

Learning Analytics

A guide for students' unions

The following highlights some anticipated emerging issues with the use of learner analytics and student data in UK higher education and how students' unions might deal with them on their campuses.

Learning Analytics – the basics

Learner analytics is about using the increasing potential of data insight to improve students' learning. As IT infrastructures and processing power develops, it is now possible to record and store data relating to many aspects of the student learning experience: classroom and library/lab attendance; use of books, VLEs and other resources; assessment marks and feedback; and student profile and demographic data. Data models can identify trends and patterns to assist educators in designing personalised support and assistance for students, and to arrange interventions if there is evidence of a student struggling.

This has massive power and potential to tackle some of the problems and challenges that currently exist in UK higher education, such as avoiding unnecessary drop-outs, student demotivation, reducing the number of exam resits, enabling more reflective learning and engagement, and reducing inequalities such as the BME attainment gap.

Analytics also have the power to help us understand more about what cultivates effective student engagement and learning in higher education. Early indicators from those institutions pioneering analytics work has suggested that institutions could make huge strides in using engagement measures to increase student success and support, and that even very basic analytical models are being used to prevent unnecessary drop-outs.

Issues to consider

Despite all the exciting potential of learner analytics there are a number of issues that could prove problematic if the appropriate checks and balances are not in place to defend students' rights and interests.

Partnership

The prime purpose and use of analytics should be to support the student-teacher partnership that is at the heart of education. This sits nicely with Jisc's starting principle that analytics is a "transparent moral practice". In a partnership, the use of a students' data to support them and their peers must be seen as transparent, as a way of bringing out the best in students and educators, and must always be used whilst recognising the primacy of student individuality and independence.

The role of students' unions

The issues involved in the ethics and fair use of learner analytics are broad and unprecedented, and there will be many points of contention within institutions that are unforeseeable. Analytics development is built around 'secondary use' innovations of data (i.e. uses that we cannot anticipate yet). It is therefore vital that students' unions form a core part of institutions' considerations on the use of analytics and are given recourse or space to dispute uses that students object to. NUS will be on hand to support officers and staff in students' unions to engage with their institutions on learning analytics issues and to defend students' rights.

Privacy and data sharing with third parties

Collecting data on student attendance at classes and in study spaces can be an important part of analytical models. It is as yet unclear whether higher education providers would be compelled to share analytics data with the government if it requested it for the purpose of immigration and border control, and in some cases the collection of data ostensibly for analytics might actually be for attendance monitoring of international students. NUS and unions must also ensure that students' data for learning purposes is not being sold or shared to commercial third-parties by HEIs.

Permissions and consent

Institutions need to be transparent and explicit with students about how and why they use data, and Jisc's Code of Practice makes this very clear. It also draws attention to some of the challenges in providing meaningful consent frameworks. This mirrors existing issues concerning consent for use of data by social media companies such as Facebook and Twitter, with terms and conditions regularly updated but largely unfathomable to the average user. Obtaining 'informed consent' can be very difficult, and large numbers of opt-outs would disrupt the utility of data-sets for effective analytics. Students' unions should gain an understanding of how their members feel about use of data for analytics, and their level of awareness about the consents that they have given.

'Formative' data and academic judgement

As analytics become fashionable there will be an incentive for institutions to collect larger and larger datasets about their students' behaviours. Students will undoubtedly contend that many behaviours (e.g. lecture attendance) are 'formative' and should not be monitored. Furthermore, as more sophisticated models about student progress are developed the boundaries will likely blur between 'formative' judgements of data models and more traditional 'summative' academic judgements of student work and attainment.

Big data and the HE sector

Looking ahead NUS and students' unions will have to consider the effects that analytics might have on the public accountability of HEIs and on big policy issues such as widening access institutional teaching and research funding, quality assurance, staff performance management, the 'datafication' of student behaviour, and the dangers of the 'dictatorship of data' in education. This must be balanced with an acknowledgement of the massive potential that there is in moving from a 'fragmented information culture' to an 'integrated information culture'.

Jisc Code of Practice

Jisc, with substantial input from NUS, have written a Code of Practice to help guide higher education institutions on legal and ethical issues relating to analytics:

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

If you have any further questions about learning analytics or would like support from NUS on this issue, please email

david.morris@nus.org.uk