THE UNIVERSITY OF LEEDS
Code of Practice on Learning Analytics

1. Introduction

Learning Analytics is defined as follows: "the measurement, collection, analysis, and reporting of data about learners and their contexts, for the purposes of understanding and optimising learning and the environments in which it occurs." (International Conference on Learning Analytics, 2011). The University of Leeds has adopted this definition for the purposes of this Code of Practice and the Learning Analytics Strategy.

The University of Leeds uses learning analytics to enhance taught student education and support student success for registered students. The University will use learning analytics to: (i) support individual learners – through actional intelligence for students, teachers and professional staff; (ii) help understand cohort behaviours and outcomes; (iii) help understand and enhance the learning environment. This means that we will gather and analyse data relating to students' education and present these in appropriate formats to staff and students, to support students' learning, progress and well-being. The University recognises that data on their own cannot provide a complete picture of a student's progress, but provide an indicative picture of progress and likelihood of success.

This document sets out the responsibilities for staff, students and the University to ensure that learning analytics is carried out responsibly, transparently, appropriately and effectively, addressing the key legal, ethical and logistical issues which are likely to arise. This not only covers the presentation of learning analytics data to students and staff but also possible use in research projects and management information. It is important to note that the University currently holds and processes the data sources identified in this document. This Code of Practice covers all uses of learning analytics data for registered taught students across the University. We will train and support our staff to help them make most appropriate use of learning analytics data to support students. This document should be read in conjunction with the following existing University policies: Student Privacy Notice, Staff Privacy Notice, Information Protection Policy, Use of Computer Systems Policy and GDPR data protection.

It is recognised that learning analytics is a developing area and this Code of Practice will be reviewed annually and updated in line with future developments. The University's Learning Analytics Strategy Group will monitor developments in learning analytics and, following consultation, will propose any changes to this Code of Practice to the Taught Student Education Board detailing the associated consultation that has taken place. The Taught Student Education Board is responsible for this Code of Practice document and will endorse any changes made to it. Any changes to this document will be widely communicated within the University.

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2. Principles

This Code of Practice is informed by the following principles:

(i) Learning analytics will be used to support student education, student well-being, and students' outcomes;

(ii) Learning analytics will be used according to defined guidelines, agreed in partnership with students, and in alignment with the University's organisational strategy, policies and values;

(iii) The University will collect learning analytics data transparently and ethically, and ensure that where data are shared, it is clear where the consent lies and with whom data are shared;

(iv) The University will communicate widely and regularly with students and staff about the rationale for use of learning analytics;

(v) Learning analytics data will be used within the context of existing and future student education activities to enable our staff to have more nuanced conversations with students about their individual progress and support needs;

(vi) The University will actively work to recognise and minimise opportunities for bias when processing learning analytics data, and will endeavour to minimise potential negative impacts, focussing on individuals and their circumstances;

(vii) The University will use learning analytics data to improve its processes and practices, for the benefit of staff and students;

(viii) Students and staff will be actively involved in the consultation on learning analytics at the University;

(ix) The University will use predictive analytics carefully, to ensure that the full spread of student behaviour and capability are recognised;

(x) All learning analytics activity will comply with the Code of Practice on Learning Analytics;

(xi) The University will ensure that any user interface displaying learning analytics data will include accessibility features;

(xii) The University will regularly monitor and quality assure use of learning analytics to ensure it is meeting the objectives of the learning analytics strategy, and wider university strategies;

(xiii) The University will provide training and support for staff and students in the appropriate and ethical use of learning analytics data;

(xiv) The University will consider the impact of learning analytics on staff roles, training requirements and workload, and recommendations will be made to the Taught Student Education Board for review and approval;

(xv) Professional development opportunities will be offered to all staff using learning analytics, and mandatory training may be required to access data;

(xvi) Data generated from learning analytics will be used to generate management information about teaching quality and for enhancement purposes;

(xvii) Data generated from learning analytics will not be used by the University to initiate investigations into staff performance, but students, staff and Schools will have the right to use the data in appeals or complaints.

3. Objectives

The objectives for the use of learning analytics at the University of Leeds are:

- To provide access to learning analytics data for individual students and relevant staff that demonstrates their learning progress, to support student well-being and outcomes;
- To do this in a manner consistent with good data stewardship, ownership and management of learning analytics data;
- To develop a programme of research and evaluation to measure the impact and effectiveness of learning analytics to enhance student education, learning and student support;
- To integrate learning analytics data with business intelligence and data analytics processes, to provide information for decision-makers.

4. Data sources for learning analytics

The University already holds the data listed below, and processes these in relation to student administration and education. The sources listed may be used for learning analytics, based on the functionality of the system(s) in use at the university and following the principles set out in Section 2 of this Code of Practice. Information will be provided to all users about which data sources are being used within each system, when available. Only data that are appropriate to inform and support student success will be used in a learning analytics system and only at a level appropriate to highlight to staff where students may benefit from additional support and for students to understand their own learning progress. Data which could identify the personal interests of an individual and specific details of their activities will not be included.

- Data from the student record (e.g. demographic information, programme and module information, assessment results);
- Usage and activity data from University digital education platforms and systems (e.g. lecture capture views, Minerva access, Office 365, use of digital learning resources, use of quizzing tools, use of online learning platforms such as FutureLearn and Coursera, eportfolio systems);
- Data from student education and opportunity systems (e.g. placement systems, careers systems);
- Library usage data (e.g. library turnstile access, reading record, borrowing record);
- Attendance data (e.g. beacons, mobile voting codes, Wi-Fi data);
- Student survey results (e.g. module and programme survey quantitative responses);
- Leeds University Union data (e.g. society membership, volunteering activities).

The University collects data from students for the administration and delivery of the student contract and for statutory requirements. Where these data are used for learning analytics it will be made clear the reasons why students cannot opt out of providing these data. As the use of learning analytics develops at the University, additional data sources may be considered useful to support staff and students. In such instances, students and staff will be informed in advance of its use and consent will be requested for data where consent is required. In such instances this code of practice will be updated accordingly.

The University may also process "special categories of data" as described under the GDPR. These are more sensitive personal data which require a higher level of protection. Student consent is required for the collection and use of special category data (see Student Privacy Notice). The University may process special categories of data at an aggregate level through the work of Student Success and Student Support teams to identify trends and patterns to inform institutional and local changes and practice, and to offer differential support for groups of students who may benefit from additional support. This information will not be in dashboards presented to staff and students. The Special Categories of personal data consist of data revealing: (i) racial or ethnic origin; (ii) political opinions; (iii) religious or philosophical beliefs; (iv) trade union membership. They also consist of the processing of: (i) genetic data; (ii) biometric data for the purpose of uniquely identifying someone; (iii) data concerning health; (iv) data concerning someone's sex life or sexual orientation.

5. Responsibility and Governance

The Deputy Vice Chancellor: Student Education has overall responsibility for the legal, ethical and effective use of learning analytics within the University of Leeds. The following identifies where responsibilities are held for specific areas of Learning Analytics within the University:

The **University Executive Group** is responsible for the learning analytics strategy, and for managing the resources required for delivery of learning analytics initiatives.

The **Senate, via the Taught Student Education Board (TSEB),** is responsible for the Learning Analytics Code of Practice and for implementing the University's strategy for the use of learning analytics in line with this Code of Practice.

The **Digital Education Committee**, reporting to the Taught Student Education Board, is responsible for monitoring the pedagogical uses of learning analytics across the University and the technologies in use. This will take into consideration the quality of the student experience and ensure adherence to the University's student education principles.

The **Learning Analytics Strategy Group** reports to the Taught Student Education Board via the Digital Education Committee. It has the operational responsibility for the delivery of learning analytics across the University. This includes reviewing all aspects of service provision and realising the benefits of learning analytics in line with the University's standards of student education.

The University will establish a **Learning Analytics Ethical Review Committee**, aligned to the Faculty-based Ethical Review Committees, which operates according to agreed ethical review principles and under the auspices of the University's Research Ethics Committee. The committee will be responsible for ensuring learning analytics data are used according to the University's ethical principles, and will review and oversee all proposed research projects in relation to learning analytics data.

Student representatives and key staff groups from across the University will be consulted and involved in the design, development, roll-out, monitoring and on-going review of the University's use of Learning Analytics. Other groups will be consulted as required in relation to this Code of Practice and delivery of the Learning Analytics Strategy.

Learning analytics data will be provided to students to help them understand their own learning progress. Appropriate University staff may suggest actions for consideration by students to help improve their progress. Students are responsible for deciding the best application of any suggestions to their learning approach. Students are also responsible for understanding the datasets which are being used to show their learning progress.

Staff are responsible for accessing and using learning analytics data in accordance with this Code of Practice. As a minimum, anyone accessing learning analytics data will have completed the Information Security Essentials and Information Security Advanced training courses.

6. Transparency and consent

The University will be transparent, explaining clearly to staff and students the data sources used, the purposes of the analytics, the metrics used, who has access to the analytics, the boundaries around usage and how to interpret the data.

The University processes student data for the administration and delivery of students' contact with it. Information on what data is collected and how it is processed can be found in the Student Privacy Notice.

Students will also normally be asked for their consent for personal interventions to be taken based on learning analytics data. This will usually be done at the point where a specific intervention is proposed. However, there may be legal, regulatory, safeguarding or other circumstances where students are not permitted to opt out of such interventions. Where this occurs the reasons will be clearly stated and justified.

7. Privacy

Access to learning analytics data by students and staff at the University must be in line with all relevant policies. These include but are not limited to Student Privacy Notice, Staff Privacy Notice, Information Protection Policy, Use of Computer Systems Policy and any compliance requirements as identified by the University in relation to data protection and GDPR.

Access to student data and learning analytics is restricted to those identified by the University as having a legitimate need to view them. The following groups will have access to learning analytics data held by the University of Leeds:

- Students – accessing their own learning analytics data;
- Staff who need the data to provide support to students;
- Members of staff with responsibility for student education;
- University Data Analysts;
- Other individuals or organisations working with students as part of their learning at University of Leeds.
- Technical staff at the University and contracted agents who need to ensure functioning systems.

In the case of providing individual student support (including academic and pastoral support) it will be necessary to present learning analytics data where students are identifiable. These data will only be available to the individual students they relate to, and at appropriate access levels to University staff who have the relevant permissions to view them. Where learning analytics data are made available to other individuals or organisations, such as for supporting students working with external organisations, it will only be at levels appropriate for the support required, which might include identifying data. Examples of this may include but are not limited to individuals employed by external organisations providing placements or degree apprenticeship places, where these individuals are involved in supporting a student's University studies. Outside of this, learning analytics data will be anonymised or pseudonymised as necessary for use.

Where anonymised student data collected for or generated by learning analytics is published the University will ensure it is not possible to identify individuals from metadata or by aggregating multiple data sources. Where data is to be used anonymously particular care will be taken to avoid:

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

Where access to learning analytics data has to be shared with external individuals and organisations, the appropriate contracts, data processing and data sharing agreements will be in place in compliance with University policies and GDPR. 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.

In accordance with the General Data Protection Regulation, students will be able to access all learning analytics performed on their data in meaningful, accessible formats, and to obtain copies of their data in a portable digital format. Students will be able to correct inaccurate personal data held about themselves.

The University will undertake regular Data Protection Impact Assessments for its use of learning analytics across the organisation.

8. Validity

The quality, robustness and validity of data and analytics processes will be monitored and regularly reviewed in order to develop and maintain confidence in learning analytics and ensure it is used to support and enhance student education at the University of Leeds.

The University will ensure that:
- Inaccuracies in the data are understood and minimised;
- Datasets used in learning analytics systems are robust and clear;
- The implications of incomplete datasets are understood;
- The optimum range of data sources is selected;
- Spurious correlations are avoided;
- The analysis, interpretation and use of learning analytics data does not reinforce discriminatory attitudes or increase social power differentials.

9. Learning analytics system

Students will be provided with access to a system that will show their learning analytics data and insights generated, and they can choose whether to access these data. There may be cases when data are not shared because it might have a harmful impact on the student's academic wellbeing. Students still have a right to see their data if they request it.

Relevant staff will be able to access students' learning analytics data to support students. Staff will discuss these data with students, and may suggest actions to students based on data within the learning analytics system. Where staff suggest actions to students, these will be agreed through dialogue. In this case, staff will normally mean a personal tutor, but could also include module and/or programme leaders, or professional staff, as appropriate.

The allocation of resources for learning analytics for learners with different requirements will be decided by the University and in a way that ensures diverse groups and individuals are treated equitably.

10. Minimising adverse impacts

The University recognises that analytics can never give a complete picture of an individual's learning and may not take into account personal circumstances. It also recognises the importance of individual conversations alongside data analysis to obtain a more complete view of a situation. Steps will be taken to ensure that trends, norms, categorisation or any labelling of students do not bias staff, student or institutional perceptions and behaviours towards them, introduce discriminatory attitudes or increase power differentials.

Learning analytics systems and interventions at the University of Leeds will be carefully designed and regularly reviewed to ensure that:
- Students maintain appropriate levels of ownership and 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 to the student from doing so are minimised through use of large data sets, and monitoring of trends and patterns;
- Knowledge that their activity is being monitored does not lead to non-participation by students or other negative impacts on their academic progress or wellbeing;
- Adverse impacts as a result of giving students and staff information about the students' performance or likelihood of success are minimised;
- Staff will have an opportunity to engage in the understanding of legal, ethical and unethical practice.

11. Student support and learning analytics

Student Support is set within the context of the university's primary role as an education provider. Our intention is to enable and empower students to be able to engage fully with all aspects of their student lives, removing barriers as necessary, in order for them to achieve their maximum potential and succeed in their studies and life after Leeds.

Learning analytics provides the opportunity for an earlier, more proactive and informed, discussion with students regarding support and, where necessary, the provision of information regarding specialist support services (https://students.leeds.ac.uk/#Support-and-wellbeing). It provides an additional element of information and data which will help inform our approach to supporting students, it does not in itself, change our intentions or responsibility to support students.

12. Stewardship of data

Data for learning analytics will comply with existing University of Leeds data policies and the Data Protection Act 2018, and, in particular, be:
- Kept to the minimum necessary to deliver the purposes of the analytics reliably;
- Processed in the European Economic Area or, if elsewhere, only in accordance with the GDPR;
- Retained only for appropriate and clearly defined periods.

On request by students any personal data used for or generated by learning analytics will be destroyed or anonymised, with the exception of certain, clearly specified data fields required for educational or statutory purposes such as grades.

Learning analytics data can only be captured and accessed via the approved University learning analytics systems and processes and only in line with this Code of Practice. Once systems and process are in place, this document will be updated to include their details.

13. Related policies

The following are University policies and guidelines that directly or indirectly relate to the use of Learning Analytics at the University of Leeds:

- GDPR data protection
- Student Privacy Notice
- Policy on Safeguarding Data
- Information Protection Policy
- Use of Computer Systems Policy
- Staff Privacy Notice
- Attendance Monitoring Policy

14. Sources of advice

- The University's Data Protection Officer – for data protection issues;
- The University's Information Security Officer – for information security Issues;
- The University's Business Intelligence and Data Analytics unit – for data analytics issues;
- Secretariat – for general enquiries about this Code of Practice.

About this document

This document was produced using the JISC Code of practice for learning analytics as a template (Jisc, 2015: Code of practice for learning analytics. Published under the CC BY 4.0 licence.

This document also draws on elements from the University of Edinburgh – Learning Analytics Principles and Purposes (© University of Edinburgh 2018, made available for reuse under the terms of the Creative Commons Attribution 4.0)

This document also draws on elements from the University of West London Learning Analytics Policy (opens as a PDF) released under the following Creative Commons license: Attribution-NonCommercial-ShareAlike CC: BY-NC-SA

The following documents were also reviewed during the drafting of this document: (i) University of Exeter Code of Practice for Effective Learning Analytics;;) and (ii) Aston University: MyEngagement – Learning Analytics Interventions Policy'
(https://www2.aston.ac.uk/clipp/documents/Quality/Attendance%20Monitoring%20and%20Learner%20Analytics/My%20Engagement%20Interventions%20Policy%202018-19.pdf) (opens as PDF)