Wellbeing Analytics Roundtable (9 May) - Meeting Notes

Presentations

James Newham & Carly Foster – Northumbria University

- Northumbria University opened by presenting the case for analytics-based approaches to identify students at-risk of poor wellbeing. This follows the OfS-funded project from 2019-2022.
- The case for analytics was emphasised: rising support needs but low levels of disclosure; increasing digitalisation presenting an opportunity to generate actionable insight; existing sector familiarity with learning analytics systems; and HEPs possessing considerable amounts of relevant data already.
- The Northumbria analytics project delivered four key outputs: a student opt-in system than enabled data to be used for wellbeing purposes; a ranking of data that is most predictive of wellbeing; a mechanism to deliver interventions (nudge communications) that are tailored to wellbeing scores; and a wellbeing monitoring dashboard that aligns data to support colleague decision-making.
- The project improved Northumbria's understanding of students – e.g., the levels of wellbeing across the student population, the trajectory of wellbeing throughout the academic year(s), and common factors associated with poor wellbeing.
- Following deployment of the nudge interventions, Northumbria saw a 20% increase in self-referrals to wellbeing services. Students who accessed services following an analytics-prompted nudge were more likely to report very low wellbeing.
- Moreover, Northumbria is currently completing a TASO-funded project to understand the comparative advantages of using different datasets (analytics data vs static wellbeing data vs no data) to identify students in need of wellbeing support. Evaluation of this project is ongoing.
- A forthcoming special edition on using data analytics for student mental health with Perspectives: Policy and Practice in Higher Education is expected in 2025/26.

Jane McNeil and David Woolley – Nottingham Trent University

- Insights were shared from ongoing work at NTU to develop a wellbeing analytics capability based on the Jisc-published Core Data Specification.
- Aims: develop an algorithm that predicts the risk of low wellbeing, develop a nudge intervention that encourages students to access support, help students before issues become more severe or entrenched, and improve wider communications and signposting to wellbeing and mental health support.

- NTU developed an algorithm based on students' self-reported wellbeing data (WHO-5) along with their characteristics and circumstances (selected from the Core Data Specification). Machine learning was applied to understand which associations were strongest, and the predictive accuracy was refined over several iterations. Analytics-prompted interventions were rolled-out gradually (beginning with first-year UG) to mitigate the risk of services becoming overwhelmed.
- Findings: NTU students reported lower average wellbeing than the UK 18-24 average. Open rates of analytics-prompted emails were higher than NTU average. Further work is needed to improve the predictive accuracy of the algorithm against WHO-5 (which will likely require further iterations that include additional data).

Jim Keane and Phil Richards – Jisc

- Jisc reflected on their evaluation of the OfS Northumbria analytics project, noting in particular the importance of improving the quality and availability of data, nurturing a whole-HEP approach to developing – and responding to - wellbeing analytics, and ensuring appropriate lawful bases are selected and communicated.
- Key documents to support the sector to develop and enhance analytics were shared:
    - Code of practice for wellbeing and mental health analytics
    - Code of practice for learning analytics
    - Core data specification for engagement and wellbeing analytics
    - Senior managers guide to learning analytics
    - Data maturity framework
- HEPs were encouraged to explore how data could be used to support student wellbeing, even in the absence of predictive analytics. In many cases, static data or descriptive analytics may still offer meaningful insights.
- Jisc noted that HEPs are generally more open to collaboration in areas such as digital, data, and technology. Student wellbeing was identified as a growing area for potential cross-sector collaboration - particularly in light of the sector's ongoing financial pressures and the tangible benefits that a cooperative approach could offer institutions and students. This aligns with the recent Jisc and KPMG report, Collaboration for a Sustainable Future. Sector collaboration on wellbeing analytics would depend on the development and adoption of shared standards, an area where Jisc has expressed a willingness to provide support.

Key Themes from the Discussion

Developing wellbeing analytics

- The significant volume of data held by HEPs was highlighted as a valuable, yet underutilised, asset in generating actionable insights into student wellbeing.
- Wellbeing analytics has the potential to deliver a range of benefits – from improved mental health outcomes and reduced non-continuation rates to more efficient use of institutional resources.
- While some data may appear predictive of wellbeing, the way it is currently collected or stored in institutional systems may present challenges for inclusion in analytics models without modifications.
- Developing accurate and reliable predictive algorithms for wellbeing is complex. Unlike metrics targeted by learning analytics – such as continuation or academic outcomes – wellbeing and mental health are more difficult to define, measure and model. This challenge is further amplified by a limited number of analytics providers operating in the UK HE sector, and a general lack of familiarity with applying analytics to student wellbeing.
- The creation of analytics models is an iterative process. Algorithms must evolve over time as new data becomes available, as systems become more advanced, and as students' needs or characteristics shift.
- HEPs should be clear about the intended outcomes of their wellbeing analytics systems. A well-defined purpose will help shape both the business case and the design of the analytical model. HEPs should distinguish between two key approaches: using analytics to enhance understanding of students' mental health (to inform broader student support strategies) and using analytics to directly influence student outcomes through targeted data-prompted interventions.
- There is a risk that analytics systems may become overly complex, limiting their usability to a small group of technical specialists. HEPs should balance sophistication with accessibility, ensuring that the systems can be effectively used by the wider colleagues responsible for acting on insights.
- It is essential to involve data protection colleagues from the outset. They can play a key role in operationalising wellbeing analytics by addressing perceived legal barriers. Selecting an appropriate lawful basis – and communicating this clearly and transparently to students – will be critical to building trust.

Analytics within a whole-institution approach to student wellbeing

- Analytics systems are not a standalone solution for supporting student wellbeing. Rather, they should be seen as one of several tools that can help HEPs deliver more effective support. Certain student groups – such as those experiencing poor wellbeing but who do not engage with support services or disclose their difficulties –

may particularly benefit from analytics-informed interventions. In contrast, other groups may be effectively supported through existing approaches.

- Analytics are most effective when paired with human interventions. HEPs must ensure that colleagues are appropriately trained to interpret and act on insights confidently and competently.
- The evidence base is still developing in terms of which interventions are most effective when prompted by analytics, and which colleagues are best placed to deliver them. Addressing these gaps should be a priority for future research.
- Wellbeing analytics should be applied as cross-HEP activities. While ownership may reside in a specific team, implementation and ongoing evaluation should involve cross-functional collaboration (e.g., legal, data protection, student support, academic teams).

The changing nature and expectations of higher education

- HEPs are increasingly evolving into customer-service organisations, with growing expectations that they will meet the diverse needs of students and use data to inform the design and delivery of students' HE experience. Effectively collecting and using data - through tools like analytics and CRM systems – is becoming (or will become) central to delivering personalised, student-centred support and teaching.
- Recent advice from the Equality and Human Rights Commission has placed greater emphasis on the responsibilities of HEPs in supporting disabled students. This includes the duty to share relevant information about a student's disability and to act on available information – even in the absence of a formal diagnosis or evidence. In this context, analytics could offer a means of identifying students who may be at-risk. However, HEPs must have confidence that colleagues are consistently interpreting these insights and responding with timely, appropriate interventions.

Cross-sector support, guidance and activities

- HEPs collect different types of data, operate a variety of systems, and serve diverse student populations. As such, while the Core Data Specification offers a helpful foundation, its application must be considered and adapted to fit the specific context of each HEP.
- Many HEPs may choose to develop their own approaches to wellbeing analytics. While this can offer benefits, in time there will likely be an increasing need for cross-sector collaboration, including the sharing of good practice, guidance on system

design, and advice on procurement. Jisc is well-positioned to support and coordinate these activities.

- More broadly, at a national level initiatives are underway to generate greater consistency in the collection and use of student wellbeing data. In England, the pilot of the national Pre-Arrival Academic Questionnaire – developed by Jisc, AdvanceHE and the University of East London – is one example. Another, in Wales, is developing standardised mental health terminology aligned with NHS frameworks, which may in time support national planning for student health services. These are presenting example of cross-sector collaboration around the use of data which could inspire or inform future work on wellbeing analytics.