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Creative Industries: what they are and why they are important to the knowledge economy.

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The term ‘creative industries’ is increasingly being used in the arts, and in cultural policy discourse. These are the activities that are circumscribed by the “old” entertainment and cultural sectors, as they are transformed by new digital technologies, and intersect with business and the services sector. Whatever the semantic pros and cons of the term, there are now clear definitions of it in terms of standard industrial classifications. Moreover the focus on the “creative industries” is motivated by a belief that these activities represent a high growth part of economies in their own right and are also important enablers of the economy generally. In the UK and US average annual growth rates for the creative industries have consistently been more than twice that of the economy at large. Moreover, it can be argued that the creative industries and digital technology are in reality becoming strategically *important enablers as intermediate inputs* to other industry sectors. Speculatively one can imagine four mechanisms that might explain this enabling role, namely;

These sectors are crucial in accelerating consumption across all sectors because they enable the cultural process involved in the consumption process;
They lead in the re-engineering the way services are delivered (virtually rather than physically);

They stimulate the creation of value because they are hotbeds of divergent thought and imagination;

They provide a creative milieu which attracts a wide range of the creative class.

Introduction

The term creative industries has its origin in policy initially in Australia in the early 1990s and then more fully developed in the UK by the Blair government.¹ There it was used to describe sectors of the British economy in which creative intangible inputs added significant economic value. The term encompasses advertising, architecture, the art and antiques market, crafts, design, designer fashion, film and video, interactive leisure software, music, the performing arts, publishing, software and computer games, television and radio. It is now widely used in

Europe, East Asia, and Australasia.² Even in the US— a nation typically resistant to such European trends,³ - its significance as an indicator of wealth creation has been advocated by US entertainment industries', Motion Picture Association boss Jack Valenti.⁴

There is a strong argument that suggests this internationalization of the concept of creative industries is predicated on its capacity to connect production with consumption in the new economy. That is, the relationship between key contemporary policy drivers in high-tech information and communications technologies (ICT) based R&D and the 'experience' economy, cultural identity, and social empowerment makes global utilization of concept of creative industries possible. At the same time, of course, robust academic debate exists in relation to the narrow economically-focused views of creativity implied by the term.⁵

In the ten years since the inception of the term, cutting-edge policy and industry research debates have moved towards a re-defining of attributes and outputs of creative industries. There is an emerging debate about the creative industries as an R&D sector,⁶ and how particular creative sectors might benefit from innovation policy programs.

The broad scope of the creative industries is generally agreed upon. However, overly inclusive definitions - such as those including the generation of scientific patents, designs or trademarks⁷ – are now less tenable. We are therefore witnessing a sharper focus on particular sub-sectors of creative industries in different locations and jurisdictions. For example, Singapore centers its attention on adding culture and creativity in education to its ICT preeminence; New Zealand concentrates on screen production, music, design, digital content, and publishing; Hong Kong focuses on advertising, architecture, design, publishing, IT services, as well as conventional and digital entertainment; and Korea focuses on broadband media applications, film and associated major infrastructure.

In Australia, policy has begun to concentrate on creative digital industries (CDIs). At the same time, there is interest in mapping creative industries inputs into, or enablers of, the wider service industries. For instance, design is seen as an enabler of marketing strategies for finance or education, or as providing essential inputs in e-health, modeled on the *ICT-as-enabler* paradigm. There is also strong focus on applied policy interventions, necessarily preceded by 'mapping' sector;⁸ and understanding distinctiveness of the creative industries that differentiate them from conventional commodities.⁹

Worldwide the creative industries sector has been among the fastest growing of the global economy. In the UK and US average annual growth rates for the creative industries have consistently been more than twice that of the economy at large. A key subset of the creative industries is the digital content industries (computer games, digital video & film, post-production, web sites, animation). Cunningham argues they comprise a rapidly emerging industry sector that is economically significant to Australia's future.¹⁰ They are worth \$19 billion (3.3% of GDP), and employ 289,000 people. In addition to scale, they are significant because they are enablers for other industry sectors. They translate directly into the competitive advantage and innovation capability of other sectors of the economy. These industries are knowledge intensive and require highly skilled human capital. As well, the economic multipliers (that is, productivity and employment growth per dollar invested) arising

from the creative industries are significant because they are higher than most other categories of economic activity. This may be because they are becoming strategically *important enablers as intermediate inputs* to other industry sectors. They clearly show why an examination of knowledge creation must take into account both cultural and technical knowledge.

Creative Industries and the Knowledge Economy

Governments are now attempting to advance knowledge-based economy policy models, which include some hybridising of the insights of the social sciences, the humanities and science research. (Hearn and Rooney In press) Rifkin claims that cultural production will ascend to the first tier of economic life, with information and services moving to the second tier, manufacturing to the third tier and agriculture to the fourth tier. (2000 63) In other words, the future is not only reserved for science and technology; it is essential that knowledge-related policy makers be mindful of the centrality of cultural production and services sectors in the future.

Of course the technical end of the digital content spectrum also holds promise of strong growth outside the creative industries. Content and applications in, for example, geographic information systems, e-health and bioinformatics are growing. Moreover, digital technologies are strategically important enablers as intermediate inputs to business processes generally. In business administration, knowledge management systems and information systems already handle large amounts of content relevant to the conduct of business in almost all industries. It is still the case however that knowledge management systems are not strongly influenced by developments in digital content such as animation, video streaming and other visualisation and creative techniques. They are, however, likely to be in the near future.

Presently, R&D strategies occasionally intimate that there should be some hybridising of the insights gathered from research in social sciences, humanities and science. However, given the growing role of the creative and services industries, hybridisation should be a *primary* principle upon which national R&D strategy is based. Given this, it is interesting that Porter suggests the dominant structure for competitiveness in the new economy is that of clusters. (1998) These are critical masses of interlinked, industry-relevant activities in one location, including suppliers, universities, government agencies, corporations and smaller companies. These affect competition in three broad ways: first, by facilitating close relationships, better information flows and so on, they increase the productivity and capacity of companies in the area; second, they accelerate the direction and pace of innovation, and; third, they stimulate the formation of new businesses within the clusters.

More particularly, Porter's work on cluster competitiveness can be applied to elaborate a policy framework for innovation systems affecting digital content production¹¹.

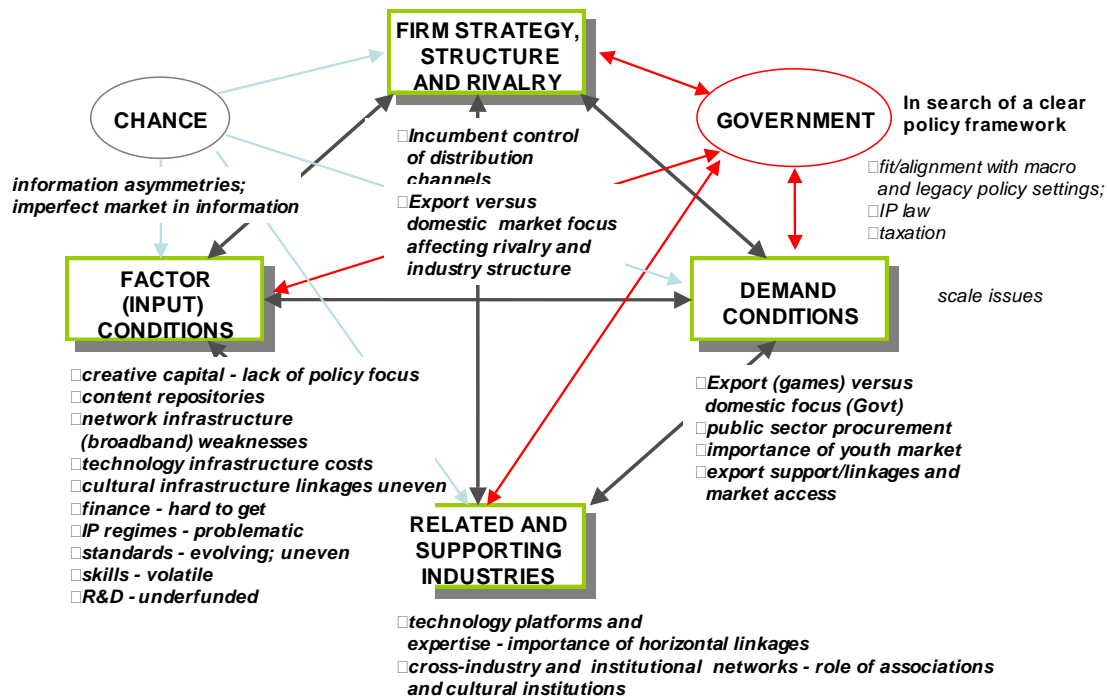


Figure 1: Overview of elements in cluster competitiveness in digital content production

Digital content development is a key illustration of the importance of social and cultural factors contributing to the knowledge-based economy. This is because it shows the interactions between culture and technology upon which much of future prosperity is based. Current innovations are opening up a broad raft of opportunities for digital content and applications. These range from “the technical” at one end of the spectrum to “the cultural” at the other, as well as activities involved in the intermediate use of digital innovations in other sectors. Optimising opportunities depends on understanding how all sectors affect each other because the demand for digital content will not be from the IT sector. (Cunningham 2006; Howkins 2001) Information and Communications Technologies (ICTs) will provide enabling (distribution) technology for all sectors, and entertainment and culture will shape the form and scale of consumption of services in all sectors. This will occur through communication, marketing and advertising functions in particular. (Florida 2002) I propose four mechanisms that undergird the role of the digital content sector in the economy namely:

- These sectors are crucial in accelerating consumption across all sectors because they enable the cultural process involved in the consumption process
- They lead in the re-engineering the way services are delivered (virtually rather than physically)
- They stimulate the creation of value because they are hotbeds of divergent thought and imagination
- They provide a creative milieu that attracts a wide range of the creative class.

These sectors are crucial in accelerating consumption across all sectors because they enable the cultural process involved in the consumption process

Terry Flew has drawn attention to the *culturalisation of economic life*. (In press) As Lash and Urry argued contemporary capitalism is characterised by a marked degree *aesthetic reflexivity* in the spheres of both production and consumption. (1994) Thus any discussion of the new knowledge economy needs to foreground the importance of cultural matters. The construction of identity in our society has become thoroughly implicated in the market economy. Most economic activity is driven by consumption (60-70%) and increasingly directed towards the pursuit of cultural goods or goods with cultural components. A techno-cultural economic paradigm has replaced the techno-economic paradigm. The cutting edge of the knowledge economy is no longer defined by technological innovation alone; it is defined by an amalgam of technology and culture, which creates new market spaces. And yet innovation thinking is lopsided, in both its formulation and execution, towards the scientific/technological disciplines. Although science, technology and engineering are essential for economic growth they are no longer a sufficient condition for future economic success. Those sectors that derive in large part from the applied social and creative disciplines (business, media, entertainment, education), represent 25% of exemplary economies, whilst the new science sector (eg agricultural biotech, fibre, construction materials, energy and pharmaceuticals) accounts for only about 15% of these economies. (Rifkin 2000 52) The former are also growing faster and, importantly, are more labour intensive and therefore better for employment.

Just as the industrial revolution automated manufacturing and global labour markets saw manufacturing move out of developed countries, the computer revolution is automating knowledge work, from accounting to routine drafting, and making it vulnerable to global markets. Much of this analytical work can be outsourced. As manufacturing and analytical work is outsourced one of the few sources of competitive advantage is the ability to sense, predict and capitalise on new market opportunities in consumer markets. This requires abilities derived from the applied social sciences and creative disciplines.

Indeed, all scientific innovations must eventually feed into markets, and the disciplines that govern speed and access to, and exploitation of markets all derive from the applied social and creative disciplines. This becomes increasingly true as affluence increases and functionality and price cease to be sufficient for market dominance. Consumers are ever more influenced by the aesthetic and experiential components of products. New forms of innovation are therefore based on intimate knowledge of and facility in creating consumer culture. Lucrative 'blue ocean' markets – where you have no initial competitors – are only created by radical innovation in consumer spaces, not by technology innovation alone. This kind of innovation requires technology plus design plus culture. (Computer games and iPods are examples.) The digital wave that is transforming all industries is beginning to move through the service sector, particularly in health and education. The new interfaces between consumer and producer are virtual, interactive and visual, and the core competencies needed to ride this wave are 'creative cultural', together with technological.

They lead in the re-engineering the way services are delivered (virtually rather than physically)

The digital wave is spreading through all technologies and all industries. It affects the way goods are manufactured and plants are harvested. In particular, digital technologies affect the production, distribution and perhaps most importantly the marketing of services. Already strategic alignments are emerging as part of long-term corporate strategies focused on the potential of interactive TV and increased communication resulting from globalisation of the world economy and decentralisation through networking at the local level. This combination of capital and knowledge in such convergence partnerships will determine how key structures of production are shaped.

A broader understanding of these developments is offered by long-wave economic theory. (Hearn Mandeville and Anthony 1998). Long wave theory describes a cyclical historical process of world economic growth involving successive waves of technologically based development. Each economic cycle or long wave is characterised by a cluster of technological and organisational innovations. The notion of a 'techno-economic paradigm' describes this combination of interrelated product, process, technological, organisational, and managerial innovations. The diffusion of each emerging 'techno-economic paradigm' that embodies these innovations, results in a quantum leap in potential productivity in all or most of the economy. This in turn results in the opening up of an unusually wide range of new investment and profit opportunities. Each period of capitalist growth has been influenced by a dominant trade or group of industries that has thrived because of the development and commercialisation of a new technology or related cluster of technologies.

That is the services innovation space often has:

- a technology component, which consists of the new devices, software and connecting media;
- a social/human component, which includes innovations in human interfaces, engagement strategies, business models, institutional and regulatory environments; and
- a content component - that is, creative innovations in performativity narratives, characters, genres, modes, and aesthetics.

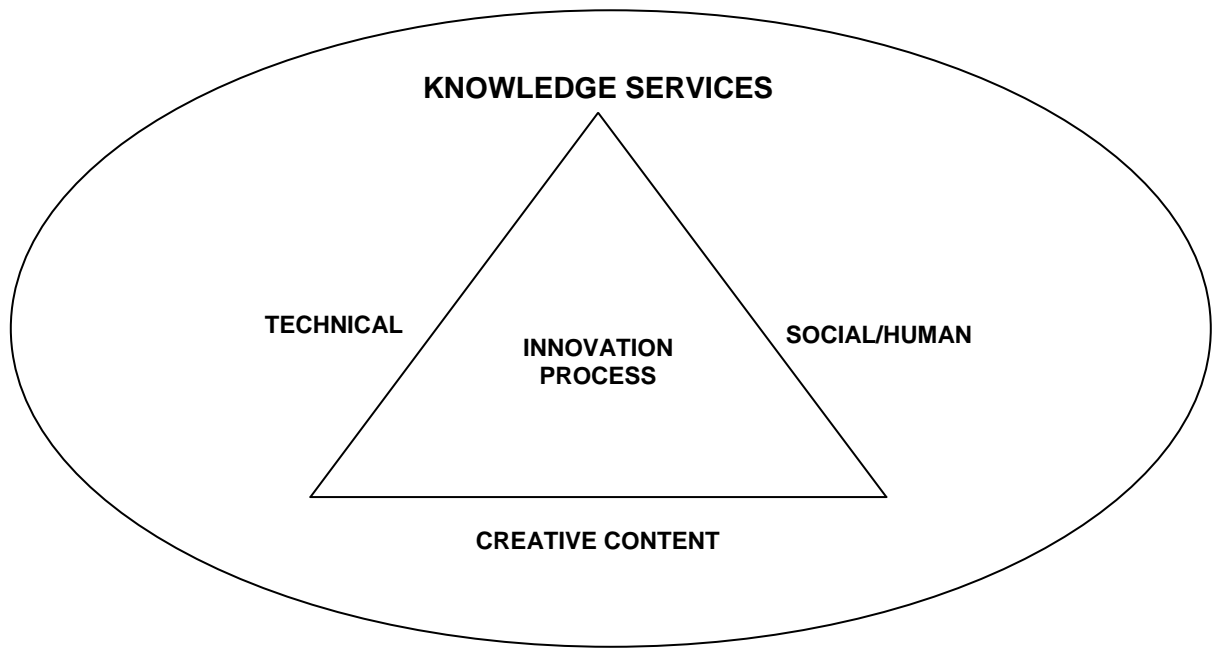


Figure 2: The Services Innovation Space

In consumption led economies, knowledge and information services such as education, government, health, entertainment, business services, financial services, and the media and communication form an important interface between consumers and knowledge and innovation of all kinds. Importantly, the growth rates in these knowledge and information services sectors are often stronger than average growth rates for OECD countries in general. (Rifkin 2000). Of particular relevance here are what Ian Miles terms knowledge services – high value-adding complex services which combine professional, technical and creative knowledge skill sets (e.g. design, information technologies, some engineering areas, business services, creative industries, other professional services). (In press)

They stimulate the creation of value because they are hotbeds of divergent thought and imagination

Economic growth now occurs primarily via continuous waves of innovation. Industries that have existed for centuries based in the primary and secondary sectors continue to grow in absolute terms but shrink in relative terms as new industries emerge. These new industries are built around knowledge and products that, in some cases, did not exist a matter of decades ago. As such, there is a shift from an economy built primarily on tangible products to one built around intangible knowledge. Of course, economies have always been built on primary industries such as resources and agriculture. These industries are continuing to grow - in some cases, rapidly. However, the overall size of developed economies is growing faster than either of these sectors. This is because whole new categories of economic activity are constantly

being invented (e.g. digital, biotech, services). Of course, older industries are continuously innovating and hybridising with newly emerging knowledge. Innovation may occur not only in relation to technology and products but also processes, design and markets. It is the ability to generate new ideas, concepts, products and services that has been a key factor in the transition from an industrial to a knowledge economy. (Flew in press). Rapid cycles of innovation are thus a core feature of modern economies. Morrison and Potts have shown how the creative industries play an important role in the innovation process. (In press)

Innovation is a better long term source of economic prosperity. Economist Brian Arthur suggests 'the underlying mechanisms that determine economic behaviour have shifted from ones of diminishing to ones of increasing returns'. (1996 100). Investments in primary resources run down over time as the resource is exhausted, whereas investments in new knowledge (eg operating systems) ramp up as more users subscribe. Increasing returns eventuate because: the cost of product development is up-front (the overall unit cost of a product falls as sales increase); due to network effects, the likelihood of a product emerging as standard increases with greater use; and expansion into future markets becomes easier as more market is captured ('customer groove-in') (Arthur 1996). The new high tech industries - computers, aircraft, and telecommunication for example – clearly illustrate this dynamic. Service industries, Arthur suggests, also evidence some increasing returns via brand loyalty for example. In this case it is the intangible resource of brand equity that accrues value. I have already suggested the role of creative industries in marketing.

They provide a creative milieu that attracts a wide range of the creative class

"The creative field that undergirds the new economy is constituted as a constellation of workers, firms, institutions, infrastructures, communication channels, and other active ingredients stretched out at varying densities across geographic space. This network of forces is replete with synergistic interactions variously expressed as increasing returns effects, externalities, spill-overs, socialization processes, evolving traditions, and so on, and it is above all a locus of extraordinarily complex learning processes and knowledge accumulation". (Scott 2006 15)

Echoing Richard Florida's ideas, is the idea of creative cities as central to the knowledge economy. Cultural amenity can significantly influence the retention and deployment of the highly skilled knowledge workers involved in creative industries. Yusef and Nabeshima emphasise the importance of cultural amenities and educational services for developing creative human capital. They also highlight the need for recreational and entertainment amenity, and the re-invigoration of inner cities as part of a strategy to build a creative economy. (2005)

Conclusion

The cutting edge of the innovation economy is no longer defined by macro-technological innovation alone but rather it is defined by an amalgam of technology and culture that creates

new market spaces. Yet innovation thinking is lopsided in its formulation and execution towards the scientific/technological disciplines. The cultural disciplines collude with this misunderstanding by mistakenly positioning the value of the social and creative disciplines from public good arguments. This demonstrates a lack of understanding of the key ways in which they are implicated in, and integral to, the development of an innovation economy. Similarly R&D and industry innovation schemes focus primarily on the technology side of the equation. Education is fragmented across the arts/ science divide throughout the education system. The left-brain is split from the right. Technology + culture is the formula for 21st century problem solving and hence for growing the innovation economy.

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