

Written evidence submitted by Dr Tetyana (Tanya) Krupiy

Reason for submitting the evidence: I have been conducting research on the legal and social issues arising from the use of artificial intelligence for eight years and five months. I have expertise in how international human rights law and the UK Equality Act 2010 apply to the context of the employment of artificial intelligence. In one of my publications, I examined how the financial services industry is using artificial intelligence in the decision-making process in order to make lending decisions. I analysed what role the use of artificial intelligence as part of the decision-making process has in discriminatory practices.

Author's biography: Tetyana holds a Master of Laws with distinction from the London School of Economics and Political Science. She gained a Doctor of Philosophy in law from the University of Essex. In the past, she received funding from the Social Sciences and Humanities Research Council of Canada. She was a visiting researcher at the Bonavero Institute of Human Rights (University of Oxford) in 2024.

Executive summary: There is scholarship demonstrating that the use of artificial intelligence as part of the decision-making process can replicate human bias, give rise to new types of bias and amplify the bias of human beings interacting with this technology. The fact that the financial services industry is using artificial intelligence to inform decisions regarding whether to provide particular services to consumers poses a challenge for protecting individuals from discrimination. There is a need to revise the Equality Act 2010 to enable this legislation to protect individuals from discrimination when organisations, such as the providers of financial services, use artificial intelligence as part of the decision-making process. The same is the case for the employment of artificial intelligence to generate predictions about individuals.

Answer to question: what is the risk of AI increasing embedded bias? Is AI likely to be more biased than humans?

1. The use of artificial intelligence as part of the decision-making process can replicate human bias, increase existing human bias of the individuals interacting with this technology¹ and produce new types of bias.² For example, Sandra Wachter has written about the fact the employment of artificial intelligence as part of the decision-making process can create many new types of disadvantaged groups.³ Additionally, the operation of artificial intelligence can transfer the disadvantage that some individuals whose data is present in its model experience onto the particular applicant.⁴ As a result, the applicant can experience additional barriers to receiving a positive decision.⁵ Thus, artificial

¹ Moshe Glickman and Tali Sharot, "How Human-AI Feedback Loops Alter Human Perceptual, Emotional and Social Judgements," *Nature Human Behaviour* 9 (2025) 345-359.

² Zhisheng Chen, "Ethics and Discrimination in Artificial Intelligence-enabled Recruitment Practices," *Humanities and Social Sciences Communications* 10 (2023): 1-12.

³ Sandra Wachter, "The Theory of Artificial Immutability: Protecting Algorithmic Groups under Anti-discrimination Law," *Tulane Law Review* 97, no. 2 (2023): 149-204.

⁴ Meredith Broussard, "When Algorithms Give Real Students Imaginary Grades" *New York Times*, September 8, 2020; Tetyana Krupiy, "The Need to Update the Equality Act 2010: Artificial Intelligence Widens Existing Gaps in Protection from Discrimination," *Amicus Curiae* 6, no. 1 (2024): 143-169.

⁵ Meredith Broussard, "When Algorithms Give Real Students Imaginary Grades," *New York Times*, September 8, 2020; Tetyana Krupiy, "The Need to Update the Equality Act 2010: Artificial Intelligence Widens Existing Gaps in Protection from Discrimination," *Amicus Curiae* 6, no. 1 (2024): 143-169.

intelligence can be described as having similarities and differences in comparison to the way in which the human bias of the decision-maker affects applicants.

1. 2. My work demonstrates that the use of artificial intelligence to process information about the clients' habits and behaviour patterns to make decisions relating to the provision of the financial services is problematic from the standpoint of protecting individuals from discrimination.⁶ The employment of artificial intelligence in the financial services to produce decisions about consumers can be more serious than biased human decision-making in my opinion. Since artificial intelligence operates in an opaque manner, it can be difficult to detect and challenge instances of discrimination.⁷ The fact that the unfavourable treatment that the artificial intelligence subjects an individual to cannot always be linked to a discrete attribute, interest or group membership⁸ exacerbates this problem. A relevant consideration is that interventions of programmers at the development stage of artificial intelligence can make it harder to detect discrimination without solving the problem of bias.⁹ Consequently, the issue of bias can be more severe in the context of the deployment of artificial intelligence than in the context of human decision-makers.

Answer to questions: What sort of safeguards need to be in place to protect customer data and prevent bias? Are new regulations needed or do existing regulations need to be modified because of AI?

3. The foundational assumptions underlying the provisions of the Equality Act 2010 create challenges for protecting individuals from discrimination in the context when organisations, including the financial services, use artificial intelligence to produce predictions about individuals and to inform the decision-making process.¹⁰ It is necessary to revise the Equality Act 2010 and to add additional provisions defining discrimination in order to enable this legislation to achieve its purpose.¹¹

4. A relevant consideration is that the Equality Act 2010 never protected individuals from discrimination in a comprehensive manner. For example, Karon Monaghan commented that the draft document that became the Equality Act 2010 was a "wasted opportunity."¹² Hannah Saunders opines that the Equality Act 2010 protects some but not all individuals with disfigurements from

⁶ Tetyana Krupiy, "The Need to Update the Equality Act 2010: Artificial Intelligence Widens Existing Gaps in Protection from Discrimination," *Amicus Curiae* 6, no. 1 (2024): 143-169.

⁷ The Special Rapporteur on the Rights of Persons with Disabilities Gerard Quinn, *Report of the Special Rapporteur on the Rights of Persons with Disabilities Gerard Quinn* (Geneva, Human Rights Council: 28 December 2021) UN Doc A/HRC/49/52, 1-20; Tetyana Krupiy, "The Modern Bill of Rights Creates Barriers to Challenging Algorithmic Decisions," *UKCLA (blog)*, *United Kingdom Constitutional Law Association*, April 19, 2022, <https://ukconstitutionallaw.org/2022/04/19/tetyana-krupiy-the-modern-bill-of-rights-creates-barriers-to-challenging-algorithmic-decisions>.

⁸ Sandra Wachter, "The Theory of Artificial Immutability: Protecting Algorithmic Groups under Anti-discrimination Law," *Tulane Law Review* 97, no. 2 (2023): 149-204.

⁹ Valentin Hofmann et al, "Dialect Prejudice Predicts AI Decisions about People's Character, Employability and Criminality," arXiv:2403.00742 (2024): 1-54.

¹⁰ Tetyana Krupiy, "The Need to Update the Equality Act 2010: Artificial Intelligence Widens Existing Gaps in Protection from Discrimination," *Amicus Curiae* 6, no. 1 (2024): 143-169.

¹¹ Ibid; Reuben Binns et al, 2023, "Legal Taxonomies of Machine Bias: Revisiting Direct Discrimination," paper presented at ACM FAccT Conference, Chicago, June 12.

¹² Karon Monaghan, "The Equality Bill: A Sheep in Wolf's Clothing or Something More?," *European Human Rights Law Review* 4 (2009): 512-537.

discrimination.¹³ The context of the deployment of artificial intelligence as part of the decision-making process is an opportunity to identify the gaps in legal protection in the Equality Act 2010.

5. Additionally, the government can address concerns around discrimination stemming from the use of artificial intelligence by implementing the international human rights law treaties that it signed into its domestic law. These treaties include: Convention on the Elimination of All Forms of Discrimination against Women, International Convention on the Elimination of All Forms of Racial Discrimination, and Convention on the Rights of Persons with Disabilities.¹⁴ In the past, I examined what obligations the Convention on the Elimination of All Forms of Discrimination against Women and the Convention on the Rights of Persons with Disabilities places on states in regard to the use of artificial intelligence as part of the decision-making process.¹⁵ Below you can find some additional recommendations regarding placing particular obligations on the financial industry.

Recommendations

- Prohibit financial services organisations from using information about behaviour patterns, personal preferences and social media posts of consumers in order to predict how likely a consumer is to repay a loan and to make decisions about the entitlement of consumers to resources or services.
- Require the providers of the financial services to allow consumers to demonstrate their suitability for a loan or for another financial service in a number of different ways.
- Require financial institutions to make it possible for consumers to provide credit history from a financial institution in another country.
- Prohibit the financial services from applying standardised decision-making criteria to consumers without considering the particular requirements and personal circumstances of the consumer.¹⁶ Examples of personal circumstances can be having recently arrived to the United Kingdom or

¹³ Hannah Saunders, “Difficult Distinctions in Anti-discrimination Law: Disfigurement, Appearance and Disability,” *International Journal of Discrimination and the Law* 20, no. 1 (2020): 21-44.

¹⁴ United Nations, “Convention on the Elimination of All Forms of Discrimination against Women,” United Nations, accessed 18 March 2024, https://treaties.un.org/pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-8&chapter=4&clang=_en; United Nations Human Rights Office of the High Commissioner, “International Convention on the Elimination of All Forms of Racial Discrimination,” United Nations Human Rights Office of the High Commissioner, accessed 18 March 2024 <https://indicators.ohchr.org>; United Nations Human Rights Office of the High Commissioner, “Convention on the Rights of Persons with Disabilities,” United Nations Human Rights Office of the High Commissioner, accessed 18 March 2024, <https://indicators.ohchr.org/>.

¹⁵ Tetyana Krupiy, “Meeting the Chimera: How the CEDAW Can Address Digital Discrimination,” *International Human Rights Law Review* 10 (2021): 1-39; Tetyana Krupiy and Martin Scheinin, “Disability Discrimination in the Digital Realm: How the ICRPD Applies to Artificial Intelligence Decision-Making Processes and Helps in Determining the State of International Human Rights Law,” *Human Rights Law Review* 23 (2023):1-27.

¹⁶ On the evolution of the understanding of the concept of equality see Oddny Arnardottir, “A Future of Multidimensional Disadvantage Equality?,” in *The UN Convention on the Rights of Persons with Disabilities: European and Scandinavian Perspectives*, eds. Oddny Arnardottir and Gerard Quinn (Leiden: Martinus Nijhoff Publishers, 2009) 41-66; Sarah Blelock, Focus Group Participant, 27 August 2024.

having a disability. The consumers need to be able to communicate what their needs are and why they are entitled to a positive decision to the decision-maker.¹⁷

- Oblige the providers of financial services to grant an option to the consumers to have a human decision-maker to decide on their application without the use of artificial intelligence.¹⁸
- Prohibit the providers of financial services from employing artificial intelligence as part of the decision-making process without the free and informed consent of the user.¹⁹
- Revise the Equality Act 2010 to reflect the developments in artificial intelligence and to enable this legislation to achieve its purpose.²⁰

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¹⁷ Sarah Blelock, Focus Group Participant, 27 August 2024; Greta Gurklyte, Focus Group Participant, 27 August 2024.

¹⁸ Tetyana Krupiy and Martin Scheinin, “Disability Discrimination in the Digital Realm: How the ICRPD Applies to Artificial Intelligence Decision-Making Processes and Helps in Determining the State of International Human Rights Law,” *Human Rights Law Review* 23 (2023):1-27.

¹⁹ Ibid.

²⁰ Reuben Binns et al, 2023, “Legal Taxonomies of Machine Bias: Revisiting Direct Discrimination,” paper presented at ACM FAccT Conference, Chicago, June 12; Tetyana Krupiy, “The Need to Update the Equality Act 2010: Artificial Intelligence Widens Existing Gaps in Protection from Discrimination,” *Amicus Curiae* 6, no. 1 (2024): 143-169.