

# Machine learning and the future of asylum claims

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## This talk

- What is machine learning?
- Machine learning in the immigration context
- Machine learning and asylum claims
- Legal issues on the horizon



## What is machine learning?

- A subset of Artificial intelligence (AI)
- UK Government Guidance, *A guide to using artificial intelligence in the public sector* (January 2020):

*“AI can be defined as the use of digital technology to create systems capable of performing tasks commonly thought to require intelligence.”*

*“AI is constantly evolving, but generally it involves machines using statistics to find patterns in large amounts of data...[it can] perform repetitive tasks without the need for constant human guidance”*

## What is machine learning?

- Machine learning is a process by which digital systems improve their performance on a given task over time through repetitive experience and feedback
- Can be used to train AI algorithms to categorise data and spot patterns in large data sets
- Applications for e.g. facial recognition, speech-to-text translation, driverless cars, fraud detection
- Particularly interesting applications for public sector decision-making

## Example

- Let's say we want to train an algorithm to sort images into two categories using machine learning:

**Category 1** (sloths)

**Category 2** (pastries)

- First we ask the algorithm to sort e.g. 500 images
- A human "trainer" will mark the algorithm's homework
- This feedback is put back into the algorithm
- The process is repeated
- Over time, the algorithm "learns" how to distinguish between sloths and pastries through repetition/ trial and error



## Public sector applications of machine learning

- Enormous potential benefits to public sector decision-makers
- Tasks that these algorithms can help with:
  - Categorisation
  - Tailored public services (e.g. e-mail alerts/ reminders)
  - Disclosure in civil proceedings
  - Repetitive tasks e.g. data entry
  - Contact tracing and risk modelling
  - Decision making?
- AI systems are currently being used to assist DVLA, local councils, Home Office, National Crime Agency etc



# Machine learning in the immigration context: visa decisions

- The Home Office has created an AI streaming tool that contributes to immigration policy decisions
  - The tool allocates people to one of three categories based on a series of risk categories
  - Historically this is a task that would be carried out by an immigration caseworker
- The Home Office also uses a separate AI tool to check DWP and HMRC data to verify residence within the Settled Status Application process

## Machine learning and asylum decisions

- 2017 study: *Chen and Eigel*
- Created an algorithm to classify applications into two categories (i.e. binary decision): grant of asylum or not?
- Analysed 492,903 asylum hearings from 336 different hearing locations, rendered by 441 unique judges over a 32 year period from 1981-2013
- Their algorithm was able to correctly classify 82% of the decisions into the decision category that was actually reached
- *“We have shown that through a complex non-linear learning system we can predict with a high degree of accuracy whether an asylum applicant would be granted refugee status.”*
- Applications for advising clients on prospects and assisting decision making

## Machine learning and asylum decisions

- Canada and Germany are known to be experimenting with algorithmic decision-making in the immigration field
- Since 2014, Canada has been in the process of developing a “predictive analytics” system to automate activities currently conducted by immigration officials.
- As of June 2018, Canada has been using an automated system to “triage” certain applications into two streams, with “simple” cases being processed and “complex” cases being flagged for review
- Seems reasonable in principle, but once an algorithm starts assisting immigration officials with seemingly harmless “sorting” tasks there are potential legal difficulties...



**Potential legal issues**

## Discrimination

- Very easy for AI algorithms to discriminate if they are left to make decisions without human oversight e.g. who is a fraud risk for the purposes of awarding benefits
- If AI algorithms are trained using skewed or incomplete information, or designed in a biased way, then the results may be off which happens fairly often as their designers and testers are often not particularly diverse
- E.g. Some local authorities now use AI risk-based verification processes in relation to Housing Benefit and Council Tax Benefit applications to identify fraudulent claims
- Central Bedfordshire Council are using one such system. CBC's Audit Committee report, 9 April 2018: a random sample of 10 "high risk" applicants sorted through the AI system were all working women

## Discrimination: the Visa system challenge

- Recent legal challenge to the Home Office's visa streaming tool under the EA 2010, on the basis that it uses nationality as a risk factor (unclear where this has got to)
- The allegation is that this is no different to the unlawful scheme the Home Office used to run, where Roma applications were treated with increased scrutiny because Romas were deemed to be higher risk (*R (European Roma Rights Centre) v Immigration Officer at Prague Airport* [2004] UKHL 55)
- It appears that under the current scheme applicants from “high risk countries” are automatically subject to intensive scrutiny
- Government have refused to publish its list of suspect nationalities
- Claim filed this month by JCWI

## Discrimination: asylum claims?

- The decision-making process is opaque but it appears that algorithms are already being used to co-ordinate and compile data between different government departments and agencies- unclear whether this is yet happening in the asylum context
- If the Visa categorisation system survives challenge or court guidance is provided on how it can be modified, a wider rollout is very likely
- It seems like only a matter of time before machine-learning becomes integrated into asylum decision making

## Accountable decision-making

- The opaqueness of these algorithms raises accountability issues
- House of Lords AI Committee:
  - *“The number and complexity of stages involved in these deep learning systems is often such that even their developers cannot always be sure which factors led a system to decide one thing over another. We received a great deal of evidence regarding the extent and nature of these so-called ‘black box’ systems.”*
- How does one JR an AI-assisted decision?
- Duty of candour and algorithmic decision-making?
- FOI/disclosure of an AI methodology/code? Potential issues with third-party copyright and commercial confidentiality

## Possible solutions

- Equality auditing of datasets and algorithm design
- Greater transparency regarding when decisions are reached with the help of an algorithm, and what assistance is provided
- Standard procurement contracts for AI systems with built-in transparency and accountability clauses
- Ringfencing certain decisions from fully-automated decision-making. See e.g. GDPR Article 22: *“The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her.”*

## References

- UK Government Guidance, A guide to using artificial intelligence in the public sector (January 2020)  
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[https://users.nber.org/~dlchen/papers/Can\\_Machine\\_Learning\\_Help\\_Predict\\_the\\_Outcome\\_of\\_Asylum\\_Adjudications.pdf](https://users.nber.org/~dlchen/papers/Can_Machine_Learning_Help_Predict_the_Outcome_of_Asylum_Adjudications.pdf)
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