# Jisc Code of Practice for Learning Analytics

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## Introduction

Learning analytics aims to help institutions understand and improve educational processes, and provide better support to students. It should be for the benefit of students, whether assisting them individually or using aggregated and anonymised data to help others or improve courses. It is distinct from assessment, and should be used for formative rather than summative purposes.

The effective use of learning analytics will initially involve the deployment of new systems, and changes to institutional policies and processes. New data may be collected on individuals and their learning activities. Analytics will be performed on the data, and interventions may take place as a result. This presents opportunities for positive engagements and impacts on learning, as well as misunderstandings, misuse of data and adverse impacts on students. Complete transparency and clear institutional policies are therefore essential regarding the purposes of learning analytics, the data collected, the processes involved, and how they will be used to enhance the educational experience.

This Code of Practice aims to set out the responsibilities of educational institutions to ensure that learning analytics is carried out responsibly, appropriately and effectively, addressing the key legal, ethical and logistical issues which are likely to arise.

## Responsibility

Institutions must decide who has overall responsibility for the appropriate and effective use of learning analytics. They should allocate specific responsibility for:

* The data to be used for learning analytics
* The analytics processes to be performed on the data
* The interventions to be carried out

Student representatives at institutions should be consulted around the design, development and roll-out of learning analytics.

## Transparency and Consent

Institutions will define what data will be collected and used for learning analytics, and what is out of scope. The data sources, the purposes of the analytics, the metrics used and who has access to the analytics will be explained clearly to staff and students. Where possible institutions should also make the algorithms transparent and/or clearly describe the processes involved in producing the analytics.

Students will normally be asked for their consent to have their data collected and used for learning analytics. Circumstances in which students are not permitted to opt out must be clearly stated and justified.

Options for granting consent must be clear and meaningful, and any potential adverse consequences of opting out must be explained. Students should be able to amend their decisions subsequently.

## Privacy

Access to student data and analytics should be restricted to those identified by the institution as having a legitimate need to view them.

Where data is to be used anonymously particular care will be taken by institutions to avoid:

* Identification of individuals from metadata
* Re-identification of individuals by aggregating multiple data sources

The use of “sensitive data” such as religious affiliation and ethnicity for learning analytics will be restricted and for clearly specified purposes.

Circumstances where data and analytics could be shared externally e.g. requests from educational authorities, security agencies or employers will be made explicit to staff and students.

## Validity

It is vital that institutions monitor the quality and validity of their data and analytics processes in order to develop and maintain confidence in learning analytics and ensure it is used to the benefit of students. Institutions should ensure that:

* Inaccuracies in the data are understood and minimised
* The implications of incomplete datasets are understood
* The optimum range of data sources is selected
* Spurious correlations are avoided

All algorithms and metrics used for predictive analytics or interventions should be understood, validated, reviewed and improved by appropriately qualified staff.

Data and analytics may be valid but should also be useful and appropriate; learning analytics should be seen in its wider context and combined with other approaches as appropriate.

## Access

Students should be able to access all learning analytics performed on their data in meaningful, accessible formats, and to obtain copies of this data in a portable digital format. Students must have the ability to correct inaccurate data held about themselves.

They should normally also be able to view the metrics and labels attached to them. If an institution considers that the analytics may have a harmful impact on the student’s academic progress it may withhold the analytics from the student, subject to clearly defined and explained policies.

## Action

Institutions should specify under which circumstances they believe they should intervene when analytics suggests that a student could benefit from additional support. This may include advising students that they should not continue on a particular pathway. Students may also have obligations to act on the analytics presented to them – if so these should be clearly set out.

The type and nature of interventions, and who is responsible for carrying them out, should be clearly specified. Some may require human rather than digital intermediation. Predictions and interventions will normally be recorded, and auditable, and their appropriateness and effectiveness reviewed.

The impact of interventions on staff roles and workload will be considered and requires support from senior management. Institutions will also be clear about the priority given to learning analytics in relation to other requirements which require funding.

They will decide how to allocate resources for learning analytics appropriately for learners with different requirements and ensure that groups are treated equitably.

## Minimising adverse impacts

Institutions recognise that analytics can never give a complete picture of an individual’s learning and may sometimes ignore personal circumstances. They will take steps to ensure that labelling of students does not bias institutional perceptions and behaviours towards them, reinforce discriminatory attitudes or social power differentials.

Analytics systems and interventions will be carefully designed and regularly reviewed to ensure that:

* Students maintain appropriate levels of autonomy in decision making relating to their learning, using learning analytics where appropriate to help inform their decisions
* Opportunities for “gaming the system” or any benefit from doing so are minimised
* Knowledge that their activity is being monitored does not lead to non-participation by students
* Adverse impacts as a result of giving students information about their performance or likelihood of success are minimised

## Stewardship of data

Data for learning analytics will comply with existing institutional data policies and the Data Protection Act, and in particular:

* Kept to the minimum necessary for the purposes of the analytics
* Processed in the European Union or elsewhere in accordance with the Information Commissioner’s guidance
* Retained only for appropriate and clearly defined periods

Students should have the “right to be forgotten” and have any data used for or generated by learning analytics removed or anonymised on request after leaving the institution, with the exception of certain, clearly specified data fields required for statutory purposes such as grades.