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TOPIC: Examine how the UK have used Artificial Intelligence/Machine Learning in visa decision-making. Analyse the scheme(s) from a human rights perspective. Are they compliant with the regional human rights instruments?

Word Count: 4105

Introduction

Reliance on algorithm-dependent technology in both private and public sectors is at its peak.¹ Methods such as Artificial Intelligence (AI) and machine learning (ML) are employed to assist in processing and analysing data to deliver complex tasks which are ‘beyond human capability and speed’.² They can be fully automated or involve a human element towards the final decision making called the output. These methods have made their way in the management of international migration by adoption of systems to perform tasks which may include ‘identity checks, border security and control, and analysis of data about visa and asylum applicant’ across the world.³

This essay examines how the UK had covertly employed a ‘streaming tool’ to process visa applications and classify them on the basis of the apparent risk they carried,⁴ and test it against the UK’s international obligations under the regional human rights convention. The first section would explain the basics of AI and ML, and how such technologies are used to deliver public administrative functions. The second section breaks down the issues with the use of AI and ML methods and provides how they infringe upon the obligations warranted under regional human rights law framework, especially of migrants. After setting such background, an investigation would be made into the visa Streaming tool used by the Home Office to process visa applications of migrants intending to enter or stay in the UK and assess how far it is compliant with the human rights framework particularly with regards to anti-discrimination laws and requirements of transparency under the administrative law. Other breaches such as data protection and grounds of challenge, on the basis of irrationality and irrelevant considerations, are beyond the scope of this essay.

What is algorithmic decision making?

Algorithms are a ‘set of rules’⁵ which are used for problem-solving operations, often computationally. In present times, they are used in automatic decision making (ADM) processes, where Big data — large number of diverse datasets,⁶ is studied to find correlations

¹ Centre for Data Ethics and Innovation, ‘Review into bias in algorithmic decision-making’ (November 2020) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957259/Review_into_bias_in_algorithmic_decision-making.pdf> accessed 14 May 2021.

² Lorna McGregor, Daragh Murray and Vivian Ng, ‘International Human Rights Law As A Framework For Algorithmic Accountability’ (2019) 68 International and Comparative Law Quarterly 309.

³ Chui, M. et al. ‘Notes from the AI Frontier. Applying Artificial Intelligence for Social Good.’ Washington D.C.: McKinsey Global Institute <<https://ec.europa.eu/futurium/en/system/files/ged/mgi-applying-ai-for-social-good-discussion-paper-dec-2018.pdf>> accessed 14 May 2021.

⁴ Foxglove, ‘Grounds of Challenge’ (August 2020) <<https://www.foxglove.org.uk/news/c6tv7i7om2jze5pxs409k3oo3dyel0>> accessed 14 May 2021 1-33.

⁵ Oxford Learner’s Dictionary, ‘Algorithm’ <<https://www.oxfordlearnersdictionaries.com/definition/english/algorithm>> accessed 14 May 2021.

⁶ Lorna McGregor, Murray and Ng (n 2) 310.

that are crucial for a decision to be reached.⁷ Generally, a training data is obtained— independently or via third-party vendors. Some of this data is set aside to be used as ‘test data on which the model is tested’.⁸ In essence, when the training data is tested with the algorithm, it identifies certain patterns called correlation, which are usually beyond human recognition.⁹ The learning process by the algorithm is called a model and is then run on the ‘test data’.¹⁰ These procedures are run several times till the time the algorithm is ‘well trained’, which then can be tested on unknown or new data.¹¹ It is this process which qualifies as an ADM.

Different ways of using AI/ML

AI and ML methods can be tasked for different purposes such as prioritising, classifying, and associating.¹² Fundamentally, algorithm assists in prioritising one piece of information at the expense of another. This function by design is ‘about discrimination’.¹³ One good example of this is its use in the search engine where search results are ranked on the basis of ‘everything from the quality of schools and hospitals, to the riskiness of illegal immigrants on watch lists’.¹⁴ Whereas classification, on the basis of key characteristics, separates an entity and puts them in a defined class or category,¹⁵ which again can lead to problems of biasness or uncertainty as the training data¹⁶ it is dependent on, would reflect human biases.¹⁷ It also may suffer from classification errors called false positives and false negatives which may adversely affect the stakeholder. On the other hand, association is a technique where relationship between ‘similar’ or ‘related’ entities is created which may create unexpected inferences.¹⁸ For example, a man in Germany won a defamation suit against Google when a search result associated his name with ‘fraud’ and ‘scientology’.¹⁹ It is important to distinguish between correlative association and causation association as this man had not caused any fraud yet the google search result could be interpreted otherwise.²⁰ ADM is also supported by ML, which is a method that allows

⁷ Michèle Finck, ‘Automated Decision-Making and Administrative Law’ [2019] Max Planck Institute for Innovation & Competition Research Paper No. 19-10 2 <<https://ssrn.com/abstract=3433684>> accessed 14 May 2021.

⁸ *ibid.*

⁹ *ibid.*

¹⁰ *ibid.*

¹¹ *ibid.*

¹² Nicholas Diakopoulos, ‘Accountability in Algorithmic Decision Making’ (2016) 59 *Communications of the ACM* 56, 57.

¹³ *ibid.*

¹⁴ *ibid.*; Kalhan, A ‘Immigration policing and federalism through the lens of technology, surveillance, and privacy’ *Ohio State Law Journal* 74 (2013).

¹⁵ Diakopoulos (n 12) 57.

¹⁶ ‘The data from which the algorithm learns and identifies patterns and the statistical rules which the algorithm applies’ - Robin Allen and Dee Masters, ‘Artificial Intelligence: The Right to Protection from Discrimination Caused by Algorithms, Machine Learning and Automated Decision-Making’ (2019) 20 *Europäische Rechtsakademie (ERA)* 585.

¹⁷ Diakopoulos (n 12) 57.

¹⁸ *ibid.* 58.

¹⁹ Nicholas Diakopoulos, ‘Algorithmic defamation: the case of the shameless autocomplete’ *Tow Centre for Digital Journalism*, 2014.

²⁰ Diakopoulos (n 12) 58.

an algorithm to draw analysis and find correlation in the ‘data with minimal supervision’.²¹ It is aimed to deliver more accuracy as it is given an autonomy to choose what input data to process and deliver a targeted output.²² Suggestions predicted whilst shopping online is one such example of its use. In the UK, a tool called Harm Assessment Risk Tool (HART), deployed by Durham Constabulary for policing, is another example of how ML assists an AI system.²³

ML can be both supervised and unsupervised.²⁴ Under supervised learning, the training data is labelled, so when the algorithm/model is put into operation, its purpose is to find correlations as per the same labels. Under unsupervised learning, the model is autonomous and ‘defines structures and patterns in the data’ on its own.²⁵ Despite such autonomy, these methods too can be under the human influence as the choice of what ‘hardware, software and input data are to be used’ remains with the humans,²⁶ which raises questions on its fully-autonomous nature.

Human Rights Law protections

What is wrong with efficient methods such as AI/ML?

From the above discussion, we discerned that due to the nature of ML and AI systems, there are risks of human rights violations such as discrimination and arbitrary action in decision-making which directly or indirectly involve human rights. Processes which are dependent on big data describe ‘group behaviour’ which may not echo few particular individuals in the group.²⁷ Yet these methods are used on individuals, as seen in HART project which calculated a person’s recidivism rate²⁸ on the basis of their age, gender and postcode.²⁹ Such models are found in other jurisdictions too, such as the COMPAS in the US, and could be used for other purposes such sentencing, parole or even medical intervention or for employment.³⁰ Such technologies can have millions of ‘decision points’,³¹ which make them extremely complex in nature and leads to opacity³² as it becomes difficult to ascertain as to how exactly did the system come to the decision. Facial recognition technology (FCT) is another ML based project used

²¹ Stuart Shirrell, ‘The privacy pro’s guide to explainability in machine learning’ (13 April 2018) <<https://iapp.org/news/a/the-privacy-pros-guide-to-explainability-in-machine-learning/>> accessed 14 May 2021.

²² *ibid.*

²³ Robin Allen and Dee Masters, ‘Artificial Intelligence: The Right to Protection from Discrimination Caused by Algorithms, Machine Learning and Automated Decision-Making’ (2019) 20 Europäische Rechtsakademie (ERA) 585, 587.

²⁴ Finck (n 7) 3.

²⁵ *ibid.*

²⁶ *ibid.*

²⁷ Lorna McGregor, Murray and Ng (n 2) 316.

²⁸ *ibid.* 310.

²⁹ Allen and Masters (n 23) 587.

³⁰ Lorna McGregor, Murray and Ng (n 2) 317.

³¹ Oswald, M., Grace, J., Urwin, S., Barnes, G.C., ‘Information & Communications Technology Law’ 27:2, 223-250.

³² Burrell, J. ‘How the machine ‘thinks’: Understanding opacity in machine learning algorithms’ (June 2016) Big Data & Society.

by the UK government for policing. It has been shown that the use of FCT, especially in the criminal justice system, is unfair against ‘women and certain racial groups’.³³

Such AI and ML based programs can lead to discrimination as they unintentionally reflect human biases in many ways. The House of Common Science and Technology Select Committee too raised similar concerns in a recent report.³⁴ Firstly, it highlighted how the training data suffers from ‘subconscious cultural biases, especially where population diversity is omitted from the data’.³⁵ Secondly, it acknowledged that ML systems, despite being programmed not to consider a protected attribute such as race in its analysis, still end up giving weight to proxies of protected characteristics. It was best exemplified by the HART project where the person’s postcode indicated the neighbourhood they lived in, which could indirectly lead to factoring in of their race and/or class attributes.

Role of transparency

With increasing use of AI and ML methods to deliver administrative decision-making, ‘accountability and respecting the rule of law’ is a must.³⁶ This can be achieved by bringing transparency in these methods. Transparency is important because it overlaps with other core principles in liberal democracies such the guarantees of procedural fairness and the right to hold the decision maker accountable to validate unbiasedness.³⁷ However due to opacity in these methods, such principles may not always be adhered. To understand this better, an enquiry into what makes these systems opaque and the limitations in achieving these, is fundamental.

Firstly, many public sector companies and organisations, subcontract the development of ML and AI systems. Often these arrangements carry non-disclosure clauses which prevents public authorities to access ‘the data, algorithm and the model’.³⁸ Another impediment to enforce and observe principles of transparency in AI and ML systems is the protection offered by intellectual property laws— trade secret protection. This results in disgruntled citizens to not have access or full information of the procedure which led to the impugned decision. Secondly, many times the transformation of datasets into output leads to a ‘black box’ situation, where the program designers of such AI and ML methods are themselves unable to fully determine the cause of such output.³⁹ For example, in a basic decision tree algorithm model with numerous variables, experts could find it difficult to ascertain how it reached the decision.⁴⁰

³³ Buolamwini, J., Gebru, T. ‘Proceedings of the 1st Conference on Fairness, Accountability and Transparency’ (2018) PMLR 81:77–91.

³⁴ House of Commons Science and Technology Committee ‘Algorithms in decision- making’ (15 May 2018) <<https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/351/351.pdf> > accessed 14 May 2021

³⁵ *ibid.*

³⁶ Finck (n 7) 8.

³⁷ *ibid.* 9.

³⁸ *ibid.*

³⁹ Pasquale F, ‘The Black Box Society’ (2016, 1st edition) Harvard University Press.

⁴⁰ Finck (n 7) 11.

On the same issue, the House of Lords Committee on AI has recommended delaying the use of such systems which may cause a ‘black box’ situation until technology has advanced to make it fully accountable. All these factors make the usage of AI and ML systems opaque and hard to determine whether the algorithm causes discrimination. It could also lead to violations of Article 6 of the European Convention of Human Rights (ECHR) which guarantees right to fair trial.⁴¹

Apart from issues of opacity, these methods can directly and indirectly cause violation of rights enshrined in various human rights covenants. The European Group of Ethics have also cautioned about the diminishing distinction led by these programs between ‘different kinds of people’ and ‘different properties’ of people in ‘social scoring systems’, which leads to inequalities similarly found in a caste system⁴² which is prohibited under Article 14 ECHR and prohibits both direct and indirect discrimination.⁴³ Indirect discrimination is only permissible if it can be shown that there is an ‘objective and reasonable justification’ behind such measure.⁴⁴ Due to already existing opacity in these methods, it may become hard to determine the ‘objective and reasonable justification’, which makes the requirement of complete transparency even more far-reaching.

Supporters of AI and ML systems argue these techniques are predominantly used to ‘support or inform decision making’⁴⁵ and any deficiency which may lead to human rights violation could be well balanced by human intervention, also known as the ‘human in the ‘loop’ safeguard’.⁴⁶ The reality is quite the opposite. It has been found that humans would generally favour the output given by a machine, also known as automation bias,⁴⁷ as it is understood that an algorithm would either be more accurate or at least neutral in its output. This is further supported by the Home Office’s response to the Pre-Action Protocol for Judicial review⁴⁸ where it informed the Claimant that refusing the Red rated application was the ‘norm’ and any deviation from it would result in a review by a supervisor.⁴⁹ Therefore, the defence of supervisory human element in an AI and ML system is unsatisfactory, as in reality it does not prevent discrimination.

⁴¹ *ibid* 13.

⁴² European Group on Ethics in Science and New Technologies, ‘Statement on Artificial Intelligence, Robotics and ‘Autonomous’ Systems’ (9 March 2018) <https://ec.europa.eu/research/ege/pdf/ege_ai_statement_2018.pdf> accessed 14 May 2021.

⁴³ *Allen and Masters* (n 23) 592.

⁴⁴ ECtHR, *Biao v. Denmark* (Grand Chamber), No. 38590/10, 24 May 2016, paras. 91 and 92.

⁴⁵ *Lorna McGregor, Murray and Ng* (n 2) 317.

⁴⁶ *ibid*.

⁴⁷ Skitka, L.J., Mosier, K. L., and Burdick, M., ‘Does automation bias decision-making? (1999) *International Journal of Human-Computer Studies*, 51(5), 991-1006.

⁴⁸ *Foxglove* (n 4).

⁴⁹ *Productivity Expectations* (Annex J to the Defendant’s pre-action response dated 5 December 2019). The author had, inter alia, requested for this document from JCWI (the Claimant) for the purpose of this essay on 11 May 2021. At the time of submission, the requested documents were not received.

Use of Visa Streaming Tool by the UK's Home Office

There has been a growth in the use of new technologies for international migration management and border control.⁵⁰ Canada has deployed a mechanism which uses AI technology for immigration control and processing asylum claims.⁵¹ Switzerland too tested such technology to improve refugee integration and resettlement.⁵² According to Ana Beduschi, the use of AI and ML technologies would lead to measures which will prevent arrival of migrants including asylum seekers, and reinforce the already existing stringent *non-entrée* strategies adopted by states, predominantly in the global North.⁵³ She predicts that such steps could lead to violations of non-refoulement obligations, as States would use these technologies to maximise their 'targeted maritime interventions', to shrink irregular flows of migration into their borders.⁵⁴

What is a visa streaming tool?

In the UK, the Home Office too had furtively engaged an automated decision-making algorithm ('Streaming tool') intended to stream visa applications on the basis of apparent risk.⁵⁵ There was neither a published guidance in the public domain concerning its use nor an explanation of how it operates or the criteria it uses.⁵⁶ It started to surface when a report by the All-Party Parliamentary Groups (APPG) had scathingly criticised the Home Office for the difficulties faced by visa applicants from African countries, as it found the UK's visit-visa regime 'not fit for purpose'.⁵⁷ Taking cue from this report, the Independent Chief Inspector of Borders and Immigration, in a report, revealed that the Home Office has been using a 'tool' since 2015 to

⁵⁰ Ana Beduschi, 'International Migration Management In The Age Of Artificial Intelligence' [2020] Migration Studies 1.

⁵¹ Molnar, P. and Gill, L. 'Bots at the Gate: A Human Rights Analysis of Automated Decision-Making in Canada's Immigration and Refugee System' (2018) Toronto: University of Toronto.

⁵² Bansak, K. et al. 'Improving Refugee Integration through Data-Driven Algorithmic Assignment' (2018) Science, 359/6373: 325–9.

⁵³ Beduschi (n 50) 6.

⁵⁴ *ibid.*

⁵⁵ Foxglove (n 4) 1.

⁵⁶ Foxglove, 'Legal action to challenge Home Office use of secret algorithm to assess visa applications' (29 October 2017) <<https://www.foxglove.org.uk/news/legal-challenge-home-office-secret-algorithm-visas>> accessed 14 May 2021.

⁵⁷ Royal African Society, 'Home Office visa service discriminating against Africans' (16 July 2019) <<https://royalafricansociety.org/home-office-visa-service-discriminating-against-africans/>> accessed 14 May 2021.

assist in its visa application process.⁵⁸ It recommended, in a subsequent report⁵⁹, that the Home Office should publish its details and ‘make an effort to demystify the (t)ool’.⁶⁰

In toto, it is important to appreciate the fact that there was no official published guidance on the use of this algorithm-driven visa streaming tool except few indicative references found in the scattered reports above. The effect of such a stance of a public authority such as the Home Office is two-fold. Firstly, an individual, whose visa application has been refused due to the streaming tool, would not be successful in challenging it due to the sheer absence of a guidance on how the algorithm functions. Secondly, the same individual would be double-victimised due to the operation of an ‘opaque’ algorithm, as assessed in the previous section, where even the human decision-maker, overseeing its functions, could struggle to pinpoint why exactly did the machine take such a stand. Thereby, violating principles of natural justice and due process guaranteed to the individual.

The Foxglove challenge by way of Judicial Review

Foxglove, an advocacy group striving for justice in the digital technology sector, challenged the use of this opaque ‘tool’ before the High Court of England and Wales.⁶¹ It was ultimately settled before the main hearing, as the Home Office suspended its use and gave an assurance to the Claimant, Joint Council for the Welfare of Immigrants (JCWI), that a renewed system would be put in place which will account for issues of ‘unconscious bias’ and ‘use of nationality’.⁶² However, from this challenge, it transpired that the final decision of whether to grant a visa to an applicant remained with a human decision maker, however, as explained above, the Streaming tool for all intents and purposes will influence their decision making despite the safeguard of ‘human in the loop’.⁶³

The technical working of the algorithm is beyond the scope of this essay but the manner in which the algorithm worked, it was found that the Streaming tool classified different visa applications under ‘Red, Amber or Green risk rating’ effectively on the basis of the applicant’s

⁵⁸ David Bolt, ‘An inspection of entry clearance processing operations in Croydon and Istanbul’ (July 2017) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/631520/An-inspection-of-entry-clearance-processing-operations-in-Croydon-and-Istanbul1.pdf> accessed 14 May 2021.

⁵⁹ David Bolt, ‘An inspection of the Home Office’s Network Consolidation Programme and the “onshoring” of visa processing and decision making to the UK’ (February 2020) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/863627/ICIBI_An_inspection_of_the_Home_Office_s_Network_Consolidation_Programme.pdf><https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/863627/ICIBI_An_inspection_of_the_Home_Office_s_Network_Consolidation_Programme.pdf> accessed 14 May 2021.

⁶⁰ David Bolt (n 58).

⁶¹ Henry McDonald, ‘AI system for granting UK visas is biased, rights groups claim’ (The Guardian) (29 October 2019) <<https://www.theguardian.com/uk-news/2019/oct/29/ai-system-for-granting-uk-visas-is-biased-rights-groups-claim>> accessed 14 May 2021.

⁶² JCWI, ‘We won! Home Office to stop using racist visa algorithm’ <<https://www.jcwi.org.uk/news/we-won-home-office-to-stop-using-racist-visa-algorithm>> accessed 14 May 2021.

⁶³ Lorna McGregor, Murray and Ng (n 2).

nationality.⁶⁴ In essence, those applicants who were ‘suspect’ nationalities generally received a higher risk rating which led to a higher scrutiny by the officers of the Home Office.⁶⁵ Moreover, since there was more distrust towards such ‘higher risk’ applicants, it took longer to process these applications and, in most cases, they were refused.⁶⁶ There was a greater responsibility in processing the ‘high risk’ applications— human decision makers were expected to explain as to why did they allow a ‘red’ rated application to their supervisors but not when they refused such applications. Contrariwise, they had to explain why they refused a less risk rated application ie ‘Green-rated’ application but now when they allowed such applications.⁶⁷ This created a vicious cycle as the suspected countries would continue to remain in the ‘Red’ rated list as the applicants from those countries were likely to get refused, which in effect would naturally lead to such status quo being maintained.⁶⁸ This meant that certain nationalities would most likely never be able to enter the UK.

It is interesting to note that the criteria for a nationality to be added to the ‘suspect’ list is governed by the Ministerial Authorisation under section 31(1) of the Equality Act 2010 (‘EA 2010’) and paragraph 17(4)(a) of its Schedule 3. Summarily, it could happen via three routes. First route is, if the number of applicants of a certain nationality with an adverse history— a refusal in the past or had overstayed the validity of their visa, exceeds the threshold, then that nationality is classified as a suspect nationality. The second route is dependent on the immigration intelligence and the third route, which is vague and all-encompassing, factors in the ‘emerging trends of adverse events’ of a certain nationality.⁶⁹ This list of suspected nationalities is reflected in the Equality Act Nationality Risk Assessment (EANRA) whose unredacted version is not available in the public domain.⁷⁰ This exemplifies the opacity in the visa system, as it is difficult to ascertain the correlation between how certain nationalities are put on the suspect list, and its effect on the refusal of visa applications for certain nationalities as a result of the visa streaming tool.

The effect of the streaming tool on the rights enshrined under UK’s domestic law

The use of nationality, a proxy for race, as a ground to discriminate between visa applicants was in breach of the EA 2010— particularly the obligation under section 4 and the ‘public sector equality duty’ under section 149. Firstly, the visa applicants found themselves in the ‘Red’ rated risk category predominantly because of their nationalities. It was the Home Office’s own admission that an applicant’s nationality was a ‘material factor’ for the visa streaming tool to categorise them into the ‘Red’ risk rating.⁷¹ It is not the position that every applicant categorised under the Red rated risk category would have their application refused. But their

⁶⁴ Foxglove (n 4) 2.

⁶⁵ *ibid.*

⁶⁶ *ibid.*

⁶⁷ *ibid.*

⁶⁸ *ibid* 3.

⁶⁹ *ibid* 4.

⁷⁰ *ibid* 13.

⁷¹ *ibid.*

prospects of being granted the visa was much lower in comparison to someone categorised in the other categories ie Green or Amber. In a similar matter dealing with migration control, the House of Lords had found the Home Office's policy of discriminating Roma travellers to 'longer and more intrusive questioning', where 'they were required to provide proof of matters which were taken on trust from non-Roma' at the Border control, unlawful.⁷² The court had found that due to this discriminatory policy, Roma travellers were refused leave to enter the UK than non-Roma migrants and emphasised that such policies result in stereotypical assessments of risks than a thorough case by case individual assessment.⁷³

Neither the Ministerial authorisation and nor EANRA could legitimise the discrimination caused by the Streaming tool. As noted in the second section, due to the effect of the automation bias, the human decision makers of the Home Office would be influenced by the risk rating given to applications which, as seen, are discriminatory in effect. Further, the use of AI and ML systems lead to 'feedback loops'— as datasets are marred with human bias and these systems are not error-free, it creates a vicious cycle of 'loops that maintain, replicate and reinforce pre-existing biases, errors and assumptions' which only intensify the bias against certain nationalities further with every new application.⁷⁴

Conclusion

As discussed in the first section, ML and AI systems by design are discriminatory, thus full transparency and more diverse and inclusive datasets could minimise the harm caused by their use. In the second section, it was noted the principles of transparency apply at both the pre-and-post deployment stages of AI and ML systems for administrative decision-making purposes, which would make it more accountable. Further, more research and development by the public sector need to be encouraged to tackle issues of trade secret protections, which come in the way of fair disclosure and transparency.

The third section investigated the UK experience where the use of the visa streaming tool was found unlawful as it discriminated on the basis of race by taking into account the nationality of the migrant-applicant, and the absence of a detailed, lay-friendly guidance as to how the streaming tool was deployed and functioned, made the already opaque method, more covert. Interestingly, the Home Office's limited response to the Pre-Action Protocol to the Judicial review and their tactful settlement before the matter could be effectively heard before the Court, raises doubts about its bonafide. Till date, there appears to be no updated or new guidance published concerning how the Home Office is currently processing its visa applications, which also raises serious doubts about the assurances given to the JCWI.

⁷² R (on the application of European Roma Rights Centre) v Immigration Officer, Prague Airport [2004] UKHL 55; [2005] 2 AC 1 [72].

⁷³ Roma rights para 82.

⁷⁴ Council of Europe, 'Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems' (8 April 2020) <https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154> accessed 14 May 2021.