Student data systems and GovTech apps will increase competition and performance measurement in higher education

Current debates in higher education policy have drawn attention to the significant impacts of marketisation, metrics, and performance management on the sector. ***Ben Williamson*** *argues that a restructuring of the data infrastructure is shaping these HE trends. An examination of the HE data infrastructure reveals the political aspirations coded into its architecture, the actors involved in its production, and its practical effects. The UK HE data infrastructure is about to get a massive upgrade, increasing competition, measurement, and consumer ranking through data platforms, dashboards, and new GovTech applications.*

Digital data analytics have begun to impact on fields of public and social policy, and higher education is currently high on the agenda for data-driven "government by algorithm". An example is the proposal announced by Universities Minister Sam Gyimah to rank degree courses based on Longitudinal Educational Outcomes data, as part of an updated Teaching Excellence Framework. Following last year's launch by Chancellor Philip Hammond of competitive funding for innovative "GovTech" applications to "fix public sector problems", the proposed new TEF will be accompanied by an Open Data competition for tech companies and coders to create apps to help prospective students decide where to apply.

HE is about to get a GovTech upgrade, with student apps and websites for consumer-style price-comparison of degree courses just part of a national programme to build a new data infrastructure that will affect HE for years to come. In recently published research, I have mapped a new national system for student data collection, analysis, and dissemination that is intended as a technological fix for HE policy challenges. Due to go live in 2020, it will act as a technical delivery platform for governmental ambitions to make HE more market-driven and competitive.

Led by the Higher Education Statistics Agency (HESA), the Data Futures project is intended to enhance HE data quality and make data more useful and useable for the public, policymakers, providers, and the media. As HESA's chief executive wrote in the *Times Higher Education*, it will allow students to make informed choices and policymakers and regulators to make better decisions, while promoting public confidence, enabling institutions to be more competitive, and providing "a lever to incentivise or penalise behaviour in the absence of public funding".

As its name suggests, long-term aspirations infuse Data Futures. It will extend over time to provide enhanced analytical tools for users and providers, open up larger stores of data for analysis and innovation, and make it possible to link datasets across government departments and policy areas to improve HE decision-making.

Like any data infrastructure, the Data Futures infrastructure has a long backstory involving a constellation of people, politics, and technologies. HESA has maintained the current system for reporting of student information since 1994. It was the 2011 Department of Business, Innovation and Skills (BIS) paper "Students at the Heart of the System" that catalysed the new data infrastructure programme.

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Global consultancy organisations played a major role in establishing its direction. In consultation with HESA, Deloitte produced "a proposal for a coherent set of arrangements for the collection, sharing and dissemination of data for the higher education data and information landscape". KPMG followed it with a "blueprint" for a new "data and information landscape for Higher Education in the UK that has effective governance and leadership, promotes data standards, rationalises data flows and maximises the value of technology and enables improved data capability".

As government drives Data Futures to put students at the centre of the system, in 2018 HESA became the Designated Data Body to work with the incoming Office for Students (OfS). Created by BIS as an explicitly pro-competition, pro-student choice, consumer-focused market regulator, the OfS will knit Data Futures tightly into the management of a marketised, performance-driven higher education sector, operationalising the blueprints produced by global consultancies as an architectural vision for HE.

Data infrastructures are often rather invisible, acting as technical substrates to other, more visible activities. Data Futures will become visible and productive in practice through a new data platform for data collection, and new data dashboards to analyse the data and communicate results. Technical development of these platforms relies on software vendors. The appointed supplier of the data collection platform is Civica, a software outsourcing company. HESA said Civica would deliver an "improved data model and extended capabilities [which] will offer users of HESA data a regular flow of accessible information through an enhanced user interface and visualisation tools".

Further data dashboard development to communicate findings from the platform is being undertaken through a collaboration between HESA and Jisc (Joint Information Services Committee) as part of their "business intelligence shared service". Driven by the application of the Heidi Plus software platform provided by the commercial supplier Tableau Server, it emphasises "cutting-edge data manipulation and analysis" in order "to rapidly produce analyses, visualisations and dashboards for a wide variety of stakeholders to aid with decision-making".

Notably, HESA has also signed an agreement with *The Guardian* and *The Times* newspapers to use Heidi Plus to produce interactive HE dashboards of rankings and measures. This, claimed HESA, will "enable universities to accurately and rapidly compare and analyse competitor information at provider and subject level, changes in rank year on year", and "the highest climbers and the biggest 'fallers'". It also noted that the presentation of league table data will help shape public opinion about different providers.

The Data Futures blueprints, platform, and business intelligence dashboards constitute a new architecture for the future of HE policy and institutional decision-making. Civica's data platform and the Heidi Plus dashboard software are evidence of how GovTech applications are already being developed as interfaces to the Data Futures infrastructure. GovTech extends governmental ambitions around increased performance measurement, consumer rating, and market reform through the computer interface and into the eyes, hands, and decisions of policymakers, university managers, the media, the public, and students.

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As it is fully operationalised in 2020 to coordinate all student data collection, Data Futures may open up a market for new software suppliers of GovTech apps and platforms. The Open Data Competition for student-facing price comparison applications is a prototypical example. With various crises of funding, market forces, and competition already looming over the sector and its future, outsourced global consultancies, software vendors, and GovTech coders are being contracted to deliver new data infrastructure and platform solutions. These technological fixes seem set to increase market pressure and performance measurement in higher education for many years to come.

This blog post is based on the author's article, "The hidden architecture of higher education: building the big data infrastructure for the 'smarter university'", published in the International Journal of Educational Technology in Higher Education (DOI: 10.1186/s41239-018-0094-1).

Note: This article gives the views of the author, and not the position of the LSE Impact Blog, nor of the London School of Economics. Please review our comments policy if you have any concerns on posting a comment below.

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