



SMART PRISONS  TRACKING, MONITORING & CONTROL

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The European Digital Border

Narratives on technology and practices of control in the governing of migrant mobilities

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This article focuses on the relationship between the narratives around technology and its use in governing mobility and migration, and the materiality of border practices. Particularly, we see a dominating narrative, identifying smart borders as a way to seamlessly regulate different types of circulations, classifying and filtering them through the gathering and processing of data, which builds on the idea of radical transparency intended as the will to know and to be known, through the aid of digital technologies, as the main way to govern and control complex phenomena. In their precipitating in the border space, this narrative tends to obscure mechanisms of structural violence and various forms of discrimination that find new legitimization in the presumed objectivity and neutrality of digital technologies. This analysis is grounded on the ethnographic fieldwork I conducted in the Sicilian borderzone, and in particular within the hotspot facilities of Pozzallo and Lampedusa, in different stays since 2016.

Borders represent one of the core elements of modern nation-states, partitioning and delimiting territories and defining the boundaries of legal systems. For their centrality in the very existence of States, they are often the preferential site for the experimentation of new procedures, techniques and technologies. In the case of the European Union this is especially true, since borders have been at the heart of crucial political and economic transformation for member States in the last forty years. In fact, the current conformation of the European borders and the way in which their management is articulated lies within the particular political-regulatory configuration that defines the Schengen area of free movement¹. The Schengen area describes a regime of free movement of goods, persons, and capital between the states that participate in it. For a long time, the process of establishing this area ran parallel to that of the European Union, although since the signing of the Treaty of Amsterdam in 1997 (which came into force in 1999), the Schengen *acquis* – i.e., the set of agreements and treaties that regulate this area of free movement – has been fully incorporated into the EU's regulatory and institutional framework. We speak of a process, precisely because the defining of this new system for the management of movement and borders took place gradually, both with respect to the number of States that decided to join and with respect to the normative specification of the characteristics that this space was to assume.

The nexus that has been established in the development of the Schengen *acquis* between freedom of movement of goods and persons and the strengthening of security controls and cooperation between different national police forces has its pivotal representation in the redefinition of border management, which starts from the distinction between *internal* and *external borders*. The former identifies land borders, ports and airports that connect member States with each other; the latter represents borders not included in the first category. The establishment of this differentiation between European frontiers, far from having caused the disappearance of the borders between Member States – the re-emergence of which we have seen in the last years – however, has created an administrative unity at a European level. This joint administration is mostly visible in the area of the “coordinated security management”, i.e. the cooperation between national police forces, and in the formation of infrastructures, technologies and

¹ For a detailed reconstruction of the process by which the rules and regulations defining the Schengen *acquis* were delineated, see Zaiotti (2011, 70 ff).

apparatuses dedicated to the surveillance and control of the national territory and of the people crossing its borders.

Within this frame, we have witnessed the emergence of several digital infrastructures – databases, data exchange and communication platforms, systems and algorithms – devoted to monitor and record the accesses, regular and irregular, to Schengen countries and to collect biometric and visual traces for data analysis and the profiling of people crossing borders. It is the case of databases such as the European Dactyloscopy (Eurodac) originally established in 2000 and operating since 2003 for identifying asylum seekers, the Schengen Information System (SIS) in 2001, the Visa Information System (VIS) in 2004, and the European Border Surveillance System (EUROSUR) in 2013. At the same time, the European Border and Coast Guard Agency (Frontex), established in 2004, represents a crucial pillar in the creation of an autonomous body with border policing and security management tasks at a European level. Frontex has started its activities by employing police personnel and land, maritime and airborne assets borrowed from the member States while, throughout the years, its autonomy has arisen with the acquisition of dedicated resources and technologies through a steady increase of its available budget². This increase corresponded to the agency's growth of operational activities, from the externalization of border controls through the cooperation with non-EU countries, to the support of the deportations of undocumented migrants, to the surveillance of larger portions of EU borderzones. The foundation of Frontex, which followed a long process started in 2000 as reconstructed by Andrew Neal, constitutes then the counterbalance to the, yet selective, opening of internal frontiers as "continuation of the integration process and the principle of free internal movement in the EU" (2009, 344). In other words, the model of the freedom of movement within European member States – still conditional to hierarchies of citizenship and census – has come at the price of the hardening of the European external borders and the intensification of the surveillance and control of human mobilities.

Summarizing, to govern and administer the shift introduced with the Schengen Agreement, the European Union pushed from the one side, a reorganization of the national and supranational entities designated to control borders, from the other side, the implementation of new technologies,

² In 2006 Frontex had a budget of €12 million, while in 2023 the budget allocated in the Procurement Plan is of €598 million. See the list of yearly budget documents: <https://dnlb.org/frontex-budgets>

systems and procedures. Both these elements describe a specific idea and imaginary of the border and by analogy of the mechanisms of inclusion and exclusion across State territories. The Schengen architecture arises as a system that shapes and regulates the different mobilities crisscrossing the European space affecting directly the ability to move. The borders function as a differential filter for the diverse circulation of goods and people at the temporal level – accelerating or decelerating specific trajectories – and at the spatial level – making accessible or not particular portions of territory. In the contemporary European border regime, this function of filtering, of governing circulations and of channelling them in specific administrative tracks is counterbalanced by the extension and intensification of surveillance and policing apparatuses. From the one side, the concentration and management of filtering functions is fulfilled by specific points at the border, that we can call *condensation points* – passages or hotspots – which channel and organize the different mobilities, accelerating or decelerating them, from the other side the expansion and extension of continuous surveillance activities – such as biometric and visual monitoring and control through dedicated technologies and infrastructures – involves state territories far from the border, in what Etienne Balibar has called *borderland* (2009).

In this account, the underlying rationality fuelling and fostering this border architecture rotates around the idea of risk and its management. “Risk analysis”, “threat models”, “prediction” and “anticipation” have become the keywords of this perspective that emerged within European institutions and their bureaucratic apparatus in the 1990s: a specific culture of security which has been focusing on collecting and classifying data in order to predict and prevent potential threats to “national security”. This securitization process, which particularly invested human mobility and hence border management and migration governance, has grown and has been driven primarily by security professionals and experts circles within EU institutions, as Didier Bigo showed (2002; 2014). Frontex can be considered the prominent example of this rationality, being a key actor in the management of human mobility within and across the EU. The central dimension of risk for the agency is present since the beginning, from the content of the Council Regulation instituting it (2004) which states at §6 of the premises: “based on a common integrated risk analysis model, the Agency should carry out risk analyses in order to provide the Community and the Member States with adequate information to allow for appropriate measures to be taken or to tackle identified threats and risks with a view to improving the

integrated management of external borders". The risk analysis becomes the core element for conceiving and understanding migratory movements and for taking political decisions at the EU level. This emphasis is reinforced in the Article 4 of the Regulation, which states "the Agency shall develop and apply a common integrated risk analysis model. It shall prepare both general and tailored risk analyses to be submitted to the Council and the Commission. The Agency shall incorporate the results of a common integrated risk analysis model in its development of the common core curriculum for border guards' training referred to in Article 5". The constitution of a Common Integrated Risk Analysis Model is at the foundation of Frontex activities, driving its operations at the border. This model builds on the idea that the more data is available for the analysis the more is possible to predict and anticipate potential threats – where in this case migratory movements are framed as "threats". . This technocratic discourse shapes the official public image of the Agency, as exemplified by the regular reports produced by the Frontex Risk Analysis Network on evolving scenarios of human mobility and threats to European borders, and it is furthermore reinforced by the individual representations of Frontex personnel at the border. During my ethnographic fieldwork in Sicily, in 2021³, in a conversation in Lampedusa, after the disembarkation of a migrants' vessel at the docks of Molo Favalaro, a Frontex border officer commented on the Agency's operations: "Frontex activity is mainly risk analysis: departure points, reasons to move. The 90% [of its activity] is analysis. On the field there are only the 10% of the Agency's personnel, collecting the information. What we do here is just part of the job: analysts have a key role in making sense of all this information".

Assuming risk analysis as the driving approach in the European border management, it is then clear the importance of systems and digital infrastructure for data and information flows collection, analysis and integration. The evolution of Eurodac and the multiplication of its functions is exemplifying these characteristics of the contemporary European border management. The Eurodac database and digital infrastructure has become operational in January 2003 to store asylum seekers' fingerprints with the aim of supporting member State authorities in assessing which country is responsible for processing an application for asylum, following the Dublin Convention. The system also collects fingerprints of people intercepted in irregular border

³ I developed my research during my PhD and within the projects "Borderlands", "Solplaces" and "Asit" of the University of Genoa, through several ethnographic stays in the Sicilian borderzone, investigating border infrastructures and facilities in Pozzallo and Lampedusa since 2016.

crossing and those found staying irregularly in the EU, comparing their biometric traces with those of asylum seekers already registered. A revised Eurodac Regulation, approved in 2013 and which has become effective since July 2015, granted the access to the database to national policies and Europol for criminal investigations and prosecution proceedings. Scholars highlighted how this extension of Eurodac reinforced a discriminating nexus between migration, crime and terrorism (Tsianos and Kuster 2016) which is at the foundation of the processes of securitization characterising the EU migration policy (Feldman 2011). A nexus which is sustained by the creation of more and more interoperable digital systems and infrastructures able to interconnect different European Agencies and law enforcement of member States. In fact, several proposals for amendments during the years – the first from 2016 and the latter from 2020, which is currently under negotiation within the EU – foresee the *de facto* transformation of Eurodac into a European system to control asylum and migration collecting biometric and biographic data not only of asylum seekers, but also undocumented migrants. The proposal aims at “transforming Eurodac into a common European database to support EU policies on asylum, resettlement and irregular migration” (European Commission 2020), greatly widening its original purpose. In this frame, Eurodac is a candidate to become a prominent digital infrastructure in border and migration management, creating a linkage between asylum and forced returns, supporting the latter with the recording of data not only of irregular border crossings but also of migrant overstays. In addition, the proposed new category of individuals to process in the database, people disembarked after SAR operations, could potentially further discriminate and criminalize the activity of SAR NGOs (Vavoula 2023, 6). In terms of the pervasiveness of individual data gathered, this proposal increases the amount of information to be collected for each person including personal data such as name and surname, sex, nationality, place and date of birth, country of origin and potentially also facial image. Overall, the individual records stored by Eurodac within the Eu-Lisa digital infrastructure (EU Agency for the Operational Management of Large-Scale IT Systems) had a steep increase during the years, reaching 5,809,502 fingerprint data sets at the end of 2021, according to the last official report published (eu-LISA 2022).

As we have seen with the brief history and developments of the Eurodac database, the digitalisation and technologization process is a key feature of the contemporary European borders and their material management. The



Loro/Them · Installation by Krzysztof Wodiczko.
Photo courtesy of the artist.

idea of centralised systems to store and analyse personal data for the administration of the external borders of the EU emerged along with the Schengen Agreement and represents the foundation of what we call digital border (Chouliaraki and Georgiou 2022). The digital border can be conceived as a complex assemblage where the digital and other technologies, infrastructures, information flows are constantly articulated to delimit what is inside and what is outside a specific territory, at the geographical level, or who is included or excluded from citizenship, at a juridical and discursive level. The process of digitalization of the borders is in fact not the mere creation of an additional layer of surveillance and control in the digital realm, supported by dedicated technologies and infrastructures, creating supplementary boundaries which subdivide and partition the body and its biological traces, duplicating the border in a technological space “far away” from the geographical one. The border digitalization is conversely the conjunction and the intertwining of the digital and the non-digital, the continuous interactions and frictions between technical apparatuses, infrastructures, humans and their imaginaries on digital technologies, which give shape to specific, while shifting, material practices at the border. These situated encounters and imbrications and the shared agentivity between the human and non-human constitute what Kevin Haggerty and Richard Ericson have called “surveillance assemblage” (2000).

Yet, this process of digitalization of the border has been built around a main narrative and imaginary on the role and use of technology in mobility and migration management and a corollary, that are linked to the risk analysis model and rationality. The narrative, that we can label *smart border*, represents the drive to filter and regulate the movements of people, goods and capitals in the smoothest and most seamless way possible through the implementation of specific processes and procedures mediated by digital devices, infrastructures and algorithms; the corollary to this, which we can call *radical transparency*, projects an image of digital technologies and techniques as the principal enablers and facilitators for gathering knowledge on humans – classifying, analysing and predicting – through pervasive surveillance and control.

We find the expression “smart border” in different institutional settings. Within the EU, it appears in the Package presented by the European Commission in 2013⁴, while we can trace it back to the restructuring and reconfiguration of border governance in response to 9/11 (Amoore 2006). The foreseen borders phantasmagoria is the frictionless surveillance and control of mobilities, through the analysis and algorithmic processing of biometric data, with the goal to seamlessly distinguish between legitimate movements, the human mobility linked to business and tourism and the flows of *Waren* and capital, and illegitimate movements, connected to crime, terrorism and undocumented migration (Amoore, Marmura, and Salter 2008). The EU proposal, currently under scrutiny, to interconnect databases through a routing system, Prüm, goes exactly in this direction: digital technologies and infrastructures adopted to govern undocumented mobilities are planned to be used to administer all types of movement crisscrossing the European territories. The Prüm II system would combine data not only from Eurodac, the European Criminal Records Information System for Third-Country Nationals (ECRIS-TCN) and the Schengen Information System (SIS) the largest database collecting alerts regarding non-Schengen citizens, but also from the Entry/Exit System (EES) storing data of non-EU *bona fide* travellers, the Visa Information System (VIS). The Prüm II system will constitute a centralized platform available to national police enforcement and EU agencies to consult all these databases at once, constituting the world’s largest law enforcement dataset (European Digital Rights 2022).

⁴ See: https://home-affairs.ec.europa.eu/pages/page/smart-borders-background_en

The founding idea of the smart border is not simply to block, to stop unwanted mobilities and to let pass the others, but to govern and channel different forms of movement classifying and distinguishing them between good and bad circulations (Foucault 2009; Anderlini 2022). Border operations have to be conducted “swiftly”, to produce “frictionless” interactions and preserve the movement, following the rationality which imbues the logistics turn in contemporary capitalism. To reduce the friction means, from the one side, to contain potential conflicts keeping the unwanted on the move, containing through (forced) mobility (Tazzioli 2020), from the other side, to channel and favour good circulations, i.e. those which at a systemic level are considered valuable – tourism, business – since in contemporary capitalism, the *Tauschwert* is directly linked to movement. To reduce the friction means also to reduce the effort for the law enforcement operators which is represented by the selection process itself, the act of taking a decision. Reduced effort implies, then, the most immediate – as in non-mediated, almost unconscious – action for making a decision during the screening process at the border: i.e. deciding towards which track to route human mobilities, asylum, return or detention. Precisely for this reason, the mediation of technological apparatuses, digital machines and infrastructures has become more and more important to pursue this immediate response and keep mobilities unhindered. The digital border has to operate “seamlessly”, which means reducing the frictions also in the relation between the human and the machine, removing the boundaries between them (where does the body end and the machine begin?): data on mobilities and its analysis have to be produced, a decision has to be made, a track has to be assigned. At the same time, narratives, political measures and practices promoting this frictionless border are paired with the violent re-emergence of the internal frontiers of the EU and the steep increase of walls and barbed wires among member States, which in 2022 covered 2,000 kilometres of EU borders (Dumbrava 2022).

The very functioning of the smart border is linked to a key concept in contemporary neoliberal societies: transparency. Several scholars have investigated how this idea imbued in social, economic and cultural processes and its genealogies (Ippolita 2018; Alloa and Thomä 2018; Han 2015). What is worth to focus on in this context is the particular perspective of radical transparency. In institutional and corporate settings, this implies that a complete openness regarding procedures and data benefits the functioning of systems thanks to the aid of machines. The term has been especially adopted in the context of commercial social media such as Facebook,

indicating that complete transparency to the machine will “set us free” (Boyd 2010): free from choice which is implicitly delegated to digital technologies and algorithms. The underlying idea is that social identities can be fully represented in the digital realm. Within this discourse, only user data must be transparent, while their management remains obscure, and the ownership is given to a private company. The fundamental assumption of radical transparency is that a complete machine-readable profiling of a population allows for predicting, hence governing social phenomena. In the case of the border, the point of view of European and national law enforcement actors, emerging from fieldwork, is that the more data is produced on migrants in transit, the more is possible to foresee and control migratory movements. A scientific police officer, referring to data collection in the hotspot of Lampedusa, said that “all the data we collect is then processed and analysed. In our AFIS [Automated Fingerprint Identification System] we have the information of people fingerprinted, also with their history, if they had already a record in our systems.”

The narrative of smart borders with its corollary of radical transparency presented above share a common angle on technology and its role in society, that we could trace back to the idea of “technological fix”, a term proposed by Alvin Weinberg in 1965, through which technology is conceived as neutral and *per sé* able to resolve social, economic and political problems of societies (Johnston 2018). Furthermore, this conceptualization of technological fix implies that issues faced with an engineering approach and relying on technological innovation will be *a priori* better solved in this way than with other approaches. The main traits of this vision of technology are its presumed neutrality and its salvific effects on society which, as critically assessed by Lewis Mumford ([1934] 2010), is assumed to have developed through “technological inventions”. This very idea is what Evgeny Morozov among the other has framed as technological solutionism (Morozov 2013). This ideological thought results in the obscuring of structural inequalities, imbalances and inherent violence intrinsic in the very design of technologies and infrastructures. Technologies are not neutral but reflect social, economic, power relations.

Yet, the picture is even more complex. The materiality of border controls is in fact a twine of digital technologies, data flows and infrastructures and border practices which often results in friction during their interaction. Since the implementation of the hotspot approach, the process adopted envisages that every person disembarked undergoes the “screening”

procedure, i.e. is photographed and fingerprinted by national law enforcement, supported by Frontex personnel. Biometric data is confronted with the one existing in EURODAC: if a record exists, the person is considered to have already entered the Schengen area, if not the record is added and stored in the database. In the case of Italy, the biometric data gathered is first compared with the national Automated Fingerprint Identification System (AFIS) database to control for potential previous police checks. The process is for the most controlled by border guards manually. In the case of the hotspot of Lampedusa in 2021, the attempt to automate the fingerprinting process with smart “AI-powered” devices, which was supposed to speed up the procedure, ended in producing false positives and corrupted data. A police inspector commented: “we had these smart fingerprinting devices, but we had to return them. They were not taking proper fingerprints. Our dactyloscopists are far better! We took back the old machines, which were able to make a 1 to 1 copy of the fingerprint”. In this case, digital technology does not fulfil its promise of infallibility and the border practices rely mostly on border guards and in the discretionality of their routines, which more in general characterizes street-level bureaucrats (Lipsky 1980; Jeandesboz and Pallister-Wilkins 2016). This discretionality often gives place to implicit practices of racial profiling which insert themselves in structural forms of discrimination.

“When you recognize a Tunisian, you know that he will have ‘a hit’ on the system, that he already has a ‘story’ within our legal system” (police fingerprinting operator, April 2021).

“During the disembarkation procedure, already at the docks, one usually splits the Tunisians from the others. They are channelled to the fast-track return procedure. They are accompanied to buses which transfer them to dedicated facilities” (police officer, April 2021).

In these two accounts, we see how racial profiling informs border practices of law enforcement – the assessment of nationality is not based in this case on throughout documents’ checks, rather in the identification of physical “traits” – which are furthermore shaped by a discrimination, at a procedures level, based on nationality – Tunisian citizens are directly deported due to a bilateral agreement on returns between Italy and Tunisia. Machines in this case remain on the background, reinforcing the already established mechanism of discrimination. Data and information are produced in this way and

then shared on European databases. This data then becomes the basis of the risk analysis and forecast activity.

Looking at the contemporary European border management, we witness on one side the clear development of a technological border highly relying on digital infrastructures following the narrative of the smart border, on the other side the strengthening of practices of structural violence through racial discrimination that the use of presumed neutral technologies tends to obscure. We could say, following Raluca Csernatonu (2018), that “high-end technological solutions like drones are an outcome of the failure to address migration challenges with other means, being used as a technical panacea for the consequences of failed policies and politics to manage and secure the periphery”.

In conclusion, the transformations of the border apparatus in Europe, with the emerging predominance of digital infrastructure, pushed through the narrative of smart border and radical transparency, which contributes to maintain almost hidden border practices of discrimination, should be a concern for European citizens. In fact, certain potential future trajectories of this surveillance-oriented approach mediated by digital technologies are reflected by the development of what has been framed as “travel intelligence”, a set of networked databases and digital infrastructures aimed at controlling bona fide travellers, as in the case of the Prüm system (Jones, Lanneau, and Maccanico 2023). The border becomes then a place for the experimentation of new technologies, apparatuses, infrastructures aimed at swiftly but pervasively govern mobilities, that could then be implemented in other realms of our social world. Raising the awareness among the civil society on the impact of specific narratives, such as the one of the smart borders, urging for more democratic controls on the decision-making process and in the governance of mobilities at the EU level, can be the key for putting forms of structural violence under the spotlight, which often characterises border practices. Furthermore, critical investigating and analysing of the development of the digital border can create the political space to imagine a more humane and appropriate design and hence use of technology.

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