

Learner Analytics

Governance Documents

Version: 1.0

Agreed by the Learner Analytics Governance Task & Finish Group on 4 June 2021 – final copy to be circulated to the T&FG by 10th June 2021. Membership of the Task & Finish Group is listed in the first section.

Documents to be circulated to the committees/groups listed below for comment/endorsement before being submitted to Education Quality Standards Board (EQSB) for final approval.

Learner Analytics Strategy Group	Date: 10 June 2021
Queen Mary Information Provision Group (QUIP)	Date: 17 June 2021
QMSU and QMUL Update Meeting	Date: 21 June 2021
Education Strategic Advisory Team (ESAT)	Date: 1 July 2021
EQSB	Date: 20 July 2021

The documents were also circulated to the Directors of Education Forum on 24 June 2021 and will be circulated to the Information Governance Group on 9 August 2021.

Membership of the LA Governance Task & Finish Group

Participant	Role	Representation
Alistair Morey	Head of Library Teaching and Learning Support	Library
Cameron Storey	SU VP Humanities & Social Sciences	Students' Union
Catherine Murray	Director of Planning, Chief Operating Office	LA Tactical Group
Christine Couper	LA Consultant	LA Strategy & Tactical Group
Elizabeth Crooks	Student Experience & Success Officer – Science & Engineering	Education Manager -S&E Faculty
James Strong	Senior Lecturer in Politics and Ir, Politics	LA Strategy & Tactical Group
Janet De Wilde	Director QM Academy / Prof Eng & Edu	LA Strategy Group
Lucie Langley	Faculty Education Manager, Humanities & Social Sciences	Education Manager -H&SS Faculty
Marianne Melsen	SU Representation and Democracy Manager	Students' Union
Markman Ellis	Professor Of 18th Century Studies, English and Drama	H&SS Faculty
Paul Smallcombe	Record Information Compliance Manager	Information Compliance
Richard Young	Assistant Director - Solutions, IT Services	LA Strategy & Tactical Group
Simon Hayter	Assistant Academic Registrar, Centre for Academic & Professional Development	EQSB Committee Link
Stella Ekebuisi	Head of E-Learning, Centre for Academic & Professional Development	E-Learning
Stefan Krummaker	DVP (Education) and Learning Analytics Lead	Learner Analytics Project Lead
Trudy Mason	Deputy Academic Registrar, Council Secretariat	UKVI Compliance
Vanessa Muirhead	Clinical Senior Lecturer, School of Dentistry	SMD Faculty
Yue Chen	Prof of Telecomms Engineering, Dir of Education, School of Electrical Engineering & Computer Sci	Director of Education, EECS

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Document 1

Overview of Learner Analytics

Learner Analytics has been defined as ‘the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimising learning and the environments in which it occurs’ (Society for Learner Analytics Research, 2012).

Fundamentally, Learner Analytics is concerned with combining different types of data regarding student engagement and learning (e.g. data generated by learning management systems, student systems, library systems and other sources related to learning and teaching) in order to better understand, and improve, the learning experiences of our students.

Learner Analytics can be particularly valuable when teaching at scale, or where face-to-face teaching, augmented by online support, makes it more challenging for staff to know how their students are learning.

Document 2

Statement of Principles

- We will use Learner Analytics to help all students reach their full academic potential.
- We will be transparent about data collection, sharing, consent and responsibilities.
- We will abide by ethical principles and align with our university strategy, policies and values.
- Learner Analytics will be supported by focused staff and student development activities.
- Learner Analytics will not be used to inform significant action at an individual level without human intervention.
- We will actively work to recognise and address any potential negative impacts from Learner Analytics.

Document 3

Purpose of Learner Analytics

We will use Learner Analytics for the purposes listed below. We will not use Learner Analytics for any other purpose without formal review of the Learner Analytics Governance Documents.

Quality of Education

- As a form of feedback on the efficacy of pedagogical design.
- Analytics about student activity (individual or cohort) can form part of course review and re-design processes and of in-course monitoring and feedback.
- Individual staff can use Learner Analytics to reflect on the impact of their teaching.

Inclusion

- To provide more nuanced views of our highly diverse student population, challenge assumptions that we may be making, and allow supportive resource to be directed where it is most needed.

Personalised feedback

- To tailor the messages and support we offer to our students, providing more personalised feedback to support student reflection and academic planning.

Coping with scale

- As part of an enhanced staff engagement programme, Learner Analytics can help strengthen the academic relationship by doing some of the heavy lifting of identifying individuals or groups of individuals that might benefit from particular interventions or information from staff.

Student Experience

- To improve progression and retention, ensure that our academic offerings align with the needs and goals of students, support satisfaction and wellbeing, and engender a more personalised learning experience.
- To promote critical reflection skills and enable our students to take responsibility for their own learning.

Skills

- Interactions with Learner Analytics as part of the university learning experience can help our students build 'digital savviness' and prompt more critical reflection on how data about them is being used more generally, what consent might actually mean and how algorithms work across datasets to define and profile individuals.
- Learner Analytics approaches can also be used to promote the development of key employability skills.

- Supporting staff to develop skills in working with Learner Analytics applications is also an investment in institutional capacity and leadership.

Efficiency

- Learner Analytics can be used to evaluate and demonstrate institutional efficiency through:
 - a) measuring the impact of initiatives and validating that benefits are being realised and
 - b) demonstrating that publicly funded resource is being deployed in support of the best outcomes of all students.

Document 4

Queen Mary Learner Analytics Policy

Approving Authority: Education Quality and Standards Board (EQSB) with delegate authority from Senate

Consultation Undertaken: Learning Analytics Task & Finish Group; Learner Analytics Strategy Group, ESAT, QUIP

Review cycle: 1 year

Next review: June 2022

Directorate responsible for policy maintenance and review: Academic Registry and Council Secretariat (ARCS)

Introduction

1. The collection and use of data about students and their learning is providing new opportunities for institutions to support learners and to enhance educational processes. Learner Analytics systems present visualisations of student learning activity and can provide predictive indicators for attainment. These will be used at Queen Mary to assist current students in achieving their study goals, and to help us improve our overall provision of education.
2. The institution will use Learner Analytics to help meet a student-focused vision where, “all Queen Mary students are able to excel in their chosen field and to be confident resilient professionals”. We are setting objectives to, “create a seamless supportive environment for our students through integrated academic and pastoral support, Learner Analytics, and opportunities for peer support”, and ensure, “our teaching and learning environment will be fit for the 21st century”. Learner Analytics is a key enabler for the Student Engagement initiative, which is part of the Education Enabling Plan, under the 2030 Queen Mary Strategy.
3. The university will ensure that Learner Analytics is deployed for the benefit of students, with complete transparency about the data that is being captured, processed and used. The Statement of Principles for Learner Analytics (**document 2 in this pack**) will be implemented fully and along with the document identifying the Purpose for Learner Analytics (**document 3 in this pack**) will be publicised widely. All activities in this area will comply with the institution’s [Data Protection Policy](#) and data protection legislation.

Responsibility

4. Overall responsibility for Learner Analytics at Queen Mary is held by **Deputy Vice Principal (DVP) (Education)**. Responsibility for relevant areas of activity is allocated as follows:
 - The collection of data to be used for Learner Analytics - **Chair of QUIP**, specifying the types of data to be used and the **Assistant Director of Solutions Development & E**

Learning arranging automated upload of datasets into the data repository and for data security.

- The anonymisation or de-identification of data where appropriate - **Chair of QUIP**.
 - The analytics processes to be performed on the data, and their purposes –**Chair of QUIP**.
 - The interventions to be carried out on the basis of the analytics –**DVP (Education)** working with the **Director of the Queen Mary Academy** and the **Faculty Education Managers/Deans for Education**.
 - The retention and stewardship of data used for and generated by Learner Analytics – **Chair of QUIP** and **Assistant Director of Solutions Development & E Learning** working together with guidance as required from the **Record Information Compliance Manager**.
 - Implementation of Learner Analytics transparency including feedback of personalised analytics information to students –**DVP (Education)**.
5. Analytics presented to students are intended to help them understand how their learning is progressing, and suggestions may be made as to how they can improve their practices. Students are responsible for assessing how they can best apply any such suggestions to their learning.
6. Students are informed about how their data will be processed by Queen Mary when they agree to the relevant [General Terms and Conditions of Application](#) and associated [Student Privacy Notice](#). Data will be collected for Learner Analytics in compliance with these documents. The LA governance pack will be made available to staff and students. It will identify the purpose of analytics, the types of data that will be used and the legal basis used for LA. The LA Policy will reference any involvement of third parties acting as sub-contractors for processing analytics and the rationale for this.
7. The data for Learner Analytics comes from a variety of sources, including the student record system and the virtual learning environment. Data includes:
- Background information: name, registration identifiers used by Queen Mary, date of birth, ethnicity, gender, declared disabilities, contact details, entry qualifications, whether parents were in higher education, socio-economic background, fee status, contact details, and a link to a photo. Two of these data types are known as special category personal data: Ethnicity and Disability. We are including these within our models with the aim of improving our monitoring of equality of opportunity and to improve the accuracy of the models. They will be used for Statistical Purposes only.
 - Details about the course, the modules being studied, and advisers.
 - Details of assessments, marks and grades obtained.
 - Details of activity using virtual learning environments including QMPlus and Blackboard Collaborate, the on-line collaboration tool Teams, and the conferencing software Zoom: logins, resources viewed, assessments submitted and graded, and session timeouts.
 - Details about engagement with teaching activities including whether the activity took place on-premise or online.

8. As part of the ongoing development of the LA platform we may pilot the inclusion of data about library usage and lecture capture.
9. A short jargon free guide to Learner Analytics, produced in collaboration with the Students' Union will clearly specify:
 - What is meant by LA at Queen Mary.
 - The specific purposes for which Learner Analytics is being used.
 - Who has access to the analytics, and why.
 - The data sources being used for Learner Analytics.
 - The metrics used, and how the analytics are produced.
 - The interventions that may be taken on the basis of the analytics.
10. It is not Queen Mary's policy to use automated prompts. Students will be asked for their consent for any **automated** prompts or suggestions to be sent to them, based on the analytics. These may include emails, SMS messages or app notifications.
11. We will not use our Learner Analytics suite of tools or any metrics derived as part of Learner Analytics for assessment purposes. However, the primary data sources themselves may provide information that feeds into an agreed assessment rubric for a programme. This would be part of a separate activity.

Confidentiality

12. Personally-identifiable data and analytics on an individual student will be provided only to:
 - The student.
 - University staff members who require the data to support students in their professional capacity.
 - University staff in ITS who are working in partnership with the data processors to develop and improve the modelling and to evidence the impact of interventions.
 - Third parties who are processing Learner Analytics data on behalf of the institution. In such circumstances the University will put in place contractual arrangements to ensure that the data is held securely and in compliance with the Data Protection Act and the General Data Protection Regulation.
 - Other individuals or organisations to whom the student gives specific consent. This consent will be assumed to relate to current data unless specific consent has been given to allow historic data to be shared.
 - Aggregate data from LA may be used for research. This data should be supplied by ITS staff familiar with the individual data streams.
 - Where data at the individual level is requested for research purposes, and ethics approval has been granted, then the data should be pseudonomised by ITS staff responsible for LA. These datasets should not contain any protected characteristics of individuals without their explicit consent.
13. ITS staff will have access to systems and data in order to maintain proper functioning of systems. They will not access the system for that purpose of reviewing any individual's data.

14. The data that feeds into the LA platform can be used for other purposes. An example would be if the student has a Student visa (formerly Tier 4), the Registry's Immigration Compliance Team can use the data as evidence that a student is engaging with their studies. The Home Office may require us to show this evidence if we are audited.
15. The university would be required to share data if legally compelled to do so (e.g. if there is a warrant).

Sensitive data

16. Data protection legislation defines special categories of personal data such as ethnicity or disability. Any use of such data for Learner Analytics will be fully justified and documented in the Introduction to Learner Analytics for Students and any project initiation document or similar.
17. The quality, robustness and validity of the data and analytics processes will be monitored by the University which will use its best endeavours to use Learner Analytics in line with best practice in the sector, for example ensuring that:
 - Inaccuracies and gaps in the data are understood and minimised
 - A wide range of data sources are used with the aim of maximising prediction accuracy
 - Interpretation of analytics findings are informed by people with relevant qualifications and experience. This should help avoid over reliance on single findings, for example.
 - Written rational justification is used for the choice of algorithms and metrics used for any predictive analytics. These will be included in the help and resources section of the software.
 - Learner Analytics is seen in its wider context, and is combined with other data and approaches as appropriate

Legal bases used for data in Learner Analytics

Universities are designated as '**public authorities**' for the purposes of data protection legislation.

Guidance on the GDPR from the Information Commissioner Office (see <https://ico.org.uk/fororganisations/guide-to-the-general-data-protection-regulation-gdpr/>) indicates that the **public task** basis is likely to apply to much of the data processing done by Universities to support teaching and research.

The University has decided to use '**public task**' as the basis for processing Learner Analytics data, as Learner Analytics relates to the University's core learning and teaching functions and how we support student retention, progression and attainment.

Student access to personal data

18. We will be reviewing mechanisms to enable students to access their personal data, and the Learner Analytics performed on it, in a meaningful, accessible format. In the first instance students should discuss this with their Personal Adviser.
19. Students have the right to correct any inaccurate personal data held about themselves. In the first instance students will be directed to their Personal Adviser.
20. Students will also be able to view any metrics derived from their data, and any labels attached to them, though sometimes they may need to request to do so.
21. On occasion it may be considered that access to the analytics may have a negative impact on the student's academic progress or wellbeing. This may especially be the case when a student's engagement is less than others in a cohort and they are identified as being "at risk". Protocols will be developed to ensure that access this type of data is managed sensitively and that human-mediated guidance is available to the student. However, if the student requests it, all their personal data and analytics will be made available to them. Subject access requests should be made to dataprotection@qmul.ac.uk

Interventions

22. A range of interventions may take place with students. The types of intervention and what they are intended to achieve may include:
 - Prompts or suggestions sent automatically to the student via email, SMS message or mobile app notification (subject to the student's consent)
 - Staff contacting an individual on the basis of the analytics if it is considered that the student may benefit from additional support
23. Interventions, whether automated or human-mediated, will normally be recorded. The records will be subject to periodic reviews as to their appropriateness and effectiveness.

Minimising adverse impacts

24. The University recognises that Learner Analytics cannot present a complete picture of a student's learning, and that predictive indicators may not always be fully accurate.
25. Students will retain autonomy in decision making relating to their learning; the analytics are provided to help inform their own decisions about how and what to learn.
26. Focussed staff and student development activities, including training, will be provided to users of the LA platform. There will also be research into patterns of engagement and a repository of LA resources created which can be used by those working with LA data. This will ensure that users are able to interpret data appropriately and are aware of the support mechanisms available.

Derived from

“Jisc Model Institutional Learner Analytics Policy

Niall Sclater, Nov 2016, Draft v0.1 available from the JISC website”