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# Motivating Individuals: Growing research from a “fragile base”

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Faculty around the world are experiencing changes in their academic work. While “traditional” universities are responding to demands for greater accountability and increased and timely outputs from research, faculty within new higher education institutions (HEIs) are undergoing a paradigm shift within three concentric circles of change. Not only do they have to alter their own academic practice, but their HEI is also undergoing a revolution at a time when higher education is itself being transformed. The article documents these changes, challenging the assumption that there is a homogeneous or “single academic profession” with a common experience of academic change, and suggests a more complex picture for faculty in new HEIs. There are three sections: (1) overview of the literature on academic work, (2) how faculty in new HEIs are learning to play the research game, and (3) strategies and policies being introduced to encourage and facilitate research.

## Introduction

Universities are confronted with growing gaps between their expectations of staff research, the research aspirations of staff, and the resources available to support research across the institution. (Coaldrake & Stedman, 1999, p. 4)

The organizational leadership often seems to fail to understand “the effort to squeeze research out of people and departments that have no training, aptitude or inclination for research...”. (Skoie, 2000, p. 9)

The intensification of the battle for world class excellence is having a profound impact on higher education, its institutions, and its faculty. The Lisbon Agenda’s call to make Europe the most knowledge-intensive economy in the world by 2010 has been replicated by governments around the world, making academic research, or the production of new knowledge, the defining characteristic of higher education. Calls for greater accountability and benchmarking have elevated the

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popularity and notoriety of national and worldwide league tables and rankings, of which research outputs comprise a key metric (Hazelkorn, 2007a). Relatedly, many governments are adopting output-based funding methods, of which the RAE has become the model. Because world class excellence costs, many governments are also seeking greater vertical differentiation, asking if research should be concentrated in some higher education institutions (HEIs) or clusters of institutions. In other instances, HEIs are taking the initiative themselves, merging formally competitive institutions to create a larger critical mass (e.g. London Metropolitan University and the University of Manchester), and forming global networks of research-intensive universities (e.g. Coimbra Group, IARU, LERU, Universitas 21, and WUN). For governments and institutions, reputation and status are vital, bringing better students and faculty, more funding—and all the other accoutrements that follow (Brewer, Gates, & Goldman, 2002).

As HEIs endeavour to respond to the new economic, political, and fiscal priorities, the academy is also coming under pressure. The content of academic work, the role of faculty, and the balance between teaching, research, and service are arguably being restructured, reconfigured, and redefined. For faculty within traditional universities, pressures for increased and timely output, greater accountability, and social relevance are challenging what many value as their autonomy or academic freedom. But, for faculty within many newer HEIs, there are significantly different pressures. Many saw themselves as primarily teachers (Pratt, 1997); however, they now face increasing pressures to spend more time conducting research, at a time when competition is accelerating and the gap is widening. This has put strain not only on individuals, but also on their institutions as they seek to build and sustain academic reputation and status, and diversify funding.

The history and rapid growth in the range and type of educational opportunities and institutions has been well documented (Hazelkorn, 2005, chap. 2; Huisman, Norgård, Rasmussen, & Stensaker, 2002; Scott, 1995). Figure 1 presents a rough illustration of growth trends and “sector” changes, the latter caused most probably by institutional re-designation between 1988 and 2004, in OECD countries. Many HEIs were established in the post-1970s as *ab initio* universities or as polytechnics, fachhochschulen, hogescholen, advanced colleges of education, institutes of technology, university colleges, etc., although this date masks the fact that, for many institutions, their pre-history dates back to the 18th century, with origins as technical, trade, craft, or mechanical schools. They were obliged to meet the socio-economic demands of mass education and new employment opportunities, to be “regionally relevant” and to “create innovative teaching and learning” via new disciplines and methodologies (Huisman et al., 2002, p. 319). Over time, sharp boundaries between elite and mass education, vocational and academic, and technological and traditional have come under strain, and in an increasing number of instances have or are breaking down, with mission drift arguably occurring by both universities and these new HEIs. Today, their nomenclature often owes more to political rather than accreditation concerns.

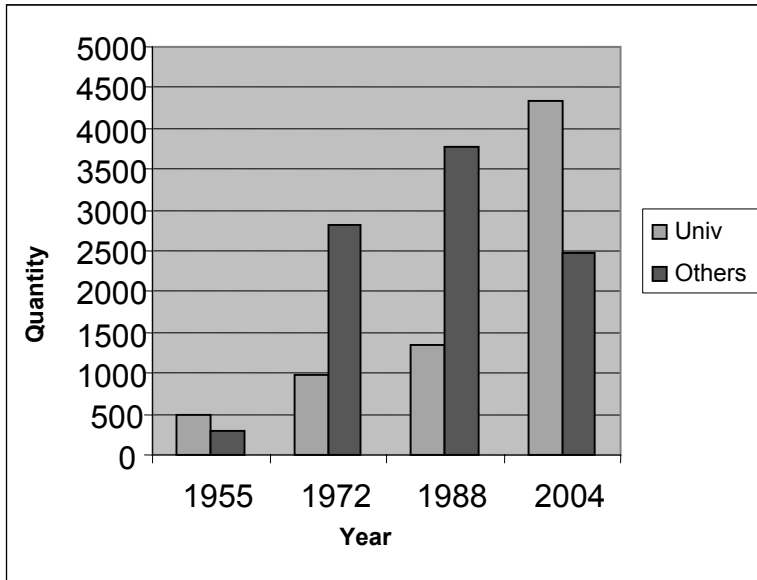


Figure 1. HEI growth in OECD countries: 1955–2004.

Source: IMHE/OECD, from *World List of Universities and Other HEIs*, IAU, 1995, 1971–72, 1988–89, 2004

Many of these HEIs were established as teaching institutions and to do so at lower costs than traditional universities (Lepori, 2007, p. 22). The effect was to increase “the percentage of those equipped to attend postgraduate study and the desire to do so” (Riesman, 1996, p. 152). In turn, these new HEIs “found it necessary to strengthen their research capabilities” (Turpin, Garrett-Jones, Rankin, & Aylward, 1996, p. xv). Research had been seen as one of the legitimate and defining characteristics of universities for which they had a separate budget line, but over time research funds and opportunities have become more widely available. While the amounts were modest, a new principle was established and research soon became an important activity (Skoie, 2000). Many charted significant careers in applied or industrially relevant research and consultancy, and began to win a sizeable share of government and industrial funding. Their original intention had been to recruit people not involved in research. However, as faculty became more involved in advanced level teaching, they began to spend more time on research and compete for research funding. Partnerships were formed with business and other public sector organizations in support of both applied and long-term R&D relationships. Hence, according to Robbins (quoted in Pratt, 1997, p. 142), research within UK polytechnics succeeded, “in the way intended—not just in the success rate of research students, the topics they study and their relation to industrial purpose, or to the extent of external funding... *but as a support for the teaching base*”.

Across the OECD, governments have responded differently to the emergent tensions within their HE system and socio-economic needs. Australia (1989) and the

UK (1992) introduced the most widespread unitary schemes, abolishing the binary and merging/converting institutions at the stroke of a pen, but similar if less public actions are occurring elsewhere—and the pace seems to be quickening. Norway’s legislation (1995) allowing state colleges to apply for university status followed a pattern set by its Parliament in 1970 when it instructed colleges to give “teachers working conditions that would stimulate engagement in research” (Kyvik & Skodvin, 2003, p. 206). Recently, Flanders has established “university associations” (2001) bridging hogeschool and universities under a process called “academization” to encourage research partnerships, and Ireland has begun giving bonus funding for cross-sectoral infrastructural and research projects. Fachhochschulen and hogescholen in the Netherlands, Germany, and Switzerland have adopted the title University of Applied Sciences—much to the chagrin of traditional universities and their governments—in order to better align themselves with the post-Bologna world and compete internationally. Research strategies are being developed at institutional and sectoral level, as part of the normal institutional maturation and transformative process and in response to national/global demands on higher education. The reasons in each case vary slightly but suggest that state regulated differentiation may have outlived its usefulness coupled with the realization that traditional universities and academic research are no longer alone capable of meeting all the geopolitical competitive demands for RDI (compare Codling & Meek, 2006 and van Vught, 2007).

This article seeks to explore the challenges that arise for faculty in many new HEIs as they struggle to develop research capacity and capability. Case study data is drawn heavily but not exclusively on a study of 25 new HEIs in Australia, Belgium, Canada, Czech Republic, Denmark, England, Finland, Greece, Hong Kong/China, Hungary, Ireland, Japan, New Zealand, Portugal, Scotland, Spain, and Sweden, during 2001–2002 (Hazelkorn, 2005).<sup>1</sup> A multi-perspectival analysis was used, drawing data from a large questionnaire, a round-table discussion involving participant institutions and interviews. Quotations in italics throughout this article are from these sources but identity has been kept anonymous. The three main sections explore the following themes: (1) overview of the literature on change in academic work, (2) how faculty in new HEIs are learning to play the research game, and (3) strategies and policies these institutions are introducing to encourage and facilitate research. The conclusion challenges the assumption that there is a homogeneous or “single academic profession” (Marginson, 2000, p. 23) with a common experience of academic change, and suggests a more complex picture for faculty in new HEIs.

### **Changes in Academic Work in a Stratified HE World**

The literature on changes in academic practice chronicles the transformation from a relatively autonomous profession operating within a self-regulated code of collegiality to an increasingly organizationally managed workforce comparable to other salaried employees (Farnham, 1999; Rhoades, 1998; Slaughter & Leslie, 1997; Altbach, 2000). Coaldrake and Stedman (1999, p. 9) identify five characteristics of this change:

- growing pressures on time, workload, and morale;
- emphasis on performance, professional standards, and accountability;
- shift from local control and individual autonomy to more collective and institutional focus;
- greater specialization and demands on academic work; and
- new tasks blurring old distinctions between categories of faculty.

Wilson (1991, p. 1) argues that "the changing form of control, the loss of previous high trust/high discretion status and the extent to which collegiality and 'responsible autonomy' have been replaced by tight management control" equates with "proletarianization". Drawing on Braverman, he says labour process theory gives "at least a partial" explanation of the volume of change occurring within traditional universities. Others, such as Parker and Jary (1995) and Hartley (1995) have drawn on Ritzer's arguments of McDonaldization to describe an academic work environment in which there is "a reduction in autonomy, work intensification and deprofessionalization" leading to "increased instrumentalism" (Bryson, 2004). Marginson (2000, p. 10) references Rhoades to suggest "tendencies to the deconstruction of the academic profession" as exemplified through, *inter alia*, greater role of professional administrators and management-driven practices, growing use of casual and part-time work, and development and deployment of new instructional and delivery technologies. While acknowledging the extent of change, Marginson also cautions against idealizing the past

in which the veneration of knowledge was often a cloak for the monopolization of knowledge by closed professional elites, singular and authoritarian claims to truth were all the rage, resources were shrouded in mystery and subject to venal manipulation, and women, junior staff and students were excluded from power. (2000, p. 31)

In much the same vein, Coaldrake and Stedman (1999) argue that the "standard model of higher education" is no longer sustainable and shows signs of inertia. Whichever view is taken, it is clear that these transformations are neither tension-free nor one-sided. Indeed, the literature on the process of professionalization identifies ways in which "faculty respond ... by attempting to develop new strategies to protect and enhance professional privileges at the level of the institution and the discipline" (Slaughter & Leslie, 1997, p. 19). Becher and Trowler (2001) refer to academic "pecking orders" and "gatekeepers" to describe the way in which academics seek to "confer status and self-esteem". Skirmishes between permanent and contract academics and research faculty, between faculty and administrators, and between "successful" and "less successful" faculty for status, recognition, and power operate in different ways in elite and non-elite institutions. In an effort to deflect attention away from the academics and towards the "system", Reay (quoted in Lucas, 2006, p. 16) argues that the "... processes of corporatism, casualization, commodification, contractualism and compliance work against and undermine, collegiality and cooperation" creating "an upper echelon of elite, predominantly male, academics serviced by an army of casualized teaching, research and administrative staff". Declining government funding coupled with heightened global competition has transformed



the academy into an arena of conflict over scarce resources (Schimank & Winnes, 2000).

Given most faculty in postsecondary institutions teach and usually engage in public service, research is the activity that differentiates among institutions [and individual faculty], conferring high status and prestige. (Slaughter & Leslie, 1997, p. 117)

Those who rise to the top of the academic league table accumulate “research power” (Marginson & Considine, 2000) and are well rewarded in the deregulated academic labour market—as evidenced in the USA and the UK pre-RAE transfer season.

Preferencing research over teaching has been exacerbated by an almost universal “decoupling [of] funding for research and teaching” (Coaldrake & Stedman, 1999, p. 19) by governments regardless of political persuasion. As funding regimes drive a wedge between the two activities, it is easier to make the case to centralize or focus research funding on particular HEIs in order to build and sustain research excellence rather than spread it more thinly across a multitude of institutions. The financial argument is often sustained by a philosophical debate as to the actual versus idealized teaching-research nexus. Are they two different activities requiring different attributes or is there a symbiotic relationship between the two (Brew & Boud, 1995; Hattie & Marsh, 1996)?

The critical issue—regardless of the veracity of the argument—is that the primacy of research is effecting realignment within and between HEIs. Evidence suggests that despite institutional objectives to maintain strong links between teaching and research, other factors are undermining this nexus, inter alia: the desire to establish research teams focused on timely outcomes (Wuchty, Jones, & Uzzi, 2007), enhance interdisciplinary objectives, and establish clearer links with industrial or other partners. Table 1 adapts Clark’s scenario (1997) to illustrate the widening gap between teaching and research with implications for both academic organization and career structure.

Type 1 is the traditional model, wherein faculty have both teaching and research responsibilities; tenure/promotional opportunities are usually awarded on the basis of research activity and perhaps a teaching portfolio, albeit evidence suggests that increasing emphasis is being placed on the former rather than the latter. Type 2 sees research activity expand and external pressures increase; the needs of the research

Table 1. Structure and organization of teaching and research

Model	T-R nexus	Organizational structures	Career
Type 1	T = R	Inclusive departments	Integrated
Type 2	T & R	Undergraduate + units/graduate schools	Active and inactive
Type 3	T   R	Department + (semi)autonomous centres	Parallel pathways
Type 4	T ≠ R	University + autonomous institutes	Separate careers

Source: Hazelkorn (2005).

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team and the strategic needs of the institution begin to favour a more formalized structure for research. Different terms, such as unit, lab, or centre, are used to give formal recognition to this stage of development. Initially, faculty may move seamlessly between teaching and departmental commitments and the centre, but there may be efforts to second or buy-out research-active faculty to work for a greater part of their time in the centre. Type 3 occurs as the centre becomes more financially self-sufficient. Many faculty may continue to teach on a reduced workload supervising postgraduate students but others may not. Depending on how the relationship is maintained, the nexus may weaken further. The wholly autonomous or independent research centres or institutes, represented by Type 4, are not yet a common feature of most HE regimes. In such circumstances, there is usually a clear separation between teaching and research, albeit some support postgraduate students—a form of teaching—and many offer post-doctoral opportunities.

Table 1 also suggests a strong hierarchical trajectory propelling institutions from Type 1, which is the basic model, to models of greater research intensity at Type 3; Type 4 is either an idealized or modern pre-Humboltian model. Obviously, there are institutional and international disparities, and countervailing factors. There are also huge implications for faculty, who traditionally have perceived themselves as a relatively homogeneous group. Escalating research intensity is rapidly demarcating faculty into categories of research-active and research-inactive, employed on a wide array of contracts—personally negotiated in some circumstances—with different categories of faculty performing different functions. This enhanced division of labour is heightening tension between faculty with respect to salary and promotion, benefit-in-kind including timetabling preferences, resources, and other opportunities. In place of the traditional collegial environment where all faculty perceived themselves as peer-equals, the new competitive and meritocratic environment encourages stratification along elite and reputation lines, widening gaps between faculty and institutions. This is especially true for younger faculty who are committed to advancing their career and less to traditional collegial or vocational values—with which they are also less likely to be acquainted.

If the arguments above are generalized across institutional types, then Table 1 could also be used to illustrate an escalating institutional division of labour or gradations in a hierarchically stratified HE marketplace (Hazelkorn, 2007b; see also Vincent-Lancrin, 2006). Studies of the impact of worldwide rankings and league tables strongly support the view that “as the demand for status increases, rankings are leading to creation of more elite [research-intensive] institutions” (Samuelson, 2004) and the “devaluing of hundreds of institutions [and their faculty] ... that do not meet criteria to be included in rankings” (Lovett, 2005). The emergence of a single world HE market is reinforcing the benefits of the Mathew-effect, where the top 100+ worldwide institutions bask in a continual circle of positive endorsement and the other 17,000 HEIs<sup>2</sup> suffer relative neglect. In this context, the transition from a teaching to a more research-focused HEI involves more than simply a revision of mission. It constitutes a fundamental transformation or paradigm shift for the institution and faculty.

### Research Game in New HEIs

For many new HEIs, research is a relatively new mission objective; for some institutions this has been legally endorsed; while for others the growth of a research culture and activity has become an essential element of advancing knowledge in new domains and responding appropriately to social and economic drivers. Accordingly, being active in research was initially neither a criteria of appointment nor part of a faculty member's contract.

*[Many faculty] were not hired to pursue research ... and are neither equipped [to] nor desirous of engaging with a research environment.*

Career and educational credentials were often in the professions or in non-traditional academic careers. "Typically [they] come from work experience in their profession rather than the traditional academic progression from doctoral student to apprentice academic" (Adams, 2000, p. 4). Many had a taught (or non-research) Masters degree in disciplines which were new, and often without a strong academic focus or research ethos (Gellert, 1994). In some disciplines, such as nursing, media production, art, design, and architecture, postgraduate qualifications are only now becoming the norm (Jones & Lengkeek, 1997). As a consequence, many faculty lack the requisite research background or experience and have limited capacity to compete for funding or produce the required outcomes (Kyvik & Larson, 2007). Moreover, many were appointed initially to a teaching-only role in an institution which did not prioritize research or scholarship: "*teaching undergraduate students is the main activity here*".

Conditions and terms of employment between traditional universities and new HEIs also differ. Given the emphasis on teaching, student contact levels and workloads are often high; some faculty in new HEIs teach 16–18 plus hours per week compared with research-oriented universities which average 8–10 hours per week or less; others teach somewhere between these two bands (see also Adams, 1998; Gellert, 1994). For some, the culture and practical element of their mission and programmes has sustained small class sizes and hands-on teaching:

*Our contact hours are high (16 hours a week) ... The culture here is small classes and a considerable amount of 1:1 time.*

Many faculty complain that such high teaching loads impact negatively on their time for research:

*The primary concern expressed by faculty ... was the lack of time for research.*

*Teaching loads remain high and, along with administration, are the most often quoted reason for research inactivity.*

Focus on teaching over/rather than research has also had an impact on the type and quality of facilities in which many new HEIs operate, resulting in inadequate office and/or research space. There are also often pay differentials. According to Pratt (1997) "[p]olytechnic staff received inferior pay and suffered worse conditions of employment than their university counterparts ... and the differences were taken

with them into the new unified system ...” (Pratt, 1997, p. 201). Even today, there is great disparity in conditions of employment, including career paths and salary scales between research/doctorate institutions and teaching/baccalaureate institutions (Garavan, Gunnigle, & Morley, 1999; Gellert, 1994; Wilson, 2004).

More importantly, there are also different perceptions of academic work. Faculty in research-intensive or traditional universities see themselves performing several tasks: teaching, research, and service. The balance between these activities may change over time but teaching and research are inter-related and integral to the role (Altbach & Lewis, 1996)—there is role clarity (Winter & Sarros, 2002). In contrast, faculty in new HEIs do not always share this view (see Berrell, 1998). In fact, basic assumptions about academic work and professional or academic values are often contested by faculty and management, albeit often for different reasons. For example, faculty often adopt “a *‘trade union’ style orientation towards their careers and workloads*”. Some new HEIs enjoy relatively long summer holidays, often protected by trade union agreements. In comparison with colleagues in research universities, there may be little or no stipulation or expectation, on behalf of faculty or management, that this non-teaching period should be used for research.

Harris and Kaine (1994) suggest that people who cite teaching commitments as a reason for not engaging in research are more likely to be people with weak motivation and who believe that research achievement is a function of external circumstances. This view is supported by a UK and Australian study which found that academics from universities tended to be more motivated than colleagues from the former polytechnics or Colleges of Advanced Education (Deane, Jones, Lengkeek, & Warton, 1999). On the other hand, many faculty in new HEIs often complain they receive insufficient support from their department head who “*sees research as a hassle*” (Hazelkorn, 2005, p. 98) or fails to effectively manage the two activities (Durning & Jenkins, 2005, p. 418).

The picture described above is not uniform across all new HEIs or all faculty within them. While some show little interest in or are openly hostile to research, others have been actively building a research profile “to maintain the viability of their academic career” (Deane & Jones, 2001) and perhaps move on to another more research-focused university. Many have been pioneers in their research fields, achieving high productivity despite their relative disadvantage when compared to colleagues in traditional universities or the incredulity and suspicion of their own colleagues. Many are eager to develop their research capabilities and become involved in the “*generation of new knowledge (research) and the transmission of knowledge (teaching)*”. Indeed, it could be argued that their success has paved the way for many such institutions to successfully reach the stage that university designation was granted (Skilbeck, 2003).

Whatever the reason, the output evidence supports this disparity. A Norwegian study showed that on average 20% of time was spent on R&D in non-universities compared with 30% of time in the universities, although this varies across institutions (Kyvik & Larsen, 2007). Professors in Swiss Universities of Applied Sciences devote on average only 8% of their time to research compared with over 20% of the

time spent by professors in the 1996 Carnegie study of universities (Altbach & Lewis, 1996, p. 21; Lepori & Attar, 2006, p. 43). Irish data shows a similar disparity: an average of 10% of staff time is spent on research in Institutes of Technology compared with 42% in universities (Forfás, 2005, pp. 19–20). Age and length of service may also be factors; while this is not unusual in higher education, the fact that research tends to be concentrated among a small number of usually younger faculty may augur well for the future but compares unfavourably with more traditional universities (Kyvik & Skovdin, 2003, p. 211).

Ideally, the interpellation of practice/professional experience into theory/academic research is mission critical for new HEIs but it is also the formative ingredient for defining new disciplines and new ways of thinking. Yet, developing the competencies required for academic research as distinct from practice-oriented teaching or professional activity is also one of the biggest challenges. Lepori and Attar (2006, p. 46) note that the “fragility of a methodological competence ... [is] a major problem for the quality of research in some soft domains” in fields such as media/journalism studies, social care, architecture and other art and design domains, and business. Staff development processes are not sufficient or always suitable to overcome these difficulties—which to a large extent are due to the relative immaturity of the disciplines and lack of sufficient role models. For many faculty and institutions, the priority has been building critical mass and volume, which has produced its own learning curve issues.

Other tensions transcend individual institutional history and formation, and reflect more broadly changes to the organization of research, for example the shift from individual to collaborative, from basic to applied and from Mode 1 to Mode 2 research, from research as self-discovery to research in response to national and institutional priorities, and research in the humanities/social sciences and in the sciences. Methods for defining research activity and evaluating research output can also be controversial. Many faculty find it difficult “*reconciling individual, college ... [and wider institutional] objectives and aspirations*”.

Greater emphasis on research is altering the internal institutional dynamic by challenging the “ideal that all academics are equal members of a scholarly community” (Coaldrake & Stedman, 1999, p. 16). As governments and institutions commence assessment of academic performance via performance-related pay and/or other benefits, a new competitive element is being introduced into what was formerly, at least theoretically, a unitary and collegial academic structure. That structure provided a common “*comfort base*” from which decisions about recruitment, promotion, and distribution of work, often underpinned by seniority, were made. Today, faculty may be recruited in line with market conditions for particular disciplines or positions. Across all disciplines, “*new research-active faculty are being brought in on-top of older faculty*”.

Tangible rewards in terms of promotion, salary, special resources, and status exist for active researchers, especially those who can win sizeable external funding, while others find themselves teaching ever larger numbers of students. Not surprisingly, there is some deep disquiet among faculty, especially those who, because of

professional background, age or attitude, feel “left out” or “sidelined” by the new environment.

*...staff [faculty] who may at one point have been appointed on the basis of their professional practice may, for reasons too numerous to identify here, have become “inactive”.... support of research [has] meant that staff [faculty] very often perceived research and the RAE [UK research assessment exercise] as simply another burden.*

In contrast, others have indicated broad support for the more research-focused environment, which is seen as widening job opportunities and providing better career satisfaction.

*Staff [faculty] significantly acknowledge the culture shift which the Institute has undergone during the last three years, and this is widely appreciated amongst [faculty].*

Such developments have “*been of considerable assistance in the job satisfaction of female members of staff [faculty]*”. New job descriptions make the “working situation for teaching staff more attractive, more varied and more instructive” within the institution “as well as to the outside labour market” (de Weert, 2004, p. 271).

### **Strategies and Policies to Encourage and Facilitate Research**

For new HEIs, developing research represents a significant strategic redirection and institutional transformation while simultaneously entering a very competitive and arguably crowded field as a late-developer with a funding handicap (Hazelkorn, 2004; McKenna, 1996). They are seeking to grow research without all the academic benefits and accoutrements that their more endowed elite neighbours have garnered over time while also ensuring that they retain a distinctive mission, “keeping a strong linkage with application, professions and the regional economy” (Lepori & Attar 2006, p. 68).

*Scale and impact in terms of the number of researchers who can be nationally competitive is a real issue for us.*

However, many new HEIs have inherited an

*entire stock of faculty who were earlier employed by the predecessor affiliated colleges [and] recruited over a period of time to meet the limited requirements of undergraduate studies... (Mitra, 1994, p. 23)*

As one person describes it: “*it is as if we are running with a ball-and-chain around our ankles*”.

This has meant a series of organizational and management changes. For example, the establishment of a research office is now virtually ubiquitous—led usually by a deputy or pro-vice chancellor for research with the explicit role to manage, organize, and improve institutional performance (Hazelkorn, 2005, chap. 4). HRM strategies are also vital, of which a key element is identifying institutional competence:

*... Do we have the right mix of people to continue to be a significant research player in the environment, the answer is clearly no. So unless we significantly upgrade our research capacity*



Table 2. A faculty typology

- 
- Research active
  - Research oriented
  - Research minded
  - Research inclined
  - Research defunct
  - Research negative
- 

Source: Hazelkorn (2005, p. 97).

*in terms of the sorts of people we have in our institution, we will not survive in the research environment ... We must undertake significant new investment to bring better people into the institution.*

Restructuring and refocusing an institution towards research represents a “fundamental challenge” or cultural shift because faculty are suddenly confronted by “new sets of expectations” (Deane et al., 1997; see also Pratt, Dimitri, & David, 1999).

Table 2 illustrates one institution’s assessment of research potential among existing faculty.

The *active researcher* (first two categories) is supportive of the institution’s research strategy and shares many of the concerns and frustrations of management. S/he may agree that the institutional culture is inappropriate or insufficiently supportive of research, but may also be critical of the slow pace of change, for example, inadequate physical environment, the quality and/or quantity of research space, insufficient funding and supports, high teaching loads and poor career structures. Active researchers may also have concerns about the way in which priorities are identified:

*The most common problem that we face in setting strategic priorities is the anxiety of the individual faculty member, (mostly) chairs of departments and, sometimes, deans that their research activities will be compromised if their work is not labelled “strategic”.*

The *uneasy researcher* (the next two) is often apprehensive because doing research is new. S/he may be uncertain about how to get started (or re-started in the case of faculty whose research activity has lapsed) and how the changes and new demands will impact on her/his workload, position, promotional and career opportunities, and the balance between teaching and research.

*The younger, more ambitious staff [faculty] now entering with PhDs are more committed to developing their own scholarship and publications, to foster their career development, but the older ones may be fearful of getting started on research and lack the necessary confidence.*

*There is some concern that the increased research activity will be at the expense of the teaching. On the other hand, research offers a possibility for professional development for the benefit of the teaching.*

To a large extent, the uneasy researcher is a product of the institution’s history and a potential contributor to its future. The key characteristic is this person’s willingness to engage with the process, a willingness which may also be contingent upon the support and rewards that the institution offers.

The *research negative* person (last two) is either antipathetic or openly hostile to research activity or is simply unsure why research is important. S/he was most likely recruited because of professional or vocational experience, and may have neither the academic prerequisites nor the experience required for the new paradigm. Given this background, s/he may “believe that research is unnecessary as they have been teaching for 20 years and don’t need to change”. There is also a belief that “research is something people are being asked to do extra” or “over and above” their real job which is teaching at undergraduate level. Some are particularly unhappy at the way new faculty are being recruited or promoted to higher level posts over existing faculty, including themselves. The research negative person may have been in either of the above two categories earlier in her/his career but because of age or the institutional culture in which s/he has been operating has moved, by default or inactivity, to this group. “Fearful of getting started on research and lacking the necessary confidence” or simply unable or unwilling to change can be strong factors.

These vignettes portray a complex human resource milieu for new HEIs as they seek to develop research capability and capacity. Accordingly, many HEIs have adopted a pragmatic approach to achievement. A range of HRM-related strategies are presented in Table 3, under the labels: recruit, re-invigorate, train, re-orient, and enable (see also Coaldrake & Stedman, 1999, chap. 5). The extent to which institutions emphasize one or other of these approaches is influenced by various factors, such as government policy, internal competencies, level of competition and their sense of urgency. The key question is whether it is possible to grow research from their existing faculty or whether they need to rely more heavily on other strategies.

*The need is to grow engagement across current staff [faculty] and disciplines whilst recognizing that the strategic timeframe within which to grow our R&D base is relatively short (maybe around five years). Such pressing growth is more likely to be achieved largely through focussed recruitment—that is, not through the large-scale re-orientation of staff [faculty].*

Research suggests (Hazelkorn, 2005) that the majority of institutions are relying on recruitment or temporary contracts while only 12% considered staff development an option.

Increasingly new HEIs are reviewing conditions of employment and career structures.

*All such staff [faculty] are expected to be research-active ... Recent changes to conditions have recognized research performance in allocating teaching load.*

*...We will develop a new career stream through which performance will be largely assessed on research outcomes.*

Emphasis on evaluation and performance appraisal is in line with developments internationally and is widely perceived as a useful tool in guiding priorities, albeit it does represent a significant change in the terms, conditions, and expectations for academic work. A mitigating factor, however, is that many new HEIs are widening the criteria for evaluation and promotion, including the full spectrum of RDI as metrics, for example, research, scholarship, knowledge transfer, consultancy, and



Table 3. HRM strategies to grow research

HR strategy	Indicative actions
Recruit	Align recruitment strategy to priority areas via experienced researchers, post-doctoral or other senior professorial posts, sometimes on contract and accompanied by relatively generous support funds and salaries, and supported by good induction programmes.
Re-invigorate	Incentivize, reward, and recognize research performance via promotion, salary, and other benefits, including career stream choices and new academic contracts which include research or research-only positions; clear promotion criteria and performance indicators measuring both quantity and quality across disciplines.
Train	Implement faculty development strategies or faculty-building plans to assist new researchers, including facilitating PhD attainment, mentoring, application writing, etc.
Re-orient	Encourage involvement in new fields or large-scale interdisciplinary research teams—involving the community or industry—via incentive schemes.
Enable	Enhance research facilities and opportunities, including flexible workload schemes to meet different abilities and capabilities over a faculty member’s career, sabbatical leave, research scholarships and fellowships, and gender specific initiatives, for example family-friendly workplace and a women’s register. Establish a Research and Technology Transfer Office to provide direct support to R&D groups and faculty in the formulation and financial management of projects, communication tasks, marketing and connections with the technological, industrial and economic environment, etc.

Source: Hazelkorn (2005, p. 102).

exhibition/performance. This is in stark contrast to traditional reliance on publications and citations which many new HEIs believe are innately conservative and prejudiced in favour of established disciplines and older research universities (Hazelkorn, 2005, p. 48).

Pressure for research output favours increasing differentiation between roles and tasks, such as between teaching and research via parallel career tracks or contract posts. For example, to facilitate research-active faculty, their teaching responsibilities are often shifted to either research-inactive faculty or

*sessional lecturers who are recruited and hired to deliver a specific course or programme ... [or] graduate students, research assistants or post-doctoral fellows [who] deliver instruction to first- and second-year students.*

Agreements also favour greater flexibility between functions and over time. This could represent a widening demarcation between teaching and research or blurring the boundary between research and teaching hence strengthening the teaching-research nexus. For example, researchers often teach and supervise, especially at post-doctoral level. De Weert (2004, p. 28) describes a similar “blurring” of roles in the Netherlands between teaching and non-teaching (or supporting staff). He concludes by suggesting that faculty may themselves come to expect “greater flexibility and diversity in the engagement and expectations”.

Some institutions see all faculty as ultimately being research-active, while many more foresee “selective faculty research involvement as more realistic and agreeable for institutions with strong vocational commitments and large groups of practice-oriented teachers” (Skoie, 2000, p. 412). Hence, recruitment of active or “high flyer” researchers from “around the globe” is vital.

*We give a lot of importance to recruit active researchers. Nowadays, almost all new recruits are active researchers. Previously, being an active researcher was not a top priority in recruiting academic staff.*

*As of 2001 there is a specific policy around the need for an established research track record (according to best practice sector indicators) for any and all new appointments into either of the proposed research domains.*

Others prefer to hire “young but very promising researchers” rather than “already high-profile researchers”.

Reward and award systems, such as research time, travel funds, targeted grants, salary increase, and facilities, are also common. In rare instances, financial payment for a published refereed paper and for national grants, which can be put into a personal research fund, are offered. Others schemes include achievement or President’s Awards, fee remission and reductions in teaching for PhD study. Mentoring is also common.

Building research, especially for HEIs without financial reserves or endowments, has significant financial and strategic implications.

*There is a tension between teaching and research, since the financial basis of the university depends on student fees and student-number-driven government funding, so “doing more research” calls for hard decisions about where the staff [faculty] time required will be found.*

*The main problem encountered with success in developing research is the increasing weight of research on the regular budget of the university if only in terms of basic infrastructure (space for research, heating, general commodities) while the regular budget of the university is based solely on the number of students in programmes.*

Almost half of all new HEIs surveyed (Hazelkorn, 2005) used some combination of performance indicators via an internal competitive selection process to distribute funding (see Table 4). This may involve top-slicing to establish an institutional or faculty research budget which is then dispersed according to assessments which—despite rhetoric to the contrary—use traditional success factors: publications, research income, citations, PhDs supervised/completed, etc. The reason may be quite rational: institutions believe it is important to use external factors to help

Table 4. Resource allocation models (RAM) used to distribute research funds within HEI (%)

Performance	41%
Relevance to strategic plan	9%
Via faculty/departments	14%
No RAM	36%

Source: Hazelkorn (2005, p. 84).

researchers reach external standards, especially because the latter guide funding opportunities. Since funding effectively begets funding, new HEIs are making clear policy decisions to shift resources to support research activity—and this trend looks certain to continue.

The increasingly competitive research environment has transformed research from something that individual faculty do into a serious business for both faculty and their institutions. Organizationally this translates into preferencing interdisciplinary and collaborative teams located within research centres, institutes or industry/science parks. Ironically, or perhaps inevitably, the benefits of research centres—which openly operate at a distance from the day-to-day bureaucratic and academic procedures—are also the Achilles heel of the teaching-research nexus. Coupled with the time pressure under which many new HEIs feel they are operating, they may actually be to the fore in breaking the link between teaching and research by encouraging the formation of dedicated centres staffed with research-active faculty.

## Conclusion

Faculty in new HEIs are experiencing the same range of changes in academic work recited in the international literature: pressure to conduct research in research teams in a timely fashion, with funds won via national and international competitions; performance appraisal—with greater emphasis on outputs—as the critical criteria for appointment, tenure, and promotion; a perceived down-grading of teaching and undermining of collegiality as the professional code-of-conduct and method of decision-making; government and institutional priority-setting replacing and driving (and changing?) individual research agendas; changes in academic contracts and terms of employment with an emphasis on flexibility; and organizational, structural, and managerial changes to underpin the changes aforementioned. It is certainly true that faculty in traditional universities are experiencing work intensification, but faculty within new HEIs are experiencing the former in the context of a paradigm shift within three concentric circles of change. In other words, not only are faculty transforming their own academic practice, but their HEI is also undergoing a revolution at a time in which higher education nationally and globally is itself being transformed.

New institutions are responding to the way in which globalization is impacting on higher education (Marginson & van de Wende, 2007) but in doing so, they have to transform themselves in very profound ways. Their difficulties are compounded by the sheer magnitude of the transformation in which they are engaged: “acquiring and/or developing research competences is a complex process of apprenticeship which requires time and resources” (Lepori & Attar, 2006, p. 64). The process of growing a research culture—of transforming an institution from a teaching to a research (albeit not intensive) institution—is complex, difficult, and potentially lengthy, equivalent to a “*generational change among the academic staff [faculty]...*” which could take 20 years.

These transformative challenges are occurring in an environment in which it is feared government emphasis on international competitiveness, world class excellence and

differentiation will, as an unintended consequence, threaten the distinctiveness of new HEIs and damage their ability to survive. Their concern is based on several factors, inter alia:

- The gap in funding and resources is growing, aided and abetted by government funding models, structural inequities, league tables and worldwide rankings, and the benefits of history and age. Attempts to ring-fence the pool of funds for which new HEIs compete—either without providing the wherewithal to compete successfully (OECD, 2004) or “on the grounds that otherwise there is not enough funding to achieve international excellence” (Coaldrake & Stedman, 1999, p. 21)—are arguably equivalent to a slow death.
- The original binary—which delineated between traditional universities engaged in the production of new knowledge and new HEIs in charge of its application and of the transfer to the private economy—is based on an out-dated linear model of knowledge production and innovation. The boundaries within the RDI spectrum have blurred considerably, and individuals and research teams may at different times move almost seamlessly across it. Applied research and knowledge transfer requires

a more direct contact with basic research which is feasible only by participating in national and international scientific networks where up-to-front knowledge is developed and exchanged and this is possible only if possessing at least some scientific reputation and visibility; hence the need also to have a presence in international publications. (Lepori & Attar, 2006, p. 57)

Moreover, while proximity is important, new technologies are blurring the advantages of geographic boundaries. Hence, new HEIs fear that their ability to remain relevant—even within their national or regional environs—is being restricted by the traditional categorization of research.

- The fight-back by faculty in traditional universities is arguably reinforcing traditional academic advantages and institutional boundaries, contributing to an international division of labour. Professionalization (Becher & Trowler, 2001; Slaughter & Leslie, 1997) as expressed through peer review is a double-edged sword. Evaluators continue to give preferential weighting to traditional metrics ignoring interdisciplinarity and new methodologies or applied research and knowledge transfer (see van Raan, 2004). For example, the peer-review element of the *Times QS World University Ranking* or the *US News & World Report*—which constitute 40% and 25%, respectively, of the final score—is controversially but unapologetically self-reverential and reputational; “...certain institutions or types of institutions... rise to the top [of the league table or ranking] regardless of the specific indicators and weightings” (Usher & Savino, 2006, p. 36). Despite methodological uncertainties, evidence suggests rankings are fuelling membership of research partnerships, international networks of academic/professional associations, and student, parental, government, employer, philanthropic and public opinion (Hazelkorn, 2007a, b). As global competition between HEIs accelerates, reputational differentiation comes increasingly into play (Robertson, 1998).

New HEIs complain that the competitive funding environment is making “it impossible to offer and support research degrees as they will not receive any government funding for research ... the squeeze is on!” As a consequence, in “... HEIs who are less research-active, activity is likely to grind to a halt due to lack of seed funding and inability to compete for national funds”. These developments are impacting on all aspects of the institution and its various stakeholders—and particularly on its faculty. Not only is there pressure to conduct research, publish, and win funding, but there is mounting pressure to do all this while also fundamentally transforming the institution and its culture. And the stakes are high. In this context, it is too simplistic to assume a homogenous faculty experience at the behest of “university managers [who] have ... creat[ed] an environment that encourages, even demands, that faculty act as entrepreneurs, raising monies to fund their units and department” (Slaughter & Leslie, 1995, p. 113). The situation outlined above presents a more complex picture of change in academic work, one in which both faculty and management are having to undergo a paradigm shift within three concentric circles of change and make choices in ways they previously have neither encountered nor anticipated.

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### Notes

1. Scotland and England were considered separately because of their different higher education systems.
2. This figure represents the number of HEIs worldwide according to the International Association of Universities.

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