

Cognitive capitalism and the rat race: how capital measures ideas and affects in UK Higher Education

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COMMENTS WELCOME

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Thomas Gradgrind, sir — peremptorily Thomas — Thomas Gradgrind. With a rule and a pair of scales, and the multiplication table always in his pocket, sir, ready to weigh and measure any parcel of human nature, and tell you exactly what it comes to. It is a mere question of figures, a case simple arithmetic. Charles Dickens, *Hard Times* (1854).

The greater part of the *systematic soldiering*, however, is done by the men with the deliberate object of keeping their employers ignorant of how fast work can be done. Frederick Taylor, *The Principles of Scientific Management* (1911: 6–7).

My dream is that the time will come when every drill press will be speeded just so, and every planer, every lathe the world over will be harmonized just like musical pitches are the same all over the world...so that we can standardize and say that for drilling a 1-inch hole the world over will be done with the same speed... That dream will come true, some time. Carl Barth, *Hearings of the U.S. Commissions on Industrial Relations* (1914: 889).

In the ontology of Empire value is outside measure. Hardt and Negri, *Empire* (2000: 374).

Everything can be measured and what gets measured gets managed.
McKinsey & co. slogan.

1. Orientations

In the early years of the twentieth century, Frederick Taylor and a small band of disciples — such as Carl Barth — entered battle on factory floors in Chicago, Philadelphia and other east-coast US cities. Armed with stopwatches and clipboards, these pioneers of scientific management were fighting a war and they knew it. A war against ‘systematic soldiering’ and the ‘common tendency’ to ‘take it easy’. A war to induce, coerce and cajole workmen to ‘do a fair day’s work’. A war over the control of production and over craft knowledge. A war to appropriate to managers workers’ knowledge of specific tasks: *how?*, *how much?*, *how long?*, *how many?* A war over *measure*.

A century on and capitalist production has spread far beyond the factory walls. It has been argued that the production of *things* — material stuff that can be counted, weighed, measured — is no longer hegemonic. Capital seems to have invaded every aspect of human lives and production is increasingly immaterial, producing information, affects and percepts. It is increasingly difficult to distinguish production from *reproduction*, the sphere *inside* capital production and that *outside* it, where labour-power is

produced. When immaterial production is centre stage, the skills, know-how and attitudes of labour are (re)produced by the relational practices we (re)learn in the home, from our uncles and aunts, sisters and brothers, mothers, fathers and lovers. The immateriality of labour implies an activity that emphasises and is self-aware of its cooperative nature, that is biopolitical, that produces affects; hence a cooperation that is far more likely to be of a horizontal, rhizomatic nature, organised on the basis of informal workgroups, networks, peer-to-peer relationships, social ties even, rather than coordinated by the boss standing at the apex of a hierarchy. The value thus produced by this labour is therefore beyond measure because the immaterial living labor producing value is identified with 'general social activity', 'a common power to act', that cannot be disciplined, regimented and structured by measuring devices such as clocks. In such circumstances, exploitation still continues, but not through the subjection of labour to capital's measure. This exploitation continues 'outside any economic measure: its economic reality is fixed exclusively in political terms' (Negri 1994: 28). In the context of what Hardt and Negri call Empire, value can at most be indexed 'on the basis of always contingent and purely conventional elements' imposed by 'the monopoly of nuclear arms, the control of money, and the colonization of ether' (Hardt and Negri 2000: 355).¹

Yet, we argue in this paper, the war over measure continues right there, at the point of immaterial and cooperative production, that is at the point of self-organised production coordinated on the basis of distributed network forms. Capital is indeed pervasive, and its means of measurements often appear distant and elusive, but not less contributing to the constitution of the norms and modes of production, the *how?*, *how much?*, *how long?*, *how many?* that are the result of social measures. Thus, while thinkers such as Hardt and Negri are claiming the impossibility of linking immaterial production and measure, the heirs of Taylor and Dickens' Gradgrind are attempting just that. An army of economists, statisticians, management scientists and practitioners, information specialists, consultants, accountants, bureaucrats, political strategists and others is engaged in a struggle to connect heterogeneous concrete human activities on the basis of equal quantities of human labour in the abstract, that is to link work and value. Far from the law of value being redundant as Negri (and Hardt) have suggested, it is increasingly assuming the form of the struggle over measure even on the realm of immaterial production.

In this paper, we attempt to uncover capital's attempt to measure immaterial labour and thus (re)impose value and the law the value. We have selected

¹ For a general critical review of Hardt and Negri's argument on the immeasurability of value today, see Caffentzis (2005) and De Angelis (forthcoming).

the case of UK higher education (HE), since both of us have a long working experience in this sector, and this opportunity is useful to us in problematising our own activity within the 'great scheme of things'. Work in academia seems to capture the basic features of immaterial labour: a form of directly social work, in which the form of social cooperation is crucial in defining the 'output', a form of doing that is necessarily grounded on relational awareness, and that produces affects (our students are, after all, our 'customers' and they will be compiling a 'customer satisfaction' questionnaire at the end of their courses with us). It goes without saying that academic work is also a context for the production of ideas, research papers and books; moreover that this production is 'biopolitical' and can occur at any moment of the 24/7 span: we both have experienced waking up in the middle of the night with the solution to a problem insoluble during 9 to 5, or have reached an insight that will find its way into a paper while playing with a child.

There is perhaps another reason why the UK higher education sector is important as a case study. Not only is the UK the European country which has had, from Margaret Thatcher on, the most pervasive and consistent series of neoliberal policies, but the market discourse here offers the only horizon within which new policies are designed. In other words, just as the neoliberal European constitution was the only project on the table of the French referendum last year, leaving the left unable to ground its opposition on any alternative project, so here in Britain, all new policy is designed to push through the 'empire' of neoliberal markets in ways that attempt at the same time to bypass and silence a left opposition that lacks any alternative project. In higher education, this 'pushing through' empire takes the form of artificial scarcity of resources, greater competition across HE workers and students, changes in syllabus towards an 'education' subordinated to cyclical business needs, transformation of the nature and modalities of academic work and dramatic increases in the heteronymous constraints bounding the forms of social cooperation of academic work, defining the what, how and how much of its products. In short, in higher education we may be 'pushing through' empire, but we do not see any light at the end of the tunnel.

This paper is thus structured. In section 2, we will discuss the context in which the struggle over measure in academia is fought. Here we will briefly review the government calls, and consequent policies, for UK academia to be competitive and efficient and to emulate business. In section 3 we burden the reader with the burden of our toil. We provide a list of concrete examples we have put under the rubric of quantification, surveillance and standardisation of academic labour. These are only few examples of the activities that academics often experience as a *burden* in their own production. They are chores and barriers that are increasingly designed and

constructed across the flows of communicational, affective and creative work. In section 4, we try to make sense of it all, by invoking the traditional Marxian category of value. However, we will be following an interpretative tradition that sees the 'socially necessary labour time' that Marx sees as the substance of exchange value not simply as the expression of *a past* given quantum of labour, but as category of struggle over measure. In thus doing, the labour that in a given time is 'socially necessary', is both the result of past measuring processes of academic labour and the present *benchmark* that academic workers are induced to meet or beat. By implanting the criteria of quantification, surveillance and standardisation into the daily activity of academic labour, we argue, public managers seek to measure academic labour with criteria that are predicated on values other than the values of teaching, researching and the collective production of ideas and thinking. These measuring processes are carried out at different layers of the fractal-like social organisation of academic work and work in general: *within* particular academic institutions, across the sector as a whole and from HE to other sectors of society both national and international. In thus doing, academic work increasingly becomes 'abstract' in the Marxian sense linked to alienation of 'human labour power abstracted from the form of its expenditure' (De Angelis 1995; 1996; Harvie 2006; forthcoming), and the struggle against heteronymous measure increasingly open the question of how to concretise alternatives, how to produce new commons that escape the measure of capital.

2. Context: 'We can't be complacent'

Since the 1970s – and the general social struggles of that decade – education has undergone widespread restructuring. 'Warwick University Ltd' (Thompson 1970) was a forerunner in consciously attempting to align itself with the needs of capital; but globally education systems and institutions have now become a terrain for marketisation agendas (Levidow 2002; Rikowski 2001). Charting the 'entrepreneurialisation of the universities' and the 'rise of the corporate university' in the United States, the editors of *Steal this University* suggest that '[w]hat is new about today's university is only that it serves the corporation – for it has always done that – but that it *emulates* it' (Johnson et al. 2003: 13). Universities themselves 'are *becoming* businesses' (Ovetz 1996: 113). In the United Kingdom, many neoliberal trends are articulated in the government's White Paper on *The Future of Higher Education*. In a critique of this document and state education reforms more generally, Andrew Robinson and Simon Tormey (2003) argue that a 'once 'independent' public service [is being reduced] to a wing of capital. ... [T]he penetration of neoliberal assumptions goes well beyond the formal status of the higher education sector, it permeates every assumption about

the rationale of education itself.' The situations in the UK and the UK are not identical, but there are many common themes, also shared by education systems in other 'advanced capitalist economies'.² These include: the growth of 'for-profit' education institutions; the invasive intervention of both private-sector corporations and government in the daily running of 'public' universities; the increasing importance of market relations; managers' use of 'benchmarking', 'performance indicators', 'performance management' and various forms of 'performance-related pay' ('merit pay'); rhetorics of 'best practice', 'efficiency' and 'global competitiveness'; and the 'proletarianisation' of academics.³

Education is not only big business, it is also a global business. A decade ago, say, only the 'top' universities – in the UK, Oxford, Cambridge and some of the more prestigious London universities, such as LSE, SOAS and London Business School; Harvard, Yale, etc. in the United States – tended to compete to attract overseas students. Now many 'new' universities (former polytechnics) are also competing in the global higher education market. Luton and Middlesex universities, for example, both earn more than one-sixth of their total income from non-European Union students. The corresponding figure for both LSE and SOAS is roughly one-third.⁴ Foreign students are important to the UK's economy as a whole, with those from outside the European Union contributing annually £4 billion in fees and a similar amount spent on living costs. But the market is becoming increasingly competitive. Not only are Britain's 'big names' competing with the likes of 'lowly' Luton and Middlesex, as well as the prestigious American colleges; other developed countries, such as Australia and New Zealand, are also encouraging foreign students to study with them, whilst traditional 'source' countries of the South – China, Malaysia and Singapore, for example – are developing their own higher education sectors. Thus, as Tony Blair warns us, 'We can't be complacent': 'We are determined to stay ahead of our competitors.'⁵ Or, in the words of David Young, Chairman of the Higher Education Council for England (HEFCE), in his Foreword to that organisation's

² See, for example, Cooper et al. (2002) for discussion of Australian higher education.

³ In the global South, higher education has been a casualty of the more general imposition of neoliberal policies, as indebted governments have been forced by the IMF and World Bank to implement Structural Adjustment Programmes (SAPs). The Bank has argued, for example, that SAPs present African governments with 'a golden opportunity to "increase the efficiency of resource use".' (Caffentzis 2000: 5–8; see also Levidow 2002)

⁴ *The Guardian*, 18 April 2006.

⁵ Tony Blair, 'Why we're putting up millions to attract more students from overseas', *The Guardian*, 18 April 2006.

Strategic Plan for 2003-08, 'this is no time to rest on our laurels, because the challenges facing higher education are more wide-ranging and profound than ever before.' (p.2) And Secretary of State for Education Charles Clarke, in his Foreword to the 2003 White Paper on *The Future of Higher Education*, after having celebrated the 'success story' of British universities, proceeds to suggest that although 'it would be possible to opt for a quite life ... bask in previous successes, shirk the need for reform ... [i]t would be wrong because the world is already changing faster than it has ever done before, and the pace of change will continue to accelerate.' (DfES 2003: 2)

This choir of reformers and enthusiastic drivers of change (in the double sense that neoliberal governments push for more trade liberalisation and increasing competition on the international stage and then use the effect of these agreements to tell the rest of us that the world has changed and therefore we must continue the rat race) has, of course, good reasons to sing its tunes against 'complacency'. What goes under the name of education, is the practice of 'mobilising even more effectively the imagination, creativity, skills and talents of all our people'. This instrumental understanding of education in turn 'depends on using that knowledge and understanding to build economic strength and social harmony' (DfES 2003: 2). While the latter depends on making 'the system of supporting student fairer' by introducing fees and targeting support grants only for the very poor, economic strength is supposedly achieved by 'harnessing knowledge to wealth creation', and this 'depends on giving universities the freedoms and resources to compete on the world stage.' This platitude of course reveals a reality in which this 'freedom' is predicated on the slashing of public spending on education that pushes universities to compete for students and other resources, whilst the allocation of resources across the sector is driven by consideration of where particular universities can best compete: high-flying research institutions get more research money, 'lowly' institutions get funding tied to 'widening access'.

In this context, many universities have used revenue from overseas students to make up a funding shortfall resulting from the systematic cuts in state expenditure on education since the 'fiscal crisis of the state' (O'Connor 1973). (Typically, fees for non-EU students are double the funding universities receive for students originating from within the Union.) With increasing global competition, this revenue is increasingly uncertain. In turn this has the effect of sharpening disciplinary pressures on higher education workers, reducing the space for criticality in the education of undergraduates, and moving towards a 'bite-size' standardised concept of the education work. Despite the commonalities between trends within higher education across the planet, the situation here in the UK seems special and its education system represents a frontline in capitalist development.

3. Quantification, surveillance and standardisation: the burden of academic labour

Before attempting to analyse this situation in more depth, we'll first describe the situation as we personally have experienced it over the past two decades as workers in this sector, both students and waged academics. We can perhaps sum up some these processes under the terms quantification, surveillance and standardisation, that is chores and barriers that are increasingly designed and constructed across the flows of communicational, affective and creative work.

Quantification

To obtain a bachelor's degree in a UK university one needs to achieve 360 'credit points', i.e. 360 credit points = 1 degree. At least 120 of these credit points must be at 'level 3' (i.e. third year) and a further 120 must be at 'level 2' (i.e. second year). Degree courses (or 'programmes') are further broken down into 'modules' of between 10 and 40 credit points, depending upon the university. So, for example, in each of three years a student might study six 20-credit modules. The content of both a specific degree in a HEI and each module is framed by a set of 'indicative learning outcomes' (ILOs),⁶ which take the form of statements 'On completion of this degree/module, the student will ...' ILOs can be either 'subject specific' (e.g. '... have attained a knowledge of the ways in which social struggles drive capital's development') or 'generic' (e.g. '... be able to work cooperatively within a small rhizomatic network'). The set of ILOs for a particular module must be appropriate to that module's 'level', while the learning outcomes for a degree must satisfy so-called 'subject benchmark statements'. So ILOs for level-1 modules, for instance, tend to emphasise mere 'knowledge' of theories, whilst at level-3 students are expected to be able to 'critically engage'.

Subject benchmark statements are produced by the Quality Assurance Agency for Higher Education (QAA), which specifies the types of skills and 'competencies' which an economics graduate (say) should have acquired. The amount of work required to attain a certain number of credit points is standardised across any particular institution. For example, a 20 credit-point module will be taught via two weekly one-hour lectures plus a fortnightly seminar over the course of two semesters, and will be assessed by a two-hour exam and a 2,500-word assessed essay.

⁶ It is amusing that despite the academics confidently tossing back and forth the language of ILOs, it's not clear whether the 'I' stands for 'intended' or 'indicative' and the 'O' for 'outcome' or 'objective'.

Surveillance and standardisation

An elaborate set of procedures exists in order to allow the monitoring of these and other norms. For instance (and note that these are *examples* only):

- For each module, the 'module leader' (ML, i.e., lecturer) must complete various paperwork, in particular a 'module specification' (at the module's start) which lists the module's 'aims and objectives', ILOs, 'modes and methods of assessment', amongst other information; and a 'module review' document (at the end of the module), in which the ML reports their own assessment of the module's strengths and weaknesses and their suggested changes for the following year; a summary of student feedback; and average marks and their dispersion.
- Across a degree programme as a whole (say BA (Hons) Economics) this information is collated into two important documents with similar structures. First, a 'programme specification', which will include the module specs for all of a programme's constituent modules, plus rationale for the degree as a whole, its overall 'aims and objectives' and learning outcomes, and an inventory of the resources (academic staff, library and other facilities, etc.) available to 'deliver' the programme, Second, annual programme reports, which collate module reviews and summarise overall performance of a cohort of students, in terms of 'progression rates', 'withdrawal rates', location and spread of marks, etc.
- To ensure 'fairness' students' assessed work – particularly for longer pieces such as a dissertation – should be graded against a 'matrix', with the various degree 'classes' (First, Upper Second, etc.) along one axis and a list of categories (e.g., structure, grasp of 'key concepts', ability to critically analysis, referencing) along the other. Within each cell is a description of the standard that must be achieved in that category in order to warrant that class of degree. Markers must complete the matrix for each individual assignment.
- This documentation may be scrutinised in a number of ways, both internal and external to the institution.
- Before any degree programme can be offered, it must be 'validated'. The validation process involves scrutiny of the 'programme specification' and/or a 'validation document' by both committees internal to the university and, at a final validation meeting, a panel which will include two or three external validators. These scrutineers will judge the proposed degree on the basis on its internal consistency, the extent to

which its learning outcomes correspond to the subject benchmarks and so on. All degree programmes must be periodically (approx every four years) revalidated.

- Annually, module and programme documentation is examined by various 'quality' committees, overseen by institution-level bodies with such names as Centre of Academic Standards and Quality.
- Marks and degree classifications awarded by universities are monitored by 'external examiners', whose role it is to ensure consistency across the sector.
- Departments are subject to periodic visits – lasting three or four days – by the QAA, which sends in a team of inspectors. Such inspectors spend most of their time in a 'base room', examining and comparing programme documentation: module and programme specifications and reports, external examiners' reports, examples of student work, examples of academics' feedback on student work, documentary evidence of 'excellence' in various areas. Of course, preparing, collating and cataloguing this documentation involves an immense amount of work, which must start up to 18 months before the visit.
- Transparency review: an attempt by the Higher Education Funding Council for England (HEFCE) to discover the amount of time that academics spend on various activities – teaching funded by HEFCE (EU undergraduate students); teaching funded by other sources; HEFCE-funded research; etc. English universities were required to supply this information: some required their academic employees to complete diaries for sample weeks.
- Teaching observation: lecturers observed by one of their peers. Before observation, observee required to complete form stating information regarding group of students and ILOs for the session. Observer required to complete feedback form following the observation.
- 'Research selectivity': the Research Assessment Exercise (RAE). Every 4–5 years, 'research active' academics required to submit their 'best' four publications over the assessment period. 'Quality' of research is assessed by panels, each department receives a grade and funding for research is awarded on this basis.

4. Measuring academic labour

These practices and requirements of standardisation and surveillance obviously impose a huge burden of work on academics and few are happy about it. There have been a number of responses. Managers have frequently suggested there is no alternative (TINA) and have perhaps suggested that what we need to do is 'work smarter, not harder'. This seductive slogan, introduced to dampen staff resistance to further change which in their (our) experience has a devastating effects on working conditions, attempts to couple the need for 'change' (restructuring and innovation) in order to meet the budget pressure and increase 'competitiveness', with staff's resistance not only to worsening of their condition of work, but also to the educational and academic 'meaninglessness' of the 'changes'. But many academics accept the TINA argument and even the argument that there must be standardisation in the interests perhaps of 'fairness' or 'quality'. Many nevertheless adopt individualised acts of refusal, which may involve fabricating documentation, for example, or, more often, engaging in mindless 'box ticking' practices whenever they are officially required to give feedback on something or other. In it interesting to note how often the discursive acceptance of TINA by staff goes hand-in-hand with practices that show, on the contrary, that there are alternatives. So, while management requires standardisation for the sake of efficiency and to legitimise a low per-student time allocation (see below), that it discursively justify it in terms of 'faireness', in the privacy of their offices, staff often provide un-standardised services targeted to particular student's needs. Indeed, a general point to make is that, thanks to staff refusal to submit to management norms and standards, students do in fact get 'an education', many scientific papers are written (especially in new universities) and ideas and affects are produced. In other words, the struggles against management measures and the values they promote are also the realm of alternative measures and values.⁷ Unfortunately, this often implies overwork on the part of staff.

Thus, while we note that few have seriously attempted to analyse the underlying rationale for these processes, we suggest that it is productive to understand them in terms of struggle over *measure*: this is useful because it helps us both understand what is happening within higher education in its own terms, but also link these processes to other processes of measure in the economy and society more generally. And, of course, it also provides a basis for linked struggles.

⁷ See Harvie (2004; 2006; forthcoming) for more on academics' struggles for alternatives to capitalist value and the 'commons and community' which exist in the university.

By struggle over measure, we mean to retrieve an old preoccupation embedded in the categories of value of classical Marxism, without however conceding to Marxist political economists' removal of struggle from these categories. For us, the capitalist production of value that Marx discusses in *Capital* is a category of struggle. Moreover, this struggle includes a struggle over measure(s): the daily struggle over the *whats, hows, how muches, whys* and *whos* of social production.⁸ This struggle goes on in any sphere of social production in which capital seeks to valorise itself vis-à-vis the self-valorising practices and desires of the producers (whether 'material' or 'immaterial'). It takes the form of homeostatic processes through which singular producing nodes are pitted against one another. In this section we will discuss a few contested measuring processes that highlight value as a category of struggle in the case of UK Higher Education. It is perhaps important to anticipate that an immediate political implication of this approach is that breaking with these homeostatic mechanisms which attempt to couple the value practices of intellectual and affective work to the value practices of capital, requires in the first place a recognition of the problematic of their coupling. We should certainly not dismiss immaterial labour as being 'beyond measure',⁹ for capital's managers believe otherwise:

As services become an ever-larger part of the global economy, managers are rightly looking for ways to improve productivity and efficiency. Services may be difficult to measure and standardize than the manufacture of products, but executives should not abandon hope. (Harmon, Hensel and Lukes 2006: 6)

What is even more worrisome about this inducement to keep faith in capital's measure is that capitalist managers (that is managers that put capital's measures above everything else) will *act upon* their beliefs and, through *their* measures of things and processes, always try to make our lives hell.

The structure of our analysis below follow another consideration linked to the question of measure. This is the fact that the homeostatic processes emerging from the struggles over measure tend to be disposed in self-similar ways at different scales of social action, in what has been called a 'fractal-panopticon'. To cut a long story short, De Angelis argues that the market order as conceptualised for example by Friederich Hayek has organisational

⁸ See Cleaver (2000), for an original discussion of 'value' as a category of struggle. De Angelis (forthcoming) discusses the matter further by opening up the homeostatic mechanisms of the market and understanding them in terms of clashes of measures and value practices.

⁹ Hardt and Negri (2000: 294).

properties similar to that of the 'panopticon' discussed by Jeremy Bentham.¹⁰ These essentially disciplinary properties shaping social production have been reproduced and extended throughout the social field and the planet. The panopticon of the global market is 'fractal', in that each level of social aggregation, each node or singularity, is 'self-similar' to others. In this way, the disciplinary homeostatic processes of the market and its basis – the value struggles over measure – become socially pervasive and invade areas not previously organised by the market.

In what follow, therefore, we distinguish three (self-similar) 'levels' of measure, all of which are linked to disciplinary processes making the measure *real*, viz.: (i) within nodes (i.e. higher education institutions, HEIs), (ii) across nodes within a nation-state such as the UK and (iii) across nation-states.

Measure within nodes

We have mentioned the processes through which class contact hours, assessment methods and so on are being standardised across courses/modules for students. This standardisation frames and makes possible workload calculations for lecturers too, with the other key variable being student numbers. University managers construct workload models for academics on this basis. Such models vary between institutions, but, for example a one-hour lecture might be allocated 3.5 hours (the additional 2.5 hours being time for preparation and dealing with subsequent student queries) and a one-hour seminar 2.5 hours. Module leaders may perhaps receive an additional allowance to take into account their module-management functions. In some universities, allocated hours might be weighted by student numbers, such that teaching a large number of students is better 'rewarded'. Academics are also allocated hours for performing other key aspects of their jobs such as administration and, possibly, research. So, an admissions tutor or programme leader might 'receive' 200 hours, a personal tutor 25 hours per group and so on. In many universities, the allocation of a research allowance is 'discretionary', being awarded by some 'research committee', based on past and potential research performance. Thus a 'better' researcher, i.e. one who has more or more prestigious publications, may be allocated a larger research-time allowance. A full-time lecturer's hour allocation is supposed to sum to 1575 or similar over the course of the year (37.5 hours/weeks × 42 weeks).

It is easy to ridicule as 'abstract' or 'made-up' these workload models and the 'norms' of which they are constituted. From the perspective of a labour

¹⁰ See De Angelis (2001, 2002 and forthcoming).

process that is relational and communicational, that must be able to inspire students to learn an art while, at the same time, in the context of 'widening access', be able to invest time and other resources to respond to the specific needs of a quite heterogeneous body of students from different economic, academic and cultural backgrounds, these 'norms' are, of course, ridiculous. Rather than standardisation, the conditions of an increasingly heterogeneous student body and 'widening access' would require maximum self-managed flexibility and autonomy of judgment by individual staff and departments, in a context of abundant 'under-utilised' resources to be put to use when specific needs require it, and be kept as the normal context of creativity and sociality all the other times.

But while from the perspective of the production of knowledge and affects these norms are ridiculous, they are also *real* in the sense that they help shape *the form* of academic labour in both its educational and research features. And they do so, by counter-posing the measures of capital, which privilege the meeting of abstractly defined targets, whether these indicate financial viability or consistency with government policies, to the immanent measures of immaterial and affect labourers, who instead privilege intellectual and relational contents of their work.

Thus for example, an 'inefficient' lecturer becomes one who is unable to meet or beat the norm, one who spends more than, say, two-and-a-half hours preparing their lectures, or someone who assigns 'excessive' value to the relational practices with students who do not match standard academic background and so need particular attention. An 'efficient' lecturer is one that uses the pittance of her research allowance and produces 'measurable output' without asking for more time off teaching. It goes without saying that unless such a lecturer is able to beat norms elsewhere, and recuperate time in this way, then they will be forced to extend their own working day and week. In this way, a quantitative definition of socially necessary labour time (SNLT) for the labour of a lecturer emerges as the result of ongoing process of norm definition.

Work allocation models also exclude a variety of activities. For example, allowances for meetings (which year on increase in number) are not always granted, so as the writing of student references. Our informal interviews with several staff across the sector also reveals that strategies of work intensification often occur when middle-ranking managers fiddle with the weights and parameters of the model with the view of squeezing an ever-increasing number of activities into the maximum allowed by the contract. Other times, when the total maximum is exceeded by a significant amount, management discourse is deployed to make sure that the meanings of the figures is not taken 'literally' as absolute amount of work performed (which would run against the national contract), but as an indication of relative

labour inputs. In certain contexts in which academic labour organise collectively, this immediately opens a tactic of struggle against such measure, namely a type of work to rule: work to the workload model. Every time one is expected to perform a task for which no hours have been allocated, the task is refused and possibly forwarded to the line-manager.

This framework often reveals a contradictory set of incentives. On one side, academic staff are pushed to become 'more efficient', that is, to spend less time preparing teaching material and engaging in discussions with students. On the other side, there is also an incentive for lecturers to hide from management any 'efficiency gains' they do make, i.e. instances when they beat the norm, with the fear that, as next-year weights are calculated in a context of reducing resources, the goalpost are shifted once more.

We also must mention the so-called 'transparency reviews', imposed on English and Welsh universities by the UK Treasury and implemented by HEFCE. Transparency reviews were designed to discover the relative proportion of time *actually* spent on various classes of activity, such as 'teaching', 'teaching-related', 'research', 'administration' and so on.

These strategies to measure academic labour with a rule alien to the labourer themselves, are often justified in terms of providing 'good value' for tax payer's money and backed by the recruitment of scores of managers in the public sector. But, in reality, this 'new public management' discourse has opened the way for one increasingly wasteful type of public spending: putting money into a new careerist class of managers, who have an eye only on the next line in their CV. This, they embellish with rubbish words on the 'changes' they have introduced in their institutions, 'changes' that they discuss in their next job interview with a competing institution which might well offer them a better paid job before the *destructive* impacts of these 'changes' on both students and staff come to the surface. But it will then be too late to blame these managers who, in their drive to couple their CV to evidence-based meeting of government targets, leave a trail of pointless restructuring and cynical memories of a working life spent in pointless meetings.

Measure across nodes

Let us zoom out of individual institutions and explore the measuring processes at a more general level of the sector. Here we can understand that the rationale for this measuring of academic labour largely emerges out a struggle for funding among increasingly resource-constrained institutions. And while it is obvious that this 'resource constraint' has been politically engineered by a string of neoliberal governments, yet, it now acts as a

context in which the individual institutions make 'economic' choices and define labour processes.

Measure across, and competition between HEIs takes place in a number of ways. First, the standardisation and record keeping processes facilitate the generation of a large volume of comparable statistics. These, in turn, allow the production of league tables. Such data includes: staff-student ratios; 'progression rates', i.e. proportion of level-1 students who proceed to level-2, etc.; proportion of students awarded degrees in particular degree classes (First, Upper Second, etc); proportion of students employed six months after graduation; 'scores' awarded to departments by the QAA following inspection visits, performance indicator regarding 'widening access', 'retention rates' and so on. The rationale for the collation and publication of such statistics and league tables is to make the market more 'efficient' by increasing information available to applicants who, supposedly, would exercise their 'consumer rights' in choosing universities on the basis of aggregate indexes and league table of these performances. In reality, such choice is restricted only to a core of students with 'traditional' school backgrounds. For the great bulk of poorer students from 'disadvantaged' backgrounds, choice is restricted to institutions in their localities or those with looser entry levels. These indicators also form the basis for a certain proportion of HEIs' state-funding, which we discuss below. Thus these statistics both directly and indirectly influence universities' funding and, consequently, put pressure on staff to meet targets, whether through intensification of labour, restructuring of the forms of labour cooperation and of the type of course contents and methods of assessments or simply, as it was practised in the old Soviet Union, fiddling with the ways 'evidence' is produced in relation to these targets.

UK universities are funded from a number of sources. All are conditional upon measure and/or competition and hence, are uncertain and disciplinary, acting to exert pressure on HEI workers to not 'be complacent'. Neoliberal globalisation enters the classroom in several ways:

1. Student fees. Since 1998/99 students from the European Union at UK universities have been required to pay so-called 'top-up' fees. From September 2006, universities will be allowed to charge students up to £3,000 per annum. Clearly, this money is dependent upon attracting students. As we noted above, competition for non-EU is also becoming increasingly cut-throat.

2. HEFCE grant. This has three primary components: teaching resource, special funding and research funding.

(i) *Teaching resource* is determined on the basis of previously received resource (which gives 'assumed measure') and 'standard measure', which is calculated according to a formula which takes into account current student numbers, subject mix and a few other factors. If assumed measure and standard measure differ by more than 5%, then 'adjustment' is required. According to HEFCE's explanation of the process: 'Adjust funding' occurs 'where institutions have failed to meet the requirements of their funding agreement ... This usually arises because institutions are unable to recruit or retain the numbers of students for which the previous year's grant was allocated.' So, universities must compete to recruit students: the losers are forced to make adjustments: 'For institutions which fall outside the tolerance band, we take action to bring them within the band. This may be by expecting institutions to increase or reduce their student numbers, or by adjusting funding.' In practice, this means a process similar to a country in deficit in its balance of payment and about to call default. Just as the IMF would pressurise a debt-defaulting government into introducing 'structural adjustment' policies that cut social spending and redesign the country's economy towards more openness to acquire competitiveness on the world market (the country after all, could not live 'beyond its means' as the adagio goes), so too a university in crisis would be pressurised to design and implement a recovery plan (cutting programmes, closing departments, restructuring the organisation of production of educational services, and redesign of managerial methods to make it more 'accountable' to the tax payer). So, for example, in the last few years there has been increasing concern over a 'science crisis' in UK universities. In 2004 the closure of a number of chemistry, physics, engineering and mathematics departments prompted the government to order HEFCE to investigate this potential crisis. Although HEFCE concluded that there was no general crisis, the Royal Society has argued that too many science departments have been closed without students needs' being safeguarded. Ten universities have recently closed chemistry departments for lack of demand and in 2005 Sir Howard Newby, chief executive of HEFCE, warned MPs that applications to study those science discipline had fallen up to 30% in recent years.

(ii) *Special funding*. This is awarded to enable universities to meet HEFCE's 'strategic aims' set by government policies: (i) 'widening participation and access'; (ii) 'enhancing excellence in teaching and learning', which takes almost half of the £1 billion available; (iii) 'enhancing excellence in research'; and (iv) 'enhancing the contribution of HE to the economy and society'. All four strategic aims are 'underpinned' by three 'cross-cutting supporting aims': (i) 'building on institutions' strengths'; (ii) 'developing leadership, governance and management'; and (iii) 'excellence in delivery: organisational development within HEFCE'. For each of its aims, HEFCE has

defined 'key performance targets by which we plan to demonstrate, in measurable terms, our progress towards the aim and objectives.'

For 'teaching and learning' aim, these key performance targets include: 'All new staff in HE to be trained to agreed professional national teaching standards by 2006' and 'at least 95 per cent of institutions being audited by the Quality Assurance Agency receive judgements of broad confidence throughout the plan period'.

(iii) Research funding. The HEFCE position is that 'a dynamic, world-class research sector is not only vital for the health of universities but crucial to economic growth and social cohesion.' A 'key element' of the strategy is thus to strengthen the 'contribution [of the national research base] to national competitiveness'. HEFCE recognises that '[m]easuring the outputs from the research that we fund is not straightforward'. But it notes that '[s]ome encouraging work has been done in recent years, for example in developing bibliometric indices and reasonably comprehensive output measures; and we intend to build on this. With other funding bodies, we will sponsor studies of the social impacts of research and develop tools for measuring the outcomes of investment in research.'¹¹

3. Non-HEFCE research and consultancy incomes.

The constraints on education funding imposed by government policies are not only a means to facilitate ongoing competitive restructuring in Higher Education. These constraints also provide an opportunity to channel the know-how, skills and expertise of staff to fulfil broader government targets: to have a competitive society geared to attract capital investment and out-compete others. While 'big player' universities, with their research-intense environment and resources, provide greater resources and time free from teaching so that their their staff can bid for project-based research funding, in the 'lowly' ones, pressure is mounting to meet the demand for research funding with the new buzz word of 'knowledge transfer'. While this is interpreted by HEFCE as 'building on institutions' strengths', in reality it means conflating independent research with the dependency and subordination of academia to the priority of the market and competitiveness.

Measure across nation-states

While the measure across institutional 'nodes' is implemented through a process of funding competition in ways that simulate market homeostatic mechanisms within a 'national' economy, we also have noted the sharpening

¹¹ See Harvie 2000 on 'research selectivity' as a neoliberal process of measure designed to strengthen the link between money and work.

of international competition for students. The struggle over measure also plays a role here.

This measure of the market is one aspect of the measuring process among of HEIs across national borders. It is facilitated by processes such as the *Bologna Declaration on the European space for higher education*,¹² which is driven by two underlying issues, 'compatibility and comparability' and global competitiveness. 'Next to the need to 'achieve greater compatibility and comparability in the systems of higher education' (mainly an intra-European issue), the Declaration wants 'in particular' to increase 'the international competitiveness of the European system of higher education'. It suggests that the 'vitality and efficiency of any civilisation can be measured by the appeal its culture has for other countries'. The signatory countries explicitly express their goal to 'ensure that the European higher education system acquires a worldwide degree of attractiveness equal to [Europe's] extraordinary cultural and scientific traditions'.

More generally, we can understand nation-states as essentially in competition with one-another to attract and retain capital (Holloway 1996). A key parameter of this competition is the presence of adequately trained and educated and sufficiently compliant labour-power. Producing such labour-power is, of course, the function of the education system. (Labour-power also has to be sufficiently healthy, which is the function for capital of health services.) Debates on the relationship between education, on the one hand, and productivity and international competitiveness, on the other, are now informed by a fast-growing literature which uses sophisticated econometric/statistical tools to measure the 'returns to schooling' and the 'returns to health'. Two types of return might be estimated. First, the private rate of return, which treats an agent's spending on health care or education as a 'private decision to invest in human capital' and then attempts to estimate the 'expected internal return to that private investment. It is possible to envisage universities using such estimates to guide their own fee-setting decisions.¹³ Second, the 'social' or 'public' rate of return, which is the effect of schooling on growth rates or levels of per capita GDP. Such studies already inform policies of the World Bank. In the words of one Bank working paper, 'The purpose of project economic analysis is to distinguish among potential projects and select that project which promises to contribute the

¹² See <http://europa.eu.int/comm/education/policies/educ/bologna/bologna.pdf>.

¹³ O'Leary and Sloane (2005), for example, use British Labour Force Survey data to estimate the rate of return to first degrees, Masters degrees and PhDs in various distinct disciplines. Their results 'reveal considerable heterogeneity in returns to particular degree programmes and by gender, which have important policy implications for charging students for the costs of their education' (75).

most to the economic welfare of the country. The scarcity of funding makes it necessary for national decision-makers to be selective. This is especially true for poor developing countries. Even many good projects have to be passed up in the absence of resources for project funding. Only the best project should be selected, therefore, and when that project is underway, if additional financing is available then the next best project and so on.^{14 15}

5. Conclusions: values, the struggle over measure and the production of commons

In the previous two sections we have tried to chronicle a few of the myriad ways in which the labour of higher education workers is quantified and compared and, through this, managed and disciplined. A few observations are worth making here.

First, these processes and tools of measure *are* myriad. These include: benchmarking, performance indicators, league tables, workload models, the rhetoric of 'best practice', 'efficiency' and 'competitiveness', construction of metrics (such as bibliometric indices), economic/econometric 'rate of return' analysis. There does not appear to be any *universal* measure.

Second, we have been able to distinguish several different *layers* of measure. Defining a single HEI as a *node*, we first of all distinguished measure within a node from measure between nodes. In our discussion of measure across nation-states, we had really shifted our perspective such that we were considering the nation-state as a single node, characterised by the set of policies and norms that constitute its policy for higher education.

Third, the processes and tools we have described as operating within higher education clearly have counterparts in every other sector of the economy and indeed, with the pervasiveness of the fractal-panopticon, any other sphere of social practice. Most obviously within the education system generally, within the health service and many other 'public' services. But the struggle over measure is even evident in the strategies to manage the unwaged job search of the unemployed and precarious workers tied to a welfare system inducing them to look for a job, or to manage the unwaged work of parenting in a social context in which adult unsupervised play is increasingly denigrated and 'expert' pressure is mounting for replacing it with

¹⁴ Vawda et al. (2001: 10–11)

¹⁵ See also the special issue of the *Journal of Econometrics* on higher education, volume 121, nos 1-2, July-August 2004.

adult supervised 'success-enhancing activities' and exam-measurable schooling.¹⁶

Indeed, the rhetoric of 'best practice' permeates many private companies too. The practice of benchmarking, for instance, was pioneered by Xerox, which defines it as 'the continuous process of measuring products, services and practices against the toughest competitors or those companies recognised as industry leaders (best in class)'.¹⁷ Parallels can also be found with management strategies in material production: 'quality circles', 'workgroups', etc. Workers more freedom to self-manage, but framed and constrained by manager's goals, i.e. to maximize profitability.

It seems to us that immaterial and affect labour is not a practice that is inherently communist, so to say, because it is outside capital's value. The political and strategic question for us is not whether capital measures immaterial labour, but at what level and with what frequency it does so in different contexts vis-à-vis different class compositions and organizational reach of immaterial and affect workers.¹⁸

In higher education, as in any other sector in which capital aims at reproducing itself, the struggle over measure operate through two interrelated processes. In the first place, a diachronic process that drives down the social necessary labour time necessary for the 'production' of ideas (papers, validation documents, new courses) and affects (student's 'costumer satisfaction', educational 'experience') and so on) in a context of increasingly tight budgets. In the second place, this diachronic process is made possible by an ongoing *synchronic comparison of Socially Necessary*

¹⁶ See for example Furedi's (2002) discussion of 'paranoid parenting'.

¹⁷ The Xerox Corporation, cited in Public Sector Benchmarking Service (PSBS), 'What is benchmarking?', at http://www.benchmarking.gov.uk/about_bench/whatisit.asp. [Accessed 6 April 2006].

¹⁸ For example, at one extreme there is Finland. In that country, schooling does not begin until a child is six-years old, there is no streaming or selection of pupils whatsoever and there are no national exams until the age of 18 or 19. At the other extreme is Britain, where selection of pupils/students is widespread and students face national exams from as early as age seven and proposals are discussed to introduce them earlier; by age 14, national testing is almost annual. Yet Finland's education system is still measured: the OECD publishes annually a ranking of the educational performance of industrial countries (Crace 2003). Moreover, in a global economy, the 'performance' of the Finnish state is compared with that of other nation-states, in terms of the costs of the labour-power reproduction. In short, high spending on state education must be funded by higher taxation, which threatens capital's profitability within that territory.

Labour Time (which appear in the discursive forms of benchmarks and norms) across nodes of production.

The acknowledging of this struggle over measure helps us to problematise measure as a category of struggle rather than positing the overcoming of capital's measure as 'tendency' that it will play itself out. If it is true that, ideas and affects that are of value to the producing subjects are always produced by these in forms and ways that are *beyond* capital's own measures, it is also the case that the latter strive to measure these in its own terms (profit, efficiency, competitiveness, etc.) and in thus doing contribute to give shape to the form of social production of ideas and affects. In other words, even in higher education commons, are not *given* but must be produced, and the ways and forms they take depends on the balance of forces among clashing values and measuring processes.

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