collection of biometric data in Latin American migration by the U.S. Government

As a prelude to the panorama of biometric data collection by the U.S. Government in Latin American migration, it is important to break down what was said by Meneses & López León (2023), who referred that during the period 1991-2021, the border area between the U.S. and Mexico had gone

through several transformations in policies and monitoring strategies by the U.S. Government. The main governmental purposes of those policies were to counteract: a) the irregular circulation of migrants, and b) drug smuggling (in the latter case, obviously for security reasons). Nevertheless, this would have contributed to the U.S. Government becoming a hyper-vigilant agent, employing a myriad of technologies and militarizing the border to increase the level of vigilantism towards civilians who only seek to migrate.

Giving clarity to the issue, what is questionable is not that States protect their borders through the use of technologies against illicit drug trafficking or actions that threaten their national security, since they have every right to do so; what is worrying is that without proper care such measures may infringe on the rights of people in contexts of vulnerability (such as migrants) (Office of the United Nations High Commissioner for Human Rights, 2018).

Thus, faced with situations such as the surveillance with technological and biometric systems of migrants and asylum seekers in circumstances of vulnerability, Méndez-Fierros (2023) alluded that the concern about the digital border previously focused mainly on traditional surveillance systems, but now such concern has become excessive datification (collection of biometric data); causing human rights defenders to advocate for the proper handling of personal data of this group of people. Moreover, the introduction of biometric systems to collect data on migrants has been causing biometric technologies to be used against U.S. citizens.

In this line, and entering the subject of surveillance of Latin American migrants there is information that the U.S. Government would be exchanging personal data of migrants with the support of the Governments of Mexico, Guatemala, Honduras, El Salvador, and more. This would be done through the Homeland Advanced Recognition Technology (HART), which functions as a biometric data bank operated with military technology, being able to store vast information about migrants. Such data would come from technological systems of face, iris, voice, fingerprint, etc. recognition. All this would allow not only to monitor what migrants do but could also be used as an instrument to help deport them (Social TIC, 2022).

Additionally, a particular case that attracts attention is the one mentioned by organizations that protect the rights of migrants, regarding the fact that, in 2013, the Governments of Mexico and the U.S. signed a non-binding memorandum of cooperation to optimize the national security of the States, which would allow the exchange of biometric data of their citizens (including migrants). Such exchange of information would have led to the criminalization, segregation, and surveillance of people in vulnerable contexts. In 2014, the Governments of Guatemala, Honduras, and El Salvador signed a similar document. This is of concern because the exchange of biometric data, which these countries may be carrying out within the framework of such agreements, would have little transparency, and would violate the privacy of individuals, especially migrants (Sánchez, 2023).

Complementing the previous idea, according to Sánchez et al., (2023), the Mexican National Migration Institute has not publicly informed the public about the biometric recognition and international data exchange procedures it has been carrying out with the U.S. Government. This is regrettable due to the illegality that would constitute the transfer of information of people requesting visas for humanitarian reasons, or the limitation of the mobility of migrants in exchange for the transfer of their personal information.

Regarding the specific measures that the U.S. Government would be taking within its territory regarding mass surveillance of migrants on the U.S.-Mexico border, it should be noted that there are currently concerns related to the collection and security of information collected from migrants and asylum seekers in that country (even though these technological systems were designed to optimize immigration procedures). A specific case of this concern is the CBP One application with which migrants, asylum seekers, and border populations must provide their data to immigration authorities;

without having due informed consent, nor knowing what it would mean to provide such information (Achiume et al., 2023, cited in Olguín, 2023).

In particular, that application already raised concerns regarding migrants located in central and northern Mexico, who, before their trip to the U.S., had to submit their data and schedule appointments upon arrival at certain land ports of entry located on the southwestern border. Added to this situation is the case of asylum seekers, who in January 2023, before the expiration of Title 42, were told that they could resort to using the CBP One to benefit from a humanitarian guarantee (International Organization for Migration, 2023).

More recently, on this issue, Heilweil and Nihill, (2024) stated that the CBP had been planning to extend the handling of biometric data to non-immigrants (tourists, for example) through the CBP One application. This was so that, more quickly, the DHS would collect biometric data from people (non-immigrants) leaving the U.S. through a selfie image. The goal of such a measure was to geolocate people, and thus corroborate their effective departure. In addition, this new update would allow the detection of criminals and suspects of all kinds.

Another measure that would involve the collection of biometric data by the U.S. Government is the one announced in a note from Biometric Update (2024), where it was reported that those people who did not have a passport in hand would have to go through a biometric facial scanner when they wanted to take a domestic flight within the U.S. If they refuse to go through the mentioned scanner, they will not be able to board said flights. This new strategy would imply that the information from the facial biometrics could be compared with the DHS records.

Besides, ICE would be ready to use facial recognition systems to track migrants as part of its alternative project to physical detention (Bell & Turberville, 2024). There had previously been speculation that ICE was testing the application of digital surveillance mechanisms. For example, the implementation of a wristwatch with GPS mechanisms was reported, which could be capable of applying facial recognition procedures. Such technology could make it easier for immigrants awaiting their immigration hearing to appear before the agency (Hellerstein, 2023).

To learn how the personal data of people on the move is being collected through the CBP One application, in 2022, the Access Now organization submitted to the CBP a request for access to information for the entity to provide the following (Access Now, 2024):

- Information on the possible existence of cooperation agreements between the U.S. Government and the Latin American governments to exchange personal data of migrants.
- Information on the records kept regarding whether the U.S. Government and the Governments of Latin America have any database with biometric information of migrants and people on the move.
- Detailed information stating what uses are being given to the CBP One application regarding the processing of biometric data of migrants and people on the move, which includes the restrictions and limitations on the use of the application.

According to this same organization, in 2024, the CBP did not provide an effective answer to the request. As a result of the above, the Access Now organization, together with the Cyberlaw Clinic based at Harvard's Berkman Klein Center for Internet & Society, is now suing CBP to provide the requested information. This lawsuit also includes ICE, which was previously required to provide information on the potential exchange of personal data that the U.S. Government and the Latin American Governments would be deploying. It should be noted that such requests for access to information are legitimate under the provisions of the Freedom of Information Act (FOIA).

The organizations Just Futures Law, Mijente, and Community Justice Exchange, which also advocate for the protection of the rights of migrants, in 2022, filed a lawsuit under the Freedom of Information Act (FOIA) with ICE for violating the right to privacy of migrants who are part of the

Intensive Supervision Program (ISAP), and that ICE would be using surveillance technologies such as the Smartlink application to monitor those people. What ICE has been required to do with this lawsuit is to provide information on the data it has stored on migrants, how such data is being used, and whether there are technology companies or governments involved in collecting that information; a case that is still under development (Center for Justice and International Law, 2023).

3. Method

Regarding the methodology, I applied a qualitative approach to the present study. This implies the non-use of statistical data, prioritizing the importance of theoretical bases, expressions, and the observation technique (Miles et al., 2020, cited in Ritter et al., 2023). In this study, the research data came from the expressions made by the panelists at the conference: "Migrants at risk: addressing the international exchange of data on people from Mexico and Central America", and from the contrast of that information with scientific articles from indexed journals on migration surveillance.

Regarding the level of research, I used the descriptive approach, since I wanted to offer a global, consistent, clear, and factual description of the problem I was investigating (Wahyu, 2023). This is about the case of how the surveillance of migrants and asylum seekers from Latin America would be carried out by the U.S. Government. As for the research technique, I used the following:

- ***First research technique***: For the data from the conference called: "Migrants at risk: addressing the international exchange of data on people from Mexico and Central America", I used observation. The reason for this is that this technique allows information to be collected by paying attention to people, to what happens, and to what they say, taking notes about it. And, in this particular context, I applied open observation, where individuals are aware that they are being observed (Chinyere & Val, 2023). Likewise, I found this research technique appropriate since with it, the researcher verbatim transfers the statements made by the observed individuals to a recording medium (Piza et al., 2019). That is, for this research, I took notes of what the conference participants expressed, and then transcribed it in writing and carried out the analysis.
- ***Second research technique:*** I used a documentary analysis for the data from various research similar to the topic studied. This is because this research technique allows us to take several documents as a source of information (Samaddar et al., 2023). In this case, scientific articles from indexed journals. In the same way, I considered this research technique because it enables a methodical exploration and evaluation of different documents through a search, selection, estimation, and summary of the relevant information (Kutsyuruba, 2023).

3.1. Sample

The research sample consisted of the information I collected from one of the RightsCon Costa Rica 2023 conferences: "Migrants at risk: addressing the international exchange of data of people from Mexico and Central America". Also, I selected five (5) scientific articles linked to surveillance with technology in migration as a sample.

3.2. Instrument

In this study, I used two instruments to collect the information. For the conference, I used the notebook. For the five (5) scientific articles, I used the paraphrase sheet, which helped me to compile the main findings.

3.3. Procedure for collecting and evaluating information

Regarding the data for the conference under analysis, I collected it on June 8, 2023, during my attendance at the global conference RightsCon Costa Rica 2023. After that, I schematized the information into six sections, detailing the results obtained.

I also searched scientific articles on migration surveillance. Subsequently, to obtain the results, I selected the main information I found in those scientific articles, ensuring the alignment of the data with the topic.

4. Results

In the following paragraphs, I detail the main results from the conference: "Migrants at risk: addressing the international exchange of data on people from Mexico and Central America."

A. Governments such as the U.S. are reportedly collecting biometric data from Latin American migrants to monitor them.

Governments such as the U.S. are reportedly using biometric identification systems to monitor Latin American migrants. These systems allow us to identify the characteristics of people and create detailed information about them. And, although there is no precise idea of how all this biometric data is being accessed (because it is a secret activity by the authorities), it may be that this collection is taking place at immigration offices.

B. Governments such as the U.S., with the cooperation of technology companies, are said to be storing the personal data of migrants without their consent to monitor them.

Amazon Web Services (AWS), from its cloud system, is said to be providing services to certain governments to store sensitive data of migrants. Such is the case of the link that exists between AWS and the DHS HART database, where the U.S. Government is said to be storing such sensitive information to profile migrants and monitor them. On the other hand, there is also the case of Clearview AI, a company that in its cloud system is said to be storing data of migrants, provided by its clients (governments); this without having the consent of the migrants.

C. The exchange of data that governments carry out on alleged criminal records of Latin American migrants and asylum seekers is said to have certain biases, violating the rights of people on the move.

In the case of asylum seekers, biometric identification systems have failed since many of these people have been detained because information that attributes them to criminal records has been incorrectly cross-referenced. This would also imply a violation of the principle of presumption of innocence. This is because the system of exchanging data on shared criminal records, which governments are carrying out, would not allow asylum seekers to refute whether or not said criminal information belongs to them. Similarly, the data transferred from the Government of El Salvador to the Government of the U.S. could be riddled with bias and inaccuracies. Furthermore, in many countries, there is still legal uncertainty regarding what data should or should not be shared to avoid violations of the rights of migrants (such as the right to privacy).

D. The Mexican Government would have personal data collection systems that would affect asylum seekers. Likewise, the Mexican Government would have the intention to share biometric data of migrants with the U.S. Government.

In Mexico, immigration alerts have the consequence that if they are activated for a certain person, it could imply their deportation and rejection of their request for asylum. And, the worrying thing is that the authorities do not provide more details about the reasons for issuing such alerts, nor is there a legal regulation for their application. In addition to this, the Mexican authorities are thinking of continuing with the collection of biometric data through a new application for those who wish to request asylum in the country. Although by law the authorities in Mexico cannot share such biometric data, due to its sensitive nature, the exception to this would seem to apply when such data is required by governments such as the U.S.

E. Certain Latin American States have non-binding cooperation agreements to transfer personal data of migrants and asylum seekers to the U.S. without knowing the parameters of how this is done, which would also affect the rights of people on the move.

Currently, there are agreements between certain Latin American States called memoranda, which would authorize governments to cooperate in the exchange of personal data (collected through technological systems). It is suspicious that access to such memoranda is restricted to the public, lacking transparency. In this case, the non-binding memoranda would allow the data of migrants to be transferred, so that States can identify and monitor them. However, the criteria by which Latin American Governments would be transferring such data to the U.S. Government are not known. This lack of transparency in the memoranda would affect migrants' right to privacy and informational self-determination. The fact that criminal records are being shared, with erroneous and biased information, is also serious because it would lead to the denial of asylum applications or access to the country to people who need it, which has even caused, so far, a migration crisis.

F. The collection of biometric data through applications such as CBP One would violate the rights of migrants.

The collection of biometric data that the U.S. Government would be doing and intends to reinforce, with applications such as CBP One, could present certain risks, such as racial profiling. Likewise, it is believed that the data collected by CBP One could be shared with agencies, such as the Federal Bureau of Investigation (FBI), which could criminalize migrants and subject them to acts that violate their rights, such as the right to move freely, non-discrimination, requesting recognition as refugees (if applicable), among others.

On the other hand, below, are the most important results from the analysis of the five (5) scientific articles on migration surveillance, which I later contrasted with the data from the conference.

Table 2. Research related to the use of biometric technologies and systems in immigration surveillance

Research	Findings
Between empowerment and surveillance: Forced migration and information and communication technologies	In various research, it has been shown that governments have been using technologies against migrants and refugees. These measures have been taken to ensure that these people on the move are kept away from the borders, to monitor them, surveil them, collect their data, criminalize them, and segregate them at the border. Furthermore, more research is required on what actions migrants are taking to avoid being surveilled through technologies (Kılıç & Bodur, 2024).
Big data, surveillance, and migration: a neorepublican account	There is a huge challenge in the design and implementation of immigration regulations and policies, especially in using biometric systems, which would lower the status of immigrants in comparison to those who are citizens in each country. One solution to this would be to ensure that borders are open, without neglecting the security mechanisms that governments exercise to protect their inhabitants. Such a measure would imply that all people, regardless of their nationality, are treated equally and without discrimination (Sager, 2023).
Issue introduction: IDentities and identity: Biometric technologies, borders, and migration	The European Union Governments are increasingly using biometric technologies for border surveillance and monitoring. These technologies have been associated with the detection of illegal activities. So, today, governments do not hesitate to apply them to ensure that travel happens within the law, tracking irregular travelers. And, although this is the case, these technologies pose the challenge of implementing a secure technological monitoring system (Grünenberg et al., 2022).

Precarious migrants, migration regimes, and digital technologies: the empowerment-control nexus	Based on various investigations in the field of surveillance and security, it has been determined that technologies have been playing a transcendental role in the migration and mobility policies of States. For example, after the 9/11 attacks, the U.S. implemented migration and border monitoring strategies through innovative technologies (such as the use of biometric data and US-VISIT databases). Thus, the technologies used in migration have become an effective source of control to restrict the freedom of movement of refugees and people on the move (Nedelcu & Soysüren, 2022).
Technocolonialism: Digital Innovation and Data Practices in the Humanitarian Response to Refugee Crises	The use of biometrics, although to preserve border security, would have adopted the premise of identifying unacceptable bodies. This, in the case of refugees, poses a greater risk, since the assistance provided to them would be conditional on their registration in systems that collect their data. Such a situation raises the need to establish legal regulations regarding the protection of personal data and the right to privacy of refugees about their biometric data (Madianou, 2019).

According to **Table 2**, although the States have implemented migration measures, which include using biometric technologies to protect their borders, this would imply a challenge to the fundamental rights of migrants. This means that it is necessary to rethink how these technologies should be applied so that they do not constitute a risk to the rights of people on the move.

5. Discussion

To elaborate on the discussion, I contrasted the information I obtained from the results, both from the conference: "Migrants at risk: addressing the international exchange of data of people from Mexico and Central America" (the Conference), and from the results in **Table 2**: "Research related to the use of biometric technologies and systems in immigration surveillance." Also, I added five (5) other investigations in this section, to enrich the debate. All are in the order mentioned.

From the information from the Conference, there would be countries, such as the U.S., in which the authorities would use biometric systems to identify migrants, with biometric data being collected at ports of entry. And, said data would be stored in databases of the U.S. Government, such as HART, with the support of companies such as AWS or Clearview AI. All of this would be done without the authorization or consent of migrants. This finding coincided with Madianou, (2019) who expressed that to provide aid to refugees, they would be asked for their biometric data. The above is an example of the various mechanisms the authorities would use with this group of people to monitor them; negatively impacting their right to personal data protection. Likewise, regarding using such surveillance tactics, Molnar (2021) mentioned that governments use technologies to control migration. A clear example of this is that, in the Mediterranean, Big Data would have been used to predict migratory displacement. In Canada, to resolve immigration and refugee requests, automated systems would be used, and on the borders of Europe, artificial intelligence would be used to detect alleged lies that people on the move could express, through an interrogation. However, the unfortunate thing is that States are not considering the impact that these measures have on the human rights of migrants.

Next, according to the information from the Conference, the Mexican State is applying a migration alert mechanism to those who request asylum in various countries (without further explanation); which can even cause the rejection of the asylum application. Furthermore, the Government of Mexico plans to collect biometric data from asylum seekers with the help of a new application. And, what it intends to do with this data is to share it with the U.S. Government. On this matter, Kılıç & Bodur (2024) pointed out that governments have been using information and communication technologies to monitor those seeking asylum, requiring further research regarding the mechanisms that this group would use to evade surveillance. Lunau & Andreassen (2022) shared the same opinion, stating that to examine asylum applications, immigration authorities would be monitoring the social networks of asylum seekers. This is detrimental because information extraction

techniques could create certain biases, which could end up in the denial of the asylum application. And, therefore, migrants during their displacement would avoid using social networks to communicate, which would make their movement more difficult.

On the other hand, from the information from the Conference, if the option to collect biometric information from migrants was added to the CBP One application, this could cause racial profiling to the point of criminalizing them. This coincided with Sager (2023) mentioning that the immigration regulations and policies of the States, especially those related to the use of biometric systems, would be devaluing migrants compared to those who have citizen status. This could be contrasted with the actions that the countries of the European Union (EU) would have taken, which, although they would have adopted measures to control the borders (to protect their security against terrorism), was questionable when the right to privacy of asylum seekers, and the right to the protection of personal data of this group (who are not necessarily criminals) was harmed. These information-crossing failures, which reach the point of criminalization, should be corrected to safeguard the rights of migrants (which are included in the EU Charter and the European Convention on Human Rights) (Jasmontaite & Zomignani, 2021).

In addition, from the information of the Conference, the application of biometric systems by governments would present defects, especially concerning the crossing of information on alleged criminal records. Such would be the case of biometric data that would be exchanged between governments such as those of Mexico or El Salvador, with the U.S. Government, which would violate the rights of migrants, such as the presumption of innocence. On other continents, these criminalization practices would also have occurred. According to Grünenberg et al. (2022), EU Governments would have been applying biometric systems to detect irregular migrants, just as they had done to detect illegal activities. However, this posed a challenge, such as the safe use of these mechanisms, since criminal actions (such as drug trafficking) could be compared to the transit of migrants in an irregular situation, which is not the same. Considering this, Wienroth & Amelung (2023) stated that the application of biometric technologies in migration could arbitrarily criminalize immigrants (who are not necessarily criminals). This is because, although these technologies have helped combat crime, they could create widespread suspicions that all immigrants are criminals, which is not the case.

Finally, from the Conference, the U.S. Government and several Latin American Governments would have signed non-binding cooperation memoranda to transfer the personal data of migrants and asylum seekers (collected through technological systems), without publicly informing citizens. This would undoubtedly affect the right to privacy and informational self-determination of people on the move. This would corroborate that the use of technologies has become an effective strategy to control borders (Nedelcu & Soysüren, 2022). Nonetheless, both the use of technologies and biometric systems would contain an unequal link that would perpetuate violence and strengthen a power situation between those who have freedom of movement and those who do not (Metcalfe, 2022). Therefore, governments must regulate this issue. At the same time, transparency must be provided by informing the entire population how and for what purpose such data is being collected.

6. Conclusions and recommendations

The use of biometric technologies and systems by governments, such as the U.S., was initially based on security and border control reasons since the countries have the right and duty to protect their borders. However, the application of these measures has presented risks in terms of privacy, and security, among others, which would particularly affect the fundamental rights of migrants and asylum seekers from Latin America located on the border between Mexico and the U.S.

The implementation of biometric data collection through applications, such as CBP One, by the U.S. Government, would represent a threat to migrants and asylum seekers from Latin America. This is because it is feared that it could be used to monitor this group. In addition, it could create racial profiling that criminalizes migrants and refugees, resulting in the denial of entry to the country of these people.

Furthermore, these criminalizing profiles could give rise to a series of xenophobic actions against migrants, who could be perceived as a social danger wherever they go.

Various Latin American Governments have signed non-binding cooperation agreements with the U.S. Government to exchange biometric data of migrants and asylum seekers. This would constitute a violation of the fundamental rights that this group of people possesses because, at the same time, it would be done without their consent. This is also worrying because in many cases such information would be riddled with biases regarding the nature of people on the move. Likewise, the use of biometric technologies, in the framework of the exchange of information that reveals alleged criminal records of certain migrants, could result in unjust imprisonment of those, or lifelong deportation. It is essential that States, within the framework of human rights conventions and treaties, provide detailed information to citizens on how their data (including biometric data) is being collected and processed, to respect the right to privacy, which is especially necessary in the case of migrants.

It would be pertinent for the Governments of the U.S. and Latin America to provide precise information, when requested, on the purposes for which they have signed agreements to exchange biometric data belonging to migrants and other people on the move. Likewise, it would be essential for the collection and exchange of biometric data by States to cease, if their purpose is to carry out immigration surveillance actions.

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