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 Appendix 2

Documents to be circulated to the committees listed below for agreement 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

Education Strategic Advisory Team (ESAT)   Date: 1 July 2021

EQSB   Date: 20 July 2021

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

Contents

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.

Queen Mary Learner Analytics Policy

Approving Authority: Education Quality and Standards Board (ESAT) 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/for-organisations/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 data-protection@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"

Appendix 1: Supporting Material

The following additional support materials for Learner Analytics will be made available as

the LA Strategy is developed:

A short Introduction to LA for Students to be prepared by the LA Strategy Group in collaboration with the Students' Union. This will be available by 31 July 2021.

Guide(s) to using QEngage incorporating information on the metrics used and the analytics being produced and guidance on how staff and students can interpret any analytics provided to them. Technical information about using QEngage is already embedded within the system. Guidance on interpreting **engagement** patterns and then using these to intervene is not yet available.

Guide to any student app/dashboard incorporating information on the metrics used and the analytics being produced and guidance on how students can interpret any analytics provided to them.

Interventions that may take place based on analytics This document will be developed alongside the LA Strategy

Mechanism to allow students to access to their data Package to be developed as part of the implementation plan

Appendix 2

Jisc Code of practice for Learner Analytics
Niall Sclater, Paul Bailey Published and Updated: 4 June 2015

https://www.jisc.ac.uk/guides/code-of-practice-for-learning-analytics

Introduction
Learner Analytics uses data about students and their activities to help institutions understand and improve educational processes, and provide better support to learners. It should be for the benefit of students, whether assisting them individually or using aggregated and anonymised data to help other students or to improve the educational experience more generally. It is distinct from assessment, and should be used for formative rather than summative purposes.

The effective use of Learner 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 this 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 Learner 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 Learner Analytics is carried out responsibly, appropriately and effectively, addressing the key legal, ethical and logistical issues which are likely to arise.

Educational institutions in the UK already have information management practices and procedures in place and have extensive experience of handling sensitive and personal data in accordance with the Data Protection Act 1998 (DPA). By transferring and adapting this expertise to regulate the processing of data for Learner Analytics, institutions should establish the practices and procedures necessary to process the data of individuals lawfully and fairly.

Responsibility
Institutions must decide who has overall responsibility for the legal, ethical and effective use of Learner Analytics. They should allocate specific responsibility within the institution for:

The collection of data to be used for Learner Analytics

The anonymisation of the data where appropriate

The analytics processes to be performed on the data, and their purposes

The interventions to be carried out

The retention and stewardship of data used for and generated by Learner Analytics

Student representatives and key staff groups at institutions should be consulted around the objectives, design, development, roll-out and monitoring of Learner Analytics.

Transparency and consent
Institutions will define the objectives for the use of Learner Analytics, what data is necessary to achieve these objectives, and what is out of scope. The data sources, the purposes of the analytics, the metrics used, who has access to the analytics, the boundaries around usage, and how to interpret the data will be explained clearly to staff and students. Institutions should also clearly describe the processes involved in producing the analytics to students and staff or make the algorithms transparent to them.

Students will normally be asked for their consent for personal interventions to be taken based on the Learner Analytics. This may take place during the enrolment process or subsequently. There may however be legal,

safeguarding or other circumstances where students are not permitted to opt out of such interventions. If so these must be clearly stated and justified.

New Learner Analytics projects may not be covered by the institution's existing arrangements. Collection and use of data for these may require further measures, such as privacy impact assessments and obtaining additional consent.

Options for granting consent must be clear and meaningful, and any potential adverse consequences of opting out must be explained. Students should be able easily 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" (as defined by the DPA) such as religious affiliation and ethnicity for the purposes of Learner Analytics requires additional safeguards. 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, and may require additional consent.

Institutions should ensure that student data is protected when contracting third parties to store data or carry out Learner Analytics on it.

Institutions may have a legal obligation to intervene, and hence override some privacy restrictions, where data or analytics reveal that a student is at risk. Such circumstances should be clearly specified.

Validity

It is vital that institutions monitor the quality, robustness and validity of their data and analytics processes in order to develop and maintain confidence in Learner 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; Learner Analytics should be seen in its wider context and combined with other data and approaches as appropriate.

Access

Students should be able to access all Learner Analytics performed on their data in meaningful, accessible formats, and to obtain copies of this data in a portable digital format. Students have a legal right under the DPA to be able to correct inaccurate personal 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 or wellbeing it may withhold the analytics from the student, subject to clearly defined and explained policies. However, the student must be shown the data about them if they ask to see it.

Enabling positive interventions

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 and communicated to the students.

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, training requirements and workload will be considered and requires support from senior management. Institutions will also be clear about the priority given to Learner Analytics in relation to other requirements.

Institutions will decide how to allocate resources for Learner Analytics appropriately for learners with different requirements and ensure that diverse groups and individuals 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. Institutions will take steps to ensure that trends, norms, categorisation or any labelling of students do not bias staff, student or institutional perceptions and behaviours towards them, reinforce discriminatory attitudes or increase 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 Learner Analytics where appropriate to help inform their decisions

Opportunities for "gaming the system" or any benefit to the student from doing so are minimised

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 have a working understanding of legal, ethical and unethical practice

Stewardship of data

Data for Learner Analytics will comply with existing institutional data policies and the DPA, and will 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 DPA

Retained only for appropriate and clearly defined periods

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

Jisc Model Institutional Learner Analytics Policy
Niall Sclater, Nov 2016, Draft v0.1

Included in pack for information

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 provide predictions of attainment. These will be used at [*institution*] 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 the following strategic objectives: [*e.g. increasing retention and progression, improving attainment*]. These are key elements of the [*Learning and Teaching Strategy / other relevant strategies*].

3. The [*University/College*] 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. All activities in this area will comply with the institution's Data Protection Policy [*link – and this should ensure compliance with the Data Protection Act 1998*].

Responsibility

4. Overall responsibility for Learner Analytics at [*University/College*] is held by [*senior leader responsible for Learner Analytics*]. Responsibility for relevant areas of activity is allocated as follows:
   - The collection of data to be used for Learner Analytics - [*e.g. IT Director*]
   - The anonymisation or de-identification of data where appropriate - [*e.g. IT Director*]
   - The analytics processes to be performed on the data, and their purposes – [*e.g. PVC Learning & Teaching*]
   - The interventions to be carried out on the basis of the analytics – [*e.g. PVC Learning & Teaching*]
   - The retention and stewardship of data used for and generated by Learner Analytics – [*e.g. Registrar*]

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.

Transparency and consent

6. Students are informed about how their data will be processed when they agree to the [*e.g. data processing consent notice / computing regulations*] upon registration. Data will be collected for Learner Analytics in compliance with [*these documents*].

7. The data for Learner Analytics comes from a variety of sources, including the student record system and the virtual learning environment. The Student Guide to Learner Analytics [*link to document in student section of institutional website*] will clearly specify:

   - The data sources being used for Learner Analytics
   - The specific purposes for which Learner Analytics is being used
   - The metrics used, and how the analytics are produced
   - Who has access to the analytics, and why

- Guidance on how students can interpret any analytics provided to them
- The interventions that may be taken on the basis of the analytics

8. 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.

9. Learner Analytics is separate from assessment. Metrics derived from data sources used for Learner Analytics will not be used for the purposes of assessment.

Confidentiality

10. Personally identifiable data and analytics on an individual student will be provided only to:
    - The student
    - [*University/College*] staff members who require the data to support students in their professional capacity
    - Third parties which are processing Learner Analytics data on behalf of the institution. In such circumstances the [*University/College*] will put in place contractual arrangements to ensure that the data is held securely and in compliance with the Data Protection Act.
    - Other individuals or organisations to whom the student gives specific consent

11. [*University/College*] IT staff will have access to systems and data in order to maintain proper functioning of systems rather than to access any individual's data.

Sensitive data

12. The Data Protection Act 1998 defines categories of "sensitive data" such as ethnicity or disability. Any use of such data for Learner Analytics will be fully justified, and documented in the Student Guide to Learner Analytics.

Validity

13. The quality, robustness and validity of the data and analytics processes will be monitored by the [*University/College*], which will use its best endeavours to ensure that:

    - Inaccuracies and gaps in the data are understood and minimised
    - The optimum range of data sources to achieve accurate predictions is selected
    - Spurious correlations and conclusions are avoided
    - The algorithms and metrics used for predictive analytics and interventions are valid
    - Learner Analytics is seen is its wider context, and is combined with other data and approaches as appropriate

Student access to personal data

14. Mechanisms will be developed to enable students to access their personal data, and the Learner Analytics performed on it, at any time in a meaningful, accessible format. Students have the right to correct any inaccurate personal data held about themselves.

15. Students will also be able to view any metrics derived from their data, and any labels attached to them.

16. On occasion it may be considered that access to the analytics may have a negative impact on the student's academic progress or wellbeing. In these cases they may be withheld from the student. However, if the student requests it, all their personal data and analytics will be made available to them.

Interventions

17. A range of interventions may take place with students. The types of intervention and what they are intended to achieve are documented in the Student Guide to Learner Analytics [*link*]. These 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 is considered that the student may benefit from additional support

18. 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

19. The [*University/College*] recognises that Learner Analytics cannot present a complete picture of a student's learning, and that predictions may not always be accurate.
20. Students will retain autonomy in decision making relating to their learning; the analytics are provided to decisions about how and what to learn.

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	ESAT 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

Sample DPIA template

This template is an example of how you can record your DPIA process and outcome. It follows the process set out in our DPIA guidance, and should be read alongside that guidance and the Criteria for an acceptable DPIA set out in European guidelines on DPIAs.

You should start to fill out the template at the start of any major project involving the use of personal data, or if you are making a significant change to an existing process. The final outcomes should be integrated back into your project plan.

Submitting controller details

Name of controller	Sharon Pay
Subject/title of DPO	Student Engagement
Name of controller contact /DPO (delete as appropriate)	Paul Smallcombe

Step 1: Identify the need for a DPIA

Explain broadly what project aims to achieve and what type of processing it involves. You may find it helpful to refer or link to other documents, such as a project proposal. Summarise why you identified the need for a DPIA.

Aim

To provide a Student Engagement monitoring system (QEngage) to assist schools in identifying students who are at risk of disengaging and may benefit from academic or pastoral support.

Types of Processing

- Data matching
- Tracking

Matching and combining datasets

QEngage combines datasets from the following systems:

- Student Records
- Timetabling
- QMPlus (VLE)
- QReview (video recording)
- Online registers
- Wall scanners
- Microsoft Teams
- Zoom

Data Processed on a large scale

A high proportion of the Student population for the current academic year are likely to be subjected to some level of data processing.

Need for DPIA

DPIA is required because the processing involves the use of personal data.

Step 2: Describe the processing

Describe the nature of the processing: how will you collect, use, store and delete data? What is the source of the data? Will you be sharing data with anyone? You might find it useful to refer to a flow diagram or other way of describing data flows. What types of processing identified as likely high risk are involved?

Data Collection

Data from the Student Records and timetabling systems, online registers and wall scanners, is collected via a secured dedicated link between the source servers and the BI central repository in the data centre.

QMPlus data is collected via an SSL encrypted link that ensures that data passed between the external host server and central repository remain private.

Data from the QReview system, Microsoft Teams and Zoom, is collected via secured Application Programming Interfaces.

Data Sharing

Once the data is in the central repository only ITS Database Administrators and Reporting Services teams have direct access to the datasets.

Other staff requiring access to the data for reporting purposes, are given 'read only' access to subsets of data, via database views.

Data for monitoring student engagement is shared with School Admin and Academics via dashboards. Row-level security is implemented so that at a granular level, users can only access rows of data relevant to their role, e.g., School Admins can only see the data for students taking modules owned or taught by their School/Institute, or students on joint Programmes with their School/Institute, and Academic Advisors can only see data for their advisees.

The ITS Reporting Services team has control of the deletion and sharing of the data.

Describe the scope of the processing: what is the nature of the data, and does it include special category or criminal offence data? How much data will you be collecting and using? How often? How long will you keep it? How many individuals are affected? What geographical area does it cover?

How much data and how many are affected

Data is collected for all students with an active status in the current academic year.

Special Category Data Collected

- Student – Name, Date of Birth, Gender, Disability, Ethnicity, Email Address and Photo
- Advisors - Name and Email Address
- Module Convenors - Name and Email Address

How Often

Data is collected and processed daily, on week days.

Data Retention Period

Data will be deleted 3 years after the student's enrolment record has been closed.

Describe the context of the processing: what is the nature of your relationship with the individuals? How much control will they have? Would they expect you to use their data in this way? Do they include children or other vulnerable groups? Are there prior concerns over this type of processing or security flaws? Is it novel in any way? What is the current state of technology in this area? Are there any current issues of public concern that you should factor in? Are you signed up to any approved code of conduct or certification scheme (once any have been approved)?

Nature of relation and their expectation for the use of their data

The individuals are students of QMUL. The Students Union previously raised concerns about the monitoring of student's activities. However, it was explained that the monitoring of engagement is intended to be supportive and any resulting procedures and communications are intended to help early identification of students who may benefit from academic and pastoral support.

Concerns over processing or security flaws

There were no concerns. Security measures have been implemented for the on-premises database services, per the ITS security policy, and multi-factor authentication has been implemented for GDPR compliance. This ensures that all users of the QMUL Power BI online service including externals, must provide two forms of credentials to access the service and view the dashboards.

State of Technology

QEngage employs the following technologies:

- Power BI – the dashboards are developed in Power BI which is one of the market leaders for BI data visualization tools.

- SQL Server Integration Services - also a market leader in data integration, is used to extract, transform and load the data collected from the various source systems.

- SQL Server Analysis Services - another market leader that supports the data modelling and analysis that underpins Power BI.

No children or other vulnerable groups are included.

Describe the purposes of the processing: what do you want to achieve? What is the intended effect on individuals? What are the benefits of the processing – for you, and more broadly?

Benefits of the Processing

Student engagement involves not just students' interaction in the classroom but also their interaction with online learning materials. The benefits of the processing is to analyse data from the different teaching and learning systems in order to identify students who are at risk of disengaging, and may benefit from academic or pastoral support.

More broadly, as research has shown that the more students are engaged, the more they learn, and the more they achieve, the use of student engagement data can give insights into strategies to enhance student engagement and academic success and the student experience as a whole.

Step 3: Consultation process

Consider how to consult with relevant stakeholders: describe when and how you will seek individuals' views – or justify why it's not appropriate to do so. Who else do you need to involve within your organisation? Do you need to ask your processors to assist? Do you plan to consult information security experts, or any other experts?

Consultation with Security Experts

QEngage has been a Production service for several years and ITS security experts, with input from external consultants, have been consulted throughout the provision of the service.

Consultation with Stakeholders

QEngage has been reviewed under the Strategic Project 112, which aims to implement improvements to Learner Analytics at QMUL, and as part of this, focus groups were held and interviews conducted with stakeholders, to identify issues and potential improvements to the system. An online World Café event with Directors of Education and Programme Directors was held to identify academic colleagues' key priorities for Learner Analytics, and a Task and Finish Group with representation from all three faculties and the Students' Union, was convened to draft a governance pack to guide QMUL's use of Learner Analytics.

Currently, students can request to see data held within QEngage but do not have full access to the system. It is intended that this data will be fully accessible to students and student feedback on the system will be sought at this point.

Step 4: Assess necessity and proportionality

Describe compliance and proportionality measures, in particular: what is your lawful basis for processing? Does the processing actually achieve your purpose? Is there another way to achieve the same outcome? How will you prevent function creep? How will you ensure data quality and data minimisation? What information will you give individuals? How will you help to support their rights? What measures do you take to ensure processors comply? How do you safeguard any international transfers?

What is the lawful basis for processing the data

The basis for processing the data is a legitimate interest in identifying students who may benefit from academic or pastoral support.

Does the processing achieve the purpose

Often, students in need of support have reduced attendance, lower participation and engagement with QMPlus, or reduced academic performance relative to their cohort. QEngage takes account of School specific markers of engagement and compare the performance of students against thresholds set by each school, to identify the students in need of support.

Students identified are contacted and asked to meet with their School Admin Officer and/or Advisor.

Is there another way to achieve your objectives

Across the HE sector it is recognised that attendance data is one indicator of students' engagement with their programme. For some programmes, attendance is one of the key indicators, along with assignment submissions, with VLE activity less so. However, for other programmes, VLE activity is a key indicator. For this reason schools can define acceptable levels of engagement based on their programme requirements which is different for other schools. Without the processing of the data, the early identification of students would not be possible.

Function Creep

We hope to prevent function creep by being clear about the purpose and maintaining an ongoing open door policy for staff to be able to report use of the system which is not aligned with the purpose.

Data quality and data minimization

The QEngage process will collect and process data sufficient to fulfill its purpose. We will ensure that analysis of data is as accurate as possible. Users are encouraged to report inaccurate data. Engagement data will not

be kept for longer than its useful purpose in line with the engagement monitoring data retention policy.

Compliance of Processors

We have implemented multi-factor authentication to ensure GDPR compliance when accessing the Power BI online service. We have also implemented row-level security to ensure that users will only be able to access data relevant to roles.

Step 5: Identify and assess risks

Describe source of risk and nature of potential impact on individuals. Include associated compliance and corporate risks as necessary.	Likelihood of harm	Severity of harm	Overall risk
	Remote, possible or probable	Minimal, significant or severe	Low, medium or high
Data breach as a result of special category data being exported from the dashboard into Excel by a user.	Possible	Significant	High
Students not expecting their data to be processed in this way	Probable	Minimal	Medium
The system not being used for the intended purpose	Possible	Minimal	Low

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Step 6: Identify measures to reduce risk

Identify additional measures you could take to reduce or eliminate risks identified as medium or high risk in step 5				
Risk	**Options to reduce or eliminate risk**	**Effect on risk**	**Residual risk**	**Measure approved**
		Eliminated reduced accepted	Low medium high	Yes/no
Data breach as a result of special category data being exported from the dashboard into Excel by a user.	Disable the Export feature.	Eliminated		
Students not expecting their data to be processed in this way	More consultation with the Student Union	Reduced		

Step 7: Sign off and record outcomes

Item	Name/position/date	Notes
Measures approved by:		Integrate actions back into project plan, with date and responsibility for completion
Residual risks approved by:		If accepting any residual high risk, consult the ICO before going ahead
DPO advice provided:		DPO should advise on compliance, step 6 measures and whether processing can proceed
Summary of DPO advice:		
DPO advice accepted or overruled by:		If overruled, you must explain your reasons
Comments:		
Consultation responses reviewed by:		If your decision departs from individuals' views, you must explain your reasons
Comments:		
This DPIA will kept under review by:		The DPO should also review ongoing compliance with DPIA