

Realising Capabilities – Academic Creativity and the Creative Industries

2007

yet to be published

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Abstract

Higher Education Institutions (HEIs) in the UK are in an era of change. The Third Mission demands institutions to realise their potential, which is predominantly achieved through the commercialisation and technology transfer of academic research. Much of the existing literature is devoted to the scientific dimension of the Third Mission, with little if any recognition as to the non-scientific creative capacity of HEIs. Indeed the absence of (non-scientific) academic creativity from the Third Mission of HEIs, and by others stakeholders such as the Higher Education Funding Council for England (HEFCE), means HEIs are not realising their potential. Realising the creative potential of HEIs can be identified as the second wave of the entrepreneurial university, and with it brings a new research agenda, as institutions

seek to protect and commercialise creative IP. This paper focuses on the spaces and resources of Cultural Quarters (CQs) as an example of a specific domain in and with which HEIs engage to realise the potential of their non-scientific creative knowledge. In short the paper proposes the creative capacity of HEIs to represent an under-exploited resource to the new or knowledge-based economy, of which HEIs are themselves key organisations.

Introduction

In an era increasingly defined by the knowledge-based economy, HEIs can be identified as key actors, although there is much debate as to the exact role of the university (William-Jones, 2005). The emergence of HEIs as ‘engines’ of the knowledge-based economy can be seen to represent a second academic revolution, as they have come to assume a greater societal role. Indeed the ideology of the academic ‘ivory tower’ is gradually being superseded with that of the ‘entrepreneurial university’ (Etzkowitz et al., 2000), placing greater emphasis on contributing to the economy and society. However, while the so called ‘Third Mission’ (the other two being teaching and research) endeavours to promote economic and community engagement of universities (Moras-Gallart et al., 2002), the reality has seen these ‘third stream’ activities predominantly interpreted as the commercialisation of academic research with other forms of community engagement marginalised. The focus of this paper is the ‘entrepreneurial turn’ (Meyer, 2002) and how it privileges scientific knowledge and talent over creative knowledge and talent with most university based commercial activity primarily associated with high-tech scientific activity in the form of spin-outs and patents (UNICO, 2001). Indeed the marginalisation of non-scientific or creative academic research represents a significant, and under-developed, knowledge base with unrealised commercial potential. This paper addresses the apparent nexus between academic innovation and the creative industries, through an examination of CQs of cities and their links with HEIs. Drawing on case studies the paper illustrates the scope of academic creativity in relation to the creative/cultural economy, and critically analyses how HEIs can realise their non-scientific ‘creative’ potential so fuelling the innovation of new products, services and markets.

The paper is structured across three sections. The first section of the paper outlines the emerging role of the university in the knowledge economy, and how the Third Mission has come to prioritise scientific knowledge over creative knowledge. The second section will develop the creative industries literature, highlighting the difficulty in definitions, and the intangibility of their products – which presents new challenges to HEIs wanting to link to them. The third section will then tie these two sections together, discussing examples of how creativity has and can be utilised as a tangible way of commercialisation of universities and HEIs. The paper concludes by reflecting on CQs, and the nexus between academic creativity and the capacity of HEIs to realise their potential, citing them to both to constitute part of a wider emergent research agenda

Universities and the Knowledge Economy

This first section of the paper outlines the literatures detailing the emergence of the contemporary university in the UK and the evolution of a Third Mission, characterised by commercialisation activities and technology transfer. Moreover, this section situates the need for non-scientific third stream activities by highlighting and critically engaging this apparent deficiency within the existing literature.

The role of the university in the UK has paradigmatically changed in the last 25 years, with a critical turning point in the history of higher education in the UK identified as the ‘end of the binary divide between universities and polytechnics’ in 1992 (Waterhouse, 2002: 7). This removed the distinctions between institutions of ‘theoretical learning’ and those of ‘practical and the technical’ teaching, with both able to award academic degrees so placing them on the same playing field in terms of eligibility for government funding. While the changes did not initially appear to represent totemic changes, it can be seen to represent the start of the second academic revolution alluded to above, as ‘universities need to re-conceptualise themselves as a service industry, not a priesthood of occult technology’ (Waterhouse, 2002: 8). As part of this transition Charles (2003) describes how the former blue-sky research priorities, especially of ivory tower institutions are increasingly challenged by demands for vocational training and employable skills, which is unsurprising in light of the transition from elitist to mass higher education. Further to this, Claes (2002)

notes that while the core functions of the contemporary university is currently blue-sky research-based teaching, this is subject to increasing negotiation.

Amidst this transition, Gumport (2000) finds universities attempting to (re)legitimate its role as a societal institution, and shed the perception of higher education as an industry. As societal institutions, universities assume a broad range of social functions which Gumport (2000: 71) finds to include “cultivation of citizenship, the preservation of cultural heritage(s), and the formation of individual character and habits of mind”. Yet Gumport (2000: 70) also notes that the corporatisation of universities enables them to “produce and sell services, train some of the workforce, advance economic development and perform research”. Kerr (1987: 183) describes this tension between higher education as a societal institution and higher education as an industry as the “accumulated heritage versus modern imperatives”, finding these conflicting ideologies as critical to the future form of the university, and higher education in industrialised nations. This ongoing transformation of higher education in the UK has become dominated by the dawn of third stream activities, as universities endeavour to resolve, reassert and (re)legitimate themselves as quasi-public institutions. One of the significant contributions to realising the commercial potential of universities is the Dearing Report (1997) which identified a change in HEIs from societal to economic goals. The Lambert Review (2003) also made a number of recommendations to HEIs, specifically in relation to a greater role for the Regional Development Agencies in facilitating knowledge transfer in their regions, a new funding stream for business-relevant research, along with increased and improved third stream funding for knowledge transfer.

Godin and Gingras (2000: 274) observe universities to be highly significant to the knowledge-based economy, finding them to be at the “heart of [knowledge production] systems and that all other actors rely heavily on their expertise”. However while the ideology of the entrepreneurial university is largely accepted, it is important to note the more moderate interpretations of ‘academic capitalism’ (Slaughter and Leslie, 1997) and the ‘enterprise university’ (Marginson and Considine, 2000), which debate the extent of the entrepreneurial university’s role and capabilities, and how organisational contradictions are resolved. This contestation stems from interpretations that the Third Mission is primarily concerned with commercialisation

and transfer of academic activities to the economy, and the community dimension of the Third Mission¹ have been neglected as they are simply not (as) profitable. This is another important factor which needs to be addressed, as too much reliance on the commercial activities can be detrimental to the notion of creative engagement by the HEIs. This is an issue which has not gone unnoticed by HEFCE with the most recent strategic plan (for the years 2006 – 2011) which argues for more focus on the individual institution;

“As HEIs build on their strengths, they also need to collaborate more to meet an increasingly diverse set of needs. Some partnerships will be between universities and colleges, sharing expertise and resources to achieve what they could not do individually, for example through Lifelong Learning Networks – groups of HEIs and FECs that come together across a city, area or region to offer new opportunities for students on vocational programmes to progress to HE [Higher Education]. Other partnerships will be with organisations and stakeholders outside HE – business, the voluntary sector and local communities. We believe that such collaboration is essential to the success of individual HEIs and the sector, but we acknowledge that it can be challenging, and takes time and effort”.

(HEFCE, 2006: 6)

Therefore our argument echoes Kerr (1963) who observed that in that the ‘multiversity’ is a more appropriate interpretation of the contemporary university on account of their increasingly diverse remit and function. This sees an evolution from a historical and societal institution towards becoming a more innovation led, commercially orientated institution, which can be seen as the intention of the Third Mission as outlined by the 1997 White Paper ‘Realising our Potential’. The state was and remains central to the conception and implementation of the Third Mission, and as noted by Foucault (1971) universities represent an important form of least cost state apparatus. The Third Mission, and the entrepreneurial university, has been reinforced through numerous government and governance programmes and initiatives, including

¹ Examples of which can be student placements in the private sector or the university hosting community events

the University Challenge Fund, the Science Enterprise Challenge, the Public Sector Research Exploitation Fund and the LINK Programme to realise the value of science to the knowledge-based economy. These alternative sources of third stream funding do not, and are not intended to replace diminishing teaching and research income, but rather create the opportunity for greater future financial autonomy through generating alternative income. However, Geuna and Nesta (2003) identify the paradigm shift associated with the rise of the entrepreneurial university to have resulted in the dominant norm becoming managing industrial research agreements, assessing and protecting intellectual property and the commercial translation of science, rather than blue-sky research.

Having identified the emergence of the entrepreneurial university in the literature and in practice, the focus is limited to *scientific* commercialisation and technology transfer. The commercialisation and transfer of non-scientific creative knowledge has been largely overlooked in the literature and in practice, especially in relation to the creative industries. While the Third Mission has always recognised the importance of community engagement by universities in previous rounds of funding (i.e. HEROBC and HEACF), it has not been developed as much as the more immediately tangible forms of economic engagement. Many subsequent programmes and funding rounds have focused on economic engagement of HEIs with the knowledge-based economy, and more specifically scientific rather than creative sectors. In 1999 the HEFCE report 'Partners and Providers' (HEFCE, 1999) provides only anecdotal examples of creative engagement, such as the ways in which universities provide cultural (and sporting) facilities to the public. More recently the HEIF 3 initiative has sought to promote more indirect economic and cultural benefits (re)incorporating community engagement and the role of HEIs. Overall however, there is an increasing acknowledgement of the creative capacity of (entrepreneurial) universities, but this potential has yet to be realised in the form of commercialisation and technology transfer.

Creative Industries

To realise the potential of the commercialisation of non-scientific creative research, it is important to negotiate a path from the academia to the commercial sector. This necessitates understanding the economy and the dynamics of commercialisation and technology transfer associated with the creative industries. The differences between

high-tech (scientific) economies and creative economies are substantial, but arguably the difference is greatest in their outputs. By definition, the basis of creative industries are often less tangible and often not as amenable as high-tech and scientific activities (Lawton Smith and Bagchi-Sen, 2005). Therefore, it is important to recognise this intangibility if universities are to successfully commercialise their non-scientific creative potential. The products of the creative industries can have very short life-cycles, dictated by current fashions and trends, which creates these new challenges for universities wanting to create a commercialisation of their creative academics.

It is therefore the understanding of *consumption* (and its variations) of these goods that will inform the creative academics of HEIs and universities as the structure and characteristics of the creative industries market. It was Bourdieu (1986) who noted that certain sectors, namely those producing consumable goods and services, have socially symbolic connotations. Scott (2004b) identifies these 'cultural-products' two-fold; with the "first service outputs that focus on entertainment, edification and information (e.g. motion pictures, recorded music, print media or museums)" (Scott 2004b: 462); the second set, echoing Bourdieu, includes "manufactured products through which consumers construct distinctive forms of individuality, self-affirmation, and social display (e.g. fashion clothing or jewellery)" (*ibid.*). Cunningham (2004) however suggests that creative industry outputs can be simultaneously cultural, service-based (both wholesale and retail) R&D-based and part of the volunteer community sector. The diversity and intangibility of products causes problems in the creative industries sector, with the creative industries having to adopt new non-traditional management strategies in order to produce and sustain profit margins. Indeed Lawrence and Phillips (2002: 431) find that "despite commercial production being an important and rapidly growing segment of the economy, current organization and management research has little to say regarding the distinctive issues facing management in these [creative] industries", an issue which is also true of universities and public policy alike. With the nature of the products produced dependent upon fashions and trends that are constantly changing, the processes of production, marketing, distribution pose greater risk, as the time-lag period may mean that by the time the product is released into circulation, it can already be out of fashion (Jefcutt, 2004). This is a problem readily associated with HEIs,

where internal bureaucracies often means decision making and capacity of institutions to act is longer than that of commercial counterparts.

As such identifying opportunities for, and processes to commercialise and transfer non-scientific creative academic research represents a major new challenge facing HEIs. However the potential is high as the capacity of creative industries as major wealth-generators has been well documented (Caves, 2000; Florida, 2002). One of the major themes to come through the literature is that creativity can be viewed as a by-product, but also a contributor to the recent shift in our economy;

“Many say that we now live in an “information age” economy or a “knowledge” economy. But what’s more fundamentally true is that we now have an economy powered by human creativity. Creativity – “the ability to create meaningful new forms”, as Webster’s dictionary puts it – is now the *decisive* source of competitive advantage. In virtually every industry, from automobiles to fashion, food products, and information technology itself, the winners in the long run are those who can create and keep creating”.

(Florida, 2002: 4-5, original emphasis)

Seemingly Florida echoes Bourdieu (1986), in that everyday products have an element of ‘style’ or ‘creativity’, but what he is adding is that this creativity is what is driving the new economy; a sentiment which holds true in relation to realising the potential of non-scientific creative research of universities. He goes on to suggest that this ‘creative class’ is growing and encompasses people from all different industries, from engineers to musicians, from surgeons to filmmakers; also, people that were once considered iconoclastic or bohemian, are now mainstream, the main creator of the modern society (Florida, 2002). Landry (2000) identifies the potential economic and social benefits associated with creativity, and is quick to (re)associate it with the city, claiming that it is the interaction of people with their surroundings that forge this creativity. Again, this is particularly interesting in relation to realising the creative potential of universities. Landry (2000: 15) observes how “you cannot have a creative meeting nor a creative institution without creative people. Equally, you cannot have a creative milieu without creative organizations – it is the setting within which creative people, processes, ideas and products interact”. Clearly there is significant opportunity

here for HEIs to contribute to the knowledge-based economy, with non-scientific academic creativity representing a largely under-exploited asset which can contribute to this 'creative milieu'. Particular attention has been made to the links that these industries have with the development of cities (Scott, 2000) with the process of clustering and agglomeration within the creative industries having been heavily debated (O'Connor, 2004; Pratt, 2004). Although it is not the intention to discuss these debates in this paper, it is a phenomenon that the non-scientific academics will have to understand the nuances and processes of, if they are integrate successfully into the creative sector.

Both Landry and Florida observe that the multiculturalism of the city stimulates creativity through the arts and cultural industries, but similarly this can be equally applied to the university which (Something about creativity and universities/HEIs as creative domains). The emphasis placed on creativity has seen (national, regional and city) governments adopt their particular ideologies and policies in order to regenerate/rejuvenate the economy, and the development of represent a particular focus which also engages HEIs (Roodhouse, 2006). While (Florida, 2002) emphasises the importance of HEIs in the creation of the so called 'creative class', realising the economic potential of non-scientific creative capacity of HEIs remains unclear, if not absent from the literature and practices associated with third stream activities. This absence can be attributed to the recent change in contextualisation of the creative industries as there is a long history (since the eighteenth century) of art and design schools that were set up to meet industry needs, which have progressively been subsumed into the third stream of HEIs to meet the contemporary needs of the economy (Roodhouse, 1999). However, as identified in the previous section, the present configuration of universities' third stream activities, and specifically commercialisation and technology transfer is predominantly scientifically-based. This is reinforced by the HEIF summary of 2000 – 2005 which presents extensive detail and recommendations about HEI third stream activities, yet of the examples given, none relate to the creative industries. Therefore, there is a need to recognise the continual dynamism of not only the products that these industries produce (Lawrence and Phillip, 2002), but also how they are managed as a part of third stream activities. This is consistent with Leadbetter (2006: 7) who argues that "Britain's thriving cultural industries rely on small businesses which are under-capitalised, under-

managed and frequently under stress”, which is an issue that can be addressed by HEIs in their management (and commercialisation) of non-scientific creative knowledge.

Universities to the Creative Industries

In order to realise the commercial potential of the creative industries within HEIs,, this section will engage in the practicalities of (re)establishing formal links between HEIs and the creative industries. Moreover, this section argues for a more nuanced perspective on how to catalyse a creatively-bent Third Mission in UK universities. The section first analyses the existing infrastructure (both public and private) in trying to formalise links between universities and the creative industries through CQs as a form of engagement, with specific examples drawn from Sheffield, Wolverhampton and other cities with an active CQ policy. Second, this section discusses specific techniques for stimulating the creative capacity both of and within HEIs, and specifically realising the (economic) potential of non-scientific creative knowledge.

In many cities throughout the UK, particularly in the northern deindustrialised cities, there has been an increasing focus in public policy on the generation of CQs and associated economic and social benefits to the city/region, as well as individuals, firms and institutions that are affiliated (Bell and Jayne, 2003; O’Connor and Wynne, 1996; Roodhouse, 2006). HEIs are often consulted on the designation of these areas, become key institutions in their establishment and benefit from their development., and in the case of Sheffield’s CQ, Sheffield Hallam University (SHU) is a key stakeholder. One such benefit is that the universities can forge stronger links with the creative industries located in the surrounding, newly established infrastructure of buildings, office space and studio space. In Sheffield for example, there are also strong links between the CQ and the adjacent science park, which focus particularly on the development of technologies related to film, photography and music recording. This has lead to the proposal from the city council to develop a ‘Cultural Campus’ in the CA which would house SHUs fine art, media studies and design departments (Roodhouse, 2006: 28). The links between the HEI and the city manifested themselves in the shape of the Cultural Industry Quarters Agency (CIQ Agency) which composed of a non-executive board with members from local businesses, the science part, the city council and SHU. The CIQ Agency set out a number of tasks to

improve the development of the CQ including improving transport links, green development as well as retail and catering outlets that housed the shops, bars, cafés and restaurants that are needed to sustain a successful CQ (Roodhouse, 2006: 30). The formalisation of links between HEIs and the creative industries is furthered by the physical existence of these CQs. To continue with the example of SHU, it established links very early on with the CQ (through the CIQ Agency) and subsequently, SHU was instrumental in establishing the Northern School of Film and Television, which made use of the studio and office space in the newly developed CQ. This represents SHU's willingness and capacity to engage with industry, support the local economy, and work between the public and private sector to enhance the creative economy.

Part of the remit of city councils is to retain the talent which emerges from the local universities. This creates a stronger connection between the students and staff of universities with the local creative industries, so invoking a greater affinity to commercialise. This has been demonstrated in the Wolverhampton CQ where the strategic approach recognises the industrial past associated with craft oriented small businesses. Local authorities and the university are investing in the creative industries, to create new craft based small businesses for the future. These complement other activities and relates to digital technology companies located in the science park. This overarching coherent approach toward policy (exemplified in the case of Sheffield by the CIQ Agency), combines existing council cultural assets with private sector organisations and other major institutions such as the University. Many of the students are training to enter the creative industries, as Wolverhampton University has a substantial faculty of Art and Design, and so the CQ stimulates the growth of nascent creative enterprises and acts as a hub for production, presentation and sale of cultural goods and services. This process is further exemplified in Bolton, in which the Le Mans Crescent (a historical CQ) has formal links with the British Museum which supplements some of the collections in the museums, art galleries and libraries with long-term loans of collections. This has facilitated access to museum skills and knowledge by student from the University of Bolton in the form of apprenticeship schemes and foundation degree programmes (Roodhouse, 2006: 126).

Those HEIs which have engaged with CQs in the early stages of their development can be seen to benefit from the increased connectivity and communication with industry. As more creative graduates move out of the university (due to the increased student numbers in higher education) into the surrounding office and studio space of the CQ with their newly formed creative industry business, the spaces gradually fill up and inevitably push up rental prices, which can potentially cause a homogenisation and corporatisation of the creative industries. Indeed the rising expenses means that the subsequent years of entrepreneurs are forced out of the CQ to non-subsidised, less connected areas, as was the case with the Manchester CQ development, where local authorities and other public agencies gradually gained control of the spaces (through compulsory purchase orders) from the inhabited ‘creatives’, forcing up the prices to gain more rental income. This is potentially detrimental to the CQs as they can stagnate, losing the innovative dynamism associated with ‘creatives’, which is implicit to the success of the CQs themselves. The continued success of the CQ, and its links with HEIs, is dependent on providing incubator space for both nascent and more established enterprises². However, this process is further complicated as private sector investment in CQs demand a competitive return on that investment through rental income etc, and is largely unconcerned with facilitating the grassroots development of the creative industries. To continue the example of Sheffield, in the CQ, the National Centre for Popular Music opened in March 1999 as a major cultural flagship of Sheffield’s CQ but rapidly failed, attracting far fewer people than first projected, hence a substantially lower income stream. Subsequently the company, Music Heritage Ltd, has since dissolved, and the building is now SHUs student’s union building (Roodhouse, 2006).

With creativity largely concerned with “activities which have their origin in individual creativity, skill and talent” (DCMS, 1998), intellectual property (IP) and protection thereof is critical to the success of the industry. Within the creative industries, creativity can be tangibly officiated (and thereby commercialised) though IP (Cunningham, 2004; Howkins, 2001). HEIs have been slow to recognise the importance of IP (Lambert Review, 2003) and as a result slow to realise the commercial potential IP and particularly in terms of non-scientific creative

² However, there have been some examples of how this ‘gentrification’ process can be halted. The Birmingham Custard Factory is a regeneration project that relied on one creative entrepreneur who was able maintain the quality of the space without the increase in rental prices (Roodhouse, 2006: 23).

knowledge. The importance of IP cannot be understated as “creativity by itself will not make anybody rich; intellectual property laws do that” (Healy, 2002: 97).

IP therefore is a valuable commodity, and if the complex processes surrounding the legality and ownership of IP can be clarified, then the commercialisation and transfer of creative knowledge from HEIs will be better facilitated. The role of IP protection in promoting economic growth has been well documented in industry (Gould & Gruben, 1996; Maskus, 2000) and so to have a more nuanced perspective on the IP protection by HEIs will not only aid commercialisation and knowledge/technology transfer, but also increase profitability. Indeed as Gould & Gruben (1996: 346) suggest “under a regime of open markets, we might expect competitive forces to stimulate innovation and intellectual property protection to induce even more of it”. However, the ownership of this ‘creative IP’ is an issue which can lead to the intense ‘profitisation’ of IP. Healy (2002: 98) suggests that “the axial principle of the new economy is not creativity”, and “the goal is not so much the fostering of creativity as the ever more fine-grained control of existing goods”. The Third Mission of HEIs sees them act as engines of the knowledge-based economy, which is encouraged by the strict control of IP. However, this intense profitisation of IP and associated commodification of creativity, (i.e. the “concentrated ownership and control of ideas” (*ibid.*)) potentially marginalises the wider societal role of HEIs (Gumport, 2000; Lawton Smith, 2006)³. This reiterates the fact that the ‘creative’ Third Mission addresses both *commercial* and societal dimensions, with one supporting the other.

Education within the HEI is also an important factor in encouraging links. As cited in the first section of this paper, the commercialisation (third stream) of UK universities yields supra-economic benefits, so it makes sense to engage the teaching stream of universities to promote the Third Mission. In other words, a university wishing to commercialise their creative potential can encourage it by teaching the latest business and technological advances to their creative students. One particular programme, Midlands Medici, recently extended from life and bioscience research to across the academy, to help facilitate the commercial exploitation of academic knowledge and research through the provision of training in business, entrepreneurship and

³ Community engagement of HEIs and their ‘wider societal role’ includes (but is not restricted to) the setting up of incubator spaces which provides subsidised rental areas for nascent creative ventures (Roodhouse, 2006), as well as providing entrepreneurial and business advice (Cunningham, 2004).

technology transfer to academic fellows. Fundamentally, Midlands Medici is championing cultural change in a consortium on Midlands HEIs, in association with institutional third stream activities. The University of the Arts London (UAL) has developed a similar programme in the Centre for Creative Business, which offers business advice for fledgling and established creative industry companies. UAL also offers free advice on the protection and commercialisation of IP to nascent creative enterprises, through a subsidiary company 'Own-it'. Similarly 'INNOVATE' at the Centre for Creative Industries, University of Plymouth, which is part of the university's technology transfer infrastructure, offers a service to transform ideas and concepts into prototypes, models, objects and products.

Realising the creative potential of HEIs extends beyond the scope of the Third Mission, with a prevailing emphasis also on entrepreneurial education and research agendas⁴ Many universities have established departments and modules focused on the creative industries, of which strategic management has come to constitute an important focus. The Research Centre in Creative Industries at Queens University Belfast combines staff from management, economics, the humanities and engineering to understand the dynamics of the creative industries. Similarly the Centre for Creative Empowerment at the University of Portsmouth develops and evaluates creative pedagogy and its policy implications for the creative industries. Numerous other institutions have established teaching and research centres related to the creative industries including Lancaster University which is linked to the North West regional policy and the University of Essex study in to leadership and the creative industries. This emergent focus of universities recognises the importance of education and training in the particularities of the creative industries along with the need for research to understand the dynamics of the creative industries. Collectively these two factors contribute to realising the creative potential of HEIs, and more specifically the commercialisation and transfer of non-scientific creative knowledge and technology.

Conclusion

The commercialisation and transfer of non-scientific creative knowledge from HEIs to the economy (and society) is increasingly important to the creative industries.

⁴ Conversely, there has also been a call for business courses to be more 'creative', as there is scope for symbiotic relationship between the two academic realms (Cox, 2006).

However, there is a need for further research in to the process and practicalities of realising the economic (and social) potential of non-scientific creative knowledge, so providing an in-depth understanding of the complex dynamics involved. This paper has identified the importance of CQs, and their relationships with HEIs, in facilitating the commercialisation and transfer of academic creativity, and identify this example as part of a wider research agenda. The absence of creativity and creative knowledge from the Third Mission has been acknowledged by HEIs and other stakeholders (i.e. HEFCE), and has now come to assume a renewed focus. Increasingly HEIs have begun to integrate entrepreneurial education into teaching and research missions, while realising the potential of non-scientific creative knowledge has also become a (more) central component of third stream activities. Specifically, the paper has identified the recognition and protection of ‘creative’ IP as tangible assets by HEIs as fundamental to realising economic value.

This paper identifies that the connections between HEIs and CQs are implicit to their success, but also the alignment with wider regimes of stakeholder governance. Much existing research has tended to focus on the outcome or results rather than the process and practices of the Third Mission, and more specifically commercialisation and transfer, and therein emphasising scientific rather than creative knowledge. The focus on the process and practice is implicit to a nuanced perspective and research agenda, and to identifying best, or rather better practice of HEIs pertaining to creativity, creative knowledge and the creative industries.

Indeed realising the (economic) potential HEIs has become a focus of government policy in the UK, and subsequently a core mission of HEI themselves. Subsequently, it is not surprising that non-scientific creative knowledge has come to be recognised as an asset, albeit initially behind more tangible scientific knowledge. Arguably the realisation as to the value of creative knowledge and creativity represents a major advance in terms of the Third Mission, and specifically commercialisation and technology transfer activities. However, despite this realisation the success of the Third Mission is dependent upon instilling an enterprising, entrepreneurial cultural. Hartley (2006) recognises it is individuals, the creatives, who matter, and effective third stream activities should facilitate the realising the (economic and social) potential of non-scientific creative knowledge. Leadbetter (2006) notes the

importance of establishing bridging programmes between HEIs and the creative economy. With the creative industries dominated by small firms and freelance workers, HEIs represent an important source of both creative knowledge and labour, but also an important part of the creative (social) infrastructure. University based/associated incubators, live/work spaces and CQs all constitute the physical infrastructure, while business management and advice services represent an important form of social infrastructure for realising the creative potential of HEIs. However, while this paper goes some way to understanding how HEIs may realise their creative potential, it also highlights the importance of understanding the complex dynamics between academic creativity and the new or knowledge-based economy.

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