# BORDER CONTROL TECHNOLOGIES AND PROTECTION SENSITIVE BORDERS IN THE EURO-MEDITERRANEAN REGION

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This paper sets out to combine analysis of two contemporary trends in border discourses and practices. First, the connection of borders and protection which was made explicit in UNHCR's approach to mixed migration (UNHCR 2007) as "protection sensitive entry systems". This term has retained considerable currency in directing discussions. The UK Refugee Council produced a study of 'protection sensitive borders' in the UK context (Refugee Council 2008) and UNHCR has held an international consultation focused on making entry systems protection sensitive (UNHCR 2008). These discussions consider ways of ensuring that tighter border controls, which in the European Union context are increasingly controlled extra-territorially, do not affect the ability of individuals to seek asylum. International protection is increasingly replacing the language of asylum, as in the European Council's recent revisions of the Directive on minimum standards for granting and withdrawing refugee status, in which 'refugee status' has been replaced throughout with 'International protection' (EC 2010).

A second important development occurring at borders is the progressive introduction of digital technologies as an integral part of control mechanisms. These developments include surveillance technologies, such as radar and thermal imaging, located at the physical border itself, the increasing adoption of biometric passports, following the International Civil Aviation Organization's 2006 standard (ICAO 2006) and the establishment of databases to store and

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process relevant digital information. Biometric passports are being introduced around the world but the cost implications of large scale databases or surveillance technologies mean that these are more likely to be adopted by wealthier countries. Indeed, such measures are concentrated in the European Union. Border control mechanisms such as the Spanish Integrated System of External Vigilance (SIVE), combine a variety of technologies to identify irregular migrants at sea and are being combined in the new EUROSUR migration control mechanism, focused at the EU's Mediterranean borders. Similarly, databases are also particularly well established in Europe: the Schengen Information System (SIS) and planned SIS II, the Visa Information System (VIS) and most significantly for this paper, EURODAC which, since 2003, has collected biometric data on all asylum seekers in Europe and is among the largest biometric databases anywhere in the world.

These developments in border control technologies are usually simply equated with increasingly stringent control, the role of technology is seen as permitting border control agencies to do what they were doing anyway, but more effectively. Discussions on protection sensitive borders interpret technological developments in this way and do not consider technology as a distinct issue from stricter border controls. Yet work in technology studies around wider issues of e-government makes it clear that technological developments do not only allow governments to fulfil the same tasks more effectively or more efficiently, but they change the ways in which those tasks are performed (Dunleavy et al 2006). The limited literature on the application of new technologies in the field of border control supports this argument. Technology is changing the ways in which border control is performed. Most of this literature focuses on questions of control. This paper turns to issues of the human rights of migrants, particularly in terms of international protection to investigate how new border control technologies (in areas of surveillance, identification and data management) alter the degree of protection sensitivity of border control systems.

The paper falls into three sections. The following section considers the development of international protection as an issue of border control and examines current debates on these issues. The second section examines technological applications in border control operations, particularly in the Mediterranean area. Just as

investigations of protection sensitive borders do not examine technology as an issue that is distinct from stricter controls, current analysis of border technologies does not examine the effects of such measures beyond the implications for control. The third section therefore goes on to examine the implications of technology at borders for international protection.

## INTERNATIONAL PROTECTION OF REFUGEES AND OTHER MIGRANTS

The notion of "international protection" is associated with the function of international law to protect individuals who have been denied "national protection", in other words refugees. This covers all rights to which refugees are entitled and few other areas of debate on the situation of refugees have generated such a large amount of discussion. Debate on the legal context of international protection began soon after the drafting of the 1951 Geneva Convention on the Status of Refugees (eg Weis 1954). The Executive Committee of the United Nations High Commission for Refugees created a subcommittee on International Protection in 1975 and since then the Executive Committee has reached 109 Conclusions on the subject, the first 101 of them (up to 2004) summarised in a 280 page document (UNHCR 2005).

The constituent rights of international protection for refugees are set out in the 1951 Convention, in addition to individual rights covered in other UN human rights agreements. They are: nondiscrimination (Article 3), freedom of religion (Article 4), free access to the courts of law (Article 16), the right to work (Article 17), the right to housing (Article 21), the right to education (Article 22), the right to public relief and assistance (Article 23), freedom of movement within the territory (Article 32) and the right to protection against forcible return or refoulement (Article 33). All of these rights are problematic for refugees, even in wealthy parts of the world such as Europe. Technology can and does provide support for refugees' access to many of these rights and an analysis of this full range would require a consideration of broader practices of e-government. We will therefore focus only on the final one, the principle of non-refoulement, which is generally regarded as the most important as all other rights depend on it.

The principle of non-refoulement relates more clearly to the nature of border control or entry systems, whereas other rights outline the conditions that a refugee should enjoy once they have been recognised as a refugee and granted entry by a state. UNHCR identifies three scenarios in which this principle may be violated. First, asylum seekers may be "rejected at the frontier when they have no possibility of seeking asylum elsewhere"; secondly, "a refugee may be expelled from the country of asylum to a territory where his/her life, liberty or physical security may be in danger"; and finally when refugees are 'forcibly returned to their country of origin where they fear persecution, or are sent to a country whence they can be deported to their country of origin where they fear persecution". (UNHCR 1999: 12). All of these scenarios have raised growing concern in Europe over the past decade or so as entry conditions have become more restrictive, recognition rates have fallen and deportations have increased, but it is the first concern, 'rejected at the frontier' which is of most relevance here.

The most substantial challenge to refoulement at the frontier has come from the changing nature of the European border. This has changed substantially since UNHCR's analysis from 1999, quoted above. Guiraudon and Lahav (2000) argue that states have attempted to reassert their sovereignty over migration by shifting controls at the border "up, down and out". Migration and border controls are shifted upwards to supranational authorities such as the EU, downwards to local and regional authorities, and outwards to third countries and non-state actors. The aim is threefold: to project the border beyond the state's territorial limits, so that passengers encounter border controls before embarkation (often long before); to reinforce the physical border; and to police internal borders so that undocumented persons are excluded from accessing institutions of work and welfare.

It is the movement of the border beyond the territorial limits of the state, relatively well developed in the EU, which raises the most serious concerns for international protection. This is because the opportunity to register a claim for protection is only presented when an individual reaches the territory of the state, whereas their movement to the territory may be prevented by their encounter with various manifestations of extra-territorial border control where they are unable to claim asylum. The European Council for Refugees and Exiles has expressed concern for sometime about the denial of access

to European asylum systems (ECRE, 2005). The impacts of extraterritorial controls have also been called "neo-refoulement" to distinguish the experience of being turned back at the physical border, the edge of the territory, from the experience of being denied access to that territory (Hyndman and Mountz, 2007).

There is a distinction here between the visible and invisible borders which has developed over the last decade or so. Invisible borders operate for purposes of control, whereas international protection can only be sought at the visible border. Effective border control has become more and more significant at invisible or at least intangible borders beyond and within the territory of the nation state. At the same time the physical borderline has become more visible. This increased visibility is partly an exercise in presentation; at UK airports there are now large signs above passport control which proclaim 'UK border'.

This separation of the invisible and visible border is partly facilitated by technology, a development considered in the next section, but depends on broader trends in migration control. These include the development of 'remote controls' (Zolberg 1998) based around visa controls and carrier sanctions, the militarization of migration control, involving navy vessels patrolling both territorial and international waters for purposes of migration control and increased international cooperation, not only within the EU but between the EU and other, particularly neighbouring states.

#### DIGITAL BORDERS: TECHNOLOGY AND BORDER CONTROL

Border control practices have shifted away from the border, moving outwards, inwards and upwards, but also intensified at the border itself. How and why states control their borders has changed substantially in recent years. As Andreas (2003) argues, borders were traditionally viewed in military terms. Since the emergence of the modern state from the seventeenth century onwards, interstate conflict often turned on territorial competition and borders were perceived as 'strategic lines to be militarily defended or breached' (Andreas 2003: 81). In the closing decades of the twentieth century, however, border practices shifted from military defence to the policing of cross-border flows of people and goods. Whilst many such flows are legitimated and indeed encouraged, others are the object of increasing surveillance

and control by states. Clandestine movements of illicit goods and undocumented migrants have become the focus of border control activities.

Technological development has played a central role in these changes and the gradual establishment of 'digital borders' has been an important development that has accelerated since 2005. The technological infrastructure associated with digital borders is particularly expensive and these developments are concentrated in the wealthiest parts of the world. The EU in general, and particularly the external border of the Schengen zone, exemplifies these trends. As the border moves outwards these changes are beginning to impact on the broader Euro-Mediterranean area.

Yet cross-border flows are a fact of life in a globalized economy, and borders are necessarily porous. This creates a profound challenge for governments. How to control 'unwanted' flows of people and goods, while simultaneously facilitating flows that are 'wanted'? European states have developed new strategies on both sides of the facilitation/control equation, and digitalization of border and migration controls is an increasingly important part of the answer to this question.

The situation of international protection falls across this divide of 'wanted/unwanted'. Over the last few decades asylum seekers have become a key target of tightening border controls across Europe. The gradual closure of borders to individuals who resort to the asylum system as one of the few remaining options for them to enter Europe has also closed off protection systems to those in genuine need of them. In this sense the current system is 'protection blind'. Yet signatories of the 1951 Convention and its 1967 Protocol, which includes all EU Member States, are obliged to accept individuals requiring international protection. In recent years the continual emphasis on strict border controls in EU migration discourse is more often accompanied by an acknowledgement of these protection obligations and since 2004 asylum policies began to figure in the bilateral agreements of the European Neighbourhood policy.

In terms of practical border developments, the first of the substantial developments in border control, the 'shifting up' to supranational venues, is well advanced in Europe, notably through the Schengen Agreement, Dublin system, and Frontex. The EU has developed a number of European databases, including Eurodac, the

Schengen Information System (SISI/SISII), and the Visa Information System (VIS) (Bigo and Guild 2005, Broeders 2007, Carrera and Geyer 2007). The power of such systems comes from size and accessibility of the database, which may also include biometric information in various forms.

Biometric information is related to the physiological or behavioural characteristics of an individual. Fingerprint analysis has been in use for more than a century but it is only much more recently that this information has been used in passports. The International Civil Aviation Organisation (ICAO) initiated discussions to include biometrics in passports in 1998, though the exact format that biometric passports should take was not formalised until the publication of ICAO document 9303 in 2006 (ICAO 2006). In Europe, the European Council passed a Regulation in 2004, anticipating this document, specifying the characteristics of biometric passports within the EU (EC 2004). In January 2010 most countries in the world had begun issuing biometric passports, including all EU Member States. A biometric passport allows officials to verify that an individual is using the passport with his or her biometric details encoded on the accompanying chip. It does not prevent forgery, but it makes forgery much more difficult.

The first large scale biometrics database was EURODAC, which stores fingerprints of all asylum seekers in the EU. It is designed to provide support for the Dublin regulation by identifying if individual asylum seekers have previously requested asylum in another European country, in which case they will be transferred to that country for their asylum claim to be examined there. Given that the Dublin system does not take account of differences in asylum policy within the EU, such the radically different recognition rates, this system is focused on deterrence rather than protection (Collyer 2004). Both EURODAC and the Dublin regulation began operation in 2003.

Since 1995, SIS has been the principle European database. SIS stores information on visa applicants to the Schengen area but does not include any biometric data. The updated SIS II is currently planned to include biometric information, but there is still considerable uncertainty that it will meet its target introduction date in 2012. In the meantime the implementation of the Visa Information System (VIS) is underway, scheduled for full implementation by the end of 2010. At full capacity VIS will contain biometric data on 70

million individuals, making it the largest biometric database in the world

Shifting out involves the projection of border controls beyond the state's territory and co-option of non-state actors into immigration control functions. These 'remote controls' (Zolberg 1998) are intended to prevent undocumented migrants from accessing the territory of a state where they could make an asylum claim, evade controls, or use legal avenues to frustrate government attempts at removal. Biometrics and information systems that allow for the collection and real-time analysis of passenger data are crucial here. The UK, for example, takes fingerprints of all individuals issued with a long term visa which can be checked on arrival to ensure that the person issued with the visa is the same as the person who uses the visa

Biometric visas are increasingly being used to improve document security, fixing persons to an identity, whilst submission of Advanced Passenger Information (API) allows posted immigration officers to pre-screen passengers and potentially refuse embarkation. API can also be analysed while travel is in progress and alerts issued to immigration officers at the port of entry to target 'suspect' passengers for further checks. A particularly striking illustration of this occurred in February 2010 when a British Airways flight en route to the US was turned back over the Atlantic by US authorities after a 'data discrepancy' in relation to a passenger was identified (*Daily Telegraph* 2010). The fact that this was a false alarm illustrates the fallibility of such systems.

Technological investment in the more traditional aspects of territorial border control has also increased. This includes detection technologies (radiation, carbon dioxide scanners) at ports of entry and use of satellite tracking systems, infrared body scanners, footfall detectors etc, on sections of land and sea borders. At ports of entry, immigration officers with access to API data and passenger records routinely check passengers against computer watchlists. Biometric-based automated entry systems are an increasingly common feature at airports and several countries are developing entry-exit checks to monitor visa compliance and identify overstayers.

These technologies introduced at the border itself are often originally military in nature. They are therefore not primarily focused on migration and migrants but at a range of more obviously military security (terrorist) threats. However, as ideas of security have gradually replaced those of defence, migration is an increasingly important focus for these technologies; new precision radar, for example, are advertised by their manufacturer for their ability to 'distinguish an illegal migrant from a cow at a distance of up to ten miles'. It is of course unlikely that they could distinguish a legal migrant from an illegal migrant at a similar distance.

The militarisation of borders combines with migration control to make particular borders extremely hard to cross at points other than approved crossings. There are a number of highly strategic borders of continuing military significance in the Euro-Mediterranean area. The Greek-Turkish border is a particularly clear example. The ongoing military significance of the border means that the area is still mined, with both anti-tank and anti-personnel mines. The borders between Mauritania, Morocco/Western Sahara and Algeria are similar.

Given the military antecedents of border control, which remains very much a current issue in these examples, it is not surprising that military equipment has remained concentrated at international borders. As security has replaced defence, concerns of preventing unauthorised migration have blurred with the imperative to prevent the smuggling of military, biological or nuclear material over borders. The development of digital technology has enabled a wide range of new technological applications at borders. A range of technologies are under consideration for deployment in EUROSUR, the developing Mediterranean border control network, improving on the Spanish SIVE system to include a coordinated combination of satellite tracking the use of Unmanned Aerial Vehicles (UAVs), coastal radar and tracking stations and maritime patrols (Hayes 2009).

Shifting down to the local level, digital technologies are used to regulate access to the labour market and welfare state. These internal borders are essential to what the Commission calls 'the fight against illegal immigration' because most irregular migrants probably enter Europe with authorisation – e.g. on student, short-term visit or family visas – then overstay or breach their terms of work or residence. As Broeders (2009a; 2009b) has shown, the digital surveillance of irregular migrants is now a central part of the state's exclusionary powers. Therefore, at the same time as states have deployed technology to effect exclusion at and beyond their territorial borders they have also developed techniques to exclude irregular migrants at

their institutional borders of work and welfare (see also Coaffe and Rogers 2008, Engbersen 2001, Samers 2003, Vogel 2001).

The above strategies are variously conceptualised in terms of 'smart', 'virtual' or 'risk-based' borders, with the aim being to harness technology and regulate cross-border flows in ways that make irregular entry and residence increasingly difficult, while at the same time making legitimate movements easier. As one group of scholars argue, the administration of immigration and border controls has gone 'from being a low-tech backwater to being a high-tech vanguard area' (Dunleavy et al 2006: 214). This is shaped by a number of intersecting trends, including the logistical challenges posed by the growing scale and significance of cross-border mobility; the politicization of immigration in many European countries; and the securitization of migration. The final section considers the relationship between technological changes in border control and the ideal of 'protection sensitive borders'.

### THE FUNCTIONS OF TECHNOLOGY AND PROTECTION SENSITIVE ENTRY SYSTEMS

The terminology of 'entry systems' rather than 'border control' is increasingly used to reflect the developments discussed in the previous two sections, where various control processes have moved away from the physical location of the border. In addition to protection, entry systems must fulfil objectives of effectively regulating migration and tackling criminal activities associated with cross border movements, such as smuggling and trafficking. The limited literature on technological innovation at borders, and in entry systems more widely, is focused on its role in improving capacities of migration management and crime prevention. Technological innovation has effectively been driven by these objectives. Digital borders are essentially sequential screening processes that aim to identify and prevent movements judged to be illegitimate while appearing as invisible as possible to the vast majority of people going through them.

For those reasons, the investigation of the impact of border technology on protection initially appears to be a foregone conclusion; protection is simply not what the technology is designed for and in most cases technological developments simply facilitate the

prevention of access to asylum systems that has already been widely commented on. Yet, this is to take a view of technology as simply inert, a tool which facilitates various pre-defined tasks without changing the ways in which they are performed. This does not appear to be the case, digital borders do not simply perform the functions of pre-digital borders more effectively, they fulfill different functions and it is these differences which are important for the ways in which international protection will be provided in the future. We do not wish to challenge the view that border technologies are not currently used in a protection sensitive fashion. That much is apparent from even a cursory examination of technological developments in this field. Our argument is that the ways in which technology is changing border control is currently making protection less likely rather than more effective.

There have been recent signs that international protection is starting to receive more attention in EU relations with neighbouring states. Compared to the objectives of migration management and crime prevention, international protection has always received a relatively low priority from governments, at least in the EU. In 2004 an interest in asylum appeared in the Action Plans of the European Neighbourhood Policy. This is widely interpreted, particularly in those states, as another stage in the externalisation of EU policy, though the EU obviously justifies it differently. Whatever the motivations, asylum is now being associated with the external, invisible border, a development which is partly responsible for new interest in the protection sensitivity of those borders. We consider four ways in which technology is affecting this: detection, displacement, discretion and targeting.

The first two changes are not unique to technological forms of border control, they are examples of the ways in which technology is assisting border patrol officials in doing what they were doing anyway. New solutions to control at or beyond the border allow much more certain detection of potential undocumented migrants, sometimes at a much greater distance. This is a blanket effect of technology, producing more efficient controls which are harder to evade and protection blind. Of course, migrants need to be apprehended by individual migration control officers and it is at this stage that protection sensitivity can be incorporated. This is the aim of a range of agreements in Eastern Europe involving UNHCR, various

national Helsinki Committees for Human Rights and the border patrols of Hungary and most recently Bulgaria (Chief Directorate Border Police et al 2010). These agreements set out training in international protection issues for the Border Police to allow them to identify and respond to potential refugees more accurately.

Yet such controls may not result in apprehension of undocumented migrants but displacement of their migration routes. As technology becomes more intensively used on certain stretches of border, migrants are more likely to make attempts elsewhere. Where these are more remote desert or mountainous areas, or involve longer sea crossings this displacement effect has obvious protection implications. Such displacement occurs across the US-Mexico border as the number of crossings in the arid regions of Arizona increased following Operation Gatekeeper in California. The expansion of the Spanish SIVE along the coast of Andalucía was one of the factors that initially encouraged migrants to attempt the longer crossing to the Canary Islands. Initial responses to the dangers faced by migrants on such journeys involved direct assistance, such as leaving caches of water on particular arid parts of the Arizona border. There is some evidence that the expansion of technological coverage may have a similar effect as the extension of the SIVE to the Canary Islands and the increase in FRONTEX patrols have resulted in an increase in detection of migrants on the long sea crossing who are subsequently apprehended, producing a fall in the loss of life from drowning or exposure.

The second two factors, discretion and targeting, relate more clearly to the ways in which technology alters border control practice. The increasing reliance on computerised databases effectively reduces the discretion that can be exercised by any individual border control official. This is particularly true of important decisions such as whether to issue a visa or whether to stop someone for questioning at a border crossing where responses are increasingly based on set formula, dictating particular actions as a result of certain characteristics, such as employment, training, languages or previous travel patterns.

Reduced discretion is partially related to the final change produced by technology, the use of technology to improve targeting of particular individuals and allow others to cross borders through fasttrack lanes. Again, this is typically produced through the application of pre-set responses. If accompanied by proper training and resources this could potentially be managed in a protection sensitive fashion as it would allow border control officials to concentrate on the more complex cases, such as individuals wishing to claim asylum, and obtain enough information to improve the quality of initial decision making procedures.

There are a number of other examples of the relationship between technology and movement, which have important consequences for protection but are not directly related to the control of that movement. First, networked computers are widely used to gather and collate vast amounts of data on movements of refugees or internally displaced people in response to natural disasters or wars. The Somalia Population Movement Tracking System (PMTS) is one such example, it collects data from regular surveys around the country which are continually fed back to a central computer system, allowing a national picture of displacement to develop. Unfortunately this system is only as good as the data that is put into it and it has been widely criticised. A second example, more removed from direct data gathering is the increasing popularity of models of population movement. Large scale data sets, such as those generated by the PMTS may be used to test or help develop such models so they can establish a more accurate predictive capacity.

#### CONCLUSION

International protection covers a wide range of issues but the most important constituent, the principle of non-refoulement, may be guaranteed more effectively through a close analysis of practices at the border itself. Much border control now operates at a virtual, electronic or invisible border where the principle of non-refoulement does not always make sense and is rarely respected. Tightening border controls have an obvious negative impact on the refugees' access to asylum systems in the EU, yet policies to improve guarantees of international protection are developing a higher profile in relations between the EU and its neighbours.

This paper has combined an analysis of these developments in the provision of international protection with the similarly recent developments of technology as an increasingly integral element of border control. We have argued that not only does technology increase the efficiency of border control but it changes the ways in which

border control is performed. The first impact is illustrated by improved detection abilities and the resulting displacement of migration patterns. The second impact results in less discretion to individual officials and more focused targeting of controls on particular individuals.

Although these developments are generally associated with a fall in the protection sensitivity of borders we have argued that this is not necessarily the case and that there are possibilities in these technological changes to improve the ways in which borders function. If the considerations of political priorities at borders are genuinely turning towards a greater priority for international protection, as opposed to management issues and crime prevention, technologies can be manipulated relatively easily to take protection into account as one of the important functions that increasingly sophisticated border systems are expected to perform.

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