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The contradictions of policy and practice: creativity in higher education

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Whilst much of the rhetoric of current educational policy champions creativity and innovation, structural reforms and new management practices in higher education run counter to the known conditions under which creativity flourishes. As a review of recent literature suggests, surveillance, performativity, the end of tenure and rising levels of workplace stress are all closing off the space for real creative endeavour, characterised as it is by risk-taking, collaborative exploration and autonomy. Innovation, as conceived in this policy context (i.e., that of the UK and Ireland), is narrow in scope and leaves little room for critical re-examination of the nature of education itself or radical reconceptions of curriculum, raising the question as to whether such are more likely to arise *extra mural*, from new forms of organisation.

Keywords: creativity; higher education; performativity; innovation

Introduction

In a time of economic crisis, so the story goes, universities have a vital role to play in national recovery (whichever nation you choose), provided they can refocus their endeavours on innovation and creativity. No longer must they remain spaces for critique (as in, for example, Dearing's 'critic and conscience of society', NCIHE 1997) but rather they are now sites of production, whether output be measured in volumes of skilled graduates, income from overseas marketing of courses, or in terms of intellectual property rights, licensing options and 'spin out' companies (UUK 2009). Even in the humanities, the spin (at least) has been towards the 'cultural industries' with vice-chancellors and others promoting the relevance of history, literatures and sociology to the computer games and movie-making industries (UUK 2010).

In truth, of course, the value of ideas and hence of an *intellectual creativity* has, since the time of Humboldt, been at the core of the self-perception of those in higher education. Research is nothing without innovation, without that mix of introverted determination (Cain 2012) and socially-constructed knowledge (Wenger 1999; Dunbar 1995) that constitutes the academic milieu. Universities as 'cities of ideas' (although in practice, perhaps, more often resembling a network of 'gated communities'), as spaces at one remove from, yet subtly enmeshed with, wider society. This is the self-conceit which many hold and though it may be challenged from multiple directions (Readings 1997; Rothblatt 1997; Tuchemann 2009), it is still a powerful idea in itself that has held fast over decades and indeed centuries past.

What is new, then, is the rapid and relentless advance of what has been described as 'new public management' (Deem 2004; Deem et al. 2008), the shape of public institutions in

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the era of neo-liberalism and the market economy. Despite the financial collapse of 2008, such forces are, if anything, even more frenetic, more rampant in their clamour for 'reform', for ensuring 'fitness for purpose' and a radical restructuring of all aspects of the public sector. For their rallied press, sated on assaults on teachers, social workers and schools, those privileged academics make an attractive next target, pampered as they (supposedly) are by years of lucrative research grants, tenure and a short working year. In Ireland, for example, every last detail of the salaries and expenses of the 'top earners' in education has been recounted in the national press (Irish Times. 2011), with names, photographs and contact details provided in newspaper supplements, pilloried on an almost monthly basis, alongside their lower-ranking colleagues (Irish Independent. 2011).

Innovation, we are told is the be-all and end-all; the mantra, as Getz and Robinson (2003) put it, of 'innovate or die' and yet, as they demonstrate, even in the context of industry and commerce this is hollow rhetoric, that rides roughshod over reality. Many successful firms in the 'new economy' spending more on legal expenses than on in-house innovation; purchasing patents and copyrights in bulk from swallowed start-ups and bankruptcies (Smith and Mann 2004; Arthur 2011). Yes, there are the creative spaces, the flat structures, the personal innovation time – all examples that populate the airport business bookstands. Ironically, many of those organisations self-consciously try to ape some notion of universities; the continuance of student life with pool tables, cafeterias and seminars (Google. 2012). All at the same time when universities are driven towards the adoption of 'best practice' from business (Sennett 2007): contract employment and casual labour, performance monitoring, outsourcing and competitive marketing.

Yet, the strategic imperative to build a new economy based on the output of those who are 'creative', underpins so much of current government policy (DJEI 2006; DoT 2008; DCMS 2001). In part the strength of this 'meme' is due to the positive connotations of the word itself. As Bastalich (2010, 849–50), points out there is a 'widespread cultural fascination with "creativity"... a kind of secular religion, [which] expresses all that is highest in humanity and [is] beyond contestation... but inculcates the most conservative of norms' which include individualism, performativity, valorisation of the 'new' and 'endless repetition of permanent change under conditions of permanent imitation'. And despite the parallel calls for more 'evidence-based policy' there is only a 'tenuous statistical link between education, growth and social equality' (Bastalich 2010).

What then does the research on creativity actually tell us about how ideas emerge and take hold and the conditions under which creativity, innovation and new perspectives are most likely to be nurtured? To what extent do the conditions within contemporary universities and the likely impact of current government policy (in Ireland and the UK) align with these?

Creativity and the propagation of error

Many of the myths of 'creativity' have proved resilient in popular culture, but also within the world of business and, in some cases, academe itself. These can be strongly held or at least go largely unchallenged: the lone genius, natural talent, the need for adversity and struggle, and others of that ilk. Their prevalence is perhaps down to the still fragmented nature of research on creativity and creative processes; torn between sub-branches of psychology, business, education and art theory. Combined with the 'pop psychology' press that has either highlighted troubled genius or presented the likes of 'ten tips to stimulate creative thinking', the term 'creativity' now has so much baggage its use in academia is, or at least should be, problematic. There is of course conflation with 'innovation',[1] although this seems

to be more acceptable in the current 'business-facing' guise of government HE strategy (Attwood 2007; DBIS 2007). Creativity as a concept has perhaps become too loose, too unconstrained; whereas innovation connotes a focus on outputs, on productivity, and fits better the self-image of a managed, planned and dynamic business culture.

Jackson et al. (2006), in their collation of work undertaken under the auspices of the UK's *Imaginative Curriculum Project*, provide a valuable overview of creativity practice in higher education, bringing in the perspectives of students and staff. In other initiatives to promote creativity in HE, however, there is sometimes a lack of critique as to the validity of some of the methods and approaches that are advocated. Workshops that embrace, uncritically, pseudo-scientific ideas, debunked misconceptions and, in extreme examples, near mysticism (the 'medicine wheel', the 'enneagram', etc) are not uncommon.

Even concepts as benign, but ineffective, as traditional group 'brainstorming' are still widely used 'despite 50 years of research' demonstrating its ineffectiveness, compared to individuals generating ideas (Nijstad et al. 2006; see also Byron in this issue). There can be a continued over-reliance on cliché and anecdote regarding sudden inspiration and the 'eureka moment', conveniently ignoring the fact that most creative achievement has come from high volumes of work, persistence, trial and error (Simonton 2004; Sawyer 2006). The (disturbed) creative genius, powerfully and amusingly deconstructed by Schlesinger (2009, 2012), still underpins much of what passes for biographical history in many disciplines. And even in the more 'hard-headed' business-like approach in favour with management, incentivisation, rewards and bonus payments are at least contestable if not fully contradicted by much research on motivation which emphasises, rather, intrinsic drive, commitment and personal satisfaction (Hennessey and Amabile 1998, 2010).

Sawyer (2006) in his exposé of the myths of creativity, quotes Gladwell (2002): 'the talent myth assumes that people make organisations smart. More often than not, its the other way around' (292), and backs this up with a discussion of 'Big Company Disease' (Kono and Clegg 1998) the symptoms of which will not be unfamiliar to those working in many contemporary higher education systems: 'bloated bureaucracy, endless meetings, complex, seemingly unnecessary management practices' (289). Although, the danger in such descriptions is that the 'remedy' being administered, of more short-term targets, restructuring, the abolition of secure employment contracts and market competition on a reduced overall funding base, is itself a reflection of political and economic belief rather than evidence based.

The tension between ideology and pragmatism is often played out in government policy formulation. In Ireland (for example), recent strategy documents on the future of higher education, envision far greater levels of central control and 'steering' whilst at the same time, repeatedly emphasising flexibility and autonomy. The attempt to manage all higher education institutions as a single sector is argued as appropriate for a small country with limited financial resources, yet it is not clear how it squares with the innovation agenda also promoted, in separate strategies. For innovation, we are told, we need to be flexible, dynamic, and willing to take risks. Yet for education we must be continually monitored, managed and held individually accountable for every hour of the day (PSA 2010).

Jackson (2006) reiterates the problems of imposing an audit culture on higher education, where many of the 'returns' from creative endeavour are often difficult to articulate; where course design is increasingly dominated by prescriptive outcomes and where there is little scope for formative feedback, nor recognition of failure as an intrinsic part of the learning process (both for staff and students). This mismatch between the requirements of routine practice and creative aspirations are reflected in Kleiman's (2008) interviews with academic staff. For his interviewees, he concludes that there is a notion that 'creativity is about personal transformation and escaping from or at least resisting constraints and frustrations of

daily academic life' (216). For students and their experience, Northedge (2003) has drawn attention to the latent conservatism of students' approaches to learning, when not involved in a 'dialogic' process that focuses on the nature of learning and transformation. Genuine learning requires a deep engagement and must embrace difficulties, intellectual challenge and appropriate levels of metacognitive awareness (Meyer and Land 2003). Freeman (2006, 101) states that 'The reality may be that the commonly adopted approaches to teaching, learning and delivery actually undermine students' desire to function as creative thinkers and makers'.

True though this may be, a generalised call for more opportunities for creativity in education runs the danger of ignoring the political context and of the privileging of a fairly insipid notion of creativity over critical thinking. As Buckingham and Jones (2001) point out, there is a blander feel to the DFEE's 'All our Futures' document than similar work undertaken decades earlier, which emphasised the importance of a critical perspective over that of mere cultural appreciation or participation: 'While we would support the view that young people should become active participants in cultural production, they will necessarily become critical participants as well' (12). Even within overtly creative subject domains, there is emphasis on conformity and reproduction, and a disconnect between the espoused value of criticality and actual practice (Belluigi 2009). Is 'creativity' then, safer, ideologically speaking, than social, political and economic critique? In other words, is the rhetoric on developing creative individuals more about conformity and enculturation into the dominant socio-politico-cultural norms and the market economy, than about realising the transformative potential of an education? After all, we are preparing to live in a 'knowledge society' powered by 'creative industries' and the creative imagination needs to be harnessed, rather than overspill into a more critical, open questioning of society, economy and power relations.

It is arguable, also, that in the current economic and political context, factors external to the institutions themselves (funding models, policy, globalisation) are dominant in shaping the lived experience of higher education for students, emerging organisational structures and new curricular models.

The conditions for creativity to flourish – or wilt

Teresa Amabile and her collaborators have made significant contributions to our understanding of creativity, particularly in the workplace, over the last two decades (see Amabile et al. 1994, 1996, 2005; Hennessey and Amabile 1998, 2010). Their work identifies critical factors that are vital for any organisation that seeks to nurture creative endeavour and output: (a) organisation-wide supports; (b) psychological safety; (c) recognition of the value of intrinsic motivation; (d) sufficient time; (e) autonomy; (f) developmental feedback (implicitly including the value of the freedom to fail and try again); (g) creativity goals.

A critical question then, is the extent to which these describe the working environment of contemporary higher education and whether longer-term sectoral strategy recognises their importance in achieving the 'creative economy'. We will briefly explore these aspects, by reference to recent literature under related headings.

Workplace culture and stress

'Psychological safety' and the social environment of the workplace are crucially important and merit particular consideration in this time of rapid change and uncertainty. Impacting on personal levels of stress and feelings of insecurity, the combination of continual monitoring,

institutional funding difficulties, short-term contracts and a sense of being at the mercy of political whim are hardly conducive to anything other than actions that are defensive, self-protective and which rule out risk-taking. Yet there is still a belief amongst those who promote the creativity and innovation agenda, for increased competition, tougher inspections, short-term or rolling contracts, target setting and individual performance monitoring (Deem et al. 2008; Broadbent et al. 2010).

Increasing formalisation of workload, individual performance management, 'output' target setting, highly competitive promotion criteria, 'standardisation' of curricula – all are part and parcel of the contemporary HE management toolkit. Of course, good reason is presented for each new imposition, and plenty of anecdotal cases where 'things have gone wrong' are readily provided in justification, but the cumulative effect can easily tip towards disenchantment, an erosion of trust and an experience of de-professionalisation (Wilson 2007; Vidovich and Currie 2011). Individuals, however, are resilient and able to judge where compliance is not so important or where the formal regulations give leeway for 'quiet acts of subversion'. Clegg's (2008) interviews with new staff suggest that they are not becoming the compliant 'neo-liberal agents' that might have been feared, but are able to navigate their own way through the complex web of organisational strategy, procedure, and surveillance. As Skelton (2012) discusses, values conflict in higher education is not new, and arises also in 'traditional' university power structures and cultures. His work demonstrates that the most common response of academics dealing with such conflict is that of 'strategic compromise', whereby 'the majority accepted structural constraints perceived to be beyond their control. Within these constraints people focused on aspects of practice where values could be realised, driven by personal concern' (257). Finding this space to manoeuvre, might however, be increasingly difficult as 'reforms' continue, reaching down to the 'micro' level of classroom teaching and research management.

A less collegial response, is that observed in industry by Kunda (1992) of 'deep acting,' of 'feigned solidarity', where the act of cooperation is superficial and individuals seek to impress their manager at cost to their colleagues and where 'when things go wrong team-spirit suddenly collapses; people seek cover and deniability by shifting blame to other team-members' (Sennett 2012, 168). Such an environment is also often characterised by the 'invidious comparison based on competence [which] has a particularly corrosive effect on trust' (Sennett 2012, 170). Trust, as Robinson (1996) has shown, is crucial in shaping behaviour and morale.

Byron et al. (2010) undertook a meta-analysis of 76 published studies (encompassing 82 independent samples) into the relationships between stressors and creativity in order to explore a number of alternative theoretical frameworks. Whilst they point out that there is not always a simple linear relationship and that (201) 'the effect of stressors on creative performance depends on how stress-inducing the stressor is and what type of stress is induced', it is still clear that situations in which there are high levels of uncontrollability (i.e., where changes can be made outwith the control, or regardless of the opinion of the individual; where there is significant bureaucracy, role conflict or time pressure) and high levels of evaluation (particularly that which is comparative and competitive) lead to decreased creative performance. Of particular interest in the higher education context, Isaksen and Ekvall (2010) in a study of stressors in the workplace, usefully distinguish between *debate* and *conflict*; with the former providing a platform for a productive tension that can help shape and refine new ideas, whereas the latter runs the danger of being destructive.

The employment context is also a potential source of stress. Court and Kinman's (2008) UK study highlights (from HESA data) that there is considerable reliance on contract staff, at some 38% of academic posts in 2006–2007, which they claim is the second highest level of

casualisation of any employment sector. Of course, the US represents a more extreme example where currently less that 29% of faculty have tenure (Chronicle. 2010; Knapp et al. 2011). In Ireland, the government imposed 'Employment Control Framework' (ECF. 2011) has essentially abolished tenure by the insistence that any new posts must be filled only on a fixed-term contract basis and at the lowest point of the available scale. Presented as a consequence of the current economic difficulties, there is no doubt that the combination of job insecurity, low salary levels (with a block on promotions) and limited numbers of vacancies at a time of record numbers of graduates and the ability of the private sector to provide accredited higher education programmes (as outlined also for England, in the recent White Paper; DBIS 2011) will significantly reshape public education over the coming decade.

Kinman and Court (2010) have demonstrated that stress levels are high in UK higher education and identified a range of specific conditions which are eroding resilience and self-management. These include job insecurity and increasing conflict between work and home life, with most staff regularly breaching the 48 hours of the European Working Time Directive. Whilst this blurring of time spent on work and home might have been also a characteristic of academia in the past, the new environment is one in which less and less of this time is actually available for the pursuit of individual research or scholarly interests.

Other specific issues in the survey that lead to stress are: frequent interruptions; rushed pace of work; lack of respect and esteem; administrative paperwork; poor promotion prospects; ineffective internal communication; lack of opportunity for scholarly work. This survey is benchmarked against other parts of the education sector and is revisited over a number of years and it is in this context that the authors conclude that the job demands are seen to be too high and significantly so, in comparison to the wider sector. Although job autonomy is still very high in comparison, there are fears amongst many in universities that this may be eroded in increasing monitoring of 'performance' and rationalisation of curricular offerings (PSA 2010; Boland 2011).

Pick et al. (2012) have looked at the perspective of other staff (i.e., non-academic) in Australian universities and found a commensurate rise in stress, which they attribute to new managerialism-related organisational reforms. The six stressors they identify match with those of academic staff in a number of ways and although they conclude that some aspects of job satisfaction could be improved with greater employee participation and better communications, there is considerable doubt about 'the ability of university managers, captured by new managerialism, to create and implement such an approach' (3).

In short, then, the research evidence and the policy context indicate that the workplace environment of many contemporary higher education institutions does not meet the most basic of Amabile's requirements for creativity to flourish.

Motivation

Motivation has received considerable attention in the organisational psychology literature (Latham and Pinder 2005; Conti and Amabile 2011) and, without being too simplistic about the complex interaction of social and individual factors, it does appear that intrinsic motivation is a more powerful indicator of creative commitment and output than, for example, purely monetary incentive. As Hennessey and Amabile (2010) put it, people are at their 'most creative when motivated primarily by the interest, enjoyment, satisfaction and the challenge of the work itself' (590).

Satisfaction for work done well, that meets one's own standards, is a powerful driver of creative and skilled endeavour and which provides a hallmark of 'craftsmanship' (Sennett 2008), a conception of academic work that may seem archaic, but which, it could be argued,

has many resonances with the skilled improvisation, sense of pride and technical finesse that are the attributes of high quality research and teaching.

Blackmore and Kandiko (2011) have begun to develop a model of academic life that has a more nuanced appreciation of the interplay of economic and non-economic factors in shaping behaviours, which relates to issues of motivation and which captures the tensions which need to balanced by individuals working in a contemporary university environment. As to the social context of the *academic habitus*, they state:

> No matter how intrinsically motivated, an academic is part of a community of colleagues, whose shared epistemologies and social practices strongly influences thinking and discourse in the field and whose approval confers high intellectual standing. It is the disciplinary community that places value on work by adopting or rejecting it. Thus the term 'prestige economy' denotes a social system in which individuals must participate; academic prestige is a social phenomenon. (Blackmore and Kandiko 2011, 404)

Teamwork versus individual isolation

Collaborative team-working, in contrast to the lone individual, receives much attention in the recent creativity literature (Paulus and Nijstad 2003; Sawyer 2008). Singh and Fleming (2010), using statistical measures of output and impact (moving beyond earlier historiometric work by Simonton 2004) based on an analysis of over half a million patents registered at the US Patents and Trademarks Office, have argued that such evidence strongly suggests that individuals working alone (particularly those with no organisational affiliation) are less likely to develop 'breakthroughs' and more likely to have poorer invention outcomes. Wuchty et al.'s (2007) study of over 19.9 million academic papers has demonstrated that research activity has increasingly been undertaken in teams and collaborations and that sole authored papers are less prevalent and have less impact than was the situation in previous decades - in a range of academic domains (including the humanities). There are complex effects of team membership, diversity and extended networks and quite how such circumstances may play out specifically in an academic institution are worth further consideration, as indeed is the question as to whether this trend has developed due to external circumstances rather than as a natural evolution of creativity in an era of increased ease of communication and where some areas of contemporary research are dependent on 'critical mass' to make initial headway and secure necessary funding.

Sawyer's (2008) review of the research and analysis of case studies, leads him to make suggestions for the most effective organisation of groups and the cultural context in which they require to be situated if there's an expectation of emergent creative output. He re-emphasises the point that creativity and innovation are *inefficient* and arise from a complex set of interactions, exchanges, experimentation and effort rather than something which can be centrally planned and shaped by formal policy, nor a likely outcome of individualist reward and recognition structures.

Whilst the evidence is strong that creativity can be 'emergent' from mutual, cooperative engagement, there is some concern that this aspect can be overplayed and does not give appropriate recognition of the value of individual, concentrated effort, particularly in the early 'ideation' stages, nor of sufficient attention on the potential negative impacts of group structure and dynamics (Cain 2012). This mirrors the trend for group work and peer-collaboration that has become so popular in the recent HE pedagogy, often with limited critical analysis or consideration of what might be an appropriate balance between individual and group endeavour to optimise learning. We should also heed Nijstad et al.'s (1996) concern about "the illusion of group productivity."

Nonetheless, providing space and opportunity for ideas exchange is an essential requirement and as Bazeley (2010, 901) observes:

> Collegial communities of practice and micro-communities of knowledge, with their vital interpersonal communication channels, are a primary means of converting tacit knowledge, generated through knowledge creation projects, into explicit knowledge – yet these are being eroded in the new competitive and isolating environment of universities (Moss and Kubacki 2007).

How then can this necessity for cooperative teamwork be reconciled with a tradition that rewards individual achievement, particularly with promotion schemes that are fiercely competitive?

Planning, management and organisation

Whilst universities embrace strategic planning, project management formalisms and performance monitoring, there is a growing critique of many of these practices within the private sector itself and a realisation of their limitations, particularly when applied to the areas of idea generation and responsiveness to the needs of a wide range of stakeholders. Alternative forms of 'governance' and models of workplace structure, such as that long advocated by Mintzberg (1994) in his promotion of 'ad-hocracies', have been offered as potential solutions. Though many of the processes by which academics are beginning to be held accountable by their institutions have more than a passing resemblance to blatant Taylorism (Taylor, 1911), 'business process re-engineering' (Davenport 1995) or 'lean production' (Krafcik 1988), all of which are predicated on the maximisation of profit or the removal of 'inefficiencies' and which are incapable of encompassing the essential dissensus that characterises an academic community.

Eisenhardt and Tabrizi (1995) undertook a study of product innovation in the computer industry that effectively revealed that project development could be hampered by detailed advanced planning (rather than more flexible, adaptational approaches). As Sawyer (2008, 28) summarises:

> … the most innovative teams were the ones that spent less time in the planning stage and more time executing – instead of planning, they improvised. Contrary to what many managers believe, the more time a group spent planning in advance, the slower the project development was.

Sawyer (2004, 2008) further develops the work around 'group creativity' and argues strongly in favour of a socio-cultural perspective on most if not all forms of creative production, including recognition that high quality teaching is itself a creative, improvisational and collaborative act. Creativity flourishes under particular conditions which support exchange, participation, experimentation and high levels of skill.

Dunbar (1995) demonstrates the emergent nature of creativity from group exchanges and collaborative endeavour in the context of scientific laboratory research and the value in having teams with different but overlapping skills, knowledge and interests. Working on multiple projects, crossing between sub-domains, building on previous and related ideas, and minimal organisational hierarchy are all seen as important in generating new ideas.

Curriculum and the student experience

Students' experience of stress and external pressures (such as debt and part-time work) are also significant constraining factors on enabling their creative potential and indeed their academic attainment, as are their experiences of alienation/enculturation (Bewick et al. 2010;

Wilcoxson 2011). There is also an ideological shift towards students as consumers of educational programmes or, indeed, customers; something which is officially sanctioned in the BIS White Paper (DBIS 2011) and its re-imagining of the funding council, HEFCE, as a 'consumer champion'. However, as Oliver et al. (2006), Freeman (2006), Mann (2001) and considerable other literature point out, even prior to this more challenging set of circumstances, traditional forms of higher education practice often did little to support student individual or group creativity on any significant scale. Whilst final honours projects are often presented as one of the few possible spaces within the curriculum, by this stage the stakes are high, 'strategic' behaviours may have crystallised (Prosser and Trigwell 1999) and there are significant negative implications of taking risks. Similarly, challenges exist in setting sufficient and appropriate levels of intellectual (and cultural) challenge at given stages within programmes though it is interesting to see some creativity researchers begin to reappraise the value of Vygotsky's ideas and consider how they might adapt to education beyond that of childhood (Kim 2006; Lindqvist 2003).

There is nonetheless scope to consider aspects of creative development, critical analysis and richer student engagement in the design of programmes (Gibson 2010; KWP. 2010), but many curricular reforms (see Hennessy et al. 2010) have tended, in practice, to focus on structures and content (for example, a repackaging of modules in thematic clusters, with perhaps an increased element of choice or 'non-core' options); 'transferable skills', sometimes being provided in clearly delineated skills modules, rather than, for example, as part of a pervasive ethos of an institution or programme. Significantly different forms of pedagogy and assessment, changed relations between student and teacher, the ability to dynamically reshape the learning journey, multiple trans-disciplinary perspectives and means of interlinking educational practice with social change, multi-modal means of sense-making, the production of new knowledge and artefacts (social, cultural and physical) and even a rediscovery of the joy of learning – are all largely unexplored by the recent 're-engineering' of curricular structures. Inklings of possibilities might be, however, gleaned from projects such as Lincoln's Social Science Centre (Neary 2011) and other initiatives taking place beyond the sight of formal institutional and government policy frameworks.

As Tucheman (2003) warns, the irony in many universities' ambition to carve out a distinguishing 'brand' or niche is that diversity decreases as ideas are copied, borne as it were on trans-Atlantic winds or Pacific currents. The similarity extends beyond just mission statements (Gonzalez-Perez et al. 2007) and strategic plans, but also to the areas identified as 'priorities' (e.g., biomedical research, internet technologies, energy) and the new degree structures (more choice at undergraduate level, more focus on postgraduate specialisation).

Conclusions

If critical creativity and radical innovation are to occupy a strategic focus in higher education (rather than merely something to which lip service is paid), then policy, structures and management processes should be cognisant of research findings. Such research, as we have shown, highlights the potentially destructive impact of current and emerging practices. Much is made of the need for 'evidence based' policy, yet much of the available evidence in this domain is being ignored. High levels of stress, micro-management, short-term contracts, reduced investment and heightened competition will be counter-productive and lead to a relative decline in the sector's capacity to innovate, to reframe and to play a transformative role for students and wider society.

Quite why there is a disconnect between the claimed valuing of creativity and actual managerial practice and sectoral policy is a question that might be approached from sev-

eral perspectives. On the one hand, it is certainly the case that the extant research on the creative process tends to be fragmented across a range of disciplines. There is also the added complexity of the persistence of strongly held myths around the creative process in popular culture and the associated notion that it is an individual trait, semi-mystical in nature and therefore not readily subject to robust research scrutiny. However, an alternative consideration is that its co-option into the self-narrative of advanced capitalist economies leads to an inevitable, but not necessarily correct, association with productivity, output and organisational management. There is talk of 'harnessing talent', of taming the wild perhaps. The reification of management processes, of hierarchical (supposed) meritocracies and the simultaneous lure of the 'jackpot' (all we need is one really good idea, the IPR of which we own) combine within a prestige economy, where what is being sought is actually not creativity for its own sake, not the free exchange of ideas but rather, reputations, rankings and the consequential ability to accrue capital in a highly competitive environment.

Positive developments such as the questioning of existing curricular models, the design of imaginative new learning spaces (Neary et al. 2010) and the affordances of connected and collaborative technologies (NMC 2012) are in danger of being undermined by declining staff morale arising from funding crises, decreased personal and professional autonomy, greater insecurity and the erosion of collegiality. A new model of higher education that manages to successfully interlink curriculum, technology and space, that bridges the research-teaching divide (Jenkins and Healey 2005), and that fosters a spirit of enquiry and collaborative participation is still possible, but perhaps only from outwith the narrowing confines of official policy formulation. Traditional university models, of course, are also inhibiting, restrictive and overly hierarchical, but new reconceptions need to be based on fundamental principles rather than political expediency or predicated on economic crisis.

There has been no shortage in recent years of critique of the current state of higher education and the threat posed by government policies, institutional management and neoliberal ideology (e.g., Evans 2005; Barnett 2010; Docherty 2011), but what debate on the *future* of universities that has taken place has only considered a tiny portion of the possible 'solution space'. Perhaps, for more radical perspectives we may need to look beyond the institutions themselves and examine the potential forms of relationship, organisation and pedagogy that may emerge from informal networks and projects: the 'hackerspaces' (HS. 2012) as collectives of intrinsically motivated, self-empowered autonomous learners; the proposed Social Science Centre in Lincoln (Neary 2011); Massive Open Online Courses (MOOCs; e.g., Chronicle. 2012); the 'free' university movement. All may well suffer from a surfeit of hype, but creativity is meant to be about experimentation, cross-fertilising ideas from different domains and working in the interstices between formal and informal structures, of accepting the necessity of failure and the value of resilience – of the optimism of the will over the pessimism of the intellect.

Note

1. 'Innovation = creativity + exploitation', as explained by O'Sullivan and Dooley (2008).

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