Rebooting the Asylum System?

The Role of Digital Tools in International Protection

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Executive Summary

The COVID-19 pandemic has changed the face of asylum systems around the world. While the onset of the public-health crisis and the accompanying mobility restrictions resulted in the temporary suspension of asylum processing operations, subsequent stages have featured a search for pandemic-adapted strategies and alternative measures to revive protection systems. Digital technologies have played a central role, especially in Europe where the 2015–16 migration and refugee crisis had already triggered a first growth spurt. This second, pandemic-induced wave of digital experimentation in Europe and other parts of the globe has, over time, given way to a mental shift: from adaptation out of necessity to adaptation to innovate and transform asylum processes. Asylum authorities have begun to see digital technologies' potential to help tackle long-standing problems in humanitarian protection systems, such as limited staff and infrastructure to swiftly register and process protection claims and differential recognition rates resulting from human error and bias. And while many stakeholders in the migration and asylum field have long expressed trepidation about using digital tools—including concerns about data privacy, opaque decision-making, and the dehumanization of the process—the growing list of benefits, made all the more relevant by the pandemic, has persuaded more and more authorities to test and invest in digitalization efforts.

This second, pandemic-induced wave of digital experimentation in Europe and other parts of the globe has, over time, given way to a mental shift: from adaptation out of necessity to adaptation to innovate and transform asylum processes.

Mapping the digital technologies that asylum, migration, and border management authorities have experimented with makes clear that not a single phase of the asylum process remains untouched. Digitalization has accelerated in the identification and security-check phases, with various actors further institutionalizing the use of biometric data and/or introducing new techniques (such as the use of automatic speech analysis software and cell phone data to corroborate asylum seekers' statements about their identities, places of origin, and migration journey). The registration phase, which was previously conducted largely in person, has also been affected. For example, in order to continue operations despite pandemic-era lockdowns, authorities have experimented with online registration forms and with chatbots to assist asylum seekers as they self-register. Similarly, lockdowns, restrictions on in-person gatherings, and social-distancing orders have incentivized the use of videoconferencing technology to conduct remote interviews during the processing of asylum claims, while the bottleneck created by the pandemic has jumpstarted the use of algorithms and machine learning to speed up, support, or at times even replace human decision-making in certain

BOX 1
Digitalization vs. Digitization

When discussing the use of digital tools, two similar terms are often used—at times interchangeably, though there is a subtle difference in meaning. **Digitalization** refers to the transformation of processes to incorporate digital tools and new technologies. **Digitization**, meanwhile, refers to the conversion of analog documents and media into digital formats (e.g., paper to electronic files). This report focuses primarily on the former, and the broader trends and shifts to incorporate digital technologies into asylum and migration systems.

immigration procedures. Finally, various actors are developing early warning systems that seek to leverage digital technologies to better monitor migration trends, risks, and drivers and to map potential future displacement, with the aim of supporting quicker and more coordinated humanitarian responses.

These new digital tools and practices have sparked changes in how asylum is sought and granted, and exploring this shift offers a first glance at what the future may hold for protection systems in Europe and other parts of the globe. What are the opportunities and challenges these tools pose for asylum practices, procedures, and the organization of protection regimes?

This study identifies six key lenses through which it will be important to consider ongoing and future digitalization efforts within asylum systems, highlighting both promising aspects and the obstacles that need to be overcome to deliver on those promises.

1. **Generating efficiency gains in workflows, staffing, and infrastructure.** The digitalization of asylum and migration procedures can speed up processes and enhance the capacity of authorities to deal with larger caseloads. This would, in turn, reduce the amount of time and resources necessary for each case, as well as potentially allow authorities to rethink resource management and create interoperable and linked-up services. In this area, delivering on the promise of digitalization requires the adaptation of legal frameworks and operational practices to safeguard asylum seekers' rights to privacy and data protection. This would also require smart analyses to map the efficiency gains that digital tools are expected to generate, test their validity, and compare these gains to the monetary costs and risks to individual rights associated with the tools.
2. **Reducing arbitrariness in decision-making.** Artificial intelligence (AI) holds potential as a tool to reduce human error and bias, and thus improve the quality of and increase trust in asylum judgements. Because AI algorithms would apply the same set of criteria and follow an identical set of steps in each case, this could support more consistent decision-making across jurisdictions. Such tools would also render identical decisions at the first-instance and appeal stages of the asylum process, provided the case information remains the same, thereby reducing the incentive to appeal negative decisions and allowing the return process to begin more quickly for migrants whose claims are denied. However, given the still-high error margins of certain AI-based tools and the stark implications of the decisions being made, the ways in which these tools are used and the weight given to the data and analyses they produce need to be carefully monitored and, where needed, capped or corrected. Moreover, there is a very real risk that such technologies will simply replicate human bias or error (e.g., if they are trained to make decisions based on data about the characteristics and outcomes of past asylum cases). Such issues can be hard to rectify, and associated errors may go undetected without appropriate safeguards. This creates a need for mechanisms to monitor, audit, and vet decisions and to allow for a human supervision and appeal option. Such features may limit potential efficiency gains, but this tradeoff may be necessary to ensure adherence to protection standards.
3. **Improving communication between agencies and with asylum seekers.** Online communication tools make it possible for asylum authorities and their partners to meet virtually in order to jointly devise action plans and respond to problems with their implementation. These tools also facilitate the establishment or maintenance of contact between asylum seekers, caseworkers, nongovernmental organizations, and other actors in the system. However, the use of these tools also changes the nature

of communication and engagement, potentially making it harder to build trust or read body language (e.g., in video calls) and excluding those with limited digital literacy or unstable internet connections. Deciding how much these digital modes of communication should be maintained and what roles they should play as the pandemic eases may require the development of a decision-making framework to clarify the goals, costs, and functions of virtual communication as well as to identify its risks and strategies to avoid them.

4 **Improving migration and asylum intelligence.** New technologies such as early warning systems and forecasting and scenario-building exercises promise to give authorities greater insight into rapidly evolving or even future humanitarian migration trends. This predictability could enable greater preparation for and swifter responses to crises and the needs of people on the move. However, the complexity of migration dynamics and the wide array of factors that shape them—as well as problems surrounding the reliability of available data and resulting analyses—mean that these tools are no panacea when it comes to predicting and managing migration. At best, they can be used to help decisionmakers prepare for a range of scenarios. Fully realizing the potential of migration and asylum intelligence requires three key developments: (1) greater transparency—and improvements—in data collection, analysis, and reporting and in what assumptions underpin predictions; (2) a recognition that data-driven prediction tools are only as useful as the response mechanisms tied to their different warning levels; and (3) greater clarity and intentionality regarding the type of action that policymakers, implementing agencies, and the wider public desire when different migration scenarios materialize.

5 **Recognizing technology's security benefits while keeping mission creep in check.** While most parts of the migration field have been slow to embrace digital innovation, security actors are the exception. In the 2000s, immigration authorities were already beginning to use biometrics technology to conduct security checks of newly arrived persons. But in recent years, the use of digital tools in different parts of the migration and asylum field, such as confirming an individual's identity or eligibility for benefits, seems to have given way to a—sometimes intentional, and at other times covert or unnoticed—shift towards security-related goals, such as the fight against fraud, crime, terrorism, or the secondary movement of asylum seekers. Migration policy discussions have also been steadily permeated by security concerns and issues. It is critical that policymakers be mindful of this securitization trend and make sure that the aims and use of technology, and the guidance given to those who use it, include safeguards to prevent the exclusive or inappropriate use of digital tools for security goals.

6 **Running humanitarian protection systems remotely.** The remote nature of certain steps in asylum and migration processes during the pandemic has led authorities to reconsider the standard assumption that a person needs to be physically present to initiate or complete such functions. Pandemic-driven adaptations have helped to resolve some logistical problems, from securing sufficient staff and infrastructure to register new arrivals, to continuing personal interviews with asylum seekers or running integration courses even in situations of restricted mobility. If rolled out more widely, these remote processes could also limit the need for candidates for refugee resettlement to make long and sometimes treacherous journeys to resettlement facilities in countries of first asylum. Remote support from a national or international group of migration and protection experts could also serve to (rapidly) shore up capacity at state borders and minimize chaos when arrivals

increase. At the same time, these developments have raised the question of how remote or virtual a humanitarian protection system can be. There are important concerns about whether remotely operated systems could pave the way for the further erosion of the principle of territorial asylum. For example, countries could, on the basis that physical presence is no longer necessary for processing, opt for a model of externalization that removes individuals' right to access the asylum system after setting foot on the state's territory and that caps the number of people granted protection and admission after processing in another country at a level far below the number who currently attain protection via spontaneous arrival; this would result in a shrinking of the global or regional protection space.

Ultimately, while digital technology seems set to become a key feature of migration and asylum systems, there are likely limits to the role it can play in resolving these systems' problems. Digitalization in and of itself is no universal cure, and depending on how such efforts are carried out, they could obstruct the asylum process and violate asylum seekers' rights as easily as they could facilitate or protect them. Realizing technology's full potential requires continuous goal- and standard-setting and consistent cost-benefit analyses to clarify which problems within a system digital tools are expected to respond to and the costs and risks associated with further experimentation or implementation. A greater commitment to and investment in the monitoring and evaluation of digital tools and their impact on asylum processes is therefore necessary.

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1 Introduction

Over the past two years, there has been a frenzy of digital activity in the asylum and migration field. From virtual missions to select refugees for resettlement, to chatbots that help asylum seekers with registration, to apps that explain how to access public services or offer language learning assistance to the newly arrived, the use of digital tools has permeated nearly all parts of migration and asylum systems, particularly in Europe. The COVID-19 pandemic has offered tailwind to a first wave of digitalization efforts that began in 2015–16, turning these from a novelty or "nice to have" into a necessary condition for continuing or restarting asylum and resettlement procedures.

When the pandemic began, asylum and migration authorities were at first hesitant to employ tools such as videoconferencing to register asylum claims or conduct personal interviews,[1] and these were generally thought of as temporary measures that would be used only until operations could return to normal. But as many countries across the globe saw cases spiking and faced the prospect of new lockdowns in response to the Delta and Omicron variants in 2021 and early 2022, the asylum and migration field began to face facts: digital tools are here to stay. The pandemic, which some virologists predict will affect our way of life for years

1 With regard to the European Union, reports from the European Asylum Support Office (EASO, which preceded the European Union Agency for Asylum or EUAA) have covered these developments. See EASO, *EASO Asylum Report 2021: Annual Report on the Situation of Asylum in the European Union* (Valletta: EASO, 2021); Jean-David Ott and Eleonora Testi, *Digitalisation of Asylum Procedures: Risks and Benefits* (Brussels: Asylum Information Database and European Council on Refugees and Exiles, 2022).

to come, is thus a major catalyst for the digitalization of the humanitarian protection field. But other forces are also at play. A growing desire among governments across the globe to avoid new migration "crises" and being judged by their electorates as incapable of managing migration has boosted the market for early warning systems and forecasting tools, often using artificial intelligence (AI). For example, in the wake of the U.S. military withdrawal from Afghanistan and the subsequent Taliban takeover, national and international agencies working on early warning systems or forecasting were put under considerable pressure to deliver estimates of how many Afghans would flee the country, to where, and on what timeline.[2]

With digital tools here to stay, the time is ripe to examine what it means to use such tools in asylum (and related migration[3]) procedures. This includes assessing what impact these tools have on people and processes, and how digitalization may interact with broader developments in the protection field, such as the search for clever and rights-based ways to reduce pressure on countries' external borders and attempts to limit potential asylum seekers' access to a country's territory.

Injecting digital tools into asylum and migration systems has a profound effect on practices, procedures, and even a person's chances of attaining protection.

Digitalization is not as simple as replacing an analog tool, such as paper asylum dossiers, with a digital version, such as electronic files stored in databases, while all else remains the same.[4] As will be shown in this report, injecting digital tools into asylum and migration systems has a profound effect on practices, procedures, and even a person's chances of attaining protection. Digital tools affect the nature of operations, as without a stable internet connection, mobile registration units must postpone the (online) registration of asylum cases and caseworkers must interrupt virtual asylum interviews. The introduction of digital tools also reshapes the procedures through which authorities decide whether a person can cross a border, can enter the asylum system, is eligible for protection, and is entitled to reception and material assistance. Digital tools are now often deployed at the front-end of a process, such as when border authorities or the police collect people's biometric data and check them against a variety of databases to verify their identity, gather information on the migration route they took, and determine whether another state is responsible for their protection claims. Such tools can alleviate pressure on frontline staff, smooth interagency cooperation, and lead to more even-handed decision-making, but the considerable weight that authorities accord to computer- and AI-generated results can be problematic when doing so widens the margin of error and raises the stakes for a wrong decision.

This report catalogues the use of digital tools in protection systems writ large, including asylum procedures and refugee resettlement, and reflects on what the broader ramifications could be for humanitarian protection in the years to come. It focuses primarily on developments in Europe, which has been the petri dish for much of this innovation since the large-scale arrival of asylum seekers and other migrants in 2015–16. However, it also highlights innovative practices elsewhere and draws conclusions relevant to a wider

2 Many news reports cited the UN High Commissioner for Refugees (UNHCR) estimate of half a million Afghan refugees in the region, which the agency deemed a "worst case scenario." See Stephanie Nebehay and Emma Farge, "Half a Million Afghans Could Flee across Borders – UNHCR," Reuters, August 27, 2021.

3 For example, border management procedures affect migrants' access to a country's territory and, hence, access to its asylum system. For this reason, this report will also consider such dynamics in its analysis.

4 In this, "digitalization" is distinct from "digitization," which describes the conversion of analog documents and media into digital formats. For a discussion of these terms, see Jason Bloomberg, "Digitization, Digitalization, and Digital Transformation: Confuse Them at Your Peril," *Forbes,* April 29, 2018.

range of countries seeking to improve the functioning of their asylum systems. The report first explains how the pandemic has acted as a catalyst by both forcing new and speeding up existing digital innovations, and then maps the use of digital tools across the protection continuum. Section 4 reflects on the opportunities and challenges these tools pose for asylum practices, procedures, and the organization of protection regimes, including the procedural safeguards needed. The final section concludes with a reflection on the qualities digital tools should bring to protection systems, the risks they run, and the importance of ongoing monitoring and evaluation.

2 COVID-19 as a Catalyst for Digitalization in Humanitarian Protection

The COVID-19 pandemic caught asylum systems off guard, as was also the case in 2015–16 when 2 million asylum seekers arrived in Europe.[5] Asylum authorities across the European Union responded to the mounting public-health crisis with a range of often ad hoc or experimental measures, such as freezing the in-person registration of asylum seekers and later restarting registration online or automating the renewal of temporary residence permits for both protection seekers and other migrants. As the fog lifts, it is possible to identify four broad, consecutive phases amid the mosaic of responses:

- **Temporary suspension of operations on the assumption that things would return to normal soon (February–March 2020).** This included, for example, closing borders with limited exemptions for asylum seekers; placing a hold on the registration of new protection applications; closing reception facilities to new arrivals and severely restricting the freedom of movement of those already in such facilities; freezing asylum claim processing (including personal interviews, case adjudication, and appeals); and granting emergency rights and status, including temporary leave to remain to those subject to return orders and/or (greater) access to health-care services for migrants with rejected asylum claims. In spite of this dominant trend, some countries, such as Norway and Sweden, used technology to quickly resume aspects of the asylum process, including videoconferencing technology for personal interviews, even in this early phase of the public-health crisis.[6]
- **Continued suspension of operations, but with some ad hoc measures to reduce pressure on asylum systems (April–June 2020).** Some national asylum authorities set up alternative mechanisms—for example, to register or accommodate newly arrived asylum seekers—that would operate in parallel to the standard registration or reception systems.[7] These measures functioned as a control valve for regulating—and here, releasing—the pressure that the public-health crisis exerted on the standard asylum system. For example, the Dutch government created a new reception facility for those who arrived in the Netherlands following lockdown to enable greater health checks and facilitate social distancing.[8] Another example is the online application portals run by Czechia, France,

5 Eurostat, "Asylum Applicants by Type of Applicant, Citizenship, Age and Sex - Annual Aggregated Data [migr_asyappctza]," updated August 29, 2022.

6 European Migration Network (EMN) and Organization for Economic Cooperation and Development (OECD), *The Impact of COVID-19 in the Migration Area in EU and OECD Countries* (Brussels: EMN, 2021).

7 Those standard or normal registration and reception systems only continued to serve asylum seekers who arrived before COVID-19 hit.

8 EASO, *COVID-19 Emergency Measures in Asylum and Reception Systems* (Valletta: EASO, 2020), 17.

Greece, and others. These enabled newly arrived asylum seekers to indicate their wish to claim asylum and access, for example, material assistance, even though authorities had paused the processing of these new claims until interviews could resume.[9]

- **Slow, yet still temporary, adaptation of parts of asylum systems (July–December 2020).** As a second wave of infections hit societies in mid-2020, it dawned on many that the pandemic was showing few signs of dissipating and that, if asylum practices were kept as is, the right to protection would be at grave risk. To restart operations or open them up to a larger volume of cases, several asylum authorities started to adapt their practices. As some countries reopened their borders,[10] adaptations ranged from piloting "COVID-safe" registration, identification, and medical checks for newly arrived or intercepted migrants; to using remote interviews to restart asylum processing or to select new refugees for resettlement; to increasing the freedom of movement of people who had so far been locked in refugee camps and reception facilities, via agreements with local populations and strict procedures. Some first asylum and resettlement destination countries also worked together to transfer (already selected) refugees for resettlement, respecting the public-health and safety rules and norms of both departure and arrival communities.
- **A mental shift from adaptation out of necessity to adaptation to innovate and transform asylum systems (2021 onwards).** As asylum authorities have tested new digital tools and ways of operating, a few have begun to see their potential value in terms of tackling problems that have long affected asylum and resettlement systems. For instance, refugees often struggle to travel to the facilities in first-asylum countries where selection missions take place due to erratic public transport, bad roads, child-care needs, and other impediments that could be avoided by conducting selection interviews virtually. Registering asylum seekers online and conducting their first interviews virtually could also mitigate the bottlenecks asylum seekers face in accessing accommodation or obtaining a decision on their claim that arise from having to wait weeks or months to request asylum and/or have a personal interview with a caseworker. The European Union Agency for Asylum (EUAA, previously known as the European Asylum Support Office [EASO]) is in the process of developing a digital innovation strategy that would allow it to help Member States build more robust and stress-resilient asylum systems.

It is this last set of changes—shifts in mindset sparked by new digital tools or practices—that are at the heart of this report, as these offer a first glance at what the future may hold for protection systems in Europe and other parts of the globe.

3 How Digital Tools Are Transforming Asylum Systems

Mapping the digital technologies that asylum, migration, and border management authorities use or have experimented with, it quickly becomes clear that not a single phase of the asylum process remains

9 EMN and OECD, *The Impact of COVID-19 in the Migration Area*.

10 However, it should be noted that globally, as of the end of 2021, not all countries had reopened their borders to asylum seekers, and some continued to cite COVID-19 as a reason to deny access to asylum procedures. For more on the impacts of border closures and travel restrictions during the pandemic, see Meghan Benton, Jeanne Batalova, Samuel Davidoff-Gore, and Timo Schmidt, *COVID-19 and the State of Global Mobility in 2020* (Washington, DC and Geneva: Migration Policy Institute [MPI] and International Organization for Migration [IOM], 2021); Meghan Benton, Samuel Davidoff-Gore, Jeanne Batalova, Lawrence Huang, and Jie Zong, *COVID-19 and the State of Global Mobility in 2021* (Washington, DC and Geneva: MPI and IOM, 2022).

untouched. Digital tools have been introduced into the identification, security check, registration, reception, asylum processing, and adjudication stages, as well as the development of early warning and forecasting systems to detect and predict shifts in migration patterns. The subsections that follow offers an overview of the key digital tools that have been introduced in each phase. The added value of these tools, as well as the opportunities and risks associated with their use, are discussed further in Section 4.

A. Identification

Authorities responsible for establishing or verifying the identity of asylum seekers were among the earliest adopters of digital technology. By the early 2000s, they had already begun to utilize biometrics, such as fingerprinting, iris identification, and facial recognition. While personal names can change, these tools promise to generate a unique and reliable identity, and to store this information in large databases that can be checked in real time whenever needed. Border management authorities and other entities with a keen or mandated interest in knowing who enters or moves across a country's territory (i.e., identity validation and tracking) soon started to use these technologies.

Authorities responsible for establishing or verifying the identity of asylum seekers were among the earliest adopters of digital technology.

Fingerprints, and increasingly also face recognition, are now standard ingredients in the process of issuing and validating travel and identity documents.[11] International actors such as the United Nations High Commissioner for Refugees (UNHCR) and International Organization for Migration (IOM) have also integrated biometric data into their identity management systems (see Box 2), which are used in part to provide humanitarian assistance and services to refugees and other vulnerable migrants.

BOX 2
UNHCR's Use of Biometric Tools for Identity Management

In 2002, the United Nations High Commissioner for Refugees (UNHCR) developed a case management tool, proGres (Profile Global Registration System), that became the UN agency's main repository for storing individuals' data online. In 2010, it issued its *Policy on Biometrics in Refugee Registration and Verification*, stating that biometrics should be used as a routine part of identity management to ensure that refugees' personal identities cannot be lost, registered multiple times, or subject to fraud or identity theft. In 2015, UNHCR completed the development of its new Biometric Identity Management System (BIMS), building on the successful use of biometrics across a number of UNHCR operations globally. And in 2018, the Population Registration and Identity Management Eco-System (PRIMES) went live, bringing together all of UNHCR's digital registration, identity management, and case management tools in one internally connected and interoperable platform.

Sources: UNHCR, "Modernizing Registration and Identity Management in UNHCR: Introducing PRIMES," updated December 15, 2017; Kerrie Holloway, Reem Al Masri, and Afnan Abu Yahia, "Digital Identity, Biometrics and Inclusion in Humanitarian Responses to Refugee Crises" (Humanitarian Policy Group working paper, Overseas Development Institute, London, October 2021); UNHCR, "Guidance on Registration and Identity Management," accessed July 5, 2022.

11 Norway, for example, has started to include photos suitable for facial recognition and fingerprint identification in the Automated Biometric Information System (ABIS), a biometric database used by law enforcement in part for identity verification.

Digital tools have not only proven useful in capturing asylum seekers' unique (biometric) identity, but also in storing information about other parts of their identity and broader life story. A key challenge for asylum authorities, for example, is determining or confirming the country or region of origin of individuals who arrive without identity or other supporting documents and claim asylum. Caseworkers need supporting evidence—for example, on the places asylum seekers have fled and on their ethnic or cultural background—to assess whether the statements asylum seekers make about their identity and background are true and, if so, to then examine whether grounds for protection are present. A promising tool in this regard is automatic speech analysis, which matches individuals' speech patterns with the accents or dialects of certain geographical regions. Germany piloted this type of software in 2017, after nearly 1 million asylum seekers arrived in the country in 2015–16.[12] Today, it is used in several EU Member States. While at present language experts make the final determination of what an asylum claimant's linguistic characteristics say about where the person originated or lived prior to seeking refuge, the relative weight given to the data and conclusions generated by language detection software is expected to grow in the coming years.

A more recent development is the use of cell phone data by migration authorities. Countries such as Austria, Denmark, and Germany use cell phone data to varying degrees—from only accessing metadata (e.g., individuals' location or who they have called and when) to fully screening the contents of asylum seekers' phones—to gather personal data to corroborate their identity or parts of their asylum dossier.[13] This raises questions of data protection and privacy, among other issues, as will be explored in Section 4.

B. Registration

The COVID-19 pandemic strengthened incentives to digitalize the registration phase of the asylum process—the point at which asylum seekers express their intention to ask for asylum, submit their asylum application, and have their personal information recorded. The 2015–16 refugee and migration crisis in Europe had already kickstarted efforts in this vein, with the relevant authorities switching from paper to digital files so that they would be easily accessible in real time to all (authorized) organizations and to limit the risk of identity or benefit fraud.

Still, prior to the pandemic, the process of registering new asylum seekers and their claims was largely an in-person activity, with registration officers and asylum seekers interacting face-to-face. But in 2020, when most European governments instituted near-complete lockdowns to stop the spread of the virus, this in-person process became hard, if not impossible, to maintain.[14] Some authorities, such as those in Denmark, experimented with remote registration systems.[15] Norway and others piloted chatbots that, by using AI to simulate human conversations, aim to guide asylum seekers through the self-registration process and ensure they provide complete responses (e.g., signaling when an answer is too vague and asking follow-up questions).[16]

12 Deutsche Welle, "Automatic Speech Analysis Software Used to Verify Refugees' Dialects," Deutsche Welle, March 17, 2017; Eurostat, "Asylum Applicants by Type of Applicant, Citizenship, Age and Sex."

13 See Maarten P. Bolhuis and Joris van Wijk, "Seeking Asylum in the Digital Era: Social-Media and Mobile-Device Vetting in Asylum Procedures in Five European Countries," *Journal of Refugee Studies* 34, no. 2 (June 2021): 1595–1617.

14 Ott and Testi, *Digitalisation of Asylum Procedures*.

15 These include telephone and online pre-registration and self-registration systems. See Ott and Testi, *Digitalisation of Asylum Procedures*.

16 EASO, "Practical Recommendations on Conducting Remote/Online Registration (Lodging)" (EASO Practical Guide Series, Valletta, July 2020).

C. Processing of Asylum Claims

When the public-health crisis prompted most companies and government services to replace in-person meetings with virtual ones via platforms such as Skype, Zoom, and Microsoft Teams, asylum authorities were at first slow to follow suit. Personal interviews are a standard feature of EU-regulated asylum procedures and offer asylum seekers the possibility to reiterate and add details about their reasons for asking for protection, as first explained in the documents they submit during the registration phase. Following the onset of the pandemic, these personal interviews were put on hold, delaying the ultimate decision on protection claims.

Only a few countries had used remote-interviewing technology in this context prior to the pandemic.[17] But as governments extended lockdowns or tightened rules on in-person contact when a second wave of COVID-19 infections hit, more and more asylum agencies showed a willingness to pilot a virtual equivalent of the traditional in-person personal interview. As of the end of 2021, 15 European states were using remote interviewing for the adjudication of at least some of their cases.[18] The EUAA has facilitated conversations between EU Member States on remote interviewing, identified and shared best practices, developed an updated manual, and is seeking to identify a set of criteria to help Member State asylum authorities decide on whether to use in-person or virtual interviews with asylum seekers.

D. Decision-Making in Asylum, Migration, and Detention Procedures

A slowly emerging yet important trend is the use of algorithms and machine learning to support or replace human decision-making in immigration procedures and asylum determination. There are a few examples of this in Europe, the United States, and Canada.[19] For instance, Norway has automated some of its applications for citizenship.[20] In the United States, immigration enforcement officers use a risk-assessment algorithm to determine whether immigrants who are apprehended for being in the country without authorization should be detained or released while their removal cases are adjudicated.[21] And from 2016 to 2019, the European Union piloted a controversial AI-driven automated lie-detection program in airports in Hungary, Latvia, and Greece to assess the statements of travelers from outside the bloc about their identity and travel plans.[22]

Broadly, this approach entails using algorithmic-based decision-making software, which is often "trained" to make decisions and/or predictions by analyzing huge datasets and detecting patterns (e.g., the details

17 Ott and Testi, *Digitalisation of Asylum Procedures*.
18 Ott and Testi, *Digitalisation of Asylum Procedures*.
19 See Jessica Bither and Astrid Ziebarth, *Automating Decision-Making in Migration Policy: A Navigation Guide* (Berlin: Bertelsmann Stiftung, German Marshall Fund of the United States, and Robert Bosch Stiftung, 2021).
20 Norwegian Directorate of Immigration (UDI), "Guide to Waiting Time for Applications for Norwegian Citizenship," updated June 21, 2022.
21 The algorithm uses information such as criminal history, substance abuse, and community ties when making these decisions. See Hannah Bloch-Wehba, "A Lawsuit against ICE Reveals the Danger of Government-by-Algorithm," *The Washington Post*, March 5, 2020.
22 Rob Picheta, "Passengers to Face AI Lie Detector Tests at EU Airports," CNN, November 2, 2018; Bither and Ziebarth, *Automating Decision-Making in Migration Policy*. For an example of the negative response to the pilot, see Rop Gonggrijp and Vera Wilde, "iBorderCtrl.no," accessed September 23, 2022.

of past immigration cases and their outcomes) without human programming or supervision.[23] One of the key problems and criticisms of the use of these programs is that it can result in opaque decision-making, whereby it is unclear what motivated a positive or negative outcome. For example, in Canada, the right to appeal a decision, either to an appellate tribunal or a court of law, is possible for most immigration and refugee decisions. To appeal a decision, however, applicants must set out the grounds on which they are appealing. When an algorithm has been involved in the disputed decision, experts argue that it is unclear what grounds an applicant might appeal on, such as inaccuracy, bias, fairness, transparency, or other demonstrated deficiencies.[24] This is discussed further in Section 4. Another risk is that algorithms may incorporate the biases of the humans who design them, and they may thus be vulnerable to some of the same political pressures that can at times disrupt fair decision-making in normal procedures. Their opacity can also facilitate controversial policy changes outside of the public eye. In the United States, for example, an independent investigation found that the Trump administration modified the risk-assessment algorithm used to make decisions about detention to recommend that every person picked up for removal be placed in detention.[25]

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E. Early Warning Systems, Forecasting, and Scenario-Building

Following the sudden, large-scale arrival of 2 million asylum seekers in Europe in 2015–16, the European Union and national policymakers upped their investments in the development of early warning systems, forecasting, and scenario-building exercises (see Table 1). In 2016, for example, the European Commission launched the Knowledge Centre on Migration and Demography (under the Joint Research Centre) to collate datasets on migration.[26] It also earmarked funding for research to be done by the European Migration Network (EMN), the Centre of Thematic Expertise on Migration (at the European Commission's Directorate-General for Neighbourhood and Enlargement Negotiations), and by academics and other researchers under the Horizon 2020 research and innovation funding program. These investments, which often incorporate new technologies for the rapid collection and analysis of huge datasets, have enabled EU and Member State policymakers to stay more up to date on migration developments, including arrivals in Europe and onward movements, and ensured that all actors receive the same information, on a regular basis, and in an accessible format.[27]

23 Eventually, they use these patterns to make predictions of their own—for example, new case X will lead to decision Y with a probability of Z percent. Alternative approaches in which refugees are invited to be involved in the training of such algorithms are few, yet emerging. See, for example, Kevin Litman-Navarro, "Using Refugees to Train Algorithms Is Some Dystopian Shit," The Outline, November 20, 2018.

24 Petra Molnar and Lex Gill, *Bots at the Gate: A Human Rights Analysis of Automated Decision-Making in Canada's Immigration and Refugee System* (Toronto: University of Toronto, International Human Rights Program and Citizen Lab, 2018).

25 Petra Molnar, "The Contested Technologies That Manage Migration," Centre for International Governance Innovation, December 14, 2018.

26 Elizabeth Collett and Camille Le Coz, *After the Storm: Learning from the EU Response to the Migration Crisis* (Brussels: MPI Europe, 2018), 25.

27 Collett and Le Coz, *After the Storm*.

TABLE 1

Typology of Methods Policymakers Use to Anticipate Migration Trends

	Early Warning Systems	Forecasting (E.g., Modeling)	Foresight (E.g., Scenario-Building)
What time horizons do they apply to?	Short term (days, weeks, or months ahead)	Mostly the short (e.g., next two years) to medium term (five to ten years ahead)	Long term (multiple years or decades ahead)
How do they typically work?	Monitor migration trends or potential drivers of migration and forced displacement in real time, sometimes drawing on the analysis of "big data" (e.g., from social media or satellite imagery)	Typically uses quantitative data to map likely future movements, based on the assumption that future trends will follow similar dynamics to current patterns (can be complemented with qualitative data)	Systematically maps contextual factors (ranging from more certain factors such as demographic growth, to less certain factors such as climate hazards) to create and analyze a range of possible future migration scenarios
What aspects of migration policymaking are they best suited for?	Helping policymakers decide pre-emptively how and where to commit additional resources by tracking fast-changing situations and highlighting possible migration or displacement risks as early as possible with relatively high predictability	Helping policymakers better understand how migration trends evolve over time based on structural factors and migration intentions (e.g., by producing relatively concrete estimates about future migration trends, such as anticipated changes in the level of visa applications)	Helping policymakers reflect on various possible longer-term migration outcomes or impacts of migration and understand where uncertainties lie as a way to support the development of proactive policies for different scenarios (e.g., by mapping how migration trends could affect governments' operational capacities, budgets, and long-term policy investments)
What are their key shortcomings?	Rely on analytical capacity to interpret and respond to the data produced; not fit for designing more strategic migration policies	Does not explicitly address the uncertainty of migratory phenomena; relies on a certain theory of change ("more of the same")	Has a relatively low level of predictability as such methods explore long time frames and rely on binary categories, which tend to produce ambiguous results
How have EU actors used these methods?	The European Union Agency for Asylum (formerly EASO) Early Warning and Preparedness System gathers information on indicators that cover all key stages of the Common European Asylum System.	The European Parliamentary Research Service's Global Trends Unit has produced forecasts on long-term migration in the European Union.	The Joint Research Centre's Scenario Exploration System engages EU policymakers and other stakeholders in foresight scenarios through an interactive research process.

Source: Conceptualization by Migration Policy Institute (MPI) analysts Timo Schmidt and Kate Hooper in a working paper prepared for the Finnish Presidency of the Council of the European Union, September 2019.

4 Delivering on the Promise of Digitalization and Mitigating the Risks

Many stakeholders in the migration and asylum field have long expressed trepidation about using digital tools. But this may have weakened of late. A growing list of benefits, such as speeding up processes, reducing arbitrariness in decision-making, and making migration patterns more predictable, has persuaded more and more authorities to experiment with and invest in digitalization efforts. The COVID-19 pandemic has brought additional urgency and further boosted many actors' willingness to use digital tools. In Europe, the EUAA plans to launch its first ever Digital Innovation Strategy at the end of 2022 to outline how the agency will respond to current and upcoming developments related to digitalization and protection. The agency sees itself as a having a leading role in keeping Member States abreast of noteworthy digitalization efforts, testing digital tools in their operational support activities,[28] and preparing guidelines for and/or offering support with their rollout.[29]

This section presents six lenses through which to examine ongoing and future digitalization efforts, explaining which common problems or shortcomings in asylum systems digital tools are expected to address as well as what obstacles need to be overcome to deliver on those promises. It also returns to and elaborates on the risks that accompany the use of these tools, which will require close monitoring and in-depth research in the years to come.

A. Generating Efficiency Gains in Workflows, Staffing, and Infrastructure

For decades now, lengthy asylum procedures of up to four years from start to appeal stage[30] have plagued asylum systems across the globe. Drawn-out procedures can clog up reception facilities, deplete reception budgets, and put the lives of asylum seekers and their family members on hold as they wait in a legal and psychological limbo. Delays in arriving at a final decision make it more difficult to return asylum seekers whose claims are rejected to their countries of origin and slow down the integration process for those granted protection (for instance, because periods out of work can exacerbate labor market barriers). Prolonged procedures to determine who is eligible for protection and the "warehousing" of asylum seekers are also key bottlenecks in establishing swift processing mechanisms at the border (e.g., hotspots) or in neighboring regions (e.g., external processing centers). It is therefore understandable that the prospect of expediting decisions by using digital tools appeals to many governments and practitioners, albeit one that requires a stronger evidence base and procedural safeguards on questions such as data protection and privacy.

28 This concerns the support that EUAA (formerly EASO) offers Member States experiencing pressure on their asylum systems, for which operational support plans are drafted. For example, in Greece, EASO first tested several modalities of remote registration of newly arrived asylum seekers (e.g., via Skype interviews, mobile registration units).

29 In the summer of 2021, for example, EASO commissioned a study on software to help authorities identify asylum seekers' region of origin based on their linguistic traits, which was initially used by Germany and has since been tested in other countries (see Section 3.A). ICF International, with support from MPI Europe, conducted this study, which was finalized in Summer 2022.

30 See, for example, European Court of Auditors, *Asylum, Relocation and Return of Migrants: Time to Step up Action to Address Disparities between Objectives and Results* (Luxembourg: European Court of Auditors, 2019).

There are several ways the digitalization of asylum and migration procedures can speed up processes and enhance the capacity of authorities to deal with a larger caseload. For instance, biometrics, online forms, and chatbots can reduce the number of staff engaged in identification or registration; remote interviews can save time and costs on travel and facility rental; and analytical tools and data resources such as Eurodac (the EU fingerprint database), mobile phone data, and language software can help verify asylum seekers' accounts of the routes they took or their regions of origin. In addition, digital tools could hold even greater promise by allowing authorities to rethink resource management and create joined-up services. Shareable electronic files and data integration could preclude the need for caseworkers and immigration authorities to conduct separate investigations into an asylum seeker's identity and personal details, which can duplicate work and lead to delays if inquiries are conducted sequentially. As such, digital tools may pave the way for a radical rethink of the workflow within asylum and migration agencies or in certain geographical contexts (such as a busy external border crossing point[31]).

However, as in other policy domains such as counterterrorism, calls for the rapid production of and unrestricted access to data must be balanced with respect for fundamental rights, such as the right to privacy or data protection;[32] for judicial principles, such as the presumption of innocence until proven guilty;[33] and for ethical principles, such as "do no harm" (see Box 3).

It is therefore crucial to adapt legal frameworks, jurisprudence, and legal practices to keep pace with the rapidly evolving digital tools asylum and migration authorities use, including on an experimental basis. In some cases, this will require halting experimentation until the necessary safeguards are in place. In January 2020, for example, the high court of Kenya decided to temporarily suspend the country's new national biometric identity program until the government enacted laws to protect the security of the data collected and to prevent discrimination against minorities.[34]

Furthermore, there is an urgent need for smart research that maps the efficiency gains that digital tools are presumed to generate, tests their validity, and compares these to the associated monetary costs and risks to individuals' rights. Continuous monitoring and evaluation by state and nonstate actors will be key here, as will the willingness among all stakeholders to openly discuss the opportunities and costs of the use of digital tools and to correct—or abandon—them where needed.

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31 For example, the deployment of remote registration (via online contact with EUAA registration officers or chatbots) and remote interviews with asylum seekers (where national caseworkers are joined online by their EUAA counterparts and interpreters) could allow for a rapid response to a sudden uptick in arrivals at an EU external border, without staff deployed from other Member States having to travel and free up their schedules.

32 Data protection best practices include: setting a password to access the video call for remote interviews; requiring case officers to save interview audio recordings in the agency's official file storage system and delete it from any personal storage immediately; and forbidding the sending of recordings by private email and/or applications not authorized by the responsible IT services department. See EASO, "Practical Recommendations on Conducting the Personal Interview Remotely" (EASO Practical Series Guide, Valletta, May 2020).

33 See Section 4.E. (on the securitization of the migration field) for examples of how increasing the use of digital tools may run the risk of these being used more and more frequently to detect or prove malintent on the part of asylum seekers, whether submitting a "fraudulent" asylum claim, lying about their identity, or moving to another EU country to apply for protection there (so-called secondary movement).

34 Abdi Latif Dahir and Carlos Mureithi, "Kenya's High Court Delays National Biometric ID Program," *The New York Times*, January 31, 2020.

BOX 3
The Data Privacy of Refugees and Asylum Seekers

Those seeking or benefiting from humanitarian protection may be particularly vulnerable to the adverse consequences of breaches of data privacy, given the situations of persecution they have fled. If refugees' personal data falls into the wrong hands (for example, individuals connected with the refugees' origin-country government), this may create additional risks for refugees or their family members at home. Several examples from recent years illustrate this risk.

In 2014, Lebanon requested access to UNHCR's biometric database containing data about refugees in the country, claiming that "Any country in the world has ownership of data being collected on its territories." The request underscored not only the vulnerability of refugees and their lack of control over their own biometrics, but also raised larger questions about potential clashes between national sovereignty and international organizations' control of humanitarian data and operations. In the case of Lebanon's request, Syrian refugees reported concerns about their personal information reaching the Syrian government, with some stating that they planned to refuse iris scans, even if it meant forfeiting food and cash aid from UNHCR and other agencies.

Leaks and hacks pose another challenge to refugees' data privacy. In 2014, for example, the Australian Department of Home Affairs accidentally made public the personal details of more than 9,000 asylum seekers, including full names, nationalities, and dates of birth. This gave way to a wave of lawsuits from people who argued they and/or their families back home had been left vulnerable to persecution. In January 2021, the Office of the Australian Information Commissioner ordered the department to compensate 1,297 asylum seekers for the leak.

Sources: Madelyn Johnson and Eliza Campbell, "Biometrics, Refugees, and the Middle East: Better Data Collection for a More Just Future," Middle East Institute, August 25, 2020; Shannon Jenkins, "Home Affairs Ordered to Pay Asylum Seekers over Data Breach," The Mandarin, January 27, 2021.

B. Reducing Arbitrariness in Decision-Making

Digital tools can not only speed up asylum decision-making, but in the future, they could also render the process less arbitrary and its outcomes more reliable. Human error (as to how to interpret legal criteria and/or apply the country-of-origin information at hand) and human bias (as to the genuine nature of protection claims) affect asylum seekers' chances of attaining protection. The lack of trust in and presumed arbitrariness of asylum judgments give rise to high appeal rates in many countries (see Box 4).

In principle, AI promises to remove some of the arbitrariness that has seeped into asylum procedures and to improve the quality of the decisions made. This stems from a range of features that AI offers, from applying the same set of criteria and following an identical set of steps to decide whether each asylum claim holds a ground (or multiple grounds) for protection, to quickly gathering and analyzing data from both asylum seekers and other sources, to giving more weight to the more reliable data sources. This would not only result in a speedier decision but also one that would be identical at the first-instance and the appeal stage, provided the data input remains the same. This would reduce the incentive to appeal a decision and allow governments to begin the process of returning applicants who receive negative decisions sooner; however, it risks de facto foreclosing the right to appeal a decision if it results from an error in the algorithm's less-transparent operations.

BOX 4
Human Bias as a Driver of Differences in Protection Rates across Countries

Differences in decision-making between individual adjudicators can drive divergences in protection rates within and across countries. In Europe, for example, a key pillar of the Common European Asylum System is that asylum seekers, independent of where they apply for protection, should have the same chance of attaining it, meaning that both the criteria used to assess applications and the processes leading up to decisions should be comparable. Yet stark differences in recognition rates persist between EU Member States, suggesting that decision-making often falls short of this principle in practice. There are many factors behind this variation, including the implicit or explicit political priorities of each country and its current administration. But human decision-making can also play a major role in, for example, the assessment of country-of-origin information or individuals' accounts of persecution. Differential recognition rates not only drive new asylum seekers to travel to those countries perceived as more generous (even if other EU countries are easier to reach), they also hamper the return of asylum seekers to other countries in the European Union, or beyond, to have their claim assessed there.

These differences also occur within countries globally, where different asylum officers or, in the United States, immigration judges, may decide differently on a similar or even the same case. This creates a sense of arbitrariness and erodes trust in asylum decisions, which can in turn give rise to high appeal rates.

Source: Hanne Beirens, *Cracked Foundation, Uncertain Future: Structural Weaknesses in the Common European Asylum System* (Brussels: Migration Policy Institute Europe, 2018).

To date, the use of AI in asylum and migration procedures has been limited to decisions that leave little room for interpretation, such as meeting the conditions for citizenship (Norway), or where AI offers an initial analysis that is then checked by humans to correct errors, as in the example of language-recognition software's findings being checked by experts in Germany. In a context where the error margins of certain digital tools are still high and where they have stark implications—such as the misidentification of a migrant via biometrics[35] or an inaccurate conclusion about an asylum seeker's region of origin,[36] which could lead to the denial of protection and possible refoulement—the operational scope of such tools and the decision-making weight given to them need to be carefully monitored and, where needed, capped or corrected.[37]

But there is a larger set of concerns that asylum experts and advocacy organizations pose in relation to how AI may be used in asylum decision-making. This includes issues of limited transparency (what criteria

35 For example, false matches of biometric data, such as iris scans, can lead to a negative decision in a protection case because the system thinks the applicant has already been registered. See Katja Lindskov Jacobsen, "Experimentation in Humanitarian Locations: UNHCR and Biometric Registration of Afghan Refugees," *Security Dialogue* 46, no. 2 (2015): 144–164.

36 Another example concerns decisions on asylum claims that center around the interpretation of a particular article or clause of the law—and more broadly, decisions that do not follow on from a predefined and/or standardized set of steps. Such cases may at present not be suited to the use of decision-making algorithms, especially those produced via unsupervised machine learning.

37 One area where AI has been successfully used, and where the margin of error may be low and the implications less stark, is the placement of applicants already granted protection status or approved for resettlement. Two projects have emerged that use this approach: Annie MOORE (Matching and Outcome Optimization for Refugee Empowerment) helps resettlement agencies optimize the initial placement of refugees in host countries (see Refugees.AI, "Refugees.AI," accessed September 9, 2022), and GeoMatch, developed by Stanford University and ETH Zurich's Immigration Policy Lab, helps assign refugees across resettlement locations and improve integration through employment (see Immigration Policy Lab, "GeoMatch: Connecting People to Places," accessed September 9, 2022). Initial assessments have shown increased integration and employment prospects for the projects' beneficiaries. See Bither and Ziebarth, *Automating Decision-Making in Migration Policy*; Krishnadev Calamur, "How Technology Could Revolutionize Refugee Resettlement," *The Atlantic*, April 26, 2019; Kirk Bansak et al., "Improving Refugee Integration through Data-Driven Algorithmic Assignment," *Science* 359, no. 6373 (January 19, 2018): 325–329.

were used?), options for appeal (is it clear on which basis a claim was rejected?), and accountability (who is responsible for mistakes?). Furthermore, automated asylum decisions risk mimicking the weaknesses of past decision-making. If the algorithms used to make decisions are developed via unsupervised machine learning, in which large pools of data on past decisions made by caseworkers are used to identify patterns, then the human errors and biases that have seeped into adjudication and contributed to arbitrary decisions would simply be replicated and baked into how AI makes decisions.[38] Such limitations can often become invisible as they are part of the "black box" of machine learning.

This risk of introducing both old and new errors into the design of a system whose decisions may be harder to rectify or whose mistakes may remain invisible makes it even more important to have people within the asylum processing architecture who understand both algorithms and the ethical considerations behind sensitive asylum claims. This is a complex skillset, and one that represents a departure from the training ordinary case managers receive. In addition, it calls for a system to monitor, audit, and vet decisions and to allow for human supervision and an appeal option. This may involve designing systems that can affirmatively decide to grant protection, but that cannot reject applicants without human review. Such systems may limit potential efficiency gains, but this may be necessary to ensure adherence to protection standards.

C. *Strengthening Communication between Agencies and with Asylum Applicants*

The pandemic has highlighted the critical role of digital technology in human communication, interaction, and relationship-building. At a time when entire cities or regions were in lockdown and residents had to practice social distancing, online communication tools offered asylum authorities and their partners a way to meet, jointly devise action plans (e.g., on how to test asylum seekers in reception facilities for the coronavirus), and respond to challenges when implementing those plans. Gradually,[39] state and nonstate actors have also deployed these online tools to establish or maintain contact with their target groups, caseworkers have used them to conduct remote interviews with asylum seekers, and nongovernmental organizations (NGOs) have rolled out online integration courses for protection recipients. Yet at the same time, the pandemic has taught us that the ease with which we appear on each other's screens does not translate to a similar ease in maintaining, rekindling, or starting new relationships. Thus, while digital tools have offered a lifeline to continue interactions among asylum authorities, asylum seekers, those granted protection, and other stakeholders, they have also affected the nature of communication and engagement, for better or worse.

While digital tools have offered a lifeline to continue interactions among asylum authorities, asylum seekers, those granted protection, and other stakeholders, they have also affected the nature of communication.

38 James Manyika, Jake Silberg, and Brittany Presten, "What Do We Do about the Biases in AI?," Harvard Business Review, October 25, 2019; Molnar and Gill, *Bots at the Gate*; Ana Beduschi, "International Migration Management in the Age of Artificial intelligence," *Migration Studies* 9, no. 3 (September 2021): 576–596.

39 See Section 2 for more information on the (divergent) timelines for these developments.

There is no easy answer to the question of whether and to what extent the digital lines of communication that have emerged during the pandemic should be sustained beyond its end. As authorities reflect on which key processes are ripe for digitalization and which should be prioritized for face-to-face contact, they may wish to develop a decision-making framework. Box 5 outlines some of the key questions that could form the basis of such a framework, including questions about goals, function, and necessary infrastructure; the relationships fostered in a given process; and the risks, including of dehumanization. For instance, an initial registration interview may be more amenable to digitalization if it serves the primary purpose of collecting information, while it may be more important to hold a full personal interview in person if caseworkers rely heavily on being able to interpret asylum seekers' body language or if in-person interaction more effectively fosters a sense of mutual trust.

This decision framework could be adopted to review the use of digital tools in European asylum systems in recent years. Asylum and migration authorities in several EU countries[40] began using electronic files in response to the large-scale arrivals in 2015–16 and, more recently, have been using such systems to share data between, for example, first-instance and appeal authorities, but also more sensitive exchanges between police, asylum, and return authorities. A complement to this would be an electronic file owned by individual asylum seekers, in which they could capture details of their journey and upload evidence supporting their story (e.g., documents, pictures, maps). This could mirror ongoing efforts to create digital identities with the use of blockchain technology and would give individuals control over what data they share.[41] This type of digital portfolio could also help address the often-heard complaint from asylum seekers and those who support them that being required to repeatedly tell the story of their persecution and flight is not only emotionally taxing but may also inadvertently mean it comes across as rehearsed, devoid of emotion, or fake.

A similar decision-making framework could benefit government agencies and NGOs weighing the relative merits of in-person versus virtual integration services. Integration stakeholders, such as the organizations delivering cultural orientation classes for newcomers, have signaled the potential of virtual communication tools to reach and engage with hard-to-reach groups, including asylum seekers and refugees.[42] For example, mothers of small children who may struggle to join an in-person orientation course have been able to participate in online courses. The flexibility of online courses could also make it easier to facilitate same-sex conversations, which can lead some participants to speak more openly and result in a greater sense of trust. Finally, virtual sessions can save money on rent and transport and thus enable an organization to host more meetings for the same budget. Yet, at the same time, *only* holding meetings online can lead other segments of their target population to drop out. For example, some cultural orientation courses have seen fewer

40 See Section 3 of this report and Hanne Beirens, *Chasing Efficiency: Can Operational Changes Fix European Asylum Systems?* (Brussels: MPI Europe, 2020).

41 This would securely store applicants' documents and supporting evidence and allow for verification, but questions remain about how to make this efficient at scale. See Jessica Bither and Astrid Ziebarth, *AI, Digital Identities, Biometrics, Blockchain: A Primer on the Use of Technology in Migration Management* (Berlin: Bertelsmann Stiftung, German Marshall Fund of the United States, and Robert Bosch Stiftung, 2020); Monique J. Morrow, Mark Kovarski, and Akram Alfawakheeri, "The Promise of Blockchain and Safe Identity Storage for Refugees," UNHCR, March 20, 2018; Russ Juskalian, "Inside the Jordan Refugee Camp that Runs on Blockchain," Technology Review, April 12, 2018.

42 See, for example, Jasmijn Slootjes, *Healing the Gap: Building Inclusive Public-Health and Migrant Integration Systems in Europe* (Brussels: MPI Europe, 2021), 19–20; Jasmijn Slootjes, *The COVID-19 Catalyst: Learning from Pandemic-Driven Innovations in Immigrant Integration Policy* (Brussels: MPI Europe, 2022).

(young) men joining online meetings. More in-depth analysis of the implications of these tools is warranted, including an exploration of what measures can be taken to make the most of both virtual and in-person services (e.g., via hybrid online and in-person meetings).[43]

BOX 5
Digital or In-Person Communication? A Decision Framework

A first set of questions relates to how digital tools shape the human ability to convey data, share personal experiences, and paint a (convincing) picture of, for example, an asylum seeker's journey. These include:

- What **conditions** need to be fulfilled for the digital tool to fully function? This may include a stable internet connection, hardware and software, and quiet and private space.
- What **content** can be transmitted via a specific digital communication tool and what necessitates or would benefit from in-person contact? Considerations include the type of documents (e.g., photographs, text, maps) and the modalities of human communication (e.g., body language) that digital tools may or may not be able to correctly or securely transmit.
- What **larger design features of the asylum process** may need to be revisited following the introduction of a digital tool? For example, if caseworkers (implicitly) monitor the body language of asylum seekers to test the veracity of protection claims, can this be done in a video call if only the face and shoulders are visible? Similarly, if the reassurance and/or the development of trust between caseworkers and asylum seekers partly hinges on casual conversations between the two before an in-person personal interview starts, are there alternative or complementary steps that authorities should take when switching to remote processing to accomplish the same goal?

A second set of questions concerns the type of connections that digital tools foster. These include:

- Does a specific communication tool lend itself to **starting new relationships and/or maintaining existing ones**? A general feeling among asylum stakeholders using online communication tools during the pandemic, particularly during lockdown or mandatory teleworking, was that these tools could help preserve existing networks but that establishing new connections was more cumbersome or took longer.
- What **inclusionary or exclusionary impacts** do digital tools have? Monitoring these and, where needed, correcting for the ways technology may exclude people who lack, for example, a digital device, a reliable internet connection, or digital literacy is crucial.
- How do digital tools interact with **other factors that shape people's ability to bond**? This includes norms and strategies for interacting in a group setting (e.g., unwritten rules on who talks to who, who takes the lead).
- Does the use of digital tools **risk dehumanizing** the asylum process? While technological tools may have real benefits for both asylum seekers and authorities in certain stages of the asylum process, reducing the level of person-to-person interaction may also have knock-on effects, such as negatively affecting a person's ability to accurately recount why and how they fled.

Source: For a discussion of asylum stakeholders' perceptions of the impact of digital tools on relationship-building and -maintenance, see International Organization for Migration (IOM), *The Power of Digitalization in the Age of Physical Distancing: Strengthening Social Connections and Community Cohesion through the Digital Inclusion and Connectivity of Migrants* (Geneva: IOM, 2020).

43 Natalia Banulescu-Bogdan, Haim Malka, and Shelly Culbertson, *How We Talk about Migration: The Link between Migration Narratives, Policy, and Power* (Washington, DC: MPI, 2021).

D. Improving Migration and Asylum Intelligence

A key challenge for asylum policymakers and practitioners is the high degree of uncertainty and unpredictability that characterizes the migration field. This is particularly true of the onset of asylum-seeker movements. The difficulty of providing solid responses to key questions—When, where, and why do these begin? How large will they be? And where are they headed?—makes it hard to prepare for and swiftly respond to humanitarian crises and the needs of displaced populations on the move. Instances of sudden and/or mass displacement, such as those witnessed in the wake of the Arab Spring, the wars in Syria and Ukraine, and the Venezuelan crisis, are also disruptive to responding governments in a number of ways. They can upend budgetary allocations and work plans; exert extreme pressure on frontline organizations, such as registration offices; and foster a sense of chaos or lack of control that weakens the public's trust in the government (for instance, when the media showcases images of asylum seekers queuing in front of registration offices or sleeping rough in parks, train stations, or under bridges).

Tools that make it easier for asylum authorities to predict migration trends, such as early warning systems, forecasting, and scenario-building exercises (see Table 1), have become increasingly popular of late. Boosting the predictability of near-term migratory trends has been a key positive outcome of recent investments in such technologies. Yet, it has also become clear that these tools do not offer a silver bullet in terms of predicting, and better managing, migration—or at least they will not any time soon.

This type of information may help decisionmakers prepare for a range of scenarios but not help them select the right response.

The sense of panic that emerged among EU and national policymakers when the Taliban gained control over Afghanistan in August 2021 and the fact that few EU agencies were able to respond to, and offer a reassuring answer to, the question "Will Europe face another migration crisis?" illustrate this point. Emergency meetings had to be organized to discuss this very question, and migration experts had to repeatedly quell the widely held assumption that the European Union would be on the receiving end of another migration crisis.[44] Part of this is to do with the tools for predicting forced migration trends still being in the development stages, but it also relates to the complexity of factors and dynamics at play when such movements start, evolve, and eventually end. The scenarios that U.S. intelligence authorities drew up in relation to what would potentially happen in the wake of a U.S. withdrawal from Afghanistan, which were leaked to the press in August 2021, demonstrate the limitations of such exercises in terms of facilitating swift and straightforward action. With not one but multiple scenarios presented to decisionmakers, each of which comes with a complex and different set of implications, this type of information may help decisionmakers prepare for a range of scenarios but not help them select the right response.

44 See, for instance, MPI Europe, "Humanitarian Crisis in Afghanistan: How Could Europe Respond to Growing Displacement?" (webinar, August 24, 2021). This conversation explored Europe's possible responses to the situation in Afghanistan and in neighboring countries, how European governments could best prepare to respond to a possible increase in the number of asylum seekers reaching Europe's borders, and what lessons the 2015–16 migration crisis could offer European policymakers.

In order to improve migration and asylum intelligence and its application, three sets of issues will need to be tackled. A first set is rooted in which data and technology are used, by whom, and to what extent. This includes being transparent about which agency takes the lead in data collection, analysis, and reporting; being clear about what assumptions underpin predictions; and factoring in the odds of predicted scenarios materializing. A second set of issues is related to the importance of recognizing that data-driven prediction tools are only as useful as the response mechanisms tied to their different warning levels. Developing suitable responses requires migration experts to understand what an early warning system's outputs mean and what the implications are of a predicted situation for migration systems and broader societies. The third and final set of issues involves needing to understand the varied concerns and ambitions that policymakers, implementing agencies, and the wider public have when confronted with different migration scenarios. For example, when it comes to monitoring (upcoming) asylum arrivals at the European Union's external borders, is the aim to be aware of changing trends and able to ramp up operations to smoothly deal with upticks in arrivals (e.g., by increasing the staff at border crossing points who register asylum claims and creating extra reception places)? Or is it to reduce the number of arriving migrants through preventative actions?[45] Understanding what each stakeholder expects of investments in new digital tools can help determine which are chosen, how the systems around them are built, and how the resulting data are communicated.

E. Recognizing Security as a Driver of Digitalization and Addressing the Risk of Mission Creep

While the migration field has been slow overall to board the train of digital innovation, it has shown an eagerness to pilot digital tools with a security angle. By the early 2000s, the European Union had begun to experiment with the use of biometrics to identify people on the move and with databases to facilitate security checks of the newly arrived. And yet, it is this security focus among early adopters that has raised concerns among NGOs and human rights lawyers about the growing use of digital technologies in the protection field. Many worry, for example, that the digitalization of parts of the asylum system fits within, or may even exacerbate, a broader endeavor by states to place security concerns above all other migration-related policy objectives and commitments. Such actors have pointed to the higher frequency with which security issues are raised in migration debates, the rapid growth of the role and power of security forces in migration-related action plans and operations (e.g., Frontex and Europol in Europe),[46] and the higher propensity to invest in security systems and technology.

A first risk is the gradual and at times covert shift in the rationale for using certain digital instruments—in other words, mission creep. For example, human rights lawyers and NGOs have signaled that biometric identification tools traditionally used for more humanitarian purposes, such as checking asylum seekers' identity or their entitlement to benefits (see Section 3), are increasingly being leveraged in pursuit of security aims—such as tackling concerns that some individuals are misusing the asylum system, investigating the possible infiltration of refugee populations by terrorist organizations, and countering

45 See Bither and Ziebarth, *Automating Decision-Making in Migration Policy*; Beduschi, "International Migration Management."

46 The response to the November 2021 incident in the English Channel, with air surveillance by Frontex and an increased role for Europol in counter-smuggling operations, shows this yet again. See Deutsche Welle, "Frontex Plane to Patrol English Channel after Calais Emergency Talks," Deutsche Welle, November 28, 2021.

smuggling and other criminal networks' facilitation of migrants' irregular entry into Europe.[47] They warn that if digital experimentation in the protection field is not adequately firewalled from this security preoccupation, the protection-oriented use of tools may be undermined and lead to adverse protection outcomes.

There are growing concerns that the prolific use of security technology at border crossing points does not take into account, and can even jeopardize, the right to seek protection.

Next to protection-focused digital tools being usurped for security purposes, there are growing concerns that the prolific use of security technology at border crossing points does not take into account, and can even jeopardize, the right to seek protection. For example, as the ability of border management staff to detect people on the move at borders grows via technologies such as thermal imaging, night vision, and infrared cameras, so does these officials' role in—and responsibility for—upholding the right to asylum. If the new technology is primarily used to deter or even criminalize irregular entry into the European Union, without checking whether the person is seeking asylum, third-country nationals arriving at EU external borders and in need of protection may be denied access to the asylum system (as was the situation at the Belarus border throughout 2021 and 2022).[48]

Similarly, the use of Eurodac to check where asylum seekers first set foot on EU territory has—without explicitly intending to—changed the hierarchy of criteria considered when determining which Member State is responsible for processing their claims, as per the Dublin system. Under the Dublin III Regulation, family unity considerations should supersede a finding that an asylum seeker first entered Europe via a different Member State and, thus, that the other country is responsible for the claim. But because Eurodac hits are speedy and done by law enforcement authorities, compared to the more lengthy process of checking whether asylum seekers have a family link to the country in which they have applied for protection, first-entry findings have come to dominate the Dublin system and lead to asylum seekers being incorrectly sent back to another Member State.[49]

In sum, the use of digital tools in different parts of the asylum field (including in ways that determine who has access to the asylum system) seems to have given way to a—sometimes intentional, and at other times covert or unnoticed—shift toward security-related goals, such as fighting fraud, crime, terrorism, or the secondary movements of asylum seekers. It is critical that policymakers and other stakeholders be mindful of this securitization trend and make sure that the aims and use of technology, and the guidance given to those who use it, include safeguards to prevent the exclusive or inappropriate use of digital tools for security goals.

47 See, for example, Petra Molnar, *Technological Testing Grounds: Migration Management Experiments and Reflections from the Ground Up* (Brussels and Toronto: European Digital Rights and Refugee Law Lab, 2020); Krisztina Huszti-Orbán and Fionnuala Ní Aoláin, *Use of Biometric Data to Identify Terrorists: Best Practice or Risky Business?* (Minneapolis: University of Minnesota, Human Rights Center, 2020); Privacy International, "Submission on Role of Private Military and Security Companies in Immigration and Border Management and the Impact on the Protection of the Rights of All Migrants" (working paper, Privacy International, London, March 2020).

48 Vanessa Gera and Kirsten Grieshaber, "Poland Completes Belarus Border Wall to Keep Migrants Out," AP News, June 30, 2022.

49 Susan Fratzke, *Not Adding Up: The Fading Promise of Europe's Dublin System* (Brussels: MPI Europe, 2015).

F. Running a Humanitarian Protection System Remotely

Remote processing has been a buzzword amid the restrictions on in-person gatherings brought on by the pandemic. In many ways, this forced experimentation has eroded authorities' standard assumption that a person needs to be in the same place and the same room as the relevant authority to initiate, or complete, a particular step in migration or asylum procedures. Based on the practices tested to date, and depending on the jurisdiction, asylum seekers may now be able to express their intent to ask for asylum via an online form (i.e., pre-registration); register their asylum claim with the assistance of a chatbot or in a remote interview with a registration officer; submit supporting materials for their asylum dossier via a secure online platform; participate in a personal interview conducted remotely with the caseworker, legal representative, and interpreter; and receive a notification of the decision in their asylum case via the secure platform. At present, identification, security, and health checks still have an in-person component, but asylum seekers may no longer be required to complete these checks in a specific locality (such as a specific city's registration office); instead, health and law enforcement authorities in other districts or regions may be tasked with collecting biometric data and checking for health risks, including tuberculosis, or mobile registration units, such as those tested in mainland Greece, may perform this function.[50]

While it is still early days for several of these practices, and many require further testing, monitoring, and reconfiguration, they raise the question of how virtual an asylum system can be. Within a country, the remote registration and processing of asylum claims may ease housing-related challenges (e.g., where reception facilities are located close to the border but far from the offices where asylum applications can be filed or personal interviews are conducted; or, for those eligible to access the labor market, where affordable housing is far from opportunities to access work or training). And, as has been clearly shown during the pandemic, it allows asylum processes to (largely) continue despite lockdowns or other restrictions on travel or in-person meetings.

From a transnational perspective, the option to complete (parts of) protection procedures remotely could have implications for refugee resettlement programs. Since 2020, the pandemic-driven use of virtual resettlement missions, in which candidates for resettlement are interviewed remotely, has led some states to be more open to using remote interviews in resettlement going forward.[51] The United States has also purportedly agreed to allow law enforcement authorities in some countries of first asylum to complete security checks for selected refugees (following thorough training by U.S. staff). This sets an important precedent for the United States, which has a reputation for resisting any outsourcing of security responsibilities, and could inspire other countries' resettlement programs to follow suit. In the medium term, and if rolled out more widely, remote interviews and security checks may mean refugees do not have to make long and sometimes treacherous journeys to attend in-person appointments at resettlement facilities or to await the lifting of COVID-19-related travel restrictions. In addition to these operational gains, it will be important to closely monitor the effects of online procedures on the chances of (certain profiles of) refugees being accepted for resettlement, as anecdotal evidence suggests a higher rejection rate.

50 For additional information on the Greek reception system, including the use of mobile units, see Angeliki Dimitriadi and Antonia-Maria Sarantaki, *National Report on the Governance of the Asylum Reception System in Greece* (Chemnitz, Germany: Technical University Chemnitz, 2019).

51 Participant comments during an Annual Tripartite Consultations on Resettlement working group meeting on digitalization and resettlement, Spring 2021.

Finally, a remote setup could be (part of) a solution to issues that have acutely challenged asylum systems in recent years. For example, as evidenced by the airborne transmission of SARS-CoV-2 (the virus that causes COVID-19), a public-health emergency can make standard reception facilities uninhabitable overnight and put both residents and the broader community at risk. If asylum seekers and authorities can establish contact via a secure remote connection, the reception agency may be able to relocate asylum seekers to less dense accommodations in rural or more remote localities. Building digital tools and digitalized asylum processes into border management infrastructure may also allow states to surge capacity to match increased arrival rates, and thus avoid high-profile scenes of chaos at borders that may lead to a public perception of government as incapable of managing migration. By immediately mobilizing a remote yet highly qualified set of registration officers, caseworkers, interpreters, and legal representatives,[52] such a system could swiftly review new arrivals' requests for protection while upholding legal standards and rules. When combined with a plan to swiftly set up reception facilities for the newly arrived,[53] this may offer a practical remedy for some of the border crises that Europe and other parts of the globe have faced over the years.

However, there are also important concerns about whether remotely operated asylum systems would pave the way for the further erosion of the principle of territorial asylum. The fact that the physical presence of asylum seekers would no longer be a *practical requirement* for reviewing their grounds for protection may add fuel to proposals to do away with the system of territorial asylum and the associated *legal right* to seek asylum for all those who set foot on a state's territory. Countries such as Austria, Denmark, and the United Kingdom are exploring options to externalize (parts of) their protection regimes, and remote processing could offer a viable response to practical objections made to date about who will review claims filed abroad. This risks shrinking the global or regional protection space *if* such countries opt for a particular model of externalization that removes the right to access the asylum system upon arriving in the state's territory and also caps the number of people who can be granted asylum remotely and then admitted to the country at a level far beneath the number who currently attain protection via spontaneous arrival.

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Hence, depending on how digital tools are integrated into protection regimes, they could either facilitate or constrict access to protection. They may represent a tool to overcome some of the spatial, geographical, and mobility barriers that to date have meant that only a fraction of people in need of humanitarian protection embark on a dangerous journey, reach their destination, and are granted refuge, or they may inject new and more rigid barriers into protection systems.

52 In the European context, the EUAA regularly coordinates the deployment of national asylum experts in EU Member States experiencing pressure on their asylum system.

53 EUAA is exploring the use of modular and moveable reception units that could be lent out to Member States and would maintain the reception standards laid down in EU asylum law.

5 Conclusions

Migration systems around the world often invoke images of red tape, lengthy and cumbersome procedures, and unpredictable outcomes, no matter how solid an individual's application. Asylum procedures that drag on for more than three years or whose first-instance decisions are (systematically) overturned at the appeal stage are no exception in 2022. With every new migration and refugee crisis, politicians and crisis managers are confronted with a mismatch between the administrative instruments available to them—these unwieldy, resource-intensive migration and asylum procedures—and the phenomena they are meant to manage, or at least help to respond to. Recent history is marked by examples of migratory movements that were swift to emerge, unexpected, and that swelled to a magnitude that overwhelmed receiving countries in a matter of days or weeks. A logical conclusion is that the mechanisms in place to respond to such movements need to be:

- quick out of the starting blocks (*ignition power*);
- able to keep up with the latest migration trends, including who is on the move, where from, and with what needs (*adaptability*);
- capable of down- and upsizing operations (*scalability*);
- operated on a presumption of chaos or messiness rather than controlled, steady movement of well-informed migrants with the proper documents (*emergency-orientated DNA*); and
- ensure respect for the rights laid down in national (and in Europe, EU) asylum law and international treaties, such as the right to access the asylum system, legal representation, and appeal (*rights-based framework*).

Of late, more and more migration experts and authorities have turned to digital tools to upgrade existing humanitarian protection instruments, or reboot the system entirely. While this shift began before the pandemic, the public-health crisis—and particularly its restrictions on human mobility—have spurred considerable innovation and experimentation in relation to the registration, processing, and adjudication of asylum claims and the reception of asylum seekers. This report offers a bird's eye view of many of these developments, but it must be acknowledged that the field is moving quickly.

As with other fields where digital tools have been introduced, there is the risk of asylum and migration authorities opting for digitalization for the sake of digitalization. Features such as mass data storage, high processing power, automation, and virtual interactions may sound appealing, but in and of themselves will not solve the most pressing issues facing humanitarian protection systems—and could even create new ones. It will therefore be important to maintain a clear view of the (structural) problems within asylum systems that digital tools are expected to respond to, the goals set for digitalization efforts, the degree of success attained so far, and the costs and risks tied to (further) experimentation or widespread implementation. This exercise of goal- and standard-setting, as well as critical analyses of costs and benefits, will hinge on a larger commitment to and investment in the monitoring and evaluation of digital tools and their impact on asylum systems and broader humanitarian protection regimes.

About the Author

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