Data Ethics Advisory Group

The Data Ethics Advisory Group is formed of independent experts to provide advice to government agencies on issues relating to data use and innovation. The Group was established in July 2019 with the aim of empowering agencies to use data effectively and innovatively whilst managing risks in order to maintain the trust and confidence of New Zealanders. You can find current details of the Group, its work and its members on the data.govt.nz website.

Thank you for bringing your item before the Data Ethics Advisory Group. It was great to have you with us and we hope you found the discussion valuable.

Feedback in summary:

> The Group commended the detailed thinking behind the governance arrangements supporting the development of Immigration NZ's Risk Analytics Platform. They were concerned around the composition of the Data Science Review Board, particularly that a majority of members were drawn from MBIE or Immigration NZ or their current supplier. They recommend having increased representation from independent members, particularly with human rights and/or ethics experience. The Group also recommends openness and transparency around the advice from the Data Science Review Board.

Members were impressed that:

- There has been detailed thinking on the development of Immigration NZ's Risk Analytics Platform and the governance arrangements to support this.
- Immigration NZ has identified the need to apply a data ethics lens to its processes.
- There will be external voices on the Data Science Review Board.
- MBIE is one of the founding signatories of the Algorithm Charter and that they intend to assess their algorithm decisions using the risk matrix from the Algorithm Charter.

Members had concerns that:

- The composition of the Data Science Review Board is too internally focussed and the Board does not have human rights and ethics representatives.
- Training of the data models (machine learning) relies on past data and that Immigration NZ's dependence on this could have implications for the operations of the Risk Analytics Platform. The Data Science Review Board should include independent voices with specific expertise to interrogate this risk.
- The Data Science Review Board will require clarity on how the risks of the data models and methods are being mitigated. The Data Science Review Board should include independent voices with specific expertise to interrogate this risk.
- While rule-based automation is easily reviewed, machine learning models and their underlying training data are not.
- There is not yet a risk and assessment framework for the Data Science Review Board to guide good governance.
- Greater clarity is desirable in how the Data Science Review Board will be empowered and what their role will be within the wider structure.

Members recommend:

- The appointment of independent members with a human rights and/or ethics background to the Data Science Review Board. It is important that these human rights and ethics principles will be embedded from the start and that the communities most affected be consulted. Given that the field is an emerging one, it is advisable to extend the call or search to more early-career experts and to consider inviting or co-opting guest experts for particular issues.
- That the Data Science Review Board has a focus on keeping models as simple as possible to minimise the risk of unintended bias and to facilitate effective review.
- That if MBIE does move beyond simple models, they ensure that these are tested using synthetic data where sets of tests are processed and the majority of elements are maintained while permutations of variables are added that should have no bearing on the outcome (i.e. partner of applicant is same-sex/opposite-sex, Pākehā/Māori) and report outcomes to the Data Science Review Board to help interrogate unintended bias.
- That the sampling period of training data is reported to the Data Science Review Board alongside a timeline of relevant sector events (i.e. regulatory change, visa scandal).
- The inclusion of an independent data scientist on the Data Science Review Board when reviewing more complex models.
- Openness and transparency around the advice from the Data Science Review Board.
- For a risk assessment framework for the Data Science Review Board to be developed before the Data Science Review Board commences.

Members noted that:

- It would be helpful for MBIE to consider further independent advice on the wider application of the Risk Analytics Platform past the low-risk use-cases mentioned.
- Human rights are fundamental to the operation as well as the policy and while existing governance structures are in place, the processes could benefit from a specific focus on human rights.

We look forward to hearing from you in the future

We note that this item related to low-risk category applications. Should the use of the Risk Analytics Platform begin to extend to other categories of visa, we would welcome the opportunity to provide further advice.

Please get in touch with the Group's secretariat should you have any questions about the guidance you have received. We are always delighted to hear from you.

We would also note that the Group reserves the right to extend an invitation to the Minister where they are concerned that their guidance has been misinterpreted or applied in bad faith.