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**Article:**

Andrews, P. (2019) The compliant environment : conformity, data processing and increasing inequality in UK Higher Education. *Online Information Review*, 43 (6). pp. 1063-1079. ISSN: 1468-4527

<https://doi.org/10.1108/OIR-09-2018-0284>

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# The compliant environment: conformity, data processing and increasing inequality in UK Higher Education

## **Abstract**

### Purpose

The purpose of this paper is to present the concept of institutions as compliant environments, using data to monitor and enforce compliance with a range of external policies and initiatives, using the particular example of UK higher education institutions. The paper differs from previous studies by bringing together a range of policies and uses of data covering different areas of higher education and demonstrating how they contribute to the common goal of compliance.

### Design/methodology/approach

The compliant environment is defined in this context and the author has applied the preliminary model to a range of policies and cases that use and reuse data from staff and students in higher education.

### Findings

The findings show that the focus on compliance with these policies and initiatives has resulted in a high level of surveillance of staff and students and a lack of resistance towards policies that work against the goals of education and academia.

### Research implications

This is the first study to bring together the range of areas in which policy compliance and data processing are entwined in higher education. The study contributes to the academic literature on data and surveillance and on academic institutions as organisations.

### Practical implications

The paper offers suggestions for resistance to compliance and data processing initiatives in higher education.

### Originality/value

This is the first study to bring together the range of areas in which policy compliance and data processing are entwined in higher education. The study contributes to the academic literature on data and surveillance and on academic institutions as organisations.

## **Introduction**

The ‘compliant environment’ at the Home Office (Home Office, 2017a) is a rebranding of then Home Secretary Theresa May’s ‘hostile environment’ approach to immigration (Travis, 2013), which involves the reuse and processing of data from a variety of sources (including the National Health Service, employers, housing providers, educational institutions and social media) and the promotion of unwelcoming messages aimed at migrants to the UK to support immigration enforcement. This article argues that a form of ‘compliant environment’ is what we now see in UK higher education, perpetuated by a number of different initiatives aimed at staff and students, both at the institutional and national level. The compliant environment in higher education is heavily reliant on the collection and processing of multiple sources of the data for the monitoring of this compliance, and also to create new forms of compliance and conformity via metrics and analytics. While other articles have considered these initiatives separately, this

article is original in rigorously examining their collective impact inside and outside universities, and their relationship to other everyday uses of data to monitor and evaluate citizens. This article explains the various ways in which data is used in United Kingdom (UK) Higher Education to comply with outside agendas and conform with various social and sectoral norms, and suggests a different approach informed by the resistance work of NHS workers. If UK Higher Education is important to society and is to remain a public good, this resistance work is needed. Significant claims (Leathwood and Read, 2013; Lynch and Ivancheva, 2015; Spiller et al., 2018; Teelken, 2012) are made about this collective impact of compliance initiatives: the combined effect is to enact more oppression on the most marginalised and surveilled people in higher education - both underrepresented minorities in the staff and student bodies - and to erode trust and public good in higher education. Support from the public and finance from the government depends on how the role of higher education is viewed: as employment training or as a public good in itself.

The concept of higher education as a 'public good' is contested. As Nixon (2011) points out in his work on the topic, so is the idea of the 'public' itself, and both are often too narrowly defined and need to be more broadly imagined outside the scope of private interests and those with the power to bestow or withdraw public ownership. If the government's stated desire is to encourage more privatisation and "challenger institutions" in higher education (Department for Business Innovation & Skills, 2016), that indicates that they think they have this power and do not consider the public to be the current owners. Higher education and university are not synonymous or inseparable, but the latter is the main model for delivery of the former in the UK. The experiences of both staff and students have diversified further and grown in complexity since the student population in universities has become bigger and more heterogeneous (Wånggren, 2018), and the policy framework continually changes (Collini, 2017), further exposing the inequalities already present.

Increased professionalisation and privatisation has led some academics to leave their jobs (Morrish, 2016), finding the demands of "the general distortions required to turn a university into a for-profit business" (Warner, 2014) intolerable. Others such as Les Back (Back, 2016) have chosen to stay, deploying strategies of non-jealous generosity and developing an intellectual hinterland to survive and thrive. However, academics can be argued to have been actively complicit in the auditing and marketisation measures their colleagues find so oppressive, and at research-intensive universities may have sought protection for their funding and place in middle class society at the price of the public status of the university (Holmwood, 2017, 2018).

The branding of UK universities, via distinctive design and differentiation of the "student experience" (Barkas et al., 2017; Lomer et al., 2018), has intensified since the 1990s formation of groupings like the Russell Group and Million+, which signal both the institution's position within the elite hierarchy and their intended focuses and audiences (Furey et al., 2014) to undergraduate applicants and the wider world. Prestige at institutional and individual level became more important as the sector became more marketised and forced into competition by government policy, and the number of qualified academics applying for jobs increased (Blackmore and Kandiko, 2011; Holmwood, 2018; Tregoning, 2016). To market themselves, academics and universities too are drawn into the data-driven world of benchmarked data, metrics and indicators of esteem (Coate and Kandiko Howson, 2014), and into conforming with others' ideas of what a successful or high quality brand might be. Marketing literature from UK universities demonstrates a high level of homogeneity in UK higher education, and institutional expectations are high but explanations of what e.g. "quality" or "the student experience" really mean are scarce (Huisman and Mampaey, 2018). Equally, what makes an academic employable is not any distinctive factors but high scores in standardised metrics (Hall and Page, 2015; Smeyers

and Burbules, 2011) and exercises such internal audits for the Research Excellency Framework (REF) (Grant and Elizabeth, 2015; Marcella et al., 2017; Shore and Wright, 2015) and a high score on a competency framework that often cannot allow for contextual information or individual circumstances. The ‘good’ or ‘successful’ academic (Archer, 2008; Van den Brink and Benschop, 2014) and ‘good’ university or institution (Brown and Mazzarol, 2009; Mountz et al., 2015; Olssen, 2016) are judged by rankings, research income and prestige, and a very particular idea of what students need and want (EY Parthenon, 2018).

This article outlines the concept of the compliant environment in higher education. It then explains how data is used and combined in higher education, including for purposes of border control and othering of staff and students, the reasons why compliance occurs and offers some ideas for resisting compliance.

### **A compliant environment**

The Home Office describe their vision of the ‘compliant environment’ as follows:

*The Compliant Environment, which deters and prevents immigration offending and protects public and private services from abuse through a rounded package of incentives, interventions and sanctions, is an integral part of the BICS Business Plan. (Home Office, 2017b)*

Compliance in UK higher education also involves a “rounded package of incentives, interventions and sanctions”. The purposes of creating such an environment are different from those of the Home Office, outside of the legal requirements to support immigration and anti-terrorism (Prevent) initiatives, but the impact on staff and students is still considerable. The compliant environment in higher education presents in two connected ways:

1. Higher education acts as an arm of the UK government’s policy on immigration. This is the compliant environment as border control.
2. Higher education has adopted the compliant environment in and of itself, as extension of audit culture connected with the marketisation of UK higher education.

Why is everyone so focused on compliance in these different situations – with the government (understandable, but resistible), with funders, with vendors (NDAs etc), with certain ideas of success and excellence, with the norms of STEM (Science, Technology, Engineering and Mathematics)? Where is the governance of this form of governance? The compliant environment is the best way to understand what is happening, as it demonstrates the consequences of succumbing to the branding and marketisation of higher education in the UK and the influence of external stakeholders in the sector – all monitored and controlled by data products and services. This is important because it helps to take a holistic view of where higher education (HE) sits within wider trends of data use in education and the UK government’s interventions around immigration and ‘excellence’ in universities (Moore et al., 2017) and who suffers most from the implementation of compliance across all areas of HE.

The “compliant environment” is a way to draw together and extend other, often related, concepts already in use in the sociologies of higher education and work: audit culture, managerialism (over-reliance on professional managers), marketisation (turning the university sector into a competitive market), quantified work (work reduced to what can be measured, e.g. targets or rankings), New Public Management (making public services more business-like), attainment gaps (between groups of learners) and the performative university (one where the challenges are seen as individual, rather than structural - Pereira, 2015). All of these issues have to be seen together to understand and resist their effects on students and staff. They are part of

the same problem, where universities are not sites of resistance to policies and ideologies imposed by the government and business but are compliant with its demands.

### Data use in higher education

Just because a situation can be framed as a problem, in order that a product or service can be offered as a solution, does not mean that this problem can or should be solved. In the case of what Andrews calls data foam products (Andrews, 2017), products of dubious value such as new research metrics that are created by combining multiple sources of data, they are often sold to administrators as part of bigger workflow and analytics packages, but the individual products are marketed as answers to specific questions that were not posed by the purchaser. Comparing researchers across fields is not something that is of great benefit to researchers or their disciplines, and human expertise and robust processes have traditionally been advocated, if not always used, in sensitive situations where researchers must be individually evaluated. However, a product like Field Weighted Citation Index is a metric designed to enable this sort of comparison without knowledge or context, enabling a worker with less domain knowledge and/or fewer relevant skills to create automated reports and make recommendations to decision-makers. It is an example of automated discrimination (Lyon, 2003).

Reducing costs and increasing the productivity of staff are problems many organisations are keen to solve. When a company (RELX/Elsevier) tells you that part of their business (LexisNexis) is risk management, believe them. Their products, created via control of multiple data flows (LexisNexis, 2016, 2017), have the potential to enhance employee surveillance and employment risk management. Arguably, the internal and external use of Elsevier products such as Scopus (an index of citations) and SciVal (a reporting system for research metrics) in rankings and evaluation improve a 'high performing' university's success in attracting income in the form of research grants and student numbers.

The networks and the flows are most important in relating to the data, not the individual. Discussions about data ownership, downloading data held by an organisation or platform or calls for "transparency" do not address the issues raised by combining and processing data, nor tell the whole story. Commoditised networks, knowledge and prosocial behaviour can only be understood through consideration of the control of networks and flows, and the impact of this on society, not the data and the individual alone.

The current President of Ireland gave his opinion on the use of academic metrics in a 2018 speech:

*Within the universities...resources are increasingly channelled towards areas which, it is suggested, will yield a return, at least in the short-term, to the university in terms of increased funding. Much of this is facilitated by an abuse of metrics; an ideological fad that views the use of metrics of academic work, not as a contribution or an instrument of knowledge but as a conforming bending of the knee to an insufficiently contested neo-utilitarian mediocrity.*

(Michael D. Higgins, 2018)

Higgins is being provocative here; but talk of the abuse and effects on workers of metrics is not new, either inside or outside higher education (Burrows, 2012; Moore, 2015; Pereira, 2015). The understandable response of managers and workers alike is conformity with the expectations of the metric or target, if they are disciplined or experience loss of status or income as a result of non-compliance.

Under the General Data Protection Regulations (GDPR), an organisation processing data needs to consider whether the individual whose data is being processed expects this specific use case to happen (Information Commissioner's Office, 2012, 2018) and if they actively consented to this just by doing their job (teaching, writing, publishing, applying for grants). An individual researcher may not really have control over who they are associated with in the various data sets or who uses or does not use their work, leading to greater or fewer citations of their research outputs. If researchers do not expect this processing to happen, and feel they have little agency over how they are presented in the data product nor how they are judged by it, this should lead institutions to be more careful both legally and ethically in how processed data such as metrics are used.

Metrics and rankings, whether used singly or as part of a "basket of metrics", only tell the observer what an individual or organisation has done, not what they can - or are even likely to - do. If researcher, departmental or institutional potential is evaluated solely or predominantly via metrics, this is not a responsible use of the numbers (Wilsdon et al., 2015, 2017). To do so is to take a Friedman-like view of personal probability (Friedman, 1976), assigning numerical probabilities to events and arguing for a scientific basis for using metrics for prediction, rather than a Keynes and Knightian approach of risks and uncertainties (Runde, 1998). Academic potential can be argued to be an uncertainty. Studies indicate that journal articles by people of colour are cited less often than those by white authors, with their work receiving less circulation and less attention even as they publish more outputs (Chakravartty et al., 2018). Novel contributions to the scholarly record receive more variable citation performance and a delay in recognition compared with more traditional or incremental contributions (Wang et al., 2017). Ironically, it is bibliometric analyses that demonstrate why bibliometric analyses should not be used to judge the quality of research or researchers, nor its potential impact. Studies of student evaluations similarly show that those metrics do not correlate with actual learning (Uttl et al., 2017).

The metrics used in the assessment of research and researchers are just part of a trend in UK universities and schools for more and more data collection, processing, analytics and sharing (Perrotta and Williamson, 2016; Williamson, 2016, 2018). Sometimes this is to fulfil legal obligations - some considered by academics to be more legitimate than others (Spiller et al., 2018), given the Conservative Government's attitudes towards immigration, potential extremism, surveillance, employment rights, liberalism and privacy. Arguments are made for analytics and technology improving staff productivity, student retention and more, when the funding for mental health and pastoral care services are being cut or remain static and the employment prospects of both staff and graduating students are constantly under threat. The idea that people are best motivated and supported by investment in them as individuals and as a society - and in the people who can help them - seems to be outdated.

Quantitative data about student achievements, attendance, activities and engagement levels, amongst other things, is used in further and higher education to predict success and pick up potential problems, as well as make claims about cohort groups and refine course and marketing offerings (Jivet et al., 2018; Wintrup, 2017). Data dashboards enable time-pressured staff to have an overview of their students and their progression, and also increase the student's sense of surveillance (Dear, 2018) and need for conformity within education, especially when targets or indicators are used to denote success or failure with a particular attribute (Burke et al., 2018). Hall and Bowles (2016) provocatively call this a "disciplining gaze", and their feedback a source for "institutional market gain". However, a scoping study from the University of Huddersfield (Bennett, 2018) found that some students like being able to see their own data and find a dashboard approach motivates their study, even when they are not achieving what is expected of

them. The author does note the need for student training and attention their wellbeing when looking at dashboards, and the study is a small one. There is a government interest in increasing the use of big data and learning analytics in education at all levels, and less positive and positivist approach to understanding how data can be used in this space is needed (Williamson, 2018).

### **Monitoring and evaluation**

University services, including the library and disability services, collect data to measure efficacy and make a case for continued funding. This is understandable at a time of cuts, where capital projects continue to receive funding, but workers are not replaced – or not with full-time, permanent, properly-paid posts. It is a short step from monitoring grades, feedback, attendance, punctuality, engagement with learning management systems or virtual learning environments (VLEs), legal and health status and so on to passing it between institutions and governments and flagging up risky applications for courses, modules, placements, jobs. Some institutions have piloted tracking of student (Wang, 2018) movement around campus and others are using data to track services staff (Skillweb, 2018; SmartTask, 2018). It would not be difficult to de-anonymise that data, given the other data held on students (including closed circuit television – CCTV - footage, class attendance, wi-fi usage and social media accounts) with which it could be triangulated. The university does not have to be collecting all the data itself, but it has fallen into procurement and subscription deals with those who have access to multiple data flows and collect and create more. This is how universities end up contributing to the infrastructure of student surveillance.

An individual has limited capacity to opt out from or resist most of these data-based monitoring and evaluation initiatives, particularly while the prestige economy and competition that enables scholars to advance in their careers (Coate and Kandiko Howson, 2014; Kandiko Howson et al., 2018) causes them to feel anxious and isolated (Loveday, 2017, 2018). The power for that kind of action requires collective responsibility from unions and institutions and political action from elected representatives, who would do better to consider qualitative as well as quantitative evidence for their actions. If, as has been argued, enthusiasm for the use of metrics and data analytics is against the stated values of researchers and librarians (Andrews, 2017), then organisations representing those groups could do more to develop principles for responsible use of data and metrics and the use and procurement of analytics products. This ‘civic hygiene’ (Schneier, 2007) approach would reduce the threat from bad actors. Individuals, even powerful ones, cannot personally remove the incentives for using data to monitor, evaluate and exclude people, so it is up to institutions and policy makers to behave responsibly and protect citizens by creating and supporting new norms around data use and reuse – even as universities continue to blandly conform with institutionalised values (Mampaey, 2018) and fear risk.

### **Combining data sources**

Data collected and/or processed for one purpose can end up being used or combined and used for another, increasing risk to those who provide or are measured by the data. Data products, some of which are of dubious value (data foam), are bought or used by institutions, arguably sometimes because they are there rather than out of need (Andrews, 2017). Data can be combined in ways that amplify existing inequalities around gender (Hill et al., 2016), race (Tramer et al., 2017), class (Archer, 2008; Bathmaker et al., 2013), precaritised work (UCU, 2016), first generation students etc and more. Recent statistical reports on UK students from the Sutton Trust (Montacute and Cullinane, 2018) and UK staff and students from Access HE, formerly HESA (Equality Challenge Unit, 2018a, 2018b) show that those existing inequalities, based on protected characteristics data, are not improving and in some cases are worsening. It is

no longer the case that “if you are not paying, you are the product”, as part-payment via data is part of the business model for companies inside and outside of academia, and cuts to the higher education budget make these kinds of deals more likely.

Comparisons between individuals and organisations and the intensification of the prestige economy are linked to marketisation, managerialisation and the problems of identity work within organisations. This admittedly difficult identity work, particularly as a precursor to changes to student admissions, has been suggested as a way for academics and managers to resist perpetuating inequalities and address the exclusionary nature of their institutions (Boliver et al., 2018). Researchers and students assert the limited agency they have in a competitive system where they have limited power and their performance is continually monitored and evaluated. When evidence to the Government is being provided by QS Solutions, who produce world rankings based on Scopus and other data and student survey reports branded as “enrolment solutions” (QS Enrolment Solutions, 2018a, 2018b), it is clear that the agenda is being shaped by vendors with something to gain from simplification, combined data products, rankings and metricisation. Senior managers and research offices are offered these products, such as the full workflow suites from Elsevier and Digital Science, or alternative products from Clarivate, to improve their efficiency and performance. Rank and file academics, students and librarians have little or no say in whether or not they are included in these purchases and pilot schemes.

Young people in some countries may not know a life without tracking, having been subject to dataveillance throughout school, university, their academic or other career (Lupton and Williamson, 2017). Supplier oligopoly in big data means a student or staff member could be at a sensor-loaded football stadium on Saturday, filmed by body-worn cameras operated by railway station staff and police on their way home on Sunday and tracked across campus on Monday – with all the data stored in the same corporate cloud. The same landgrab that happened in other areas of technology has happened here, which increases risk for those who would prefer their data not to be combined. Institutions, government, funders, administrators and librarians need to recognise their roles in perpetuating these problems, instead of just blaming large technology companies. Unethical use of data by academic researchers, e.g. the personality quizzes on Facebook that fed Cambridge Analytica’s political activities and far lesser known examples, may well be the result of pressure on academics to publish quickly, be original, significant and suitably quantified in their research (Hermanowicz, 2016; Loveday, 2018), but contributes to the problem at the macro level as attitudes towards use of personal data are tainted. Is the ‘good university’ one that fulfils expectations of the sector and the Home Office, or one that puts behaving ethically towards students and staff first? The wellbeing of marginalised staff and students should not be a secondary consideration.

### **Bordering, othering and immigration**

Marginalised students and staff experience more surveillance by systems and society and feel under more pressure to perform successfully, as in the experience of Femi Nylander, a black Oxford alumnus who was tracked via CCTV and his image circulated to staff and students (Joseph-Salisbury, 2019), the racist treatment by colleagues of academic Priyamvada Gopal (Mirsky, 2018) and the support for the “free speech” of senior academics making statements and writing articles that are perceived by transgender staff and students and their supporters as discriminatory and hurtful (Kennedy, 2018; t philosopher, 2019). While the junior researchers, such as the anonymous trans woman ‘t philosopher’, leave academia due to transphobia, the senior academics who erroneously claim from their platforms to be “silenced” (Phipps, 2019) – critiqued by Sara Ahmed as an abuse of unrecognised privilege (Ahmed, 2015, 2016) - are rewarded with promotion. The tendency of the university is to distrust both workers and

students, requiring endless paperwork providing proof of disability (Dong and Lucas, 2013; Hughes et al., 2015; Seale et al., 2015), illness, fitness to return to work/study and more. The experience of difference and an inability to conform and comply with the norms of their peers is felt by academic parents (Harris et al., 2017), trans academics (Pitcher, 2017), working class students and academics (Bathmaker et al., 2013; Black, 2005) and more – and all feel watched and judged.

University workers have a duty under UK counter-terrorism law to prevent people from being drawn into extremism, and the requirement for monitoring and reporting of suspected radicalism brings them into conflict with their need to support academic freedom and the welfare of their students (Spiller et al., 2018). This is often called the “Prevent duty” or “PREVENT strategy” and universities must report any incidents immediately to the government (previously to the Higher Education Council for England, HEFCE, now to the Office for Students) and also supply details of their compliance with their duty to protect “British values” and identify people at risk of radicalisation (HEFCE, 2017; HM Government, 2015; Morrice, 2018) on a regular basis. Some of these reports are published online (Queen Mary University of London, 2017). The binaries between migrant/non-migrant and interested in extremism/at risk of radicalisation are more porous than accounted for by the law, in a multicultural and international society with 24/7 access to the news and online sources, or by the general approach to the reporting duty or the data generated from reports. Muslim students in particular experience life as part of a surveillant assemblage of policies, rhetoric and security measures that distrust them and set them apart from their peers, without the data gathered on them significantly improving the intelligence gathered on terrorism either from radical Islamist sources or the UK far right (Sharma and Nijjar, 2018). In the latest update to the counter-terrorism strategy, Prime Minister Theresa May made this statement: “Because the threat we face is large and multi-faceted, this Strategy has a much greater focus on systemic co-ordination across the public sector” (Home Office, 2018a). Universities are neither set apart in an ivory tower, nor neutrally situated within a community – they are part of this public sector infrastructure of compliance.

It is argued by many that higher education is a public good as well as a successful export in international trade (Marginson, 2011; Tilak, 2009), but the UK government views working and studying in higher education as an opportunity for immigration irregularities and requires a large amount of compliance work from institutions that sponsor international students (Home Office, 2018b; UCEA, 2014; University of Chester, 2018; University of Liverpool, 2017; University of Strathclyde, 2018). Checking whereabouts information for international staff (Grove, 2016) and students (Grove, 2012; University of Edinburgh, 2017) can begin as a way of fulfilling obligations to the UK Visa and Immigration (UKVI) inspectors that then normalises requests from a vendor, the Estates department and others for checking academic and student space usage via sensors (FlexibleBoss, 2016; Strydom, 2014; The University of Edinburgh, 2017), tracking other activities online and making a lack of trust the default. The ubiquity of this can help gain support from ‘home’ staff and trades unions for resisting what they dub “xenophobia” (Grove, 2016); however, disgruntled non-international academics may take another view and grow to resent the monitoring of all in service of a minority group. Academics have been co-opted into not only complying with the requirements of UKVI, but effectively becoming border control agents when they collect and report attendance and other data on international staff and students, and there has been limited resistance to this use of soft power and institutionalisation of this compliance as a sectoral norm (Dear, 2018).

*“Sponsors must... demonstrate that they are compliant with their sponsorship duties, by passing a Basic Compliance Assessment (BCA) every 12 months”* (Home Office, 2018b)

The UK has for some time had a government that wishes to make the country less attractive to outsiders (Gower, 2015) and has enacted legislation that supports their ideology (Bales, 2017; Gower, 2015; Home Office, 2017b; Partos and Bale, 2015). Different institutions take different approaches to working with international staff, with some paying the relevant fees every year for their staff and providing significant advice and support with immigration issues and others viewing it solely as the financial and administrative responsibility of the employee and their fault if full compliance with all the legalities is not achieved. A review article about the use of health data in the NHS in immigration control (Hiam et al., 2018) and a study of university lecturers’ understanding of Prevent duties (Spiller et al., 2018) offer in different ways some hope for resistance work, encouraging workers to look to their collective ethics and values and take an approach that resists neoliberal discourses around terrorism prevention and immigration control. The university does not have to be part of the iBorder (Pötzsch, 2015) or the breaking down of pluralist, accepting society (Yuval-Davis et al., 2018). The university should contribute to work around belonging, and not bordering.

### **Reasons for compliance**

UK universities have been criticised for their limited compliance with the Equality Act 2010, particularly with reference to supporting staff and students with disabilities (Department for Education, 2017). There are limited consequences for failing to make classrooms accessible or have sufficient independently-operating lifts, even with trades unions support for staff members, in part because the numbers of affected workers and students are relatively small. However, compliance with other forms of legislation and social norms, as has been shown throughout this article, is much higher, and therefore the either the inducements to comply or punishments for non-compliance for these other forms must hold significantly more weight for senior managers. The tactics of social influence, fear of ostracism within the sector and the network effects of other institutions add to the pressure to comply and conform with border control, metrics, analytics and branding imperatives (Carter-Sowell et al., 2008; Pratkanis, 2007).

A key factor in institutional support for research metrics is the corporate capture of metrics, data analytics and the various products that support them, which are sold to administrators as a solution to multiple problems they may or may not face in their role (Andrews, 2017). These products are often available as part of an information and analytics suite, offering end to end data management. Data dashboards can combine school data, admissions data, Office for Students data, data held and sold on academic outputs and their funders and more. There are internal and external pressures to improve scores in national, international and subject rankings, student numbers, grant income and industry funding and so on, and all these scores are benchmarked against other institutions. The high numbers of applicants for academic jobs also makes it tempting for universities to use individual and journal metrics in the recruitment process. It is possible that the companies marketing these metrics are playing a similar game to Cambridge Analytica, in that their publicity makes persuasive promises the products cannot fulfil.

## Resisting compliance

Academic freedom and the ‘student voice’ are never out of the media on both sides of the Atlantic Ocean, and yet there is not a sustained effort in the higher education sector to resist the rhetoric, policies and behaviours of compliance. The workforce and the student body have become individualised, precarised and fragmented. Politically, there is a tendency towards polarised discussions and “digital dissensus” (Andrews in Mina 2018), which makes it difficult to take a position that is more nuanced than discourses of utopia or refusal. The sector has arguably had to accept neoliberalism and managerialism to survive government cuts (Department for Business Innovation & Skills, 2016) and departments and individuals suffer if they do not comply with audit culture. Resistance therefore has to be collective and work with and extend the available structures, such as the trades unions and lobbying policymakers.

If it is accepted that some levels of data-driven monitoring and surveillance is inevitable, it is not inevitable that all power over the data needs to be ceded to profit-making corporates. This could be seen as an opportunity to enforce cooperative responsibility in platform governance (Helberger et al., 2018), where the workers whose data is processed or passed through a platform could have an important role in its governance and preservation. Data analytics in higher education does not need to be wholly the purview of instrumental technocrats (Kitchin et al., 2017; Ottinger, 2013), but involve the whole academic community. One challenge of resistance is the lack of voice and status for people who are actually oppressed in comparison with people who feel they are being silenced, despite in most ways conforming with middle class professional norms. There’s only one class they are interested in, and it is their own. Recent anti-transgender discourses in academic philosophy have led to tensions between the academic freedom of full professors and the safety and dignity of minority students (Kennedy, 2018). There is a need for data governance models in higher education that take power analyses into account (Bates, 2018), and a need for regulatory friction that slows the abuse of data that creates a harmful compliant environment. GDPR, mentioned earlier in this article, could be argued to cause much friction as it is very complex. High complexity can favour large companies and institutions who can manage compliance, leading to monopolies and oligopolies in data handling. However, as seen earlier in the response to the Equality Act and the lack of consequences for non-compliance, policy and legislation itself is not enough to protect marginalised people.

The responsible research and metrics movements (Stahl, 2013; Wilsdon et al., 2017) offer some glimmers of hope towards a code of practice that could be accepted by multiple stakeholders and avoid the worst abuses, as universities sign up to the San Francisco DORA (declaration on research assessment) principles (DORA, 2012) and avoid using specific metrics seen as inappropriate, such as the journal Impact Factor, for assessing individuals. However, research is only one part of the university. Teaching metrics and analytics, markers of engagement with student-facing systems, strike-breaking uses of lecture recording and employee surveillance (Edwards et al., 2018) and other forms of technology-enabled management and control are not covered by these initiatives. The modern university is so siloed that changing one group’s minds such as academics or librarians may have little impact on the wider sector, and collaborative resistance working across roles and institutions offers a greater chance of success, from rank and file academics and professional services staff to the highest levels of management. Those who choose to resist, who struggle to meet the norms of the sector or stand in solidarity with those who cannot meet those norms, can make themselves visible to others through the struggle and become a community. The systems can be queered (Ahmed, 2019).

## Conclusions

As this article makes clear, when it comes to compliance in UK higher education, it is not just metrics, or learning analytics, it is not just border control or surveillance or the undermining of industrial action. It is all those things creating an infrastructure of compliance with policies and assimilation with the norms of a certain kind of student or staff member. There is a strong “narrative investment” (Ahmed, 2015) in the idea and the identity of being a ‘good university’; and being a ‘good academic’, or at least a successful one, involves some forms of compliance and conformity to ensure certain ideas of quality assurance and brand reputation are maintained. In this house, we handle immigration well, we avoid trouble and bad press, we score well on all the metrics and rankings, we defend the boundaries of our discipline, we defend what it means to be people like us with our values and we are not the university or the academics your parents or politicians worry about. Data collection and monitoring (and surveillance) are too often used as the tools of reinforcing this narrative and set of institutional values and proving that the sector is right, not finding new stories to tell.

One off acts of resistance will struggle to work, in a time of political and social fragmentation, so it is important to take a civic hygiene (Schneier, 2007) approach to data use, data abuse and compliance as a sector. If we all wash our hands, fewer people get ill. Ongoing small actions that contribute to more than our own health can have a big impact (Raza et al., 1997). Other studies focus on single areas such as immigration, metrics, space monitoring or performance management – but this article demonstrates how compliance with them all is all part of the same drive. Brand management, prestige and a cautious approach to competition leads to conformity. The people academic and liberal values tell us we are supposed to care about most are getting hurt, and we need to see the problems structurally and act collectively to resist it. Future work in this area would link the data agenda and brand management empirically. Until then, workers and students in UK higher education must collectively agree to use data for the benefit of our communities and not merely to serve other agendas.

## References

- Ahmed, S. (2015), ‘You are oppressing us!’, *Feminist Killjoys*, pp. 1–8.
- Ahmed, S. (2016), ‘An Affinity of Hammers’, *TSQ: Transgender Studies Quarterly*, Vol. 3 No. 1–2, pp. 22–34.
- Ahmed, S. (2019), ‘Queer Use’, *Feminist Killjoys*.
- Andrews, P.C.S. (2017), “Putting it together, that’s what counts”: Data foam, a Snowball and researcher evaluation’, in Moore, P. V, Upchurch, M. and Whittaker, X. (Eds.), *Humans and Machines at Work: Monitoring, Surveillance and Automation in Contemporary Capitalism*, Palgrave Macmillan, Basingstoke, available at: <https://books.google.co.uk/books?id=7u7XAQAACAAJ>.
- Archer, L. (2008), ‘Younger academics’ constructions of “authenticity”, “success” and professional identity’, *Studies in Higher Education*, Vol. 33 No. 4, pp. 385–403.
- Back, L. (2016), *Academic Diary: Or Why Higher Education Still Matters*, Goldsmiths Press, London.
- Bales, K. (2017), ‘Immigration Raids, Employer Collusion and the Immigration Act 2016’, *Industrial Law Journal*, Vol. 46 No. 2, pp. 279–288.
- Barkas, L.A., Scott, J.M., Poppitt, N.J. and Smith, P.J. (2017), ‘Tinker, tailor, policy-maker: can the UK government’s teaching excellence framework deliver its objectives?’, *Journal of Further and Higher Education*, Routledge, Vol. 9486, pp. 1–13.
- Bates, J. (2018), ‘The politics of data friction’, *Journal of Documentation*, Vol. 74 No. 2, pp. 412–429.
- Bathmaker, A.-M., Ingram, N. and Waller, R. (2013), ‘Higher education, social class and the

- mobilisation of capitals: Recognising and playing the game', *British Journal of Sociology of Education*, Vol. 34 No. 5–6, pp. 723–743.
- Bennett, L. (2018), *Students' Learning Responses to Receiving Dashboard Data*, Huddersfield, available at: <http://www.srhe.ac.uk/downloads/reports-2016/LizBennet-scoping2016.pdf>.
- Black, P. (2005), 'Class matters in UK higher education', *Women's Studies International Forum*, Vol. 28 No. 2–3, pp. 127–138.
- Blackmore, P. and Kandiko, C.B. (2011), 'Motivation in academic life: a prestige economy', *Research in Post-Compulsory Education*, Vol. 16 No. 4, pp. 399–411.
- Boliver, V., Powell, M. and Moreira, T. (2018), 'Organisational Identity as a Barrier to Widening Access in Scottish Universities', *Social Sciences*, Vol. 7 No. 9, p. 151.
- Van den Brink, M. and Benschop, Y. (2014), 'Gender in academic networking: The role of gatekeepers in professorial recruitment', *Journal of Management Studies*, Vol. 51 No. 3, pp. 460–492.
- Brown, R.M. and Mazzarol, T.W. (2009), 'The importance of institutional image to student satisfaction and loyalty within higher education', *Higher Education*, Vol. 58 No. 1, pp. 81–95.
- Burke, S., MacIntyre, R. and Stone, G. (2018), 'Library data labs: using an agile approach to develop library analytics in UK higher education', *Information and Learning Science*, Vol. 119 No. 1/2, pp. 5–15.
- Burrows, R. (2012), 'Living with the h-index? Metric assemblages in the contemporary academy', *The Sociological Review*, Vol. 60 No. 2, pp. 355–372.
- Carter-Sowell, A.R., Chen, Z. and Williams, K.D. (2008), 'Ostracism increases social susceptibility', *Social Influence*, Vol. 3 No. 3, pp. 143–153.
- Chakravartty, P., Kuo, R., Grubbs, V. and McIlwain, C. (2018), '#CommunicationSoWhite', *Journal of Communication*, Vol. 68 No. 2, pp. 254–266.
- Clements, A., Darroch, P. and Green, J. (2016), 'Snowball Metrics – providing a robust methodology to inform research strategy – but do they help?', *CRIS 2016*, pp. 9–11.
- Coate, K. and Kandiko Howson, C. (2014), 'Indicators of esteem: gender and prestige in academic work', *British Journal of Sociology of Education*, Vol. 2014 No. March, pp. 37–41.
- Collini, S. (2017), *Speaking of Universities*, Verso, London.
- Dear, L. (2018), 'British University Border Control: Institutionalization and Resistance to Racialized Capitalism / Neoliberalism', *The International Education Journal: Comparative Perspectives*, Vol. 17 No. 1, pp. 7–23.
- Department for Business Innovation & Skills. (2016), *Success as a Knowledge Economy*, London, available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/523396/bis-16-265-success-as-a-knowledge-economy.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/523396/bis-16-265-success-as-a-knowledge-economy.pdf).
- Department for Education. (2017), *Inclusive Teaching and Learning in Higher Education*, London.
- Dong, S. and Lucas, M.S. (2013), 'An analysis of disability, academic performance, and seeking support in one university setting', *Career Development and Transition for Exceptional Individuals*, p. 2165143413475658.
- DORA. (2012), 'San Francisco Declaration on Research Assessment', *DORA*, available at: <https://sfdora.org/read/>.
- Edwards, L., Martin, L. and Henderson, T. (2018), *Employee Surveillance: The Road to Surveillance Is Paved with Good Intentions*, Glasgow, available at: [https://http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3234382](https://http://papers.ssrn.com/sol3/papers.cfm?abstract_id=3234382).
- Equality Challenge Unit. (2018a), *Equality + Higher Education Students Statistical Report 2018*, London.
- Equality Challenge Unit. (2018b), *Equality + Higher Education Staff Statistical Report 2018*, London.
- EY Parthenon. (2018), 'Higher education and workforce development', *EY*, available at: <https://www.parthenon.ey.com/po/en/expertise/higher-education-and-workforce-development#perspectives> (accessed 21 May 2018).

- FlexibleBoss. (2016), 'Sensor Sensitivity', *FlexibleBoss*, available at: <https://flexibleboss.com/2016/03/17/sensor-sensitivity/> (accessed 22 April 2017).
- Friedman, M. (1976), *Price Theory*, Aldine, Chicago.
- Furey, S., Springer, P. and Parsons, C. (2014), 'Positioning university as a brand: Distinctions between the brand promise of Russell Group, 1994 Group, University Alliance, and Million+ universities', *Journal of Marketing for Higher Education*, Taylor & Francis, Vol. 24 No. 1, pp. 99–121.
- Gower, M. (2015), *Immigration and Asylum Changes Made by the Coalition Government 2010-2015*, No. SN/HA/5829, London, available at: <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN05829#fullreport>.
- Grant, B.M. and Elizabeth, V. (2015), 'Unpredictable feelings: academic women under research audit', *British Educational Research Journal*, Vol. 41 No. 2, pp. 287–302.
- Grove, J. (2012), 'Institutions may use swipe cards to keep tabs on overseas cohort', *Times Higher Education*, available at: <https://www.timeshighereducation.com/news/institutions-may-use-swipe-cards-to-keep-tabs-on-overseas-cohort/419749.article> (accessed 3 September 2018).
- Grove, J. (2016), 'University of Edinburgh to monitor staff location', *Times Higher Education*, available at: <https://www.timeshighereducation.com/news/university-edinburgh-monitor-staff-location> (accessed 18 April 2016).
- Hall, C.M. and Page, S.J. (2015), 'Following the impact factor: Utilitarianism or academic compliance?', *Tourism Management*, Elsevier Ltd, Vol. 51, pp. 309–312.
- Hall, R. and Bowles, K. (2016), 'Re-engineering Higher Education: The Subsumption of Academic Labour and the Exploitation of Anxiety', *Workplace: A Journal for Academic Labor*, Vol. 0 No. 28, pp. 30–47.
- Harris, C., Myers, B. and Ravenswood, K. (2017), 'Academic careers and parenting: identity, performance and surveillance', *Studies in Higher Education*, Taylor & Francis, Vol. 0 No. 0, pp. 1–11.
- HEFCE. (2017), *Updated Framework for the Monitoring of the Prevent Duty in Higher Education in England*, available at: [http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/2017/201710/HEFCE2017\\_10.pdf](http://www.hefce.ac.uk/media/HEFCE,2014/Content/Pubs/2017/201710/HEFCE2017_10.pdf).
- Helberger, N., Pierson, J. and Poell, T. (2018), 'Governing online platforms: From contested to cooperative responsibility', *Information Society*, Taylor & Francis, Vol. 34 No. 1, pp. 1–14.
- Hermanowicz, J.C. (2016), 'Universities, Academic Careers, and the Valorization of "Shiny Things"', in Berman, E.P. and Paradeise, C. (Eds.), *The University Under Pressure*, Emerald Group Publishing Ltd, Bingley, pp. 303–328.
- Hiam, L., Steele, S. and McKee, M. (2018), 'Creating a "hostile environment for migrants": The British government's use of health service data to restrict immigration is a very bad idea', *Health Economics, Policy and Law*, Vol. 13 No. 2, pp. 107–117.
- Hill, R.L., Kennedy, H. and Gerrard, Y. (2016), 'Visualizing Junk: Big Data Visualizations and the Need for Feminist Data Studies', *Journal of Communication Inquiry*, Vol. 40 No. 4, pp. 331–350.
- HM Government. (2015), *Prevent Duty Guidance: For Higher Education Institutions in England and Wales*, available at: <https://doi.org/ISBN:978-1-78246-7933-9>.
- Holmwood, J. (2017), 'The university, democracy and the public sphere', *British Journal of Sociology of Education*, Routledge, Vol. 38 No. 7, pp. 927–942.
- Holmwood, J. (2018), 'Metrics, Marketisation and the End of Collegiality', *The European Sociologist*, No. 41, available at: <https://www.europeansociologist.org/issue-41/metrics-marketisation-and-end-collegiality>.
- Home Office. (2017a), *Home Office Annual Report and Accounts 2016-17*, Home Office, London, available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment>

- \_data/file/627853/ho\_annual\_report\_and\_accounts\_2016\_2017.pdf.
- Home Office. (2017b), *The Home Office Response to the Independent Chief Inspectors of Borders and Immigration's Report: An Inspection of the Right to Rent Scheme*, London, available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/695205/Formal\\_Response\\_Right\\_to\\_Rent.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/695205/Formal_Response_Right_to_Rent.pdf).
- Home Office. (2018a), *CONTEST: The United Kingdom's Strategy for Countering Terrorism*, HM Government, available at: <https://doi.org/ISSN: 00159093>.
- Home Office. (2018b), *Tier 4 of the Points Based System: Policy Guidance for Sponsors. Document 3: Tier 4 Compliance*, pp. 1–104.
- Hughes, K., Corcoran, T. and Slee, R. (2015), 'Health-inclusive higher education: listening to students with disabilities or chronic illnesses', *Higher Education Research & Development*, Vol. 4360 No. January, pp. 1–14.
- Huisman, J. and Mampaey, J. (2018), 'Use your imagination: what UK universities want you to think of them', *Oxford Review of Education*, Routledge, Vol. 44 No. 4, pp. 425–440.
- Information Commissioner's Office. (2012), *Anonymisation: Managing Data Protection Risk Code of Practice*, Information Commissioner's Office, available at: [http://ico.org.uk/for\\_organisations/data\\_protection/topic\\_guides/~/\\_media/documents/library/Data\\_Protection/Practical\\_application/anonymisation-codev2.pdf](http://ico.org.uk/for_organisations/data_protection/topic_guides/~/_media/documents/library/Data_Protection/Practical_application/anonymisation-codev2.pdf).
- Information Commissioner's Office. (2018), *Guide to the General Data Protection Regulation (GDPR)*, available at: <https://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr/>.
- Jivet, I., Scheffel, M., Specht, M. and Drachsler, H. (2018), 'License to evaluate: Preparing learning analytics dashboards for educational practice', *Proceedings of the International Conference on Learning Analytics and Knowledge*, Sydney, Australia, Vol. 18 No. 10, p. 10.
- Joseph-Salisbury, R. (2019), 'Institutionalised whiteness, racial microaggressions and black bodies out of place in Higher Education', *Whiteness and Education*, Routledge, Vol. 00 No. 00, pp. 1–17.
- Kandiko Howson, C.B., Coate, K. and de St Croix, T. (2018), 'Mid-career academic women and the prestige economy', *Higher Education Research & Development*, Taylor & Francis, Vol. 37 No. 3, pp. 533–548.
- Kennedy, E. (2018), 'Who gets to be in the "collective" of the university?', *The Higher Educationalist*.
- Kitchin, R., Coletta, C., Evans, L., Heaphy, L. and Mac Donncha, D. (2017), 'Smart Cities, Urban Technocrats, Epistemic Communities and Advocacy Coalitions', *SocArXiv*, pp. 1–22.
- Leathwood, C. and Read, B. (2013), 'Research policy and academic performativity: compliance, contestation and complicity', *Studies in Higher Education*, Vol. 38 No. 8, pp. 1162–1174.
- LexisNexis. (2016), *Rely on LexisNexis Public Records to Help You Get a More Complete Picture of People, Businesses and Locations*.
- LexisNexis. (2017), *Leverage LexisNexis® SmartLinx® Technology via the Lexis Advance® Service*.
- Lightfoot, L. (2019), 'Universities outsource mental health services despite soaring demand', *The Guardian*, available at: <https://www.theguardian.com/education/2018/jul/17/universities-outsource-mental-health-services-despite-soaring-demand> (accessed 28 June 2019).
- Lomer, S., Papatsiba, V. and Naidoo, R. (2018), 'Constructing a national higher education brand for the UK: positional competition and promised capitals', *Studies in Higher Education*, Vol. 43 No. 1, pp. 134–153.
- Loveday, V. (2017), "'Luck, chance, and happenstance? Perceptions of success and failure amongst fixed-term academic staff in UK higher education'", *The British Journal of Sociology*, available at: <https://doi.org/10.1111/1468-4446.12307>.
- Loveday, V. (2018), 'The neurotic academic: anxiety, casualisation, and governance in the neoliberalising university', *Journal of Cultural Economy*, Taylor & Francis, Vol. 11 No. 2, pp. 154–166.

- Lupton, D. and Williamson, B. (2017), 'The datafied child: The dataveillance of children and implications for their rights', *New Media & Society*, Vol. 19 No. 5, pp. 780–794.
- Lynch, K. and Ivancheva, M. (2015), 'Academic freedom and the commercialisation of universities: a critical ethical analysis', *Ethics in Science and Environmental Politics*, Vol. 15, pp. 71–85.
- Lyon, D. (2003), *Surveillance as Social Sorting: Privacy, Risk and Automated Discrimination*, edited by Lyon, D. *Surveillance as Social Sorting: Privacy, Risk and Automated Discrimination*, Routledge, London, available at: <https://doi.org/10.1177/1440783306061355>.
- Mampaey, J. (2018), 'Are higher education institutions trapped in conformity? A translation perspective', *Studies in Higher Education*, Taylor & Francis, Vol. 43 No. 7, pp. 1241–1253.
- Marcella, R., Lockerbie, H., Bloice, L., Hood, C. and Barton, F. (2017), 'The effects of the research excellence framework research impact agenda on early- and mid-career researchers in library and information science', *Journal of Information Science*, p. 016555151772468.
- Marginson, S. (2011), 'Higher Education and Public Good', *Higher Education Quarterly*, Vol. 65 No. 4, pp. 411–433.
- Michael D. Higgins. (2018), 'Speech at the launch of the Cambridge History of Ireland', President of Ireland, Dublin, available at: <http://www.president.ie/en/media-library/speeches/speech-at-the-launch-of-the-cambridge-history-of-ireland> (accessed 1 May 2018).
- Mina, A.X. (2018), 'Learning the Politics of "Digital Dissensus"', *Civicist*, available at: <https://civichall.org/civicist/learning-the-politics-of-digital-dissensus/> (accessed 31 August 2018).
- Mirsky, H. (2018), 'Meet Priyamvada Gopal - the academic standing up to racism at Cambridge University', *Cambridgeshire Live*, available at: <https://www.cambridge-news.co.uk/news/cambridge-news/meet-priyamvada-gopal-academic-standing-15297444> (accessed 31 May 2019).
- Montacute, R. and Cullinane, C. (2018), *Access to Advantage*, London.
- Moore, P. (2015), 'The Quantified Self: What counts in the neoliberal workplace?', *New Media & Society*, pp. 1–14.
- Moore, S., Neylon, C., Paul Eve, M., Paul O'Donnell, D. and Pattinson, D. (2017), "'Excellence R Us": university research and the fetishisation of excellence', *Palgrave Communications*, Nature Publishing Group, Vol. 3, p. 16105.
- Morrice, L. (2018), 'Abyssal lines and cartographies of exclusion in migration and education: towards a reimagining', *International Journal of Lifelong Education*, Routledge, Vol. 00 No. 00, pp. 1–14.
- Morrish, L. (2016), 'Stress and The Kindness of Strangers', *Academic Irregularities*, available at: <https://academicirregularities.wordpress.com/2016/03/10/stress-and-the-kindness-of-strangers/> (accessed 11 March 2016).
- Mountz, A., Bonds, A., Mansfield, B., Loyd, J., Hyndman, J., Walton-Roberts, M., Basu, R., et al. (2015), 'For Slow Scholarship: A Feminist Politics of Resistance through Collective Action in the Neoliberal University', *ACME: An International E-Journal for Critical Geographies*, Vol. 14 No. 4, pp. 1235–1259.
- Nixon, J. (2011), 'Re-imagining the Public Good', *The Assault on Universities: A Manifesto for Resistance*, Pluto Press, London, pp. 59–70.
- Olssen, M. (2016), 'Neoliberal competition in higher education today: research, accountability and impact', *British Journal of Sociology of Education*, Vol. 37 No. 1, pp. 129–148.
- Ottinger, G. (2013), 'Changing Knowledge, Local Knowledge, and Knowledge Gaps: STS Insights into Procedural Justice', *Science, Technology & Human Values*, Vol. 38 No. 2, pp. 250–270.
- Partos, R. and Bale, T. (2015), 'Immigration and asylum policy under Cameron's Conservatives', *British Politics*, Vol. 10 No. 2, pp. 169–184.

- Pereira, M. do M. (2015), 'Struggling within and beyond the Performative University: Articulating activism and work in an "academia without walls"', *Women's Studies International Forum*, Elsevier Ltd, Vol. 54, pp. 100–110.
- Perrotta, C. and Williamson, B. (2016), 'The social life of Learning Analytics: cluster analysis and the "performance" of algorithmic education', *Learning, Media and Technology*, Taylor & Francis, Vol. 9884 No. May, pp. 1–14.
- Phipps, A. (2019), 'The Fight Against Sexual Violence', *Soundings*, Vol. 71 No. 71, pp. 62–74.
- Pitcher, E.N. (2017), "'There's stuff that comes with being an unexpected guest": experiences of trans\* academics with microaggressions', *International Journal of Qualitative Studies in Education*, Routledge, Vol. 30 No. 7, pp. 688–703.
- Pöttsch, H. (2015), 'The emergence of iBorder: Bordering bodies, networks, and machines', *Environment and Planning D: Society and Space*, Vol. 33 No. 1, pp. 101–118.
- Pratkanis, A.R. (2007), 'Social Influence Analysis: An Index of Tactics', *The Science of Social Influence: Advances and Future Progress*, Psychology Press, New York, pp. 17–82.
- QS Enrolment Solutions. (2018a), *From Enquiry to Enrolment: Decision Making Processes for UK Domestic Students*.
- QS Enrolment Solutions. (2018b), *Using Marketing Automation to Engage and Convert Students*, London.
- Queen Mary University of London. (2017), *Prevent Duty Annual Report 2016 – 17*, London.
- Raza, G., Dutt, B. and Singh, S. (1997), 'Kaleidoscoping public understanding of science on hygiene, health and plague: A survey in the aftermath of a plague epidemic in India', *Public Understanding of Science*, Vol. 6 No. 3, pp. 247–267.
- Runde, J. (1998), 'Clarifying Frank Knight's discussion of the meaning of risk and uncertainty', *Cambridge Journal of Economics*, Vol. 22 No. 5, pp. 539–546.
- Schneier, B. (2007), 'Strong Laws, Smart Tech Can Stop Abusive "Data Reuse"', *Wired*, available at: <https://www.wired.com/2007/06/securitymatters-0628/> (accessed 9 May 2018).
- Seale, J., Georgeson, J., Mamas, C. and Swain, J. (2015), 'Not the right kind of "digital capital"? An examination of the complex relationship between disabled students, their technologies and higher education institutions', *Computers and Education*, Vol. 82, pp. 118–128.
- Sharma, S. and Nijjar, J. (2018), 'The racialized surveillant assemblage: Islam and the fear of terrorism', *Popular Communication*, Routledge, Vol. 16 No. 1, pp. 72–85.
- Shore, C. and Wright, S. (2015), 'Governing by numbers: Audit culture, rankings and the new world order', *Social Anthropology*, Vol. 23 No. 1, pp. 22–28.
- Skillweb. (2018), *Campus White Paper*, available at: [https://s3-eu-west-1.amazonaws.com/smarttask/sales\\_collateral/SmartTask+University+Whitepaper.pdf](https://s3-eu-west-1.amazonaws.com/smarttask/sales_collateral/SmartTask+University+Whitepaper.pdf).
- SmartTask. (2018), 'Campus Workforce Performance Management', *Skillweb*, available at: <http://smarttask.co.uk/case-studies/uow/> (accessed 10 September 2018).
- Smeyers, P. and Burbules, N.C. (2011), 'How to Improve your Impact Factor: Questioning the Quantification of Academic Quality', *Journal of Philosophy of Education*, Vol. 45 No. 1, pp. 1–18.
- Spiller, K., Awan, I. and Whiting, A. (2018), "'What does terrorism look like?": university lecturers' interpretations of their Prevent duties and tackling extremism in UK universities', *Critical Studies on Terrorism*, Routledge, Vol. 11 No. 1, pp. 130–150.
- Stahl, B.C. (2013), 'Responsible research and innovation: The role of privacy in an emerging framework', *Science and Public Policy*, Vol. 40 No. 6, pp. 708–716.
- Strydom, D. (2014), 'Booked in the Library', *Premises and Facilities Management*, No. December, pp. 12–16.
- t philosopher. (2019), 'I am leaving academic philosophy because of its transphobia problem', *Medium: Equality*, available at: <https://medium.com/@transphilosopher33/i-am-leaving-academic-philosophy-because-of-its-transphobia-problem-bc618aa55712> (accessed 3 June 2019).

- Teelken, C. (2012), ‘Compliance or pragmatism: how do academics deal with managerialism in higher education? A comparative study in three countries’, *Studies in Higher Education*, Vol. 37 No. 3, pp. 271–290.
- The University of Edinburgh. (2017), ‘Space occupancy monitoring’, *Information Services*, available at: <http://www.ed.ac.uk/information-services/students/study-space/space-occupancy-monitoring-pilot> (accessed 22 April 2017).
- Tilak, J.B.G. (2009), ‘Higher education: a public good or a commodity for trade?’, *PROSPECTS*, Vol. 38 No. 4, pp. 449–466.
- Tramer, F., Atlidakis, V., Geambasu, R., Hsu, D., Hubaux, J.-P., Humbert, M., Juels, A., et al. (2017), ‘FairTest: Discovering Unwarranted Associations in Data-Driven Applications’, *2017 IEEE European Symposium on Security and Privacy (EuroSec&P)*, IEEE, pp. 401–416.
- Travis, A. (2013), ‘Immigration bill: Theresa May defends plans to create “hostile environment”’, *The Guardian*, available at: <https://www.theguardian.com/politics/2013/oct/10/immigration-bill-theresa-may-hostile-environment> (accessed 8 May 2018).
- Tregoning, J. (2016), ‘Build your academic brand, because being brilliant doesn’t cut it any more’, *Times Higher Education*, available at: <https://www.timeshighereducation.com/blog/build-your-academic-brand-because-being-brilliant-doesnt-cut-it-any-more> (accessed 25 February 2016).
- UCEA. (2014), *UKVI Compliance Audit – a Case Study at the University of Greenwich , March 2014*.
- UCU. (2016), *Precarious Work in Higher Education: A Snapshot of Insecure Contracts and Institutional Attitudes*, available at: [http://www.ucu.org.uk/media/7995/Precarious-work-in-higher-education-a-snapshot-of-insecure-contracts-and-institutional-attitudes-Apr-16/pdf/ucu\\_precariouscontract\\_hereport\\_apr16.pdf](http://www.ucu.org.uk/media/7995/Precarious-work-in-higher-education-a-snapshot-of-insecure-contracts-and-institutional-attitudes-Apr-16/pdf/ucu_precariouscontract_hereport_apr16.pdf).
- University of Chester. (2018), *Job Description: UKVI Tier 4 Compliance Co-Ordinator*.
- University of Edinburgh. (2017), *Tier 4 Student Attendance and Engagement Policy Purpose of Policy*.
- University of Liverpool. (2017), *POLICY ON UKVI TIER 4 COMPLIANCE*, Liverpool.
- University of Strathclyde. (2018), *Home Office Monitoring Requirements - Guidance for Tier 2 and Tier 5 Key Contacts*, Glasgow.
- Uttl, B., White, C.A. and Gonzalez, D.W. (2017), ‘Meta-analysis of faculty’s teaching effectiveness: Student evaluation of teaching ratings and student learning are not related’, *Studies in Educational Evaluation*, Elsevier Ltd, Vol. 54, pp. 22–42.
- Wang, A.X. (2018), ‘A US university is tracking students’ locations to predict future dropouts’, *Quartz*, available at: <https://qz.com/1226474/a-us-university-is-tracking-students-locations-to-predict-future-dropouts/> (accessed 10 September 2018).
- Wang, J., Veugelers, R. and Stephan, P. (2017), ‘Bias against novelty in science: A cautionary tale for users of bibliometric indicators’, *Research Policy*, Vol. 46 No. 8, pp. 1416–1436.
- Wånggren, L. (2018), ‘Precarious Responsibility: Teaching with Feminist Politics in the Marketized University’, *Journal of Feminist Scholarship*, Vol. 14 No. Spring, pp. 1–24.
- Warner, M. (2014), ‘Diary’, *London Review of Books*, available at: <http://www.lrb.co.uk/v36/n17/marina-warner/diary> (accessed 9 June 2016).
- Williamson, B. (2016), ‘Digital methodologies of education governance: Pearson plc and the remediation of methods’, *European Educational Research Journal*, SAGE Publications, Vol. 15 No. 1, pp. 34–53.
- Williamson, B. (2018), ‘The hidden architecture of higher education: building a big data infrastructure for the “smarter university”’, *International Journal of Educational Technology in Higher Education*, International Journal of Educational Technology in Higher Education, Vol. 15 No. 1, p. 12.
- Wilsdon, J., Allen, L., Belfiore, E., Campbell, P., Curry, S., Hill, S., Jones, R., et al. (2015), *The Metric Tide: Report of the Independent Review of the Role of Metrics in Research Assessment and Management*, available at: <https://doi.org/10.13140/RG.2.1.4929.1363>.

- Wilsdon, J., Bar-Ilan, J., Frodeman, R., Lex, E., Peters, I. and Wouters, P. (2017), *Next-Generation Metrics: Responsible Metrics and Evaluation for Open Science*, Brussels.
- Wintrup, J. (2017), 'Higher Education's Panopticon? Learning Analytics, Ethics and Student Engagement', *Higher Education Policy*, Palgrave Macmillan UK, Vol. 30 No. 1, pp. 87–103.
- Yuval-Davis, N., Wemyss, G. and Cassidy, K. (2018), 'Everyday Bordering, Belonging and the Reorientation of British Immigration Legislation', *Sociology*, Vol. 52 No. 2, pp. 228–244.