



RSC 2023/44
Robert Schuman Centre for Advanced Studies
Migration Policy Centre

WORKING PAPER

**Artificial Intelligence and Resettlement of
Refugees: Implications for the Fundamental
Rights**

Meltem Ineli Ciger

European University Institute
Robert Schuman Centre for Advanced Studies
Migration Policy Centre

Artificial Intelligence and Resettlement of Refugees: Implications for the Fundamental Rights

Meltem Ineli Ciger

RSC Working Paper 2023/44

This work is licensed under the [Creative Commons Attribution 4.0 \(CC-BY 4.0\) International license](https://creativecommons.org/licenses/by/4.0/) which governs the terms of access and reuse for this work.

If cited or quoted, reference should be made to the full name of the author(s), editor(s), the title, the series and number, the year and the publisher.

ISSN 1028-3625

© Meltem Ineli Ciger, 2023

Published in June 2023 by the European University Institute.
Badia Fiesolana, via dei Roccettini 9
I – 50014 San Domenico di Fiesole (FI)

Italy

Views expressed in this publication reflect the opinion of individual author(s) and not those of the European University Institute.

This publication is available in Open Access in Cadmus, the EUI Research Repository:

<https://cadmus.eui.eu>

www.eui.eu



With the support of the
Erasmus+ Programme
of the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

Robert Schuman Centre for Advanced Studies

The Robert Schuman Centre for Advanced Studies, created in 1992 and currently directed by Professor Erik Jones, aims to develop inter-disciplinary and comparative research on the major issues facing the process of European integration, European societies and Europe's place in 21st century global politics.

The Centre is home to a large post-doctoral programme and hosts major research programmes, projects and data sets, in addition to a range of working groups and ad hoc initiatives. The research agenda is organised around a set of core themes and is continuously evolving, reflecting the changing agenda of European integration, the expanding membership of the European Union, developments in Europe's neighbourhood and the wider world.

For more information: <http://eui.eu/rscas>

The EUI and the RSC are not responsible for the opinion expressed by the author(s).

Migration Policy Centre (MPC)

The Migration Policy Centre (MPC) is part of the Robert Schuman Centre for Advanced Studies at the European University Institute in Florence. It conducts advanced research on the transnational governance of international migration, asylum and mobility. It provides new ideas, rigorous evidence, and critical thinking to inform major European and global policy debates.

The MPC aims to bridge academic research, public debates, and policy-making. It proactively engages with users of migration research to foster policy dialogues between researchers, policy-makers, migrants, and a wide range of civil society organisations in Europe and globally. The MPC seeks to contribute to major debates about migration policy and governance while building links with other key global challenges and changes.

The MPC working paper series, published since April 2013, aims at disseminating high-quality research pertaining to migration and related issues. All EUI members are welcome to submit their work to the series. For further queries, please contact the Migration Policy Centre Secretariat at migration@eui.eu

More information can be found on: <http://www.migrationpolicycentre.eu/>

Disclaimer: The EUI, RSC and MPC are not responsible for the opinion expressed by the author(s). Furthermore, the views expressed in this publication cannot in any circumstances be regarded as the official position of the European Union.

Abstract

The use of artificial intelligence (AI) in refugee resettlement can enable a high volume of resettlement cases to be decided quickly, lower the costs associated with resettlement, and foster the integration of refugees. However, the expanded use of AI in the context of resettlement may inevitably create serious issues in terms of human rights and interfere with the principle of non-discrimination, the right to an effective remedy, and the right to privacy and data protection. Despite growing academic interest in the impact of various uses of AI in asylum decision-making processes and migration management, there is a gap in the legal literature on the use of AI in the context of resettlement, and whether such use violates refugees' fundamental rights. This study aims to fill this gap by examining the existing and potential use of AI throughout the resettlement of refugees and its implications, including the benefits and risks of such use on the human rights of individuals who are waiting to be resettled or those who are resettled.

Keywords

AI, machine learning, resettlement, refugees, human rights

Table of contents

1. Introduction	7
2. Resettlement in International and European Union Law	8
A. What is Resettlement?	8
B. Resettlement and International Law	9
C. Resettlement and EU Law	10
3. The Digitalisation of Resettlement Processes	14
4. The Current Use of AI in Resettlement: Matching Algorithms	15
5. The Potential Use of AI in Resettlement: What are the Implications for Human Rights?	16
Conclusion	20
Bibliography	22

1. Introduction

The application of Artificial Intelligence (AI)¹ in the context of asylum and migration has been gaining traction as an increasing number of states and international organizations, such as the United Nations High Commissioner for Refugees (UNHCR)², experiment with different types of AI tools, techniques, and applications.³ For instance, while Canada uses algorithmic decision-making for immigration and asylum determination⁴, some European Union (EU) Member States apply AI for migration management, including nationality identification, detecting document fraud, case management and interacting with clients.⁵ The German Federal Office for Migration and Refugees (BAMF) uses an AI tool called 'DIAS' which identifies different dialects in Arabic by using voice samples, to verify the nationality of the asylum seeker.⁶ The United States (US) has used a Risk Classification Assessment System that uses deep learning to recommend to immigration officers whether a migrant should be detained or released.⁷

In recent years, several states have begun to experiment with various AI tools in the context of resettlement. The US and Switzerland use matching algorithms to foster integration by resettling refugees in places where they are more likely to find employment and integrate better, whereas several states use AI applications to disseminate information to resettled refugees on how to integrate into the host society.⁸ Although the current use of outlined AI tools and applications does not present a major human rights problem, the expanded use of AI, particularly for the selection of individuals for resettlement, may do so.⁹ Although there has been growing academic interest in the impact of various uses of AI in asylum decision-making processes¹⁰ and border controls and migration management¹¹ on fundamental rights, very little has been written on the legal implications

- 1 Artificial Intelligence is not easy to define. The meaning of AI changes depending on the context and field used. Nevertheless, Artificial Intelligence is defined by the Oxford Dictionary as "the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages." 'artificial intelligence, n' (The Oxford Dictionary of Phrase and Fable, OUP 2006) <<https://www.oxfordreference.com/view/10.1093/acref/9780198609810.001.0001/acref-9780198609810-e-423>> accessed 15 May 2023.
- 2 UNHCR uses AI tools for case management and to identify of asylum seekers and refugees by collecting and verifying biometrics. See Lucia Nalbandian, 'An eye for an 'I': a critical assessment of artificial intelligence tools in migration and asylum management' (2022) *Comparative Migration Studies* 10: 32,7,19; Niamh Kinchin and Davoud Mougouei, 'What Can Artificial Intelligence Do for Refugee Status Determination? A Proposal for Removing Subjective Fear' (2022) 34 (3-4) *International Journal of Refugee Law* 373-397.
- 3 Nalbandian, 'An eye for an 'I': a critical assessment of artificial intelligence tools in migration and asylum management' 2; Kinchin and Mougouei, 'What Can Artificial Intelligence Do for Refugee Status Determination? A Proposal for Removing Subjective Fear,' 373-397.
- 4 Petra Molnar and Lex Gill, *Bots at the Gate: A Human Rights Analysis of Automated Decision-Making in Canada's Immigration and Refugee System* (University of Toronto 2018) <<https://citizenlab.ca/wp-content/uploads/2018/09/IHRP-Automated-Systems-Report-Web-V2.pdf>> accessed 15 May 2023.
- 5 European Migration Network, 'The Use of Digitalisation and Artificial Intelligence in Migration Management' (2022) 2 <https://emn.ie/wp-content/uploads/2022/02/Joint-EMN-OECD_Digitalisation_and_AI_inform.pdf> accessed 15 May 2023.
- 6 Cf. Ana Beduschi, 'International migration management in the age of artificial intelligence' (2021) 9 *Migration Studies*, 576. The Federal Office for Migration and Refugees- BAMF opines DIAS enhances efficiency, especially when dealing with a large number of asylum applicants, many of whom lack identity documents. European Migration Network, 'The Use of Digitalisation and Artificial Intelligence in Migration Management', 9.
- 7 Estefania Mccarroll, 'Weapons of Mass Deportation: Big Data and Automated Decision-Making Systems In Immigration Law' (2019) 34 *Georgetown Immigration Law Journal* 705, 717.
- 8 See section 3.
- 9 Mariano-Florentino Cuéllar, Aziz Z. Huq. "Artificially intelligent regulation." *Daedalus* 151.2 (2022): 335-347 mentions that AI can be used to select refugees for resettlement.
- 10 Cf. Hilary Evans Cameron, Avi Goldfarb and Leah Morris, 'Artificial Intelligence for a Reduction of False Denials in Refugee Claims' (2021) 35(1) *Journal of Refugee Studies* 493; Derya Özkul, *Automating Immigration and Asylum: The Uses of New Technologies in Migration and Asylum Governance in Europe* (University of Oxford 2023) <https://www.researchgate.net/publication/367350622_Automating_Immigration_and_Asylum_The_Uses_of_New_Technologies_in_Migration_and_Asylum_Governance_in_Europe> accessed 15 May 2023; Kinchin and Mougouei, 'What Can Artificial Intelligence Do for Refugee Status Determination? A Proposal for Removing Subjective Fear'; Petra Molnar and Lex Gill, *Bots at the Gate: A Human Rights Analysis of Automated Decision-Making in Canada's Immigration and Refugee System* (University of Toronto 2018) <<https://citizenlab.ca/wp-content/uploads/2018/09/IHRP-Automated-Systems-Report-Web-V2.pdf>> accessed 15 May 2023; Mccarroll, 'Weapons of Mass Deportation: Big Data and Automated Decision-Making Systems in Immigration Law'.
- 11 Beduschi, 'International migration management in the age of artificial intelligence'; Niovi Vavoula, 'Digitalising the EU migration and asylum policy: a case study on information systems' in Evangelia Tsourdi and Philippe De Bruycker (eds), *Research Handbook on EU Migration and Asylum Law* (Edward Elgar 2022); Emre Eren Korkmaz (ed), *Digital Identity, Virtual Borders and Social Media A Panacea for Migration Governance?* (Edward Elgar 2021); Nalbandian, 'An eye for an 'I': a critical assessment of artificial intelligence tools in migration and asylum management', 1-23; Petra Molnar, 'Technology on the margins: AI and global migration management from a human rights perspective' (2019) 8(2) *Cambridge International Law Journal* 305; European Commission, 'Opportunities and Challenges for the Use of Artificial Intelligence in Border Control, Migration and Security' (2020) Volume 1: Main Report <<https://op.europa.eu/en/publication-detail/-/publication/c8823cd1-a152-11ea-9d2d-01aa75ed71a1/language-en>>; European Commission, Direc-

of the use of AI in the context of resettlement.¹² No in-depth study has focused on the use of AI in the context of resettlement and how such use can impact the fundamental rights of individuals who are waiting to be resettled or those who are already resettled. To fill this gap in the literature, this paper focuses on the current and potential use of AI throughout the resettlement of refugees, its implications, including the benefits and risks associated with such use, and how this can impact the human rights of individuals subject to resettlement procedures. In doing so, this study categorizes different AI tools, techniques, and applications that can be used in the context of resettlement as low-risk and high-risk AI, depending on their interference with fundamental rights.

To set the context, Section 2 defines resettlement and examines how it is regulated under international law and European Union law. This section provides an account of state responsibilities in different phases of resettlement under international law and EU law to illustrate why resettlement can be a fertile ground for the use of AI. Section 3 outlines the increasing use of digitalization in the context of resettlement, while Section 4 explores how different states have experimented with AI tools to maximize the integration of refugees into resettlement states. Finally, Section 5 discusses the potential role that AI can play in resettlement processes, including the selection and referral of refugees for resettlement, facilitation and enhancement of integration, and whether such uses are compatible with fundamental rights.

2. Resettlement in International and European Union Law

To discuss how AI can be utilized during resettlement processes, it is crucial to understand how resettlement works and who is resettled (selection and exclusion criteria). Moreover, to discuss the implications of AI in the context of resettlement, it is important to identify state responsibilities concerning resettlement under international law. Since this paper also focuses on EU law, it is important to review the EU legal framework, including legislative proposals on resettlement. Thus, this section, to set the scene for the discussion on the use of AI in the context of resettlement and its implications in sections 3-6, addresses the aforementioned issues and provides an overview of resettlement and how it is regulated under international and EU law.

A. What is Resettlement?

Resettlement is defined by the UNHCR as: “the selection and transfer of refugees from a State in which they have sought protection to a third State which has agreed to admit them – as refugees – with permanent residence status.”¹³ In the Global Compact on Refugees, resettlement is referred to as “a tool for the protection of and solutions for refugees” and “a tangible mechanism for burden and responsibility-sharing and a demonstration of solidarity, allowing States to help share each other’s burdens and reduce the impact of large refugee situations on host countries.”¹⁴

Resettlement is one of the three traditional durable solutions.¹⁵ Once the preferred durable solution following the Second World War¹⁶ resettlement remains an important solution *albeit* one that is not available to most refugees. Global resettlement needs are much greater than the resettlement

torate-General for Migration and Home Affairs, ‘Opportunities and challenges for the use of artificial intelligence in border control, migration and security’ (2020) Volume 2, Addendum <https://op.europa.eu/publication/manifestation_identifier/PUB_DR0220307ENN> accessed 15 May 2023.

12 Petra Molnar and Lex Gill, *Bots at the Gate: A Human Rights Analysis of Automated Decision-Making in Canada’s Immigration and Refugee System* (University of Toronto 2018) <<https://citizenlab.ca/wp-content/uploads/2018/09/IHRP-Automated-Systems-Report-Web-V2.pdf>> accessed 15 May 2023, 39, 40 briefly explores legal implications of using matching systems in resettlement processes.

13 UNHCR, ‘Resettlement Handbook’ (2011) <<https://www.unhcr.org/46f7c0ee2.pdf>> accessed 15 May 2023.

14 UNHCR, ‘Global Compact on Refugees’ (2018) para 90 <<https://www.refworld.org/docid/63b43eaa4.html>> accessed 15 May 2023.

15 The other two durable solutions are voluntary repatriation and local integration Global Compact on Refugees, para 90.

16 B. S. Chimni, ‘From resettlement to involuntary repatriation: towards a critical history of durable solutions to refugee problems’ (2004) 23(3) RSQ 55; Liliانا Lyra Jubilut and Wellington Pereira Carneiro, ‘Resettlement in solidarity: a new regional approach towards a more humane durable solution’ (2011) 30(3) Refugee Survey Quarterly 63.

places available worldwide, which makes resettlement unavailable to thousands of persons in need of international protection.¹⁷ The case in point: in 2022, UNHCR considered 1,473,156 persons in need of resettlement yet, in the same year only 58,457 refugees were resettled.¹⁸

Resettlement includes states selecting individuals to be resettled and organizing their transfer and management of the reception and integration process. Traditionally, resettlement targets refugees, as defined by Article 1(A)(2) of the Convention relating to the Status of Refugees¹⁹ (1951 Convention), and particularly vulnerable individuals among refugees. Nevertheless, states are free to determine who to resettle, and they may choose to resettle a broader category of persons in need of international protection than refugees, or prioritize certain groups over others based on their own criteria.²⁰

International organizations (IOs) and non-governmental organizations (NGOs) may participate in the resettlement process depending on the wishes of the resettlement state.²¹ In practice, mostly the UNHCR and sometimes other International Organizations such as the International Rescue Committee (IRC) and the International Organization for Migration (IOM), identify or help to identify persons who are at risk of serious harm in the first country of asylum, as well as in their home country, and refer them to states that wish to resettle refugees.²² UNHCR facilitates the resettlement of refugees who fall under UNHCR's Resettlement Submission Categories.²³ Refugees, especially those resettled under the auspices of the UNHCR, usually receive permanent residency and have access to civil, political, economic, social, and cultural rights similar to those enjoyed by nationals in the resettlement state.²⁴ This means that, once resettlement occurs, the need for international protection is expected to cease.²⁵

B. Resettlement and International Law

The Convention relating to the Status of Refugees is largely silent on resettlement. Although the 1951 Convention foresees the possibility of resettlement from the first country of arrival, it does not require contracting parties to resettle refugees.²⁶ Moreover, there is no structured international legal regime governing resettlement or specifying the responsibilities of the states.²⁷ Considering that resettlement is regarded as a tool of responsibility or burden sharing by the UNHCR and the Global Compact on Refugees, one may question whether there is a state duty to resettle refugees under international refugee law; the short answer is no.²⁸ States retain their sovereign competence in deciding whether, who, or how many people to resettle.²⁹

17 Joanne van Selm, 'Refugee Resettlement' in Elena Fiddian-Qasmiyeh et al. (eds), *The Oxford Handbook of Refugee and Forced Migration Studies* (OUP 2014) 513.

18 UNHCR submitted only 116,481 refugees for resettlement in 2022. UNHCR, 'Resettlement Fact Sheet' (2022) <<https://www.unhcr.org/protection/resettlement/63f88f094/resettlement-fact-sheet-2022.html>> accessed 15 May 2023.

19 Convention Relating to the Status of Refugees (adopted 28 July 1951, entered into force 22 April 1954) 189 UNTS 137.

20 J. Hathaway, *The Rights of Refugees under International Law* (CUP 2021) 1191; Lama Mourad and Kelsey P Norman, 'Transforming Refugees into Migrants: Institutional Change and the Politics of International Protection' (2020) 26 *European Journal of International Relations* 687; Cathryn Costello and others, 'Refugee Recognition and Resettlement' (ASILE, 3 May 2022) 32 <https://www.asileproject.eu/wp-content/uploads/2022/05/ASILEWorkingPaper-D4_3_May2022_SUBMITTED.pdf> accessed 15 May 2023.

21 Natalie Welfens, Julian Lehmann and Marie Wagner, 'Towards A Global Resettlement Alliance' (GPPI, 2021) <<https://gppl.net/media/Towards-a-Global-Resettlement-Alliance-Dec-2021.pdf>> accessed 15 May 2023.

22 UNHCR, 'Resettlement' <<https://www.unhcr.org/resettlement>> accessed 15 May 2023.

23 UNHCR Resettlement Submission Categories include 'Legal and/or Physical Protection Needs, Survivors of Torture and/or Violence', 'Medical Needs', 'Women and Girls at Risk', 'Family Reunification', 'Children and Adolescents at Risk', and 'Lack of Foreseeable Alternative Durable Solutions'.

24 UNHCR, 'What is Refugee Resettlement' (October 2020) <<https://www.unhcr.org/media/frequently-asked-questions-about-resettlement>> accessed 15 May 2023.

25 Hathaway, *The Rights of Refugees under International Law*, 1128 – 1221.

26 Ibid.

27 Article 30 of the 1951 Convention requires state parties to permit refugees to transfer assets to resettlement countries though this provision in no way be interpreted to oblige state parties to offer resettlement to refugees. Naoko Hashimoto, 'Refugee Resettlement as an Alternative to Asylum' (2018) 37(2) *Refugee Survey Quarterly*, 162; T. De Boer and M. Zieck, 'The legal abyss of discretion in the resettlement of refugees: Cherry-picking and the lack of due process in the EU' (2020) 32(1) *International Journal of Refugee Law* 54.

28 Hashimoto, 'Refugee Resettlement as an Alternative to Asylum', 162, 165; M. Ineli-Ciger, 'Is resettlement still a durable solution? An analysis in light of the proposal for a regulation establishing a union resettlement framework', (2022) 24(1) *European Journal of Migration and Law* 27-55.

29 van Selm, 'Resettlement', 514; Ineli Ciger, 'Is resettlement still a durable solution?' 27-55.

Resettlement is not a right, and states are not obliged to offer resettlement to refugees or any other forcibly displaced person under international law.³⁰ Put simply, resettlement is more ‘a discretionary policy option’ for states than a legal responsibility.³¹ States are also free to regulate different aspects of resettlement; as a result, there are many differences between national resettlement policies regarding selection criteria and procedures, length of procedures, pre-departure orientation programs, integration tools, and status granted to resettled persons.³²

The use of AI in an action that violates the 1951 Convention, such as causing a refugee to be returned to a place where there is a risk of persecution and/or serious harm in violation of the principle of *non-refoulement* or denial of refugee status or rights to a person who fits the definition of a refugee, is highly problematic.³³ Thus, compared to the use of AI in refugee recognition or removal procedures that are explicitly governed by the provisions of the 1951 Convention, the use of artificial intelligence in resettlement processes raises arguably fewer problems concerning its compatibility with the 1951 Convention. There are two main reasons for this finding. First, there is no duty of states to resettle refugees and no binding standards concerning resettlement exist.³⁴ Illustrating this, Macklin and Kneebone note that resettlement remains outside the realm of international law, compared to asylum.³⁵ Second, as illustrated by de Boer and Zieck, establishing jurisdiction and responsibility of resettlement states under international human rights instruments for their resettlement selection missions in first asylum countries is nearly impossible.³⁶ Hence, states enjoy more freedom to employ modern technologies in the context of resettlement compared with issues explicitly governed by the 1951 Convention. Despite this, it is crucial to understand that, as noted by Goodwin-Gill, McAdam, and Dunlop, for refugees who are denied basic human rights or are at risk of violence in first countries of asylum, resettlement can mean the difference between life and death.³⁷

C. Resettlement and EU Law³⁸

Resettlement in the European Union has traditionally been implemented voluntarily through national resettlement programs or *ad hoc* initiatives.³⁹ The EU still lacks a unified approach to resettlement; thus, the selection criteria and resettlement procedures, rights granted to resettled refugees, and scale and size of these resettlement initiatives differ significantly between Member States. According to the Commission, between 2015 and 2023, more than 100,000 vulnerable refugees have found shelter in the Union through EU-funded resettlement schemes.⁴⁰

30 UNHCR, Resettlement Handbook, 36.

31 Hashimoto, ‘Refugee resettlement as an alternative to asylum’, 165; C. Tometten, ‘Resettlement, humanitarian admission, and family reunion: The intricacies of Germany’s legal entry regimes for Syrian refugees’ (2018) 37(2) *Refugee Survey Quarterly* 187.

32 Boer and Zieck, ‘The legal abyss of discretion in the resettlement of refugees: Cherry-picking and the lack of due process in the EU’, 59.

33 Madeleine Forster, ‘Refugee protection in the artificial intelligence era. A test case for rights’ (Chatham House, September 2022) <<https://www.chathamhouse.org/sites/default/files/2022-09/2022-09-07-refugee-protection-artificial-intelligence-era-forster.pdf>> accessed 15 May 2023.

34 S. Labman, *Crossing law’s border: Canada’s refugee resettlement program* (2019 UBC Press); Boer and Zieck, ‘The legal abyss of discretion in the resettlement of refugees: Cherry-picking and the lack of due process in the EU’, 68-74.

35 S. Kneebone and A. Macklin, ‘Resettlement’ in Cathryn Costello, Michelle Foster, and Jane McAdam (eds), *The Oxford Handbook of International Refugee Law* (OUP 2021) 1080.

36 Boer and Zieck, ‘The legal abyss of discretion in the resettlement of refugees: Cherry-picking and the lack of due process in the EU’, 68-74.

37 G. S. Goodwin-Gill and J. McAdam, *The Refugee in International Law* (OUP 2021) 556.

38 This section builds on Meltem Ineli-Ciger, Is Resettlement Still a Durable Solution? An Analysis in Light of the Proposal for a Regulation Establishing a Union Resettlement Framework. *European Journal of Migration and Law*, 24(1), pp. 27-55; Meltem Ineli-Ciger, Resettlement Regulation (Proposal) in: *EU Immigration and Asylum Law Article-by-Article Commentary*, Daniel Thym and Kay Halbrunner (eds) (Beck Nomos Hart 2022) Ch. 24.

39 G. Noll and J. van Selm, ‘Rediscovering Resettlement’ (*MPI Insight*, 2003) <<https://www.migrationpolicy.org/research/rediscovering-resettlement>> accessed 15 May 2023; D. Perrin, F. McNamara, ‘Refugee resettlement in the EU: Between shared standards and diversity in legal and policy frames’ KNOW RESET Research Report 2013/03 (EUI 2013) 5-8; EUAA, ‘Asylum Report 2022’ (2022) <<https://euaa.europa.eu/publications/asylum-report-2022>> accessed 15 May 2023.

40 European Commission, ‘Resettlement and other pathways to protection’ (2022) <https://home-affairs.ec.europa.eu/policies/migration-and-asylum/legal-migration-and-integration/resettlement-and-other-pathways-protection_en> accessed 15 May 2023.

Different Member State Approaches to Resettlement

In 2023, all resettlement initiatives in Europe were a compilation of national or multilateral programs or organized in an *ad hoc manner*.⁴¹ Some Member States such as Latvia, Greece, Poland, Slovakia, Hungary, and Czechia, do not have any resettlement programmes, meaning they do not resettle refugees.⁴² While many Member States simply rely on the UNHCR for referrals or conduct selection missions based on UNHCR referrals, others have conducted resettlement selection missions in third countries, with the participation of national migration authorities and sometimes NGOs.⁴³ For instance, as of 2023, Spain, Bulgaria, Denmark, Finland, Germany, Iceland, Lithuania, Luxembourg, Malta, and Slovenia rely on the UNHCR to refer resettlement candidates.⁴⁴ In addition to the UNHCR, states may also accept referrals from their embassies and consulates (Sweden and Norway), as well as civil society organizations and local partners (Italy and Ireland).⁴⁵

Member States invoke different criteria for selecting refugees to be resettled, including vulnerability, health conditions, vocational skills, educational background, language proficiency, cultural or religious background, ties with the receiving community, and the integration prospects of refugees.⁴⁶ Similar to the selection criteria and procedures, the rights and status granted to resettled refugees, as well as the scale and size of resettlement initiatives, differ significantly between Member States.⁴⁷ For instance, in Spain, Syrian nationals who arrived in Spain through the 2015 resettlement programme were granted subsidiary protection status. However, the Spanish Supreme Court ruled on 17 December 2020, that, according to the current national legislation, the beneficiaries of a Resettlement Programme approved by the Government in cooperation with the UNHCR must be granted refugee status and not subsidiary protection.⁴⁸ Similar to Spain, a Syrian family from Aleppo was resettled in France in 2012 as part of a resettlement program and was granted subsidiary protection. The French National Court of Asylum decided in 2021 that the fact that a Syrian family from Aleppo resettled in France was granted subsidiary protection does not raise any legal issues.⁴⁹ This decision can be considered at odds with the Spanish Court's approach to the status of being granted to resettled refugees. To reduce the outlined divergences by introducing common procedures and, selection criteria the European Commission submitted a proposal for a Regulation establishing a Union Resettlement Framework⁵⁰ (Resettlement Regulation Proposal or 2016 Proposal) on 13 July 2016.

41 EUAA, 'Authorities and Stakeholders Involved in Resettlement and Humanitarian Admissions Who is Who in International Protection in the EU+', (March 2023) Issue No 6, <https://euaa.europa.eu/sites/default/files/publications/2023-03/2023_WhoisWho_resettlement_humanitarian_admission_EN_0.pdf> accessed 15 May 2023.

42 *ibid.*

43 Noll and Selm, 'Rediscovering resettlement', 9, 15, 16; Perrin and McNamara, 'Refugee resettlement in the EU: Between shared standards and diversity in legal and policy frames', 19.

44 EUAA, 'Authorities and Stakeholders Involved in Resettlement and Humanitarian Admissions Who is Who in International Protection in the EU+'.

45 *ibid.*

46 Hashimoto, 'Refugee Resettlement as an Alternative to Asylum', 171; F. Böhm, I. J. Ramsøy and B. Suter, 'Norms and Values in Refugee Resettlement A Literature Review of Resettlement to the EU' Current Themes in IMER Research 21(1) (University of Malmo 2021).

47 Perrin and McNamara, 'Refugee resettlement in the EU: Between shared standards and diversity in legal and policy frames', 17-34.

48 *Fructuoso, Begoña, Benita and Hipolito (Syria) v Spanish Public Administration* [2020] ES: Supreme Court [Tribunal Supremo] 7923/2019.

49 EUAA, 'National Asylum Developments Database' <https://euaa.europa.eu/national-asylum-developments-database?field_eudev_country_target_id=14849&field_eudev_year_target_id=15496&field_type_of_development_target_id=All&field_thematic_area_target_id=14882> accessed 15 May 2023.

50 Proposal for a Regulation of the European Parliament and of the Council establishing a Union Resettlement Framework and amending Regulation (EU) No 516/2014 of the European Parliament and the Council [2016] COM/2016/0468 final - 2016/0225 (COD) [2016].

2016 Commission Proposal for a Regulation Establishing a Union Resettlement Framework

The Resettlement Regulation Proposal sought to create a more structured, harmonized, and permanent framework for resettlement across the EU and foresaw the establishment of a Union Resettlement Framework. According to the 2016 Proposal, implementation of the Union Resettlement Framework requires a two-step process. First, the Council is to adopt an annual Union resettlement plan for the following year based on a proposal from the Commission. This annual plan includes a) the maximum total number of persons to be resettled, b) the number of persons each member state is to resettle within this total, and c) the overall geographical priorities for resettlement. Second, following the adoption of the annual Union resettlement plan, the Commission is to adopt one or more targeted Union resettlement schemes consistent with the annual Union resettlement plan through implementing acts.

The 2016 Resettlement Regulation Proposal sought to reduce divergences among national resettlement practices and procedures. To achieve this objective, the Proposal establishes common EU rules on admission of third-country nationals through resettlement (Articles 3 and 4), including the rules on eligibility criteria (Article 5) and exclusion (Article 6), the status to be accorded to resettled persons, the decision-making procedures to ensure uniform conditions for the implementation of the Framework (Articles 10 and 11), and the financial support to Member States' resettlement efforts are set out in this legislative proposal (Article 17). It should also be mentioned that Member States' resettlement practices outside the Union Resettlement Framework are governed by national law and not supranational law.

Article 5 of the 2016 Proposal requires a two-tier test to determine whether a person can qualify for resettlement under EU Law. The possibility of resettlement is foreseen in Article 5(a) for refugees and persons eligible for subsidiary protection as defined by the Qualification Directive, as well as internally displaced persons that are forced to flee the part of the country in which they formerly habitually resided due to a well-founded fear of persecution on the 1951 Convention grounds, or substantial grounds for believing that they would face a real risk of suffering serious harm. Once it is established that a third-country national or stateless person satisfies the requirement provided under Article 5(a), it needs to be assessed whether he/she falls within at least one of the vulnerability categories identified in Article 5(b)(i) or has family links to third-country nationals, stateless persons, or Union citizens legally residing in a Member State or who are dependent on them, as noted in Article 5(b)(ii).

Article 5(b)(i) provides an exhaustive list of vulnerability categories, although the proposal neither defines these groups nor provides any guidance or indication of how these vulnerability categories should be interpreted. Among the vulnerability categories cited in Article 5(b)(i) of the 2016 Proposal, women and girls at risk, children and adolescents at risk, including unaccompanied children, survivors of violence and/or torture, persons with medical needs or disabilities, and persons with legal and/or physical protection needs are the UNHCR resettlement submission categories. Individuals with socioeconomic vulnerability, which is not one of the UNHCR resettlement submission categories, introduce a new vulnerability ground and are modelled after the Standard Operating Procedures guiding the implementation of the resettlement scheme set out in the EU-Turkey Statement of March 2016.⁵¹ Persons with family links to third-country nationals or stateless persons legally residing in a Member State or Union citizens, and those who are dependent on them, are determined eligible for resettlement under Article 5(b)(ii) of the Proposal. Member States, following the ordinary procedure, are supposed to grant refugee status or subsidiary protection status (as foreseen under the Qualification Directive 2011/95/EU) to resettled persons.

⁵¹ Council of the European Union, 'Standard Operating Procedures implementing the mechanism for resettlement from Turkey to the EU as set out in the EU-Turkey Statement' (27 April 2016) 8366/16.

A provisional agreement on the 2016 Proposal was reached with the European Parliament on 13 June 2018 and presented to the Permanent Representatives Committee (COREPER) on 19 June 2018.⁵² However, the Committee did not approve this provisional agreement. The Commission, as part of the New Pact on Migration and Asylum presented in 2020, called for the swift adoption of the 2016 proposal.⁵³

Amended COREPER Proposal of December 2022

Based on the 2018 provisional agreement, COREPER amended the negotiation mandate in December 2022. The Committee tabled the Proposal for Regulation of the European Parliament and Council establishing a Union Resettlement Admission Framework.⁵⁴

In the 2022 Proposal, the Council, on the basis of a proposal from the Commission, is required to adopt, utilizing an implementing act, a two-year Union Resettlement and Humanitarian Admission Plan in the year preceding the two-year period in which it is to be implemented. The Union Resettlement and Humanitarian Admission Plan includes the following:

‘the total number of persons to be admitted, indicating what part of that number shall be dedicated to resettlement, which shall constitute not less than approximately 60% of the total number of the persons to be admitted, details about the participation of the Member States and their contributions to the total number of persons to be admitted and the part of the total dedicated to resettlement, humanitarian admission and emergency admission and the specification of the regions or third countries from which resettlement or humanitarian admission is to occur.’⁵⁵

The recent Proposal also introduced new time limits for resettlement procedures (8 months (+4 months) for ordinary procedures) and (4 months (+ 2 months) for emergency admission). Member States may give preference, *inter alia*, to third-country nationals or stateless persons with social or cultural links or other characteristics that can facilitate integration in the participating Member States, provided that this is without discrimination.

The 2022 Proposal differentiates between resettlement and humanitarian admission: resettlement should be based on UNHCR referral and resettled refugees should be given international protection status in the Union whereas, humanitarian admission can be based on referral from UNHCR, EUAA or other international organizations/bodies. Moreover, persons admitted on humanitarian grounds can be given either international protection or national humanitarian⁵⁶ status. Further, the 2022 Proposal foresees the amendment of the Eurodac Regulation⁵⁷ to ensure that Member States may store data on resettled persons in the Eurodac for five years. Although the 2022 Proposal performs better than the 2016 Proposal in terms of preserving the humanitarian character of resettlement as a durable solution, it is unclear if and when this revised proposal is adopted.

52 European Parliament, ‘EU resettlement framework in “Promoting our European Way of Life” <<https://www.europarl.europa.eu/legislative-train/theme-promoting-our-european-way-of-life/file-jd-eu-resettlement-framework>> accessed 15 May 2023.

53 European Commission, ‘A fresh start on migration: Building confidence and striking a new balance between responsibility and solidarity’ (23 September 2020) <https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1706> accessed 15 May 2023.

54 Council of the European Union, ‘Proposal for a Regulation of the European Parliament and of the Council establishing a Union Resettlement and Humanitarian Admission Framework and Amending Regulation (EU) No 2021/1147 of the European Parliament and the Council [2022] 16281/22 <<https://data.consilium.europa.eu/doc/document/ST-16281-2022-INIT/en/pdf>> accessed 15 May 2023.

55 Article 7 and 8 of the 2022 Proposal.

56 ‘The humanitarian status under national law should provide for rights and obligations equivalent to those of [Articles 22 to 28 and 30 to 38 of Regulation (EU) XXX/XXX Qualification Regulation] for beneficiaries of subsidiary protection. Such a status should be withdrawn only in case [...] new circumstances or new evidence arise concerning the person’s eligibility following the decision on granting the status.’ Preamble of the 2022 Proposal.

57 Regulation (EU) No 603/2013 of the European Parliament and of the Council of 26 June 2013 on the establishment of ‘Eurodac’ for the comparison of fingerprints for the effective application of Regulation (EU) No 604/2013 establishing the criteria and mechanisms for determining the Member State responsible for examining an application for international protection lodged in one of the Member States by a third-country national or a stateless person and on requests for the comparison with Eurodac data by Member States’ law enforcement authorities and Europol for law enforcement purposes, and amending Regulation (EU) No 1077/2011 establishing a European Agency for the operational management of large-scale IT systems in the area of freedom, security and justice (recast) [2013] OJ L 180.

Relevance of EU Law for the Use of AI in the Context of Resettlement

The above analysis reveals the following regarding the use of AI in the context of resettlement in Europe. First, as of June 2023, the EU is yet to adopt the Regulation Establishing a Union Resettlement Framework and agree on common selection criteria and procedures and the status to be granted to resettled refugees. Second, neither the Commission's 2016 Resettlement Regulation Proposal nor the amended 2022 version provides guidance on the use of digitalization or modern technologies in the context of resettlement. Third, in both the 2016 and 2022 Regulation Proposals, there is no right to challenge a negative resettlement decision. The fact that there is no right to challenge a negative resettlement decision in either of these proposals makes it easier and more convenient to use AI in resettlement processes, especially during the selection of refugees to be resettled because the right to an effective remedy does not apply. Nevertheless, it should be noted that all Member States are bound by the General Data Protection Regulation⁵⁸ (GDPR) and Charter of Fundamental Rights⁵⁹ which limits the use of AI-based tools in the context of resettlement in the Union. Finally, the adoption of the EU Artificial Intelligence Act Proposal⁶⁰ in the coming days may lead to more rules to apply for the future use of AI in resettlement and increase safeguards to protect the fundamental rights of persons who are subject to resettlement procedures.

Having outlined the international law and EU law framework concerning resettlement, it is now time to turn to the use of modern technologies in the context of resettlement and how this impacts fundamental rights.

3. The Digitalisation of Resettlement Processes

Digitalisation can be defined as the “use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.”⁶¹ Digital platforms, including websites, are increasingly being used to provide information to refugees, asylum seekers, and migrants about their rights, legal procedures, and integration into the host society.⁶² Some platforms simply offer information to refugees, and asylum seekers or communicate to users via SMS⁶³ or may use AI-based tools such as chatbots⁶⁴ to interact with their users. In the context of resettlement, the COVID pandemic increased the use of online platforms, particularly in the EU.⁶⁵ Web and mobile applications, including those that use AI tools, are already being used in different states to facilitate the integration of refugees, the resettled, or otherwise, to host societies.⁶⁶

In the context of resettlement, individuals or families are usually selected through a review of the UNHCR registration forms and dossier selection. However, some states conduct face-to-face interviews with government officials who travel to the country of asylum to meet candidates.⁶⁷ During

58 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (Text with EEA relevance) [2016] OJ L 119.

59 Charter of Fundamental Rights of the European Union (2000/C 364/01).

60 Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts, COM/2021/206 final, 21.04.2021.

61 See for the same definition adopted, European Migration Network, 'The Use of Digitalisation and Artificial Intelligence in Migration Management' (2022) <https://emn.ie/wp-content/uploads/2022/02/Joint-EMN-OECD_Digitalisation_and_AI_inform.pdf> accessed 15 May 2023.

62 Joseph G. Bock, Ziaul Haque and Kevin A. McMahon, 'Displaced and dismayed: how ICTs are helping refugees and migrants, and how we can do better' (2020) 26:4 Information Technology for Development 670.

63 *ibid*, 675.

64 For instance, the web site <<https://www.refugee.info/>> which provides refugees, asylum seekers and migrants in selected European States includes a chatbot that operates through whatsapp, facebook and Messenger.

65 European Migration Network, 'The impact of COVID-19 in the migration area in EU and OECD countries', (2021) <<https://www.oecd.org/migration/mig/00-eu-emn-covid19-umbrella-inform-en.pdf>>; European Migration Network, 'The Use Of Digitalisation And Artificial Intelligence in Migration Management' (2022) <<https://www.oecd.org/migration/mig/EMN-OECD-INFORM-FEB-2022-The-use-of-Digitalisation-and-AI-in-Migration-Management.pdf>> accessed 15 May 2023.

66 UNHCR, 'Chatbots in humanitarian settings: revolutionary, a fad or something in-between?' (2021) <<https://www.unhcr.org/innovation/chatbots-in-humanitarian-settings-revolutionary-a-fad-or-something-inbetween/>> accessed 15 May 2023.

67 EUAA, 'Authorities and Stakeholders Involved in Resettlement and Humanitarian Admissions Who is Who in International Protecti-

the pandemic, several selection missions moved online to comply with health measures and minimize the risk of infection.⁶⁸ However, EUAA concluded that the use of digital tools in resettlement missions did not yield all positive results by noting.

“Digital tools (such as WebEx, Microsoft Teams and Skype) were used for conducting selection interviews and related meetings. Nevertheless, moving to online settings came with many challenges, such as technical issues (poor Internet connection, inadequate sound, bad image quality and interruptions), language barriers and the risk of losing trust during the interview phase. On some occasions, online activities were considered less effective and more time-consuming than face-to-face interactions, resulting in fewer cases being processed per day. To overcome logistical issues related to online settings, close cooperation with national authorities of the country of first asylum, UNCHR and the IOM were established during the year.”⁶⁹

Aside from resettlement selection processes, digital means are also being used ‘after arrival’ phase of resettlement in particular to facilitate the integration of refugees into the resettlement states. A new mobile application called “(Re)Settle in Croatia” was made available on Google Play and Apple Store in July 2021.⁷⁰ The free mobile application, which is available in Arabic, Croatian, English, and Kurdish Kurmanji, provides useful information for resettled refugees on their rights and services, such as healthcare, education, and work and includes an audio dictionary.⁷¹

4. The Current Use of AI in Resettlement: Matching Algorithms

The idea of using AI and other emerging technologies for resettlement is not entirely new.⁷² In 2018, Bansak et al. developed an algorithm that uses a combination of machine learning⁷³ and optimal matching to assign refugees to certain locations in the resettlement state where they are more likely to find employment and have a better chance of integration.⁷⁴ Building on this proposal, Jones and Teytelboym in a 2018 article proposed a centralized matching system that considers the preferences of refugees as well as local communities to determine exactly where refugees would be resettled.⁷⁵ It is reported that the software ‘Annie’⁷⁶ developed by several scientists in the UK, the US and Sweden, which assigns refugees to regions (areas) in the resettlement state where they would have better integration prospects, is applied in the US as a pilot project and has yielded quite positive results.⁷⁷ Similarly, the Swiss government used the software developed by scientists from the University of Stanford to distribute resettled refugees to various cantons in Switzerland.⁷⁸

on in the EU+’, Issue No 6, (March 2023) <https://euaa.europa.eu/sites/default/files/publications/2023-03/2023_WhoisWho_resettlement_humanitarian_admission_EN_0.pdf> accessed 15 May 2023.

68 *ibid*, 250.

69 During the pandemic, many pre-departure orientation programmes especially in 2021 were conducted fully online or through hybrid models. *ibid*, 250, 251.

70 EUAA, ‘Reception for Resettled Refugees’ <<https://euaa.europa.eu/asylum-report-2022/4162-reception-resettled-refugees>> accessed 15 May 2023.

71 *ibid*.

72 Meltem Ineli-Ciger, ‘The Future of Resettlement: What Role for Artificial Intelligence?’ (2022) TPQ <<http://turkishpolicy.com/article/1107/the-future-of-resettlement-what-role-for-artificial-intelligence>> accessed 15 May 2023.

73 Machine learning, a subcategory of AI, “focuses on the creation of algorithms that use experience with respect to a class of tasks and feedback in the form of a performance measure to improve their performance on that task.” Bartneck et al. *An introduction to ethics in robotics and AI* (Springer Nature 2021)11.

74 Kirk Bansak and others, ‘Improving Refugee Integration through Data-Driven Algorithmic Assignment’ (2018) 359/6373 *Science* 325.

75 Will Jones and Alexander Teytelboym, ‘The Local Refugee Match: Aligning Refugees’ Preferences with the Capacities and Priorities of Localities’ (2018) 31(2) *Journal of Refugee Studies* 152.

76 See for instance Annie™ MOORE (Matching and Outcome Optimization for Refugee Empowerment) which is presented as the world’s first software that helps resettlement agencies optimize their initial placement of refugees within host countries. Cf. Refugee AI website <<https://www.refugees.ai/>> accessed 15 May 2023.

77 Andrew C. Trapp and others, ‘Placement Optimization for Refugee Resettlement’ (2018) Lund University Department of Economics Working Paper 2018:23 <https://project.nek.lu.se/publications/workpap/papers/wp18_23.pdf> accessed 15 May 2023.

78 Petra Molnar and Lex Gill, *Bots at the Gate: A Human Rights Analysis of Automated Decision-Making in Canada’s Immigration and Refugee System* (University of Toronto 2018) <<https://citizenlab.ca/wp-content/uploads/2018/09/IHRP-Automated-Systems-Report-Web-V2.pdf>> accessed 15 May 2023, 50.

5. The Potential Use of AI in Resettlement: What are the Implications for Human Rights?

The potential use of AI tools, techniques, and applications in resettlement processes may include the following: a) initial review and triaging of resettlement cases and referrals, b) selecting individuals for resettlement (conducting eligibility and exclusion assessments for resettlement), c) matching refugees with certain resettlement countries and regions in the resettlement state to foster integration and d) facilitating and enhancing the integration of resettled refugees by providing information to resettled refugees. The expanded use of AI in the context of resettlement may inevitably create serious issues in terms of human rights and interfere with, *inter alia*, a) the principle of non-discrimination⁷⁹, b) the right to an effective remedy⁸⁰ and d) the right to privacy and data protection⁸¹.

In this paper, I categorized the potential use of AI in the context of resettlement based on its potential interference with the fundamental rights cited above and examined its potential use under two headings: a) the potential use of AI, which is less likely to raise issues in terms of human rights (low-risk AI in the context of resettlement); and b) the potential use of AI, which is more likely to raise issues in terms of human rights (high-risk AI in the context of resettlement).

a) Low-risk AI in the Context of Resettlement

Modern technologies including AI-based ‘chatbots’ can be used to inform refugees and other displaced persons who are subject to resettlement procedures on the resettlement processes and their rights (pre-arrival to the resettlement state) and as integration tools (after arrival to the resettlement states). Chatbots are auditory-based or textual-interface-based conversational agents that use “a machine system designed to simulate and reproduce an intelligent conversation with users.”⁸² They are becoming increasingly relevant in humanitarian settings, as well as in migration-related contexts.⁸³ For instance, the World Food Programme and the UNHCR have experimented with different chatbots to disseminate information.⁸⁴ The benefits of chatbots include maximizing efficiency and saving costs related to the dissemination of information.⁸⁵

79 The right to non-discrimination is secured under Article 2 of the Universal Declaration of Human Rights of the which notes, “Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty.” Similar provisions can be found in Article 26 of the International Covenant on Civil and Political Rights, Article 2(2) of the International Covenant on Economic, Social and Cultural Rights and Article 14 and Article 1 of Additional Protocol No. 12 of the European Convention on Human Rights. Whereas, the whole purpose of the Convention on the Elimination of Racial Discrimination and Convention on the Elimination of All Forms of Discrimination against Women is to prevent discrimination on the basis of protected characteristics.

80 “The right to a remedy when rights are violated is itself a right expressly guaranteed by global and regional human rights instruments. The international guarantee of a remedy implies that a wrongdoing state has the primary duty to afford redress to the victim of a violation.” Right to effective remedy is secured under Article 8 of the Universal Declaration of Human Rights, Article 2(3) of the International Covenant on Civil and Political Rights, Article 6 of the Convention on the Elimination of Racial Discrimination, Article 2(c) of the Convention on the Elimination of All Forms of Discrimination against Women and Article 13 of the European Convention on Human Rights. Cf. D. Shelton, *Remedies in International Human Rights Law* (OUP 2015) 113-122.

81 Article 12 of the Universal Declaration of Human Rights provides, “No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.” Similar provisions can be found in Article 17 of the ICCPR. The right to private life, which is closely related to the right to privacy and data protection is secured under Article 8 of the ECHR. In the context of the EU, GDPR’s Recital 1 affirms, ‘The protection of natural persons in relation to the processing of personal data is a fundamental right.’

82 Angga, P. Antonius, W. Edwin Fachri, A. Eleanita, and R. Dewi Agushinta. “Design of chatbot with 3D avatar, voice interface, and facial expression.” In *2015 international conference on science in information technology (ICSITech)*, pp. 326-330. IEEE, 2015; Di Gaetano Serena; and Pietro Diliberto. “Chatbots and conversational interfaces: Three domains of use.” Fifth International Workshop on Cultures of Participation in the Digital Age, Castiglione della Pescaia, Italy. Vol. 2101. 2018. Zhifa Chen, ‘Co-designing a Chatbot for and with Refugees and Migrants’ (Master’s Thesis, Aalto University 2019).

83 Mirca Madianou, ‘Nonhuman humanitarianism: when ‘AI for good’ can be harmful’ (2021) 24:6 *Information, Communication & Society* 850.

84 “An AI-based ‘chatbot’ virtual assistant (VA) is used in Latvia on the homepage of the Office of Citizenship and Migration Affairs, to inform customers about its functions and services. Customers are being served more efficiently because the VA can respond more quickly, while communicating with many customers at the same time. In Ireland, an AI-based chatbot is currently being piloted to inform potential use of AI. This VA is used to answer customer queries on the citizenship page of the Immigration Service Delivery website. The VA provides general citizenship information, it does not provide application-specific updates. Finland uses a chatbot VA called Kamu, which has replaced ‘human’ customer services and has, to date, managed over 1 million conversations. Usage of this particular AI feature has allowed the migration authorities to serve a much higher number of customers (simultaneously), thus reducing the burden on human staff.” European Migration Network, ‘The Use of Digitalisation and Artificial Intelligence in Migration Management’, 11.

85 Madianou, ‘Nonhuman humanitarianism: when ‘AI for good’ can be harmful’, 861-2.

There have already been several applications facilitating the integration of refugees into host states, but not necessarily in the context of resettlement. *Refugee.info* is a website that helps refugees and migrants acquire information on asylum and other legal services, obtain transportation and maps, locate schools and other educational opportunities, stay safe, access healthcare, and identify emergency contacts in selected European states.⁸⁶ Another app, 'Ankommen,' which was developed as a joint initiative of the German Federal Office for Migration and Refugees, the Federal Employment Agency, and the Goethe Institute, helps refugees in Germany by offering information on asylum procedures, social basics, and cultural practices.⁸⁷ Another app launched in Costa Rica disseminates information and provides legal assistance to the resettled refugees.⁸⁸

The platforms, including websites and mobile applications, and AI-based tools, such as chatbots, can be key venues for disseminating information to refugees, including those who are subject to resettlement processes. Such tools can be designed to offer information to candidates at different stages of resettlement on how resettlement works and the rights of individuals.⁸⁹ Moreover, these platforms can also be used to disseminate information about how to integrate into the resettlement state, similar to the 'Ankommen' app that is in use in Germany and 'ReSettle in Croatia, as mentioned in Section 3. The inclusion of chatbots in online platforms adds value. However, it should also be acknowledged that AI tools such as chatbots have several constraints. First, the degree of intelligence in AI operations can vary. Hence, the effectiveness of a chatbot depends on its level of intelligence.⁹⁰ While some chatbots can only handle frequently asked questions, others can converse with users by responding to keywords or simple phrases, and more advanced chatbots can imitate human conversations. Second, users need access to phones or computers, and the internet to use chatbots.⁹¹ Third, apps and online platforms that are only available in English or a limited number of languages can lead to fewer people accessing the information.⁹² Finally, it should be acknowledged that refugees waiting to be resettled or those who are selected for resettlement may not be proficient in using web services or mobile applications. In this case, information-seeking through chatbots can be exhausting, cumbersome, and confusing.⁹³

Despite these constraints, enhanced use of digital platforms, including AI tools, can improve the dissemination of information in the context of resettlement. However, to ensure that such use does not violate fundamental rights, it is crucial to consider several issues. First, the user data and metadata must be protected.⁹⁴ Second, to prevent potential misinformation, it is crucial that the data offered to the users, in this case refugees, are fully updated and correct.⁹⁵ Moreover, human involvement under certain circumstances is essential.⁹⁶ Finally, in light of the constraints of chatbots identified above, it is crucial that digital platforms that use AI tools, such as chatbots, are not used as the only source, but as a complementary means for the dissemination of information. This is crucial to ensure the access of individuals in resettlement procedures to information on resettlement procedures or their rights. If these principles are fully observed, the use of AI-based tools, such as chatbots, to disseminate information in the context of resettlement would not pose a high risk of human rights violations; hence, they can be classified as low-risk AI.

Another potential use of AI in the resettlement context is matching algorithms. In Section 4, it is noted that currently, several states are experimenting with different algorithms to match refugees with different regions in the resettlement state to foster integration. The use of pilot software and programs that aim to match refugees with locations in the resettlement state where they have better integration

86 Bock, Haque and McMahon, 'Displaced and dismayed: how ICTs are helping refugees and migrants, and how we can do better', 675.

87 *ibid.*, 675.

88 *ibid.*, 675.

89 For similar benefits, see European Migration Network, 'The Use of Digitalisation and Artificial Intelligence in Migration Management', 6.

90 Madianou, 'Nonhuman humanitarianism: when 'AI for good' can be harmful', 853.

91 Bock, Haque and McMahon, 'Displaced and dismayed: how ICTs are helping refugees and migrants, and how we can do better', 675.

92 Madianou, 'Nonhuman humanitarianism: when 'AI for good' can be harmful', 860.

93 Chen Z, 'Co-designing a Chatbot for and with Refugees and Migrants'.

94 Madianou, 'Nonhuman humanitarianism: when 'AI for good' can be harmful', 859.

95 *ibid.*, 860.

96 *ibid.*

prospects does not present a major human rights problem or violate the obligations of resettlement states under international human rights treaties, as states are free to determine where to resettle a refugee as long as this is in line with the prohibition of discrimination.⁹⁷ However, although it is estimated that resettled refugees are more likely to be employed⁹⁸ when they are resettled using the aforementioned algorithms, Molnar and Gill rightly point out that the use of such systems may also exacerbate inequalities by placing refugees with the least prospect of success into under-resourced areas.⁹⁹ This criticism can be addressed to some extent by fine-tuning the matching systems. A step towards this was, for instance, a 2023 paper published by Ahani et al.¹⁰⁰ that proposed an alternative formulation that incorporates risk at the family level to make the matching system fairer for vulnerable families. They argue that if their proposal is incorporated into matching tools such as *Annie*, it can enable decision-makers in resettlement states to fine-tune initial match recommendations toward an outcome that is fairer and may lead to better employment outcomes for refugee families that include vulnerable individuals.¹⁰¹

AI tools to match refugees with locations in the resettlement state, where they have better integration prospects, will not likely lead to major human rights violations, provided that these tools respect the principle of non-discrimination. Thus, the use of such matching systems is categorized in this study as low-risk AI. However, a likely next step is to use algorithms to match refugees with different resettlement states in light of different criteria, including the prospect of integration. The risks associated with such expanded use would be higher because this would mean that refugees not matched with a resettlement state would not be resettled at all. Hence, algorithms to match refugees with different resettlement states would actually be used to select refugees for resettlement.

b) High-risk AI in the Context of Resettlement

The use of AI in determining who is eligible for resettlement (i.e., the selection of refugees and other displaced persons to be resettled) may lead to faster decisions, enabling a high volume of resettlement cases to be decided quickly, lower costs associated with resettlement to an extent and contribute to uniform decisions for similar cases.¹⁰² The selection process of individuals for resettlement may vary depending on the state of resettlement and its eligibility and exclusion criteria.¹⁰³ Nevertheless, this assessment usually includes an evaluation of international protection needs, vulnerabilities, and availability of durable solutions for certain individuals and families. Currently, UNHCR has no plan to use AI-based tools to select refugees for resettlement.¹⁰⁴ However, the future use of AI to select individuals for resettlement by states, UNHCR, and other IOs and NGOs aiding with the identification, referral, and selection of refugees for resettlement may raise human rights issues depending on how such an AI system operates, in particular, whether it uses machine learning (supervised or unsupervised learning), which datasets are used, and the role of end users. Hence, the potential utilization of AI in assessments related to inclusion and exclusion for resettlement may be incompatible with fundamental rights. Thus, the use of AI in determining who is to be resettled is identified here as high risk.

97 Ineli-Ciger, 'The Future of Resettlement: What Role for Artificial Intelligence?'

98 Bansak et al. argue that their proposed algorithm would lead to gains of "roughly 40 to 70 percent, on average, in refugees' employment outcomes relative to current assignment practices." See Bansak and others, 'Improving Refugee Integration through Data-Driven Algorithmic Assignment', 325–329.

99 *ibid.*, 50.

100 N. Ahani and others, 'Risk-Averse Placement Optimization in Refugee Resettlement' (2023) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4344080> accessed 15 May 2023.

101 *ibid.*, 22, 23.

102 Cf. Agata Szwed, 'The use of artificial intelligence in migration-related procedures in the European Union-opportunities and threats' (2022) 207 *Procedia Computer Science* 3645-3651.

103 Mirko Forti, 'AI-driven migration management procedures: fundamental rights issues and regulatory answers' (2021) 2 *BioLaw Journal* 433.

104 Information provided by a UNHCR Office (contained in the author's file).

What are the potential risks associated with using AI to select refugees for resettlement? The transparency and explainability of resettlement decisions, especially why a certain individual or family is refused resettlement, are quite important. Some machine learning algorithms can be very complex. In particular, if black box AI systems are utilized, even the engineers who created the system may not be able to explain how the system reached a certain decision, and such opacity can lead to a violation of the victim's access to an effective remedy under international human rights conventions.¹⁰⁵ Section 2 concluded that there is no right to resettlement under international law and that neither the European Commission's 2016 Resettlement Regulation Proposal nor the amended 2022 version includes the right to challenge a negative resettlement decision. The fact that no right to challenge negative resettlement decisions under international or EU law exists does not mean that the transparency and explainability of resettlement decisions do not matter. In contrast, the EU General Data Protection Regulation identifies fairness, lawfulness, and transparency as basic principles for every data processing tool including AI-based systems¹⁰⁶ handling personal data and offers a right to explanation for individuals whose legal status is affected by a solely automated decision.¹⁰⁷

If AI tools are used for the selection of individuals and families for resettlement, it is crucial to provide clear reasoning and explanation of why certain individuals are chosen for resettlement and others are not. If this is not possible, and we cannot understand how the AI arrived at a certain resettlement decision, it would remain unclear how exactly a certain individual is selected for resettlement¹⁰⁸ and this will lack transparency.¹⁰⁹ Lack of transparency also raises an issue about procedural fairness and contrasts with the principle of explainability foreseen by the GDPR.¹¹⁰ Moreover, a lack of transparency in decision-making coupled with the inherent bias in datasets¹¹¹ can also lead to an increase in biased decisions and violate the principle of non-discrimination.¹¹²

Resettlement is inherently a non-neutral process in which states are free to prioritize certain groups in need of international protection over others based on various criteria. Section 2 concluded that EU Member States prioritized refugees on the basis of vulnerability, health conditions, vocational skills, educational background, language proficiency, cultural or religious background, ties with the receiving community, and their integration prospects. Because of this, if machine learning is used for the selection of refugees and the system is trained on previous resettlement data, the bias can be reproduced.¹¹³ This also means that refugee groups that were not prioritized by a resettlement state in the past will not be chosen for resettlement in the future, despite being more vulnerable. Thus, such use can increase the existing inequalities inherent in the selection of refugees for resettlement.

105 Lottie Lane, 'Artificial Intelligence and Human Rights: Corporate Responsibility Under International Human Rights Law' in: *Artificial Intelligence, Social Harms and Human Rights* (Palgrave Macmillan 2023) 185; European Commission, 'White Paper on Artificial Intelligence - A European approach to excellence and trust' COM(2020) 65 final <https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020_en.pdf> accessed 15 May 2023.

106 Principle 1 of the GDPR which requires personal data processing to be fair, lawful, transparent, necessary and proportional.

107 Articles 13-14-15 of the GDPR. Cf. Francesco Sovrano, Fabio Vitali, and Monica Palmirani, 'Making things explainable vs explaining: Requirements and challenges under the GDPR' *AI Approaches to the Complexity of Legal Systems XI-XII* (Springer International Publishing, 2021).

108 "In strong black boxes, humans are unable to understand how the AI arrived at a decision, prediction or output, what the system prioritized in determining the outcome and how it ranked the importance of variables." Nalbandian, Lucia. "An eye for an 'I': a critical assessment of artificial intelligence tools in migration and asylum management." *Comparative Migration Studies* 10.1 (2022): 1-23.

109 Law and Artificial Intelligence, Publication Date: 31 Oct 2020, Definitions, actors, and concepts Woodrow Barfield Ugo Pagallo; Forti M, 'AI-driven migration management procedures: fundamental rights issues and regulatory answers', 441.

110 Christoph Bartneck and others, *An introduction to ethics in robotics and AI* (Springer Nature 2021)36.

111 "Algorithms in general may introduce systematic and repeatable errors that create unfair outcomes, especially for disadvantaged groups including but not limited to women, ethnic minorities, and people with disabilities. These biases can emerge from the coding itself or from the datasets that are used to train the system." Bartneck, Christoph, et al. *An introduction to ethics in robotics and AI*. Springer Nature, 2021; FRA, 'Getting the Future Right- Artificial Intelligence and Fundamental Rights' (2020) <https://fra.europa.eu/sites/default/files/fra_uploads/fra-2020-artificial-intelligence_en.pdf> accessed 15 May 2023, 19.

112 M Forti, 'AI-driven migration management procedures: fundamental rights issues and regulatory answers', 442; Getting the future right – Artificial Intelligence and fundamental rights. FRA, 2020, p.11.

113 See J. Gerards and F. Borgesius, 'Protected grounds and the system of non-discrimination law in the context of algorithmic decision-making and artificial intelligence' (2022) 20(1) *Colorado Technology Law Journal* 1.

The transparency of AI decision-making processes and the explainability of a decision reached by an autonomous system are also important for establishing responsibility for human rights violations. To be able to assign responsibility, one needs to know who made or what made the decisions that resulted in the wrong.¹¹⁴ The more autonomous AI becomes in its decisions and actions, the more difficult it is to assign responsibility for wrongful decisions.¹¹⁵ This is particularly problematic if the lack of transparency in the AI process makes it impossible for the end user to understand and reverse the decision rendered by the AI. Thus, the transparency and explainability of how an autonomous system reaches a certain conclusion also impact the establishment of responsibility when something goes wrong and the human rights of an individual are violated.

Another potential issue regarding the use of AI in resettlement selection procedures is related to data protection.¹¹⁶ The collection, processing, and sharing of data on resettlement candidates or resettled refugees, who are usually vulnerable individuals, including children and women at risk, previous torture victims, and disabled individuals, may violate the right to privacy and data protection if certain safeguards are not in place. If the AI system used for the selection of refugees to be resettled uses machine learning, the system will require a large amount of sensitive data belonging to refugees, which is a concern.¹¹⁷ To address such concerns, the collection, processing, and sharing of data of vulnerable individuals subjected to resettlement procedures should be in line with the right to privacy and data protection.

The risks associated with the use of AI in resettlement processes, particularly the selection of refugees, would also vary depending on the role of AI in rendering a resettlement decision and the involvement of an end user. It is crucial to have resettlement candidates not being subjected solely to automated decisions, and that the end user, who is a human, is actively involved in the process.¹¹⁸ The involvement and role of the end user also have ramifications for due process rights: The Wisconsin Supreme Court in *Loomis v. Wisconsin*¹¹⁹ ruled that a trial court's use of an algorithmic risk assessment (COMPAS) in sentencing a suspect did not violate the defendant's due process rights because the AI-generated report is not the sole basis for a decision since courts have the discretion and information necessary to disagree with the assessment generated by the AI when appropriate.¹²⁰ Thus, the involvement of an end user in the selection of refugees to be resettled who is capable of reversing the conclusion of the AI-based tool is essential for preventing further human rights violations. The involvement of such end users is also important for establishing who is responsible for a human rights violation, as mentioned above.

Conclusion

The use of artificial intelligence in resettlement of refugees compared to the use of AI in refugee recognition or removal procedures, raises arguably fewer issues concerning its compatibility with the 1951 Convention. In a sense, states enjoy more freedom to employ modern technologies in the context of resettlement compared with issues explicitly governed by the 1951 Convention. It is undeniable that there has been growing interest in the use of artificial intelligence tools and applications in resettlement processes.

114 Bartneck et al. *An introduction to ethics in robotics and AI* (Springer Nature 2021) 42; FRA, 'Getting the Future Right- Artificial Intelligence and Fundamental Rights' (2020) <https://fra.europa.eu/sites/default/files/fra_uploads/fra-2020-artificial-intelligence_en.pdf> accessed 15 May 2023.

115 Woodrow Barfield, Pagallo Ugo, *Advanced introduction to law and artificial intelligence* (Edward Elgar Publishing 2020) ch 1.

116 Bartneck et al. *An introduction to ethics in robotics and AI* (Springer Nature 2021) 68.

117 Kinchin and Mougouei, 'What Can Artificial Intelligence Do for Refugee Status Determination? A Proposal for Removing Subjective Fear', 5.

118 See Article 22 of the GDPR.

119 *State v. Loomis*, Case: 881 N.W.2d 749 (Wis. 2016).

120 Wisconsin Supreme Court Requires Warning Before Use of Algorithmic Risk Assessments in Sentencing Recent Case: 881 N.W.2d 749 (Wis. 2016) (2017) 130 Harv. L. Rev. 1530 <<https://harvardlawreview.org/2017/03/state-v-loomis/>> accessed 15 May 2023.

AI has the potential to streamline and improve various aspects of resettlement by identifying the most vulnerable refugees in need of durable solutions to match them with appropriate host states and communities, and providing and disseminating information on their rights as well as the language and culture of the host society to facilitate integration. However, it is important to approach the use of AI in resettlement with caution and ensure that it does not compromise the human rights and dignity of refugees or lead to bias and discrimination. A key consideration is the need for guiding principles regarding the use of AI in the context of resettlement, to ensure transparency and accountability. Considering that matching algorithms used in the context of resettlement are gaining popularity, it is important to discuss how AI should be regulated in this context to ensure that no human rights are violated. This preliminary study and the following conclusions can be considered as starting points for this much-needed discussion.

Digital tools, including AI-based chatbots, are useful for disseminating information during resettlement. For resettlement candidates, chatbots can be useful in providing information on how the resettlement process works and their rights. For those who are already resettled, they can act as facilitators of integration. However, given the various constraints on how chatbots work, they need to work complementarily and not as the main tools for disseminating information. Moreover, the information provided to people during resettlement procedures and afterwards must be updated and correct.

The use of AI to match refugees with different locations in the resettlement state, where they have better integration prospects, does not present a major human rights problem and does not violate international refugee law principles. However, it is important to address the potential risks and shortcomings of matching systems and ensure that their use does not disadvantage vulnerable refugees and families or exacerbate inequalities by placing the least prospect of success in under-resourced areas, as noted by Molnár and Gill.¹²¹

If AI is used in the selection of refugees to resettle, it can violate several fundamental rights, including non-discrimination and the right to privacy and data protection. Moreover, if black-box AI systems refer and select refugees for resettlement, this would pose serious risks to the right to remedy. To prevent such violations, it is crucial to ensure transparency in the AI systems used and to include a human reviewer who can reverse the conclusion suggested by the AI. It is also important to define the role and responsibilities of the end user clearly. Moreover, since resettlement usually concerns vulnerable refugees, including children, persons with medical needs, women and girls at risk, as well as survivors of torture and violence, it is crucial to safeguard their data and limit third parties' access to such data.

121 Petra Molnar and Lex Gill, *Bots at the Gate: A Human Rights Analysis of Automated Decision-Making in Canada's Immigration and Refugee System* (University of Toronto 2018) <<https://citizenlab.ca/wp-content/uploads/2018/09/IHRP-Automated-Systems-Report-Web-V2.pdf>> accessed 15 May 2023, 51.

Bibliography

- Ahani N and others, 'Risk-Averse Placement Optimization in Refugee Resettlement' (2023) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4344080> accessed 15 May 2023
- Bansak K and others, 'Improving Refugee Integration through Data-Driven Algorithmic Assignment' (2018) 359/6373 *Science* 325
- Bartneck, Christoph, et al. *An introduction to ethics in robotics and AI*. Springer Nature, 2021
- Beduschi A, 'International migration management in the age of artificial intelligence (2021) 9 Migration Studies 3, 576
- Bock JG, Z Haque and KA McMahon, 'Displaced and dismayed: how ICTs are helping refugees and migrants, and how we can do better' (2020) 26:4 *Information Technology for Development* 670
- Böhm F, I. J. Ramsøy and B. Suter, 'Norms and Values in Refugee Resettlement A Literature Review of Resettlement to the EU' *Current Themes in IMER Research* 21(1) (University of Malmo 2021)
- Cameron HE, A Goldfarb and L Morris, 'Artificial Intelligence for a Reduction of False Denials in Refugee Claims' (2021) 35(1) *Journal of Refugee Studies* 493
- Chen Z, 'Co-designing a Chatbot for and with Refugees and Migrants' (Master's Thesis, Aalto University 2019)
- Chimni BS, 'From resettlement to involuntary repatriation: towards a critical history of durable solutions to refugee problems' (2004) 23(3) *RSQ* 55
- Convention Relating to the Status of Refugees (adopted 28 July 1951, entered into force 22 April 1954) 189 UNTS 137
- Costello C and others, 'Refugee Recognition and Resettlement' (ASILE, 3 May 2022) <https://www.asileproject.eu/wp-content/uploads/2022/05/ASILEWorkingPaper-D4_3_May2022_SUBMITTED.pdf> accessed 15 May 2023
- Council of the European Union, 'Standard Operating Procedures implementing the mechanism for resettlement from Turkey to the EU as set out in the EU-Turkey Statement' (27 April 2016) 8366/16
- De Boer T and M. Zieck, 'The legal abyss of discretion in the resettlement of refugees: Cherry-picking and the lack of due process in the EU' (2020) 32(1) *International Journal of Refugee Law* 54
- EUAA, 'National Asylum Developments Database' <https://euaa.europa.eu/national-asylum-developments-database?field_eudev_country_target_id=14849&field_eudev_year_target_id=15496&field_type_of_development_target_id=All&field_thematic_area_target_id=14882> accessed 15 May 2023
- EUAA, 'Asylum Report 2022' (2022) <<https://euaa.europa.eu/publications/asylum-report-2022>> accessed 15 May 2023
- EUAA, 'Authorities and Stakeholders Involved in Resettlement and Humanitarian Admissions Who is Who in International Protection in the EU+', (March 2023) Issue No 6, <https://euaa.europa.eu/sites/default/files/publications/2023-03/2023_WhoisWho_resettlement_humanitarian_admission_EN_0.pdf> accessed 15 May 2023
- EUAA, 'Reception for Resettled Refugees' <<https://euaa.europa.eu/asylum-report-2022/4162-reception-resettled-refugees>> accessed 15 May 2023

- European Commission, 'White Paper on Artificial Intelligence - A European approach to excellence and trust' COM(2020) 65 final <https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020_en.pdf> accessed 15 May 2023
- European Commission, 'A fresh start on migration: Building confidence and striking a new balance between responsibility and solidarity' (23 September 2020) <https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1706> accessed 15 May 2023
- European Commission, 'Opportunities and Challenges for the Use of Artificial Intelligence in Border Control, Migration and Security' (2020) Volume 1: Main Report <<https://op.europa.eu/en/publication-detail/-/publication/c8823cd1-a152-11ea-9d2d-01aa75ed71a1/language-en>> accessed 15 May 2023
- European Commission, Directorate-General for Migration and Home Affairs, 'Opportunities and challenges for the use of artificial intelligence in border control, migration and security' (2020) Volume 2, Addendum <https://op.europa.eu/publication/manifestation_identifier/PUB_DR0220307ENN> accessed 15 May 2023
- European Migration Network, 'The Use of Digitalisation and Artificial Intelligence in Migration Management' (2022) <https://emn.ie/wp-content/uploads/2022/02/Joint-EMN-OECD-Digitalisation_and_AI_inform.pdf> accessed 15 May 2023
- European Parliament, 'EU resettlement framework in "Promoting our European Way of Life" <<https://www.europarl.europa.eu/legislative-train/theme-promoting-our-european-way-of-life/file-jd-eu-resettlement-framework>> accessed 15 May 2023
- Forster M, 'Refugee protection in the artificial intelligence era. A test case for rights' (Chatham House, September 2022) <<https://www.chathamhouse.org/sites/default/files/2022-09/2022-09-07-refugee-protection-artificial-intelligence-era-forster.pdf>> accessed 15 May 2023
- Forti M, 'AI-driven migration management procedures: fundamental rights issues and regulatory answers' (2021) 2 *BioLaw Journal* 433
- Fructuoso, Begoña, Benita and Hipólito (Syria) v Spanish Public Administration* [2020] ES: Supreme Court [Tribunal Supremo] 7923/2019
- Gerards J and F Borgesius, 'Protected grounds and the system of non-discrimination law in the context of algorithmic decision-making and artificial intelligence' (2022) 20(1) *Colorado Technology Law Journal* 1
- Goodwin-Gill GS and J. McAdam, *The Refugee in International Law* (OUP 2021)
- Hashimoto N, 'Refugee Resettlement as an Alternative to Asylum' (2018) 37(2) *Refugee Survey Quarterly* 162
- Hathaway J, *The Rights of Refugees under International Law* (CUP 2021)
- Ineli-Ciger M, 'The Future of Resettlement: What Role for Artificial Intelligence?' (2022) TPQ <<http://turkishpolicy.com/article/1107/the-future-of-resettlement-what-role-for-artificial-intelligence>> accessed 15 May 2023
- Ineli-Ciger M, 'Is resettlement still a durable solution? An analysis in light of the proposal for a regulation establishing a union resettlement framework', (2022) 24(1) *European Journal of Migration and Law* 27-55
- Jones W and A Teytelboym, 'The Local Refugee Match: Aligning Refugees' Preferences with the Capacities and Priorities of Localities' (2018) 31(2) *Journal of Refugee Studies* 152

- Jubilut LL and WP Carneiro, 'Resettlement in solidarity: a new regional approach towards a more humane durable solution' (2011) 30(3) *Refugee Survey Quarterly* 63
- Kinchin N and D Mougouei, 'What Can Artificial Intelligence Do for Refugee Status Determination? A Proposal for Removing Subjective Fear' (2022) 10 *International Journal of Refugee Law*, 19
- Kneebone S and A. Macklin, 'Resettlement' in Cathryn Costello, Michelle Foster, and Jane McAdam (eds), *The Oxford Handbook of International Refugee Law* (Oup 2021) 1080
- Labman S, *Crossing law's border: Canada's refugee resettlement program* (2019 UBC Press)
- Lane L, 'Artificial Intelligence and Human Rights: Corporate Responsibility Under International Human Rights Law' in: *Artificial Intelligence, Social Harms and Human Rights* (Palgrave Macmillan 2023)
- Madianou M, 'Nonhuman humanitarianism: when 'AI for good' can be harmful' (2021) 24:6 *Information, Communication & Society* 850
- Mccarroll E, 'Weapons of Mass Deportation: Big Data and Automated Decision-Making Systems In Immigration Law' (2019) 34 *Georgetown Immigration Law Journal* 705
- Molnar P and L Gill, *Bots at the Gate: A Human Rights Analysis of Automated Decision-Making in Canada's Immigration and Refugee System* (University of Toronto 2018) <<https://citizenlab.ca/wp-content/uploads/2018/09/IHRP-Automated-Systems-Report-Web-V2.pdf>> accessed 15 May 2023
- Molnar P, 'Technology on the margins: AI and global migration management from a human rights perspective' (2019) 8(2) *Cambridge International Law Journal* 305
- Mourad L and KP Norman, 'Transforming Refugees into Migrants: Institutional Change and the Politics of International Protection' (2020) 26 *European Journal of International Relations* 687
- Nalbandian L, 'An eye for an 'I': a critical assessment of artificial intelligence tools in migration and asylum management' (2022) *Comparative Migration Studies* 10: 32
- Noll G and J. van Selm, 'Rediscovering Resettlement' (*MPI Insight*, 2003) <<https://www.migrationpolicy.org/research/rediscovering-resettlement>> accessed 15 May 2023
- Özkul D, *Automating Immigration and Asylum: The Uses of New Technologies in Migration and Asylum Governance in Europe* (University of Oxford 2023) <https://www.researchgate.net/publication/367350622_Automating_Immigration_and_Asylum_The_Uses_of_New_Technologies_in_Migration_and_Asylum_Governance_in_Europe> accessed 15 May 2023
- Perrin D and F. McNamara, 'Refugee resettlement in the EU: Between shared standards and diversity in legal and policy frames', *KNOW RESET Research Report 2013/03* (EUI 2013) 5-8
- Proposal for a Regulation of the European Parliament and of the Council establishing a Union Resettlement Framework and amending Regulation (EU) No 516/2014 of the European Parliament and the Council [2016] COM/2016/0468 final - 2016/0225 (COD) [2016]
- Selm J van, 'Refugee Resettlement' in Elena Fiddian-Qasmiyeh et al. (eds), *The Oxford Handbook of Refugee and Forced Migration Studies* (OUP 2014) 513
- Sovrano F, F Vitali, and M Palmirani, 'Making things explainable vs explaining: Requirements and challenges under the GDPR' *AI Approaches to the Complexity of Legal Systems XI-XII* (Springer International Publishing, 2021)
- Tometten C, 'Resettlement, humanitarian admission, and family reunion: The intricacies of Germany's legal entry regimes for Syrian refugees' (2018) 37(2) *Refugee Survey Quarterly* 187

- The Oxford Dictionary of Phrase and Fable, OUP 2006) <<https://www.oxfordreference.com/view/10.1093/acref/9780198609810.001.0001/acref-9780198609810-e-423>> accessed 15 May 2023
- UNHCR, 'Chatbots in humanitarian settings: revolutionary, a fad or something in-between?' (2021) <<https://www.unhcr.org/innovation/chatbots-in-humanitarian-settings-revolutionary-a-fad-or-something-inbetween/>> accessed 15 May 2023
- UNHCR, 'Global Compact on Refugees' (2018) para 90 <<https://www.refworld.org/docid/63b43eaa4.html>> accessed 15 May 2023
- UNHCR, 'Resettlement Handbook' (2011) <<https://www.unhcr.org/46f7c0ee2.pdf>> accessed 15 May 2023
- UNHCR, 'Resettlement' <<https://www.unhcr.org/resettlement>> accessed 15 May 2023
- UNHCR, 'What is Refugee Resettlement' (October 2020) <<https://www.unhcr.org/media/frequently-asked-questions-about-resettlement>> accessed 15 May 2023
- Vavoula N, ' Digitalising the EU migration and asylum policy: a case study on information systems' in Evangelia Tsourdi and Philippe De Bruycker (eds), *Research Handbook on EU Migration and Asylum Law* (Edward Elgar 2022)
- Welfens N, J Lehmann and M Wagner, 'Towards A Global Resettlement Alliance' (GPPI, 2021) <<https://gppl.net/media/Towards-a-Global-Resettlement-Alliance-Dec-2021.pdf>> accessed 15 May 2023

Author

Meltem Ineli Ciger

Jean Monnet Fellow, Migration Policy Centre, European University Institute

Associate Professor, Suleyman Demirel University Faculty of Law

Meltem.INELI@eui.eu