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# Consumer co-creation and situated creativity

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**ABSTRACT.** This paper examines the industrial dynamics of new digital media from the perspective of consumer co-creation. We find that consumer-producer interactions are an increasingly important source of value creation. We conclude that cultural and economic analysis might be usefully united about these themes, and that situated creativity should be construed as analysis of an ongoing co-evolutionary process between economic and cultural dynamics.

**KEY WORDS:** consumer co-creation, creative industries, evolutionary economics, cultural studies

## 1 Introduction

Economic models of industrial dynamics are traditionally based in Schumpeterian theories of producer innovation. Recently, this framework has been advanced toward models of open innovation in which production and innovation occur over networks of firms. However, a further extension is toward *consumer-producer co-creation* in which consumers also enter into the process of both production and innovation through the provenance of new web-based technologies that enable devoted micro-communities of consumers to engage in the process of production and innovation. This paper is about the efficacy of such cultural models of innovation and industrial emergence and development. This is manifestly observable in the industries of new digital media such as online games and video-hosting websites that have been made possible by recent technological revolutions in not just information technology (the internet), but also in the new business and cultural models this has generated (i.e. user

generated content). Indeed, we suggest that analysis of this domain offers an early window into the broader potential of this new model of production and innovation.

The concept of situated creativity enters into this as the creativity that underlies production and innovation is extended to consumers, and thus said to be situated in these relationships. Yet this is also a dynamic form of situated creativity that differs from static conceptions of creativity, as situated in a place or space, and instead emphasises the transactional and expectational nature of such creativity. In drawing attention to this, we further emphasise the existence of an institutional spectrum of consumer co-creation that ranges from distinctly communitarian to explicitly market focused, thus demanding different business models and with different implicit contracts. We argue, then, that the co-evolution between economic dynamics and cultural dynamics is the basis of the creativity that underpins both economic and cultural growth and dynamics. We propose to call this the (co-evolutionary) dynamics of situated creativity.

Section 2 examines the relation between situated creativity in economic and cultural analysis. Section 3 presents the hybrid framework of the new cultural studies. The dynamics of situated creativity are discussed in section 4, and in section 5 we outline a series of case studies that both illustrate and develop this theme. Conclusions follow.

## 2 Situated creativity in economic and cultural analysis

Situated creativity is an extension of the concept of *situated knowledge* in which knowledge resides not only in the minds of individuals and in external codified forms, but also in situational contexts of spaces and places, languages and other media, organizations, networks and other systems of social interaction. Situated creativity thus allows that individual creative acts, such as by an entrepreneur or artist, are not the entire domain of creativity in economic and cultural systems, but that creativity is also situated in localised and contingent systems of social interaction (Powell *et al* 1996, Herz 2006, Leadbeater and Oakley 1999).

Our analytic approach proceeds from two seemingly contradictory perspectives with respect to situated creativity, namely *Schumpeterian economics* – which although sceptical of the concept due to its departure from methodological individualism, does allow network and population conceptions of knowledge – and *cultural studies* in the tradition of Raymond Williams and others, in which situated creativity is an analytic foundation. We furnish this via case studies of consumer co-creation in new digital media in which cultural and economic dynamics are simultaneously evident.<sup>1</sup>

Economists have a long tradition of reference to situated knowledge. This ranges from habits and routines (Nelson and Winter 1982), through organizational capabilities (Teece and Pisano, 1994; Grant, 1996, Zollo and Winter, 2002), technological embeddedness (Antonelli, 2006), social capital (Lesser and Prusak, 2000) and even institutions, broadly considered. In this view, even notions of business districts, innovation clusters or network economies still ultimately insist that the external knowledge economies arising in such contexts or situations are due to the individual agents' ability to access and interpret knowledge that is still 'in' other agents. Instead, it is the reduced transactions costs due to close spatial proximity and other aspects of external economies of coordination that give rise to the sense of situated knowledge.

In cultural studies, situatedness has been programmatically informed by traditions that have stood strongly on the structure side of the structure-agency continuum. However, a more recent extension of cultural studies into the field of *creative industries* has sought to redress the balance between agency and structure by bringing creative agency more to the fore. In this view, in which creativity is understood not as the result of a psychological impulse but rather as the process that results in cultural (and economic) innovation, then creativity is always situated both historically and within socio-technical networks.<sup>2</sup> The existence and generative role of individual acts of creativity are not denied, but they are taken to be determined by a broader situation: context is all-important.

Creativity and innovation are equally real and central from this analytic perspective. Yet they are viewed as arising from a particular creative context that extends to incorporate the many and extended forms of social interaction and institutions that

compose the situation. We shall argue that these are *disequilibrium* phenomena. More specifically, we are interested in situations in which the boundaries between producers and consumer or users are somewhat fluid and permeable with respect to the distribution of useful knowledge, expertise and creative possibilities for innovation.

Cultural theorists thus point to the situational context of creativity, while economists point to the actions of knowledge-subjects. Evolutionary economists and cultural theorists thus have very different analytic conceptions of situated creativity. Yet these perspectives are both focused on the same underlying value model in which creativity is the driver of economic and cultural evolution and in which creativity is the source of value-creation. The differences, however, accrue to the relative importance of incentives and individual action (the economic approach) versus cultural conditions (the cultural approach). Yet, a more general integration of these two analytic perspectives may lead us to a deeper understanding of creativity as an industrial force of economic and cultural evolution when understood as interwoven and co-evolving. Creativity is a prime economic and cultural resource, but the nature of this resource need not be statically situated cultural or economic structures. Instead, it may be dynamically situated in the processes that interlink these domains, a significant instance of which is consumer co-creation.

Consumer co-creation, in which consumers participate creatively in the productive process both in production of content and innovation of services, may therefore be less a new socio-economic order, but rather an evolution of the extant economic and cultural order to account for consumers' greater access to the 'means of production' through information and communication technologies (Lundvall and Johnson 1994). With these productive capital assets, both physical and human, productive activities can extend well into domains previously classified as consumption. This shift is exemplified in Florida's (2002) work on the significance of the consumption environment of technology, with tolerance and talent as key factors determining the location decisions of creative producers. It aligns to the shift from supply to demand and from producer-centric to consumer-centric innovation. Consumer co-creation is the progeny of this shift in the nature and means of production.

Consumer co-creation is a redrawing of analytic boundaries, such that production processes now extend into domains previously understood as consumption processes (von Hippel 2007). This recasts the meaning of both entrepreneurship and artistry, along with the spatial network definition of creativity (Lundvall 1985). Social network interactions among consumers thus begin to function in a way previously understood to be the exclusive preserve of the internal dynamics of R&D laboratories (Baldwin *et al* 2006). This concept is called *open innovation* and business school academics have extended it to include producer networks.<sup>3</sup> Yet, as Benkler (2006) argues, that is only the beginning of a broader enfolding of consumers and other citizens into the networked process of innovation and social production.

Organizations and institutions are in turn evolving to reflect this changed circumstance of production and consumption (see Potts *et al* 2008). Situated creativity is thus defined not as a static situation of an organizational or spatial state, whether culturally or economically defined, but rather as a feedback dynamic of creativity between production and consumption. Situated creativity is thus, we suggest, best understood as dynamically situated.

### 3 New cultural studies

Cultural studies is conventionally associated with analysis of the production and consumption of cultural values and meaning and is only obliquely associated with the production and consumption of economic goods and services (Hartley 2003). Yet recently, a new line of cultural analysis of economic systems has opened up, based on two substantially new phenomena associated with economic evolution: (1) the increasing importance of cultural and creative goods and services in the modern economy; and (2) the increasing importance of cultural consumption and its ‘ordinary creativity’<sup>4</sup> as a model of innovation and production. Both aspects are manifest in the *creative industries* (Hartley 2005) and particularly in the phenomenon of *consumer co-creation*.

First, the value-added component of all goods and services attributed to aspects of ‘meaning’ is increasing as normal consequence of increased wealth. The social

signifiers of consumption have always been present, but for the most part were confined to the behaviours of the rich (Veblen 1899). However, global market-capitalism has vastly expanded the set of consumers and therefore products to which this applies, thus extending the relevant domain of cultural analysis from a behavioural critique of the consumption behaviours of a small ruling elite to the functional analysis of large sections of the market economy. This effect has been amplified by the technological evolution of the industrial base of developed economies from primary and secondary industries associated with scale and scope (rail, steel, chemicals, aviation, microelectronics) to new service industries centred about information and communication technologies. In both cases, the role of consumers as producers of value and meaning has become a far more significant aspect of the creation of economic value.

Second, these consumers are not just engaging in *production*, but also in dynamic production, or *innovation*. This is facilitated by the same forces that are increasingly delivering productive capabilities into the hands of consumers, and is occurring with ever higher quality, at ever lower costs, and on an ever increasing global market into which particular consumer specializations can find a ‘producer’ niche. A significant consequence is the rise of consumer involvement in open innovation (von Hippel 2005, 2007). Although based in individual actions, consumer innovation arises in social and often also technological networks, in which any individual action is trivial, but the patterned ‘wisdom of crowds’ or ‘crowd-sourced’ innovations may be of large-scale significance; as for instance when myriad teenagers ‘invented’ the SMS industry under the uncomprehending noses of mobile phone manufacturers, whose ‘entrepreneurial’ actions had in this respect failed the test of situated creativity.

Cultural analysis emphasises that consumption is a social and culturally contextual process and, furthermore, that creativity is an ordinary aspect of this, as in the work of the sociologists Becker (1982),<sup>5</sup> Bourdieu (1993) and Negus and Pickering (2004). This ‘ordinary creativity’ can then connect back into the innovation system of producer creativity through the emergence of social networks of consumer-to-consumer and consumer-to-producer production and innovation. This functions to augment the standard producer-to-producer networks of industrial production innovation with distributed co-creation networks that integrate consumer or user

expertise into producer models of design and development activities (Benkler 2006, Baldwin *et al* 2006, von Hippel 2007, Shirky 2008). This new model is becoming increasingly important in the creative industries, and especially within the domain of new digital media, where both the technology effects and the economic impact of socially networked creative consumers-as-producers is strongest. Furthermore, this is not just a rapidly growing sector within itself,<sup>6</sup> but is also progressively embedding in many other industrial sectors through new components of added value and innovation models (CCi/NESTA 2008). In this way, ordinary consumer creativity is becoming an increasingly important part of the global market capitalism model of production.

## 4 Dynamics of situated creativity

Situated creativity is modelled in static and, implicitly, in equilibrium terms when cast as being part of the environment or contextual milieu. Our argument, however, is that this is wrong because it defines situated creativity as a structure rather than a process. Instead, we argue that situated creativity is a dynamic mechanism that is operational in simultaneous disequilibrium contexts of economic and cultural systems.

Economic disequilibria and cultural disequilibria do not of themselves constitute such a situation because they contain equilibrating mechanisms: namely price dynamics in the economic context, and renormalization or institutionalization in the cultural context. It is only simultaneous disequilibria in both economic and cultural systems that give rise to an analytically meaningful conception of situated creativity. This, we argue, is a co-evolutionary knowledge dynamic in which cultural and economic opportunities are worked out toward new institutional forms through ‘creative-destructive’ mechanisms of evolutionary experimentation. Market dynamics are central to this, as are social network and socio-cultural dynamics (Lundvall and Johnson 1994, Baldwin *et al* 2006, von Hippel 2007). Such dynamically situated knowledge does not therefore exist in the economic system or in the cultural system, but rather in the agent’s reflexive learning and perceptions of situations, and in the coordination of higher-order ‘mental models’ (Foster 2006).<sup>7</sup> This drives the new coordination structures of these systems and, therefore, new boundaries. Situated

knowledge and its derivative of situated creativity is thus a statement about dynamic disequilibrium processes, not static equilibrium structures.

Co-creation is part of the 'situation' in which, for example, designers or programmers do their traditional production and innovation work. Yet the relationship complexity of production and innovation has increased owing to the arrival of an additional set of actors – consumers and users – onto the stage, a significant and under-reported and under-analysed aspect of globalization. These additional relationships do not occur within the standard frame of hierarchical organization in a firm, or within the standard compensation model. Instead, this model is disruptive of traditional industrial closed innovation systems. It thus poses significant management challenges beyond those conventionally posed, as well as entrepreneurial opportunities to negotiate effective relationships within these distributed creativity networks by opening the possibility of new specializations, organizational forms, business models and markets.

Cultural studies has devoted substantial attention to emergent 'bottom-up' creativity as discernible in the most mundane practices of everyday life.<sup>8</sup> This tradition conceives everyday life as distinct from systems of cultural production; a distinction not at all straightforward in contemporary contexts for three reasons. First, the everyday is now ubiquitously part of the production logics of the 'dominant' cultural industries, most obviously in the context of Reality TV, or the makeover and lifestyle programming that Bonner (2003) calls 'ordinary television'. Second, creative production through the creation and *public* dissemination of cultural artefacts is now increasingly part of the logics of everyday life, as in blogging, video-blogging, or photo-sharing: much of the content that makes up the burgeoning networks of co-creative content production is utterly mundane in its origins (Hartley 2008). And third, the kinds of co-creative activities that constituted media fan subcultures in the 1980s and 1990s are now incorporated into the strategies of 'big media' companies themselves; so that, even in dominant media institutions, feedback and convergence between the everyday or identity-based practices of audiences and the 'industrial' practices of producers is becoming routine (Jenkins 2006).

The implication is that socially situated, ordinary creativity is an essential element of value co-creation in contemporary digital culture, and emblematic of dynamic situated

creativity. Indeed, the value proposition underlying business models such as MySpace, Facebook and Flickr for example is precisely the articulation of everyday experience and personal social networking with both mundane and exceptional user-created content. On sites such as YouTube and Flickr everyday experience and personal social networking is also significantly supplemented by creative self-expression, creative remixing and propagation outside bottleneck channels of mainstream distribution. Cultural studies is thus increasingly converging upon analysis of economic innovation, and this is specifically focused upon the co-evolutionary dynamics of consumer co-creation.

Co-creation processes are thus *dynamically situated* in the context of continually shifting cultural relations and economic opportunities for social networks. Situated creativity, in other words, is a *disequilibrium* phenomenon that arises only when existing institutions have been sufficiently or suitably disrupted by technological, socio-cultural, or economic innovations that the existing institutions, which normally maintain clear boundary separation between production and consumption, are open to creative response and the possibility of new boundary creation.<sup>9</sup> This is both an economic and a cultural opportunity into which new ideas, behaviours, coalitions and business models may extend. From the evolutionary perspective, those that succeed will eventually be reabsorbed into the evolved economic and cultural order as new institutions with new normal boundaries.<sup>10</sup> This knowledge and creativity will no longer be situated, but rather ‘compiled’ and re-normalised into definite economic and cultural institutions manifest as market and cultural niches. Yet, during this disequilibrium evolutionary process, there will be considerable scope for experimentation in terms of where those boundaries are, and their consequences. *This is the disequilibrium context of dynamic situated creativity.* Furthermore, this is the current situation in much new digital media, to which we now turn for illustrative example.

## 5 Dynamic situated creativity in new digital media

Our case studies range over several emergent industries based about consumer co-creation in digital media. Each has been made possible by new digital information and communication technologies centred about the internet as a universal platform for social networks and business models, and about new digital consumer goods and services (PCs, graphics cards, broadband, mobile phones, digital cameras, blogging software, etc). In each case, the value creation proposition about which business models are adopted and adapted is premised on the provision of content emanating from a distributed network of consumers or users operating in partnership with producers and, equally importantly, from the self-organization of the community protocols that coordinate such flows.

This cultural and technological dynamic is both inducing new creative activities (e.g. MMOGs, video and photo-sharing) as well as displacing and disrupting extant industries (e.g. media journalism and music). We seek to illustrate how the creativity driving this complex industrial dynamic is not situated in simple spatial or contextual extensions of existing economic structures with cultural institutions *ceteris paribus*, but, rather, as the outcome of a dynamic tension between economic and cultural evolution playing out through a dynamic renegotiation of the relation between production and consumption. In conventional industrial dynamics, suppliers eventually figure out a way of providing new goods and services to the mass of consumers. It is implicit in this model that the creative impulse comes entirely from the producer side. In our model, however, creativity is situated across this boundary in complex evolving and dynamic networks among consumers, and between consumers and producers. This is manifest in the attention we have drawn to the co-evolutionary nature of economic and cultural systems.

Yet an important implication is that this driving dynamically situated creativity will eventually be 'de-situated' through the effect of competition. Its innovations will eventually embed in new industrial models and behavioural and socio-political institutions. Our argument is rather that situated creativity is the *process* by which these new models and institutions will form, rather than a model of their final form. This is a subtle but important distinction, as it implies that what we are observing (as illustrated in our case studies) is a *disequilibrium* in which situated creativity is a

dynamic mechanism driving the search for new models and institutions, not an equilibrium state.

### **5.1 Creative destruction in online games development**

Online games development increasingly uses a mix of professional developers and a network of game players and testers who provide extensive feedback and creative design input. We studied one such massively multiplayer online game *Fury*, produced by Auran Games, an Australian games development company. While contributing considerable creative input and value, these co-creation relations also provide novel business challenges by disrupting a closed industrial model of expertise, pushing toward an open innovation model (von Hippel 2005). Auran's effort to involve and integrate a core group of gamers throughout the development process was based on recognition that *Fury's* commercial success would rely on the situated creativity of social-network transactions and dynamics.

Prior to commercial launch, many expert gamers exhaustively play-tested *Fury*, providing the Auran development team with robust and critical feedback. They were not just hunting for bugs but identifying weak game features in need of updating and fixing. These amateurs forcefully and persuasively lobbied the professional developers for changes. In response, the developers made significant changes and updates based on the consistent requests from these expert gamers. This co-creative exchange between the gamers and developers continued to shape and remake *Fury's* design. In pursuit of innovation and commercial success, Auran relied not only on the creativity of internal professional developers, but also on a distributed network of expert, skilled and knowledgeable consumer co-creators operating over social networks of 'guilds,' fansites and other new media.

Yet, two months after release, Auran went into voluntary administration. The difficulties of successfully managing the interface between the professional development team and the expert user-testers contributed to *Fury's* problems. Despite initial encouragement, online word of mouth from these networked consumer-users had damaged prospects for initial market success. The creativity situated in the social

networks that interpenetrated the professional core of the game's research and development was thus a double-edged sword. While opening development to a distributed knowledge base provided a great deal of useful critical feedback and forward marketing, it also exposed Auran to a management challenge that rapidly escalated beyond their control. Situated creation became situated destruction. An interesting aspect was the implicit recognition of expert status that Auran necessarily had to extend to consumer co-creators to induce cooperation. Yet with that also came the responsibility to respect that expertise, and when, in the minds of the consumer co-creators at least, they failed to do so, an implicit contract was broken and a distributed asset of innovation and development turned rapidly into a market network liability.

## **5.2 YouTube as a co-creative community**

The video-hosting website YouTube launched in early 2005. The original innovation was technological: YouTube was one of several competing services that aimed to remove barriers to the widespread uptake of user-created online video. It provided a simple integrated interface for users to upload, publish, view and embed streaming videos without high levels of technical knowledge or hardware. YouTube firmly establishing the importance of user-led content creation to new media business models. Consumer co-creation is fundamental both to YouTube's value proposition and its disruptive qualities. But the contributions of users extend far beyond creating or uploading content. The *value* of individual videos is collectively produced via the consumption, evaluation and entrepreneurial activities of users *en masse*, not by top-down programming or filtering by commercial mainstream media or by YouTube as a company. The creativity, and value, is situated *in* the community of users.

In a recent study of online photosharing and cellphone technologies, Nightingale (2007: 293) explained that 'industry players maintain the ongoing operational environment and offer "patronage" to site users...[shaping] both the conditions under which the creative work is produced and the environment of reception in which the image is displayed'. Likewise, YouTube can be seen as the 'patron' of individual and collective creativity, providing infrastructure and controlling the conditions under which creative content is produced, ordered and re-presented for the interpretation of

audiences. The collective ‘activism’ of users is profoundly constitutive of YouTube’s creative possibilities, a form of situated creativity in the making of the market itself and in which the firm – YouTube – occupies a patron function.

Numerous controversies have erupted within the self-constituted YouTube community – for example, around the introduction of Oprah Winfrey’s YouTube channel. Latour (2007) argues that such controversies reveal the uncertain and contested quality of the power relations between the community and the company, the level of investment these users have in protecting YouTube’s internal ‘attention economy’ (Lanham 2006) from commercial intrusion, and the construction of symbolic boundaries between the YouTubers as a core group of ‘lead users’ (Von Hippel 2005) and an imagined ‘mass’ of ordinary users. Despite these antagonisms, this community of practice provides the environment in which new literacies, cultural forms, and social practices – situated in and appropriate to the culture of user-created online video – are originated, adopted and retained. In order to function as a participant in the YouTube community, it is not possible simply to import from elsewhere (e.g. from professional television production) existing conventions for creative practice and the cultural competence required to enact them. Success instead is gained by exploiting these site-specific competencies. Collectively, the most invested and knowledgeable ‘lead users’ mobilise their insider knowledge in attempts to shape and influence the culture of YouTube.

### **5.3 Digital Photography**

The current international photographic industry is experiencing an exponential expansion of the ‘amateur’ into established sites of situated creativity, predominantly represented by the high-end stock photo. The industry’s problem is to create business models to capture this user-led creative upsurge.

The best example of the rise of user-generated photography is the photo-sharing site Flickr.com. Flickr provides a ‘context for interaction’ in which the photograph becomes the locus of exchange among people of similar interests and objectives. Through its emphasis on coding for community and the provision of contexts in which to (co-)create content, such as in thematic groups, Flickr differentiates itself from previous business models of photo-hosting sites which act as loss leaders for

print services, such as Snapfish, Shutterfly and Kodak Gallery. Awareness of and engagement with community norms – O'Reilly's (2004) 'architecture of participation' – clearly influence a users' willingness to contribute content and/or expertise, and affects the manner in which it is consumed, highlighting the situational fluidity of creativity in both the production and consumption cycles.

Acknowledging that co-creation is dynamically situated within the social network, a corresponding range of foci can be perceived within the Creative Commons licensing scheme employed by Flickr<sup>11</sup> in addition to the copyright default of 'all rights reserved'. This flexible open content framework presents a creator with six standard licensing options to assert their copyrights – to copy, distribute, perform the work and make derivatives. Notably, designation of 'non-commercial' and 'no-derivatives' use conditions allow the photographer to retain an individual-focus on use of their material in the broader community, reserving the right to negotiate terms over recognition and reward. Through the affordances of CC licensing Flickr may be recognized as a site of 'generativity' (Zittrain 2008) by which its capacity to give rise to further content (co-)creation and distribution is enabled. Through this openness, third parties are able to develop applications that use Flickr photos. However, the usual typology in the media sector is that of copyright-controlled mainstream legal businesses and their polar opposite – piracy, either organised or haphazard, which harm content creators and large aggregators alike. This is the typology proffered by the large entertainment companies as well as by industry peak bodies advancing the cause of independent creatives. For some time, this has inhibited creatives developing bespoke innovations in the creative-destruction space of Web 2.0 digital media.

User-generated photographic content is now increasingly incorporated into the portfolios of traditional professional domains seeking to exploit the potential of 'crowdsourcing'. Adequately recognising and rewarding both high-end and low-end photographers requires a rethink of the *modus operandi* of traditional business models. Embracing dynamic situated creativity requires the evolution of a graduated hybrid model that is responsive to the spectrum of users' motivations.

#### **5.4 Mobile music in China – from copyright industry to fashion network**

One area of creative innovation with a very long bottom-up tradition is music. The transformation of ‘folk’ traditions such as the blues and the ballad into commercial forms based on the branding of performers and the distribution of songs in commodity form – first as sheet music, then as recordings – is well documented. Such a system cannot work without IP protection, easy commodification and rights management at the ‘producer’ end of the value chain, and myriad amateur or semi-professional (unsigned) performers among the consumers. The difference between a signed and unsigned artist is important, not least to the individual concerned, because it expresses the switch from consumer to producer in field of situated creativity where monetisation requires novelty, and novelty requires a fuzzy boundary between fans and firms.

This analogue business model has been put into severe crisis – disequilibrium – by digital technology, which has tended to reduce the monetary value of the commodity form (recorded song) while increasing its ubiquity almost to the point where music is a public utility like water used to be. The ability for this kind of disequilibrium to give rise to innovation and re-organisation in response to changed environmental factors is nowhere more obvious than in China. Because of China’s historical legacy of strong centralised control and nervousness about individual freedom of expression, a musical culture – and market – was never going to be established on the expression of underdog sentiments (the blues, ballads) or outright resistance to official culture (rock & roll, punk). On the other hand, IP enforcement in China has been lax. How then are situated creativity, social networking, and bottom-up musical creativity expressed in business practices in China?

One emergent answer is mobile music. The rate at which this new distribution method is accepted by mobile-phone users in China, and the lack of alternatives for controlled mass distribution and centralized revenue collection for music copyright owners, suggests that mobile music may become an important source of income for the commercial music industry. A popular service in China is caller ring-back tones, which allow users to select a song that will be heard in place of a standard ‘ringing’ tone when friends dial their number. These social rather than recreational functions of mobile music, combined with low cost, are driving the evolution of music purchasing demographics.

Rather than simply re-creating tried and tested (Western) music industry dynamics in a mobile world, this new media form has its own characteristics, which are influencing the ways in which music is created and appreciated, and the demographics of the groups who consume it. In other words, it is a mistake to compare the mobile music industry with the analogue record industry. Instead, we argue that mobile music (in China and elsewhere) is better explained through the lens of fashion. Fashion ‘teaches’ choices; innovation is mixed with imitation, creativity with replication. Copying is inherent to the system. The parallels between the world of fashion and the emerging world of mobile music may, therefore, be instructive when it comes to understanding processes of creativity, innovation and value-generation in the digital context. Active processes of innovation, identity formation, creation and communication are integral to acts of cultural consumption. Fashion is a pure social network market (Potts *et al* 2008), in which the choices of individuals are determined by the choices of others. Fashion choices are at one and the same time acts of copying and of very personal expression. Fashion allows individuals to create meanings and communicate values – and status differentials in personal standing – by appropriating for their own purposes the image created by designers and labels. The notion that indiscriminate and uncontrolled copying removes incentives to invest in creativity and innovation is therefore seriously challenged by the existence and commercial success of the fashion industry. Fashion designers have long been aware that as soon as their designs are displayed publically, they will be copied. In this case, widespread imitation acts as a catalyst for innovation. Novelty and innovation have become more valuable because fashion designers are under constant pressure to stay one step ahead of the imitators. Indeed, this may be usefully thought of as the consumer side of Lundvall and Johnson’s (1994) conception of ‘learning through interacting’. Designers become provocateurs as much as producers, and ‘entrepreneurial’ consumers are willing to pay a premium to be at the first to wear the latest designs (Chai *et al* 2007). In turn, fashion designers may take a ‘look’ from the street (from mod and punk in London to Gothic Lolita in Tokyo); and fashion, music, film, anime etc. are interconnected networks of mutual citation. Downstream markets of mass consumer/producers are connected to elite centres of creative activity as ‘nodes’ are connected to ‘hubs’ in networks. These are all instances of dynamic situated creativity operating over networks of learning.

While music has always been a social network market, it is arguable that as digital technologies allow it to be used in different ways – as ring-back-tones, ‘wallpaper’ for personal websites or chat rooms – it is necessary to rethink arguments about the ways in which value is generated. This process is occurring fast in China because the institutional software that allowed the recorded music industry to develop in Western markets – particularly copyright – has been absent as new technologies for copying and sharing have become available. Thus China has been a laboratory of ‘creative destruction’ and structural adjustment to a new sort of creative industry, in which the consumer-led social network element is as important as artist-led individual creativity, and where therefore fashion is a better model for value-creation than copyright.

### **5.5 Digital citizen journalism**

The dynamics of situated creativity lie across many domains, some of them perhaps surprising. One case we have been investigating concerns the shifting balance of power and attention between the political process and the mainstream and emergent blogger/citizen journalist communities. The rise of networks of amateur analysts and commentators is having a profound impact on the business models and industry structure of traditional broadcast print and television media (Bruns 2005; Bruns and Jacobs 2006). The modernist model of media is that of countervailing power to political organization. The countervailing power of media functions as top-down centralized organization that maintains independence through advertising and subscription revenue, and builds this value through economies of scale and scope. However, the post-modernist model of distributed and networked micro-media via the blogosphere, citizen journalism and virtual public communication is eroding the traditional business model, but not the countervailing power. Indeed, the media’s capacity to deliver this representational envelope may in fact be strengthening precisely through the ubiquity of networks and the positive externalities they create (Katz and Shapiro 1985) that opens a space for creative engagement in which the co-evolution of markets, technology and culture now has significant spill-over effects into mainstream media and political leadership.

Competition from a wellspring of user-generated content and communication is beginning to crowd out the traditional professional sources of public communication

and the business models ‘big media’ are built on. Big media are especially sensitive to this perceived amateur incursion and have reacted, in general, very badly to it. So, although professional journalism and the internet have existed peaceably for more than a decade, the underlying tensions driven by citizen journalism are beginning fundamentally to reshape the media industry owing to the effect of situated creativity on networks of citizens empowered by new digital technologies.

## 6 Conclusion: Williams meets Schumpeter

This paper has sought to analytically define, with examples, the concept of *dynamic situated creativity*. We have argued that both cultural and economic systems evolve, and that situated creativity is the dynamic intersection of both domains as disequilibrium dynamics. The two constituent domains of cultural and economic analysis are traditionally viewed as analytically separate. This paper has sought to explain why focusing on the dynamics of both brings them together.

The two leading lights of cultural and economic analysis, respectively Raymond Williams and Joseph Schumpeter, offer an interesting perspective when combined as a potential insight into the dynamic nature of situated creativity. Joseph Schumpeter (1942) argued that market capitalism was an evolutionary process and that economic growth and change was powered by entrepreneurial endeavour that sought to introduce new ideas, technologies and markets. Schumpeter traced this through firm dynamics, market structures and industrial organization to define economic evolution as a process of novelty generation, adoption and retention that he called creative destruction. In turn, Raymond Williams (1959, 1961) argued that cultural dynamics require analysis of a ‘dominant’ culture which both disrupts ‘residual’ forms and provokes ‘emergent’ culture, which is often experienced as counter-cultural or active antagonism to dominant forms. This dynamic process, which underpins modern cultural studies, is remarkably similar to Schumpeter’s conception of creative destruction, which also begins with market dominant states (monopoly capitalism), leading to the specialization of niche providers (competitive residual markets) and eventually to the emergence of new markets that become in themselves locally and

then globally dominant, thus starting the process over again. Williams and Schumpeter were both referring to the same dynamic process of cultural-economic creative destruction. This therefore integrates the economic analysis of new industries and markets with the cultural analysis of new communities and networks of meaning and identity. This intersection is the co-joint nexus of dynamic situated creativity.

Our reinterpretation of cultural-economic co-evolution thus offers a revised view of a negative view of culture as suboptimal dynamics, or as 'sticky' coordination structure, in relation to economic systems (Bednar and Page 2007). Instead, we seek to model culture as a mode of dynamic process, and in particular one in relation to economic and industrial dynamics. This is the disequilibrium model of situated creativity, and it arises not from new higher-order aspects of economic growth models but from the co-evolution of the economic opportunities that new cultural models and forms offer and, simultaneously, the new cultural opportunities that new economic business models offer. Furthermore, it offers a way of extending the concept of the social construction of technology (Bijker *et al* 1987) to present this as a co-evolutionary feedback. While key ideas such as interpretive flexibility and social subgroups can be easily read into our case studies, our concept of dynamic situated creativity adds the further crucial dimension of the creation of new industries derived from such cultural (and social) construction in social network markets.

This new intersection between the co-evolutionary dynamics of markets and culture began only recently, with wacky-sounding phenomena like the open source movement (Linux), blogging, the Wikipedia, Flickr, and 'co-creative' gamers. Such ventures were often utopian, embedded in community or culture rather than business values. But now, consumer-created content is carving out vast new markets and industries. Ever larger new-media companies like Google, YouTube, Facebook, and the rest dominate social network markets. The global media landscape has changed as much over a decade as it did in the previous half century. Now, 'self-made' media are at the dynamic boundary of an emergent system. They may prove to be so important to the growth of knowledge and economies that they must be regarded as an *enabling social technology*, on a par with markets, science, the law and the financial system, rather than just another industry. In such a context, the growth of consumer co-creation using internet affordances and social network markets is comparable to the

invention of printing. Printing enabled not just the modern publishing industry but modernity itself, including all the things that widespread print literacy allowed – science, journalism, the novel and the Enlightenment. If we're in another evolutionary mid-step in the growth of knowledge, then the question of how such changes impact the population as a whole becomes central. For the first time, it is possible to imagine a 'network of networks' that enables people everywhere to participate not only in self-expression and entertainment, but in new ways of producing knowledge, which itself is scaling up from 'lab and library' situatedness to population-wide distributed networks. It follows that people's access to, understanding of, and ability to create using new media – their 'digital literacy' – is a determining factor in the development of knowledge. This, we argue, is a crucial aspect of situated creativity.

This leads us from production and supply-side to consumption or demand-side models of innovation. Yet the world of knowledge-based policy formation across science, business and government, still adheres to a 'production-line' or one-way model of causation. Research investment still tends to cluster around the production end of the value chain, to the relative neglect of application, diffusion and use to the neglect of consumption and demand. Too little attention is paid to the consumer, audience, citizen or user. The most common model of consumption still sees it as an individual behavioural effect rather than as purposive or creative action, and still less as a source of innovation and market or industrial development.

The occasion thus arises to ask how general all this might be. Is the dynamic situated creativity interactive between economic and cultural realms described here something that is only limited to the industrial subset of digital media? Or is this something that extends more generally and inclusively across the entire economy and culture? Our argument here is that this is indeed general, and that the creative industries, as represented in section 5 above, are a bellwether of this process of co-evolution between cultural and economic domains for the simple reason that the technologies of production are now increasingly in the hands, and minds, of consumers.

Situated creativity is best viewed, therefore, not as an extension of evolutionary economics in the industrial mode, nor of cultural studies in the critical mode, but rather as an ongoing dynamic tension between economic evolution and socio-cultural

evolution exemplified by the emergent phenomena of consumer co-creation. We have argued that dynamically situated creativity is instrumental to how new institutions and business models develop, and to how new cultural forms emerge and stabilize through the economic integration of new cultural phenomena and in terms of the feedback to cultural incentives of new economic models. Situated creativity is thus a *disequilibrium dynamic* with respect to economic and cultural coordination. This is why we require both an economic and a cultural studies analysis in order to understand the emergence of new industries and the dynamics of situated creativity. The emergent digital industries forming about consumer co-creation thus exemplify the economic value of this process, and the emergent cultural institutions elucidate the cultural value of this process. The co-evolutionary dynamic between these emergent forms of value is, we suggest, is the analytic essence of dynamic situated creativity.

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## ENDNOTES

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<sup>1</sup> What has allowed this possible rapprochement between Schumpeter and Williams is the technical and cultural *demarche* occasioned by Web 2.0, the near ubiquity in many countries of the internet, and social networks that have grown up around it.

<sup>2</sup> Becker (1982), Bourdieu (1993), Negus and Pickering (2004).

<sup>3</sup> Powell *et al* (1996), Chesbrough (2001), Dodgson *et al* (2005).

<sup>4</sup> In the Raymond Williams sense (Williams 1961).

<sup>5</sup> Becker (1982) examines how aesthetic principles and technologies are shared by producers, support workers, and audiences, and how they organise, enable, and constrain the possible range of a particular artistic activity.

<sup>6</sup> Cunningham (2006), Potts and Cunningham (2008).

<sup>7</sup> Dopfer and Potts (2008) argue that the coordination of such dynamics involves what they call 2<sup>nd</sup> order mechanisms rules as a domain of knowledge about knowledge.

<sup>8</sup> Gardiner, (2000); Hartley 2003

<sup>9</sup> See Dopfer and Potts (2008: ch 2&3) on boundary dynamics under evolutionary conditions.

<sup>10</sup> Banks and Potts (2008).

<sup>11</sup> <http://www.flickr.com/creativecommons>