



Queensland University of Technology
Brisbane Australia

This is the author's version of a work that was submitted/accepted for publication in the following source:

Flew, Terry (2012) Culture, technology and the city. In *Presentation to Beijing Research Centre for Science and Technology (BJAST)*, 11 October 2012, Beijing Academy of Science and Technology (BJAST), Beijing, China. (Unpublished)

This file was downloaded from: <http://eprints.qut.edu.au/54044/>

© Copyright 2012 Terry Flew

Notice: *Changes introduced as a result of publishing processes such as copy-editing and formatting may not be reflected in this document. For a definitive version of this work, please refer to the published source:*

Culture, Technology and the City

Terry Flew

**Presentation to Beijing Research Centre for Science of Science,
Beijing Academy of Science and Technology, 11 October 2012**

ABSTRACT

The 21st century has been described as the “century of cities”. By 2030, 70 per cent of the world’s population will live in cities, with the most rapid urbanization occurring in the developing world. This paper will draw up geographer Ed Soja’s concept of the “spatial turn” in social theory to consider how the culture of cities can act as a catalyst to innovation and the development of new technologies. In doing so, the paper will develop a three-layered approach to culture as: the arts; the way of life of people and communities; and the embedded structure underpinning socio-economic relations. It will also consider technology at a three-layered element, including devices, practices and ‘logics’ of technology, or what the Greeks termed *techne*. The paper will consider recent approaches to urban cultural policy, including cluster development and creative cities, and suggest some alternatives, noting that a problem with current approaches is that they focus excessively upon production (clusters) or consumption (creative cities). It will also consider the development of digital creative industries such as games, and the strategies of different cities to develop an innovation culture.

Terry Flew is Professor of Media and Communications, Creative Industries Faculty,
Queensland University of Technology, Brisbane, Australia (t.flew@qut.edu.au)

The Century of Cities

The 21st century has been described as being a century of cities; a ‘new metropolitan age’ (Isar *et. al.*, 2012: 1) where global, national, regional and local forces coalesce in densely populated metropolitan centres. The 2000s saw, for the first time in human history, the number of people living in cities exceed the number living outside of them, and the number of people living in cities is expected to increase from 3 billion in the early 2000s to 5 billion people, or 70% of the world’s population, by 2030, with the urban populations of the developing world being four times as large as those in the more economically developed countries (Worldwatch Institute, 2007).

It has also been argued that cities, and associated city-regions, have become the ‘motors of the global economy’, and that the shift from manufacturing industries to knowledge, service and creative industries are integrally linked to such trends (Scott, 2008). Scott sees the ‘resurgent city’ of the early 21st century as being connected to the rise of information-based industries, advanced services and creative industries that have been on the rise in the global economy. People are moving on an unprecedented scale, from the countryside to the city and from one country to another: migrants to a new country more often than not settle in its major cities, and cities are also the primary destinations for tourists, students, business people and others who travel for work, leisure or education. The globalization of industry, finance and services makes the location of corporate headquarters an increasingly important decision, and much of global capital continues to cluster in what Castells (1996), Sassen (2001), Taylor (2004) and Friedmann (2006) have identified as *world cities*. World cities are structured as ‘networks of urban places that are arranged hierarchically in terms of

their relative importance as sites of corporate control' (Timberlake and Ma, 2007: 265): proxy measures for network density include the amount of traffic over communications networks, or the number of flights per day from international airports.

There is much, then, to support Ash Amin's observation that globalization, the rise of information-based industries, and networked ICTs promote the further development and expansion of cities:

There appears little evidence to support the claim that cities are becoming less important in an economy marked by increasing geographical dispersal ... [they] assert, one way or another, the powers of agglomeration, proximity, and density, now perhaps less significant for the production of mass manufactures than for the production of knowledge, information and innovation, as well as specialized inputs ... in terms of the territorial base of the economy, there can be no question that the city remains the economic motor of postindustrial society (Amin, 2000: 120).

Isar *et. al.* connect this to a shifting set of spatialized power relations, where it is cities, rather than nations, that are becoming the 'leading *loci* of cultural policy and governance' (2012: 2). In line with authors such as Castells (1996), Held *et. al.* (1999), Sassen (2001) and Taylor (2004), Isar *et. al.* identify cities as increasingly central global political-economic forces in their own right. This challenges the state-centric logic of 20th century political economy, where it was the nation-state, the national economy and national culture that were central, and which exerted leadership

both over sub-national levels such as those of cities and regions, and within a global system that was understood as a system of states. In the 21st century, this traditional hierarchical pattern with the nation-state at the centre of links between the local and the global has been challenged by a networked relational model where power is increasingly ‘shared and brokered’ (Held *et. al.*, 1999) between the global, national and city-regional levels.

In this paper, I will argue that cities can be incubators of an innovation culture and the development of new technologies. In order to do this, I will argue that both culture and technology need to be understood in a deeper, more structural sense than their ‘common sense’ definitions would typically allow for. I will finally consider some implications for policy-makers and governments in seeking to develop an innovation culture in cities, using the concept of social network markets.

Culture and Technology

My key proposition in the first part of this paper will be to argue that technologies and socially shaped, and that there is a vitally important cultural dimension to the social shaping of technology. What is known in the academic literature as the *social shaping of technology* approach has argued for the need to analyse ‘the socio-economic patterns embedded in both the *content of technologies* and the *processes of innovation*’ (Williams & Edge 1996: 866). The philosopher of technology Andrew Feenberg has argued that ‘Technological development is constrained by cultural norms originating in economics, ideology, religion, and tradition’ We are typically oblivious to this, since it is taken as given that there is an underlying technological

rationality, or what Feenberg terms a ‘technical code ... [that] is effectively incorporated into the structure of machines’ (Feenberg 2003: 657, 658). Picking up on Feenberg’s critical theory of technology, David Sholle has argued that ‘technologies are ... processes that structure the world in particular ways ... we should not see technology and the social as separate domains’ (Sholle, 2002: 6). Sholle also proposes that:

A technology such as the computer is a product of social processes from the beginning. The particular construction of knowledge in institutions of science and engineering, the economic interests of companies, the cultural patterns of consumption, the spatial arrangements of communities and nations, the political motifs of government policies are inscribed into the technology from the very beginning (Sholle, 2002: 7).

In order to better comprehend this relationship between technology and culture, we need to think about both as operating at three levels:

- A *common sense* level, as articulated in current government policies as well as in everyday discourse;
- A level of *social practice*, where both culture and technology are embedded in particular ways of doing things, as well as in social organization;
- A *deep structural level*, where both cultural and technological forces operate in ways that we are not conscious of in our everyday lives, and which are not apparent to policy-makers and other key decision-makers.

One of the reasons why we find it difficult to think about culture and technology together has been the bracketing off of the arts on the one hand, and the sciences on the other, as separate knowledge domains. In the university sector, for instance, there is reference to the HASS sector (Humanities, Arts and Social Sciences) and to the STEM sector (Science, Technology, Engineering and Mathematics), and the two are seen as competitors for students, resources, claims to knowledge, and the attention of policy-makers. This was also the thesis originally put forward by the British scientist C. P. Snow in his 1959 Cambridge lecture “The Two Cultures”, where he argued that the divide in intellectual life between the sciences and engineering on the one hand, and the arts and humanities on the other, had acted as a limiting factor upon solving the world’s problems – the two cultures actually needed each other more than either was prepared at the time to acknowledge (Snow, 1969).

Culture

Even if we understand culture as primarily associated with the arts (creative, performing, visual) and literature, there are many ways in which these areas contribute to innovation. In their work for the Council of the Humanities, Arts and Social Sciences (CHASS) in Australia, Haseman and Jaaniste (2008) identified six arguments that have been made about the contribution of the arts to a national innovation system:

1. the *cultural* argument: the arts create and promote an atmosphere of innovation;

2. the *skills* argument: a rich and immersive arts education builds the skills required of a future innovative workforce;
3. the *knowledge* argument: the arts create new knowledge for innovation through creative production and processes, including collaborations with other disciplines, such as science, within and beyond universities;
4. the *commercialisation* argument: the arts can convert new knowledge and research into profits through entrepreneurial activity;
5. the *economic* argument: the arts, as part of the creative industries, occupy a substantial, growing, enabling and innovative part of the economy;
6. the *systems* argument: the cultural sector is an innovation system within which various institutions and organisations behave as innovation hubs.

With the increased discussion in recent years of the importance of design to the competitiveness of all industries, and the practical case study of the rise of Apple to be the world's most valuable corporation and the vital importance of product design to its success, such propositions are perhaps more widely accepted than they once were. Certainly, the rise of creative industries debates throughout the world in recent years has testified to the new opportunities that have been identified to bring together cultural practices and scientific practices based around the affordances of digital media technologies (Mitchell *et. al.*, 2003; Flew, 2012).

There is also a second, more anthropological definition of culture as the whole way of life, or the forms of lived experience, of people, communities, and social groups. Such an expanded definition of culture draws attention to the significance of forms of communication, social relations, and practices of everyday life to an understanding of

culture. This anthropological approach to culture been a characteristic of cultural studies, whjich has drawn upon the definition of culture developed by Raymond Williams in his 1965 book *The Long Revolution*:

Culture is the description of a particular way of life, which expresses certain meanings and values not only in art and learning but also in institutions and ordinary behavior ... Such analysis will ... include analysis of elements in the way of life that to followers of the other definitions are not 'culture' at all; the organization of production, the structure of the family, the structure of institutions which express or govern social relationships, the characteristic forms through which members of the society communicate (Williams, 1965: 57–58).

Cultural studies, then, is concerned with 'the study of the entire range of a society's arts, beliefs, institutions, and communicative practices' (Grossberg *et. al.*, 1992: 4). The study of media technologies and media practices has been a particularly important element of this, recognizing the centrality of mass media to the formation of contemporary cultures. Observing the risk that this could entail 'the study of everything', Grossberg *et. al.* also noted a tension in the field between 'its tendencies to embrace both a broad, anthropological and a more narrowly humanistic conception of culture' (Grossberg *et. al.*, 1992: 4).

But the tendency to expand the study of culture out into the study of everything is not simply the result of being overly ambitious or naïve. It is also reflective of the third element of culture as *embedded in deep structures* that have considerable historical

continuity over time. Language is the clearest example of such a structure: it is always subject to change, but those changes occur within the constraints of an overall structural system with its own rules that has a long history. The structural conception of culture ‘emphasizes *both* the symbolic character of cultural phenomena *and* the fact that such phenomena are always embedded in structured social contexts’ (Thompson, 1991: 136).

Within a structural approach to culture, we need to identify those shifts within a culture that have the longest lasting implications. An obvious example would be how we communicate, particularly if we recognize, that a *cultural approach to communication* requires us to understand how we communicate as involving not simply the sending and receiving of messages (the transmission model), but rather ‘a symbolic process whereby reality is produced, maintained, repaired, or transformed’ (Carey, 1992: 23). The acquiring of mass literacy, or the ability of whole populations not only to speak but also to read and write, constitutes such a historical moment, and was one that particularly preoccupied early cultural studies theorists such as Raymond Williams. The development of mass communications media has been another, with its structural separation of sender and receiver, and the ability to transmit messages across both time and space. The development of the Internet and digital media technologies, which blur lines between the producers and consumers of media, between one-to-one (individual) and many-to-many (social) communication, and between the tangible and the virtual, marks out another such historical moment.

Technology

As with culture, we can identify a three-fold structure to technology, consisting of the technological devices themselves, the content and practices associated with these technologies, and their wider impact on socio-economic structures and forms of organization. In their work on the social shaping of technology, MacKenzie and Wacjman (1999) made the point that the common sense definition of technology refers primarily to hardware or artefacts. This definition understands technology as the tools we use to transform nature, enable social interaction, or extend human capacities. The smart phone, tablet device or laptop computer, for instance, are all such technological devices.

But this definition of technology as devices or 'hardware' needs to be accompanied by an understanding of the uses to which technologies are put, or their contexts of use, as well as the systems of knowledge and social meaning that accompany their development and use. Lievrouw and Livingstone (2005: 2) refer, in the context of new media, to 'the *activities and practices* in which people engage to communicate or share information; and the *social arrangements or organizational forms* that develop around those devices and practices'. Once we incorporate this second element of practice or use into our discussion of technologies, it is apparent that we can no longer talk about technologies in isolation from other social, cultural, economic and political forces: the study of technology becomes a study of society, culture and political economy.

There is a third, structural dimension to technologies that is difficult to capture in the English language, as technology tends to be associated with devices or things. It refers to the ways in which the generalization of particular technological forms over time contains within it implicit forms of social organization that are difficult to reverse. As the economist Robert Heilbroner (2003) observed, the nature of the factory system promoted hierarchy, not simply because the owners of factories wanted control over their work force, but because the optimal functioning of the machines themselves necessitated organizing the workplace in hierarchical ways. More recently, the sociologist Manuel Castells (1996) has proposed that the network society is a *social morphology* of our times, in that the optimal functioning of ICT networks brings with it certain corollaries, such as the need for openness, the decentralized nature of information within networks, their propensity for geographical spread, and the need for a common code that enables interconnectedness. The fact that the Internet came to be based around a common set of shared network protocols was in part a historical accident, but the fact that it was has generated a degree of ‘lock in’ about the logic of networked organization. Such a three dimensional understanding of technology is better captured in the French *la technique* and the German *die Technik*; these terms convey a meaning of technology that is closer to the origins of the word ‘technology’ in Ancient Greek, as combining *techne*, or practical or applied arts and skills, and *logos*, or systematic reason, knowledge, or discourse.

Cities, Innovation and Social Network Markets

Cities have been at the core of globalization processes for much of human history, from the peak of the Roman Empire in the third century AD to the present day.

Timberlake and Ma (2007) identify three reasons why cities are central to globalization. First, large cities are typically cosmopolitan places, with diverse populations from many other places in the world, and visited and experienced by people from all over the world. Second, cities typically exert considerable influence over the regions surrounding them, whether through the pull they exert over populations from rural areas and smaller towns as centres of economic opportunity, or through their role as administrative centres for corporations, governments and other institutions, which makes them concentrated sites of economic, political and cultural power. Finally, cities exist within a 'global system of cities', where there are hierarchies between the most influential, intermediate and smaller cities, which are connected into 'networks which span regions of various size ... these networks are defined by the flows of people, information and things, such as commodities, among cities' (Timberlake and Ma, 2007: 255).

One feature of successful clusters is their combination of 'hard' and 'soft' infrastructure. Landry (2000: 133) observes that while the 'hard infrastructure' includes buildings, institutions, transport facilities, communications infrastructure etc., the less tangible and more place-specific 'soft infrastructure' includes 'the system of associative structures and social networks, connections and human interactions, that underpins and encourages the flow of ideas between individuals and institutions'.

In a global media industry 'characterized from a geographical point of view by a heavy concentration in a limited number of cities, where large media clusters have emerged' (Karlsson and Picard, 2011: 3), Hollywood represents the archetypal

creative media cluster. Drawing upon Lorenzen and Frederiksen (2008), we can identify it as possessing three types of innovation economies:

1. *Localization economies*, where externalities derive from the co-location of firms in related industries, meaning that they develop associated specializations of labour markets and associated institutions (e.g. government support agencies, universities and educational institutions) – these are industry clusters of the classic sort first identified by Alfred Marshall;
2. *Urbanization economies*, arising from a diverse spread of firms and industries in a particular location, which generate a diverse range of labour, skills, knowledge and ideas, as well as concentrated investment in large-scale infrastructure (particularly related to transport, communication, and education), the incentives for professional services to cluster in large cities, and the attractiveness of cities as sites for migration;
3. *Global city economies*, whereby radical product innovation can acquire support due to the depth of institutional and investor support, the search for novelty and new experiences, and links to sources of both political and economic power. In the creative industries, global cities such as New York, London, Los Angeles, Paris and Tokyo are both the headquarters for major corporate conglomerates, and major sites for the arts and entertainment, including the critical *avant garde*.

The rise of creative clusters is indicative of the ‘tight interweaving of place and production system’ (Scott, 2008: 94), that is characteristic of the cultural economy of the creative industries. But it varies from place to place, and there is evidence that it

tends to scale up i.e. the larger a city, the more innovations per resident it tends to develop (Florida, 2007: xvii-xxvi). Lorenzen and Frederiksen identify different capacities for innovation in these clusters, from the incremental innovations that characterize industrial districts which draw upon localization economies, to the radical product innovations that typically arise out of global cities. In her account of the cultural economy of New York City, Currid identified how this was different for the cultural economy to the industrial economy, since this ‘atmosphere’ was in fact the driver of economic interactions, rather than their by-product:

Economists often talk of the agglomeration of labour pools, firms, suppliers, and resources as producing an ensuing social environment where those involved in these different sectors engage each other in informal ways ... But this informal social life that economists often hail as a successful by-product (what they call a positive spillover or externality) of an economic cluster is actually the central force, the *raison d'être*, for art and culture. *The cultural economy is most efficient in the informal social realm and social dynamics underlie the economic system of cultural production. Creativity would not exist as successfully or efficiently without its social world – the social is not the by-product – it is the decisive mechanism by which cultural products and cultural producers are generated, evaluated and sent to the market* (Currid, 2007: 4 – emphasis added).

This is due, at least in part, to the locus of innovation in such urban centres. In a traditional industrial district, it is the direct producers themselves who drive innovation, meaning that it typically involves innovations within an established field.

In large cities, there is a strong supportive infrastructure of providers of inputs and services to the creative industries, so that innovation is distributed more widely across the value chain. Global cities are, however, centres of greater consumer productivity, or more densely developed social network markets (Potts *et. al.*, 2008), and places where the flows of knowledge, new information, and original products and ideas are most rapid. In this respect, global cities also benefit from populations that are typically both highly diverse – in terms of nationality, ethnicity, lifestyle, preferences etc. – and highly educated, so these local flows of knowledge tap into both global knowledge networks and circuits of global trade.

The work of Potts *et. al.* (2008) on social network markets marks an application of new institutional and evolutionary economics, along with cultural and media studies, to defining the nature of the creative industries. The authors observe a familiar paradox that arises in defining the creative industries, namely that there is simultaneously an attempt to mark out particular sectors of production as being ‘creative’, and a claim that the importance of creativity is manifesting itself across all spheres of economic life, and into social life and public policy. This paradox was discussed in Chapter One. In line with the move proposed by Hartley (2009), the argument is that the definition question in relation to creative industries needs to shift from *production and outputs to markets and knowledge* (Potts *et. al.*, 2008: 168)

Potts *et. al.* propose a definition of creative industries as ‘the set of agents in a market characterized by adoption of novel ideas within social networks for production and consumption’ (Potts *et. al.*, 2008: 171). Critical to this definition are the concepts of social networks and novelty and adoption. While the rise of social networks has

become a general feature of 21st century Internet-enabled institutions and practices (Benkler, 2006), it is argued that they are particularly significant in the creative industries since these are domains of social life where the consumption choices of individuals are inherently shaped by the decisions and choices of others: ‘because of inherent novelty and uncertainty, decisions both to produce and to consume are determined by the choice of others in a social network’ (Potts *et. al.*, 2008: 169). The ability to demonstrate choices and inform others of such decisions requires forms of social signaling, which may now be performed through socio-technical networks themselves (e.g. information circulated on Facebook or Twitter), but has also been flagged through fashion, subcultures, fads, trends etc., as Georg Simmel observed in relation to 1890s Berlin. Whether enabled by digital technologies, by the concentrated spaces of modern cities, or through news or entertainment media, the creative industries are thus very much reliant upon the social circulation of information:

The CIs rely, to a greater extent than other socio-economic activity, on word of mouth, taste, cultures, and popularity, such that individual choices are dominated by information feedback over social networks rather than innate preferences and price signals ... other people’s preferences have commodity status over a social network because novelty by definition carries uncertainty and other people’s choices, therefore, carry information (Potts *et. al.*, 2008: 170).

Critical to the conception of creative industries in terms of social network markets, then, is to concept of *novelty*. What distinguishes creative industries from agriculture, manufacturing or professional services, in this definition, is not that they produce

intangibles, or are digital, or have more creative inputs; it is that their markets are always emergent, whereas these other sectors rely upon relatively mature markets and technologies (Potts *et. al.*, 2008: 173). This is not to say that innovations from the creative industries do not spin off into these sectors, but that they typically do not have their origins in these sectors. A TV program such as the BBC's *Top Gear*, for instance, would be a CI input to the automobile industry, as it marked out a novel way of conveying information relevant to consumers' decisions to purchase cars, as well as being a form of entertainment television.

Markets are critical here in that they constitute the institutional framework through which evolutionary processes can occur. Markets do not in themselves create novelty – novelty comes from those who choose to engage in such spaces with new ideas, concepts, products or services – but they do provide the content in which such novelty is tested through its uptake in the wider population, with the adoption and adaptation of successful new ideas, products etc., and the retention and replication of that which is successful, which may in turn be superseded in time by something else. Potts (2011: 162-183) has referred to *novelty bundling markets* as sites where this filtering occurs, which may include festivals, trade fairs, online information sites, the media, and so on. Competition is particularly important in this regard since it 'underpins the operation and advance of the creative industries because, more than many industries, it depends upon the creation of continuous flows of novelty to meet consumer demand' (Hartley *et. al.*, 2013 (forthcoming)).

Can Urban Policy Promote Innovation?

If cities can act as the catalyst of innovation, then can governments play a role in promoting innovative cities? The answer is that they can, but that the emergence of a city as creative or innovative often does not depend upon the actions of government. Many of the major music producing cities of the world, from Nashville to Manchester, acquired this status through broader demographic changes and the emergence of local music scenes whose development had little to do with government. By contrast, the rise of a city such as Seoul as a leader in digital media and creative industries has been connected – often indirectly – to the government’s commitment to making the city a global leader in high-speed broadband access, which has in turn acted as a catalyst of industries such as games development, mobile apps and mobile gaming. The rise of Hollywood was not directly due to any role played by government but, having become a global media capital, film and television production in Southern California has strong local and state government support. We can also note the role played by the universities as an essential part of the networks and “soft infrastructure” of major cities with strong media and creative industries.

Having observed that governments can promote an innovation culture in cities, there is of course the question of how this may occur. The two major approaches that have been applied in recent times are the *creative clusters* approach, and the *creative cities* approach. Other terms used in the extensive literature on clusters are industrial districts, learning regions, and ‘sticky places’ (Markusen, 2008), in that their competitiveness in a global economy derives from what Michael Storper (1997) has termed *untraded interdependencies*, or ‘the conventions, informal rules, and habits

that coordinate economic actors under conditions of uncertainty ... [and] constitute region-specific assets' (Storper, 1997: 4-5). Such factors are seen as particularly conducive to innovation, both in the sense of developing new ideas of value to the industry, and disseminating these new ideas among relevant knowledge communities.

Features of such successful clusters typically include:

- Dense networks of small, locally-owned firms;
- Low barriers to entry and exit for new firms;
- Established relations of trust and reciprocity among buyers and suppliers across the value chain;
- An institutional infrastructure that promotes knowledge sharing among participants (e.g. a local university may play a key brokering role, or a regional business association);
- Strong movements of skilled people into the region, with low levels of out-migration;
- Specialist sources of finance, technical expertise and business services in the city or region;
- Strong local government that is supportive of industry cluster while maintaining good governance practices.

Such factors are seen as particularly conducive to innovation, both in the sense of developing new ideas of value to the industry, and disseminating these new ideas among relevant knowledge communities. One feature of successful clusters is their combination of 'hard' and 'soft' infrastructure. Landry (2000: 133) observes that

while the ‘hard infrastructure’ includes buildings, institutions, transport facilities, communications infrastructure etc., the less tangible and more place-specific ‘soft infrastructure’ includes ‘the system of associative structures and social networks, connections and human interactions, that underpins and encourages the flow of ideas between individuals and institutions’.

In observing some limitations to creative cluster strategies, it can be noted that ‘cluster theory ... is an entirely convincing *post facto* analysis ... but rather more problematic as a prescriptive or diagnostic tool’ (Frith *et. al.*, 2009: 79). Part of the problem arises in the propensity to conflate various elements of clustering, such as the co-location of industries in a particular place on the one hand, and the embedded social networks and knowledge transfer that epitomize dynamic industry clusters. As Gordon and McCann (2001) point out, agglomeration of similar firms in a particular place does not in itself demonstrate the positive effects of clustering; for example, warehousing facilities have long been clustered near ports and airports, but this does not give such places the attributes of a Silicon Valley or a Hollywood. Another risk of creative cluster strategies is that they become overly genericized, and driven by civic boosterism and property development opportunities, rather than tapping into genuine mainsprings of local culture and creativity (Oakley, 2004; Mommaas, 2009). Finally, there is the risk of clusters becoming victims of their own success, generating a ‘groupthink’ that is insufficiently responsive to new ideas generated from outside of that *milieu*. The point has been made point that the fabled ‘tacit knowledge’ that exists within Hollywood about what audiences want from entertainment can be seen as resulting in ‘recycled creativity’ and formulaic, risk-averse cinema and TV product

that can be at odds with the development of more creative products that appeal to more diverse audiences (DePropris and Hypponen, 2008: 275-281).

The general problem with cluster theories is the absence of a theory of consumer demand. Global cities also benefit from populations that are typically both highly diverse – in terms of nationality, ethnicity, lifestyle, preferences etc. – and highly educated, so these local flows of knowledge tap into both global knowledge networks and circuits of global trade. But these are not factors directly created by governments simply by putting related industries together through officially sanctioned creative clusters. They come from the culture of a city: its diversity, openness to new ideas, and preparedness to invest in new innovations. The creative cluster movement in its current form is, I would argue, currently too governmentalised, and overly prone to seeing investment in a creative cluster as an end in itself, rather than being part of an ongoing process in developing dense social network markets in a city or region.

In this respect, Peter Hall's observation that 'having creative industries is not at all the same thing as being creative' (Hall, 2000: 642), and the critical question for researchers to address is 'whether a city can have creative industries for very long without being creative'. A creative city strategy has been defined by the Australian cultural economist David Throsby in these terms:

The concept of a 'creative city' describes an urban complex where cultural activities of various sorts are an integral component of the city's economic and social functioning. Such cities tend to be built upon a strong social and cultural infrastructure; to have relatively high concentrations of creative

employment; and to be attractive to inward investment because of their well-established arts and cultural facilities ... A creative city strategy will pay attention to cultural infrastructure, local cultural participation and involvement, the development of a flourishing and dynamic creative arts sector, community-oriented heritage conservation, and support for wider creative industries that are fully integrated into the local economy (Throsby, 2010: 139-140).

Creative city strategies have been taken up around the world, and particularly in the fast-developing cities of East Asia (Yusuf and Nabeshima, 2005; Gibson and Kong, 2005). But just as the cluster script has been overly prone to focus on production, critics argue that this is very much a *consumption-led* urban strategy that loses sight of the complex production ecologies that form the basis for city-based creative clusters (Pratt, 2008). The argument also became highly genericized, and open to the criticism made by Oakley (2004) of promoting a ‘cookie-cutter’ approach to urban cultural development: the image of the bike-wielding urban hipster and/or gay artist seeking intense urban experiences quickly moved from archetype to cliché when it translated to urban cultural policy. Moreover, it is far from clear that artists and other creative workers, rather than urban professionals in a more general sense, are the beneficiaries of such strategies. Insofar as they promote gentrification of inner cities, their effect may well be to drive out artists, musicians and others engaged in cultural activities who are unable to afford rising property prices, thereby threatening to kill off the creative *milieu* that gave rise to creative city strategies in the first place.

Creative city strategies stress the role played by *amenities* in promoting urban growth. Storper and Scott (2009) identify other variants of amenity-based urban growth

theories, including those emphasising the natural attributes of cities (sunshine, warm winters), diverse entertainment opportunities, and cultural facilities. They conclude that such consumption-based theories of cities fail to identify the ‘important forces endogenous to urban growth’ (Storper and Scott, 2009: 153), most particularly the relationship between inter-firm networks, local labour markets and the institutional frameworks supporting innovation and coordination that exist in such cities. Their argument is that more prosperous cities will be able to provide a higher level of cultural and other forms of amenity, and hence will be attractive places to migrate to, but that it is the relationship between production and consumption that prevails in the city itself that drives its future growth trajectory. It may be argued, then, that creative city theory both overstates the mobility of ‘creative class’ workers – particularly by conflating well-paid managers and professionals with less well-paid artists and other creative workers – and understates the significance of production networks to the success of cities. It would follow that, however desirable cultural amenities are to those who live in cities, they will not in and of themselves drive the economic performance of those cities. As a result, investing in cultural amenities by urban policy-makers in order to achieve a turnaround in a city’s economic performance is likely to be money that is poorly spent.

References

Amin, A. (2000) The Economic Base of Contemporary Cities. In G. Bridge and S. Watson (eds.), *A Companion to the City* (pp. 115-129). Oxford: Blackwell.

Benkler, Y. (2006) *The Wealth of Networks*. New Haven: Yale University Press.

Carey, J. (1992) *Communication as Culture*. New York: Routledge.

Castells, M. (1996) *The Rise of the Network Society*. Vol. I of *The Information Age: Economy, Society and Culture*. Oxford: Blackwell.

Currid, E. (2007) *The Warhol Economy: How Fashion, Art and Music Drive New York City*. Princeton: Princeton University Press.

De Propris, L. and Hypponen L. (2008) Creative Clusters and Governance: The Dominance of the Hollywood Film Cluster. In P. Cooke and L. Lazzeretti (eds.), *Creative Cities, Cultural Clusters and Local Economic Development* (pp. 258-86). Cheltenham: Edward Elgar.

Feenberg, A. (2003) Democratic Rationalization: Technology, Power, and Freedom. In R. C. Scharff and V. Dusek (eds.), *Philosophy of Technology: The Technological Condition* (pp. 652-665). Malden, MA: Blackwell.

Flew, T. (2012) *The Creative Industries, Culture and Policy*. London: Sage.

- Florida, R. (2007) *The Flight of the Creative Class*. New York: HarperCollins.
- Friedman, J. (2006) The World City Hypothesis. In N. Brenner and R. Keil (eds.), *The Global Cities Reader*. London: Routledge, pp. 67-71.
- Frith, S., Cloonan, M. and Williamson, J. (2009) On Music as a Creative Industry. In A. Pratt and P. Jeffcutt (eds.), *Creativity, Innovation and the Cultural Economy* (pp. 74-89). London: Routledge.
- Gibson, C. and Kong, L. (2005) Cultural Economy: A Critical Review. *Progress in Human Geography* 29(5) 541-61.
- Gordon, I. and McCann, P. (2001) Industrial Clusters: Complexes, Agglomerations, and/or Social Networks? *Urban Studies* 37(3): 513-32.
- Grossberg, L., Nelson, C. and Treichler, P. (1992) Cultural Studies: An Introduction. In L. Grossberg, C. Nelson and P. Treichler (eds.), *Cultural Studies* (pp. 1-17). New York: Routledge.
- Hall, P. (2000) Creative Cities and Economic Development. *Urban Studies* 37(4): 639-49.
- Hartley, J. (2009) From the Consciousness Industry to the Creative Industries: Consumer-Created Content, Social Network Markets, and the Growth of Knowledge. In J. Holt and A. Perren (eds.), *Media Industries: History, Theory, Method* (pp. 231-44). Malden, MA: Wiley-Blackwell.

Hartley, J., Potts, J., Cunningham, S., Flew, T., Banks, J. and Keane, M. (2013) *Key Concepts in Creative Industries*. London: Sage.

Haseman, B. and Jaaniste, L. (2008) *The arts and Australia's national innovation system 1994–2008: arguments, recommendations, challenges*, CHASS Occasional Paper No. 7, November.

Heilbroner, R. (2003) Do Machines Make History?. In R. C. Scharff and V. Dusek (eds.), *Philosophy of Technology: The Technological Condition* (pp. 398-404). Malden, MA: Blackwell.

Held, D., A. McGrew, D. Goldblatt and J. Perraton (1999) *Global Transformations: Politics, Economics and Culture*. Stanford: Stanford University Press.

Isar, Y. R., M. Hoelscher and H. Anheier (2012) Introduction. In H. Anheier and Y. R. Isar (eds.), *Cities, Cultural Policy and Governance*. Cultures and Globalization Series 5 (pp. 1-12). London: Sage.

Karlsson, C. and Picard, R. (2011) *Media Clusters and Media Cluster Policies*. CESIS Electronic Working Papers Series, Paper No. 246. Stockholm: Centre of Excellence for Science and Innovation Studies.

Landry, C. (2000) *The Creative City*. London: Earthscan.

Lievrouw, L. and Livingstone, S. (2005) Introduction to the Updated Student Edition. In L. Lievrouw and S. Livingstone (eds), *The Handbook of New Media: Social Shaping and Consequences of ICTs* (pp. 1–14). London: Sage.

Lorenzen, M. and Fredriksen, L. (2008) Why do Cultural Industries Cluster? Localization, Urbanization, Products and Projects. In P. Cooke and L. Lazzeretti (eds.), *Creative Cities, Cultural Clusters and Local Economic Development* (pp. 155-179). Cheltenham: Edward Elgar.

MacKenzie, D. and Wacjman, J. (1999) The Social Shaping of Technology. In D. MacKenzie and J. Wacjman (eds), *The Social Shaping of Technology*, 2nd edn. (pp. 3–27). Milton Keynes: Open University Press.

Markusen, A. (2008) Sticky Places in Slippery Space: A Typology of Industrial Districts. In R. Martin and P. Sunley (eds.), *Economic Geography*. Volume 2 (pp. 366-392). London: Routledge.

Mitchell, W., Inouye, A. and Blumenthal, M. (2003) *Beyond Creativity: Information Technology, Innovation, and Creativity*. Washington, DC: National Academies Press.

Mommaas, H. (2009) Spaces of Culture and Economy: Mapping the Cultural-Creative Cluster Landscape. In L. Kong and J. O'Connor (eds.), *Creative Economies, Creative Cities: Asian-European Perspectives* (pp. 45-59). Dordrecht: Springer Press.

Oakley, K. (2004) Not So Cool Britannia: The Role of Creative Industries in Economic Development. *International Journal of Cultural Policy* 7(1): 67-77.

Potts, J., Cunningham, S., Hartley, J. & Ormerod, P. (2008) Social Network Markets: A new definition of the creative industries. *Journal of Cultural Economics* 32(2): 167-185.

Pratt, A. (2008) Creative Cities: The Cultural Industries and the Creative Class. *Geografiska Annaler: Series B – Human Geography* 90(2): 107-117.

Sassen, S. (2001) *The Global City*. Princeton: Princeton University Press.

Scott, A. J. (2008) *Social Economy of the Metropolis: Cognitive-Cultural Capitalism and the Global Resurgence of Cities*. Oxford: Oxford University Press.

Sholle, D. (2002) Disorganizing the “New Technology”. In G. Elmer (ed.), *Critical Perspectives on the Internet* (pp. 3-26). Lanham, MD: Rowman & Littlefield.

Snow, C. P. (1969) *The Two Cultures*. Cambridge: Cambridge University Press.

Storper, M. (1997) *The Regional World*. New York: Guildford.

Storper, M. and Scott, A. J. (2009) Rethinking Human Capital, Creativity and Urban Growth. *Journal of Economic Geography* 9(1): 147-67.

Taylor, P. J. (2004) *Word City Network: A Global Urban Analysis*. London:

Routledge.

Thompson, J. (1991) *Ideology and Modern Culture*. Cambridge: Polity Press.

Throsby, D. (2010) *The Economics of Cultural Policy*. Cambridge: Cambridge University Press.

Timberlake, M. and Ma, X. (2007) Cities and Globalization. In G. Ritzer (ed.), *The Blackwell Companion to Globalization* (pp. 352-366). Malden, MA: Blackwell.

Williams, Raymond (1965) *The Long Revolution*. Harmondsworth: Penguin.

Williams, Robin and Edge, David (1996) The Social Shaping of Technology. *Research Policy* 25(4): 865-899.

Worldwatch Institute (2007) *State of the World 2007: Our Urban Future*. Washington, DC: Worldwatch Institute.

Yusuf, S. and Nabeshima, K. (2005) Creative industries in East Asia. *Cities* 22: 109-22.

