

The Catalyst Project, funded by the Higher Education Funding Council for England (HEFCE) and monitored by the Office for Students (OfS) is a partnership between the University of Essex, Essex County Council and Suffolk County Council.

Using cross-disciplinary expertise in data analytics, big data and evaluation, the University of Essex is supporting both County Councils to assess risks for vulnerable members of the community and provide evaluation techniques to fully understand the impact of Council initiatives.

# Catalyst Project – Suffolk MASH partnership

## Progress update (December 2018)

Established in 2014, the Multi-Agency Safeguarding Hub (MASH) brings together a range of organisations in Suffolk who are responsible for safeguarding vulnerable children and adults. The MASH was developed as a result of lessons learnt from reviews of prior safeguarding incidents across the country and it is widely regarded as an example of best practice.

“Working with the Catalyst team has enabled us to fast track much of our thinking about the potential benefits of using algorithms in our day to day work.

The individual partnerships we have formed with the Catalyst team have supported the development of a trusting relationship which allowed for the safe sharing of ideas.

This has resulted in the development of a model much more quickly and easily than would otherwise have been possible.”

**Seb Smith, Head of Service, Suffolk MASH**

### The challenge

The MASH receives thousands of enquiries every month from agencies and individuals with safeguarding responsibility. The MASH's recording of these enquiries enables a joined-up approach between the workings of various organisations, with the information shared immediately between agencies. Strong emphasis is placed upon the importance of information sharing and close working arrangements.

The MASH assesses all notifications it receives and is tasked with identifying the severity of each individual case and recommending interventions. This is a very time consuming task that is inevitably subject to some inconsistencies which the MASH are keen to reduce. Of utmost importance to the MASH is achieving a decrease in the number of contacts coming into their system which do not require further information sharing. This will enable human resource to be focused on those children and vulnerable adults most in need.

### The partnership

Since February 2018 the Catalyst Project's Risk Stratification team at the University of Essex has been working alongside the MASH in Suffolk to apply data analysis and advanced machine learning techniques to their data.

The aim of the Catalyst MASH partnership has been to build and test a machine learning approach to assist the MASH staff in their daily practice. Figure 1 summarises the progress that has been made so far.

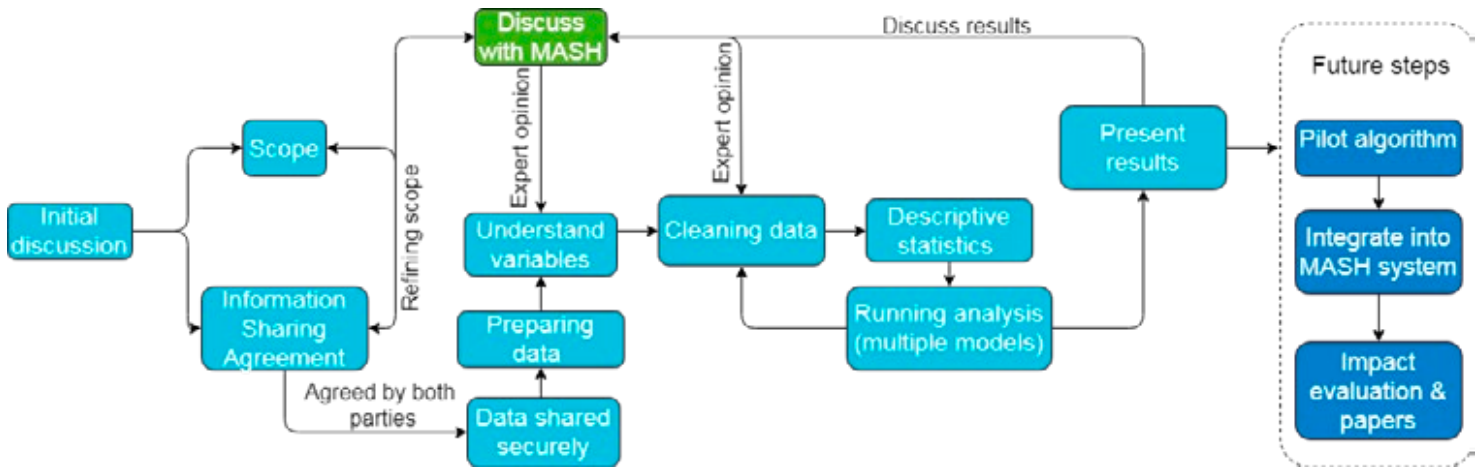


Figure 1: Flowchart of Catalyst MASH project progress

Once the prototype is fully operational, the algorithm will support the current practice of MASH staff assessing the level of risk for individuals in order to provide timely responses and interventions. The algorithm will provide the MASH with a further safety net to support, not override, the professional judgment and decisions of MASH staff.

Each step of the analysis is carried out in collaboration with the MASH to enable a refined understanding of the data and ensure the algorithm properly reflects this. This process takes time in order to build the most accurate model, ensuring there is an exact understanding of the terminology and variables, and that the results are extensively cross-checked.

## Future steps

With the development and refinement of the algorithm largely complete, the project is due to enter a new phase in 2019. Figure 1 displays the final steps of the project. In more detail:

- Use of the algorithm will be piloted from January to March 2019, where it will be tested alongside existing practice. Training and supervision will be provided by Catalyst staff onsite at MASH premises
- The next technical step will be to assimilate the algorithm with the MASH software platform. If this is successful the MASH strategic board will then decide if to permanently integrate the algorithm to support MASH decision making processes.
- After two to three months of use, an objective and evidence-based impact evaluation will be conducted
- The project will be showcased at the Catalyst conference in June 2019, where its wider use and sustainability will be discussed – book your place via Eventbrite now: [https://catalyst\\_showcase.eventbrite.com](https://catalyst_showcase.eventbrite.com)

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Catalyst is funded by:



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