



Date:
22 February 2021

Project:
Algorithmic impact
assessments as part of
the discovery phase for
a national Imaging
platform

Memorandum of understanding (MoU) for algorithmic impact assessment project

This Memorandum of Understanding (MoU) is entered into by the Ada Lovelace Institute, an independent research and deliberative body established by the Nuffield Foundation, and NHSx. The purpose of this MoU is to provide a framework of cooperation and facilitate and strengthen collaboration between the Parties in areas of common interest. Specifically, it is designed to enable the conduct of an independent research project by the Ada Lovelace Institute on behalf of the Nuffield Foundation focused on assessing best practice in the field of algorithmic impact assessments (AIAs) and dataset documentation practices.

Project milestones will include developing actionable next steps for an AIA model and dataset documentation practice as part of the discovery phase for a national imaging platform, and a public-facing report on the findings.

Activities

The project involve the following activities:

- **Scoping: desk research and interviews:** the Ada Lovelace Institute will evaluate the success and strength of existing dataset management and algorithmic risk assessment methodologies through interviews with individuals and organisations who have conducted early algorithm risk assessments. The Ada Lovelace Institute will review literature and conduct interviews on other forms of risk assessment applied in the context of healthcare and/or public policy to assess the potential for transferable methodologies to the domain of data, AI and algorithms. This work will involve desk research and interviews with industry and public sector actors who have used forms of algorithmic risk assessments.
- **Understanding the objectives of the national imaging platform as defined during the discovery phase and healthcare development needs.** In parallel, the Ada Lovelace Institute will work to understand

the needs of potential platform users and the health system context in which a risk assessment may be used. This activity aims to ensure that recommendations about algorithmic risk assessment can be situated within data access and development processes. This process will include reviewing the platform's discovery phase literature and documentation, interviews with the platforms' discovery phase team, interviews with potential users of the platform, and interviews with existing users of NHS AI Lab and data sharing initiatives.

- **Development of best practice algorithmic risk assessment model, applicable to healthcare.** Based on the two activities above, the Ada Lovelace Institute will provide NHSx and NHS AI Lab with some initial reports on practices for a dataset documentation and impact risk assessment processes that are applicable to their context. The Ada Lovelace Institute will review these practices with a range of stakeholders to solicit feedback and ensure feasibility.
- **Publish findings.** The Ada Lovelace Institute will produce a public-facing report to be published on the Ada Lovelace Institute website. The report will include the actionable steps if the NHS AI Lab were to set up the National Medical Imaging Platform for trials of algorithmic risk assessments and dataset documentation practices, along with a more general discussion and series of findings for other organisations seeking to implement an AIA process. The report will include a written account of the imaging platform's proposed function and processes, and propose practices for assessment and documentation that fit the platform's needs. This public-facing report will be complemented by outputs on specific elements of the research as appropriate, including potential academic publication.

Department of Health and Social Care (DHSC) commitments

- The Ada Lovelace Institute will conduct one-to-one and group interviews (as appropriate) with NHSx and NHS AI Lab employees on topics related to the development of the imaging platform as part of the discovery phase, assessment and documentation strategies, and other related topics. Researchers will also engage in email exchanges with NHSx and NHS AI Lab employees about these topics. NHSx and NHS Lab will provide support in the identification

of relevant interviewees and provide access as needed to support this.

- The Ada Lovelace Institute will attend NHSx and NHS AI Lab meetings relating to dataset access and impact assessment as part of the discovery phase for the imaging platform, where appropriate.
- NHSx and NHS Lab will provide any relevant documentation on the discovery phase for the imaging platform, including material on its intended uses and features, to Ada Lovelace Institute researchers. Ada Lovelace Institute will store any materials on a secure cloud storage service, and delete any copies of these materials immediately upon completion of the research.
- Ada Lovelace Institute will conduct interviews with potential users of the imaging platform to understand their needs. NHSx and NHS AI Lab will support in the identification of relevant interviewees.
- NHSx and NHS Lab will provide Ada Lovelace Institute with access to the platform's front end system if possible, which will be terminated upon the completion of the project.