Education, Creativity and the Economy of Passions: New Forms of Educational Capitalism

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Abstract
The paper reviews claims for creativity in the economy and in education distinguishing two accounts: 'personal anarcho-aesthetics' and 'the design principle'. The first emerges in the psychological literature from sources in the Romantic Movement emphasizing the creative genius and the way in which creativity emerges from deep subconscious processes, involves the imagination, is anchored in the passions, cannot be directed and is beyond the rational control of the individual. This account has a close fit to business often as a form of 'brainstorming', 'mind-mapping' or 'strategic planning', and is closely associated with the figure of the risk-taking entrepreneur. By contrast 'the design principle' is both relational and social and surfaces in related ideas of 'social capital', 'situated learning', and 'P2P' (peer-to-peer) accounts of commons-based peer production. It is seen to be a product of social and networked environments—rich semiotic and intelligent environments in which everything speaks. This paper traces the genealogies of these two contrasting accounts of creativity and their significance for educational practice before showing how both notions are strongly connected in accounts of new forms of capitalism that require a rethinking of the notion of creativity and its place in schools and institutions of higher education. The paper begins by providing a context in terms of a history of the knowledge economy and the historical tendency toward aesthetic or designer capitalism.

Key words: Creativity, education, Romantic, capitalism, creative economy

Introduction: The Creative Economy

The notion of the 'creative economy' is a concept and discourse that developed during the late 1990s and was strongly promoted by John Howkins (2002), a British media entrepreneur, who bases his analysis on the relationship between IP, creativity and money. Howkin's thesis is in part a rejuvenation and democratic reworking of the notion of entrepreneurship based on the understanding that it is ideas, people and things rather than land, labor or capital that have become the most important factors of production in the leading-edge liberal-capitalist economies. Howkins' thesis is echoed by Richard Florida (2002) in his *The Rise of the Creative Class* where he argues 'Human creativity is the ultimate economic resource' (p. xiii).

In one sense these new studies of the 'creative economy' grow out of a long gestation of blended discourses that go back at least to the early literatures in the economics of knowledge initiated by Friedrich von Hayek and Fritz Machlup in the 1940s and 1950s, to studies of the 'information economy' by Marc Porat in the late 1960s, and to the sociology of postindustrialism, a discourse developed differently by Daniel Bell and Alain Touraine in the early 1970s. The creative economy also highlights and builds upon important ideas given a distinctive formulation by Paul Romer under the aegis of

endogenous growth theory in the 1990s, and aspects of the emerging literatures concerning national systems of innovations and entrepreneurship that figure in public policy formulation from the 1980s. Indeed, the notion of the 'creative economy' sits within a complicated and interconnected set of discourses that rapidly succeed, replace and overlap one another. This even set of literatures gave rise to the notion of the 'knowledge economy' that has dominated both national economic policy and development agendas since the early 1990s and has strong conceptual affinities with the creative economy.

The creative economy discourse combines elements from the earlier theories and formulations providing a recipe and policy mix that highlights creativity, innovation, distributive knowledge systems, social production and networking, the creative commons and the new communication technologies, along with an emphasis on the cultural and creative sector industries, cultural policy, and the emphasis on human and social capital formation especially through organizational learning, corporate training, and education at all levels. Buried in this discourse and its rapid uptake in public policy is an implicit account about the shifting nature of capitalism or at least of its leading sectors and also an attempt to promote and develop what I have called new forms of educational capitalism that cultivate a new spirit of enterprise and the enterprise curriculum, give a new emphasis to the entrepreneurial subject, encourage teaching for giftedness and creativity, prioritize accelerated and personal learning, and lend weight to 'consumer-citizens' and a new ethic of self-presentation and self-promotion (see Peters, 2005, 2004).

This paper provides an account of the creative economy in relation to education and the development of new forms of educational capitalism by reference to prevailing accounts of creativity. This paper contrasts two accounts of creativity. The first I have called 'personal anarcho-aesthetics': it is the dominant model. This highly individualistic model emerged in the psychological literature at the turn of the century from sources in German idealism and Romanticism that emphasized the creative genius at one with Nature. It emphasizes the way in which creativity emerges from deep subconscious processes, involves the imagination, is anchored in the passions, cannot be directed and is beyond the rational control of the individual. This account has a close fit to business often as a form of 'brainstorming', 'mind-mapping' or 'strategic planning', and is closely associated with the figure of the risk-taking entrepreneur. This fit is not surprising given that Schumpeter's 'hero-entrepreneur' springs from the same Romantic sources as the creative genius of the Romantic Movement (see Peters & Besley, 2007).

The second account I have called 'the design principle' and, by contrast to the first individualistic and irrational model is both relational and social. This second account is more recent and tends to emerge in literatures that intersect between sociology, economics, technology and education. It surfaces in related ideas of 'social capital', 'situated learning', and 'P2P' (peer-to-peer) accounts of commons-based peer production. It is seen to be a product of social and networked environments—rich semiotic and intelligent environments in which everything speaks. It is also a product of knowledge systems design that allows a high degree of interaction and rests on principles of distributed knowledge and collective intelligence. This paper traces the genealogies of

these two contrasting accounts of creativity and their significance for educational practice before showing how both notions are strongly connected in accounts of new forms of capitalism that require a rethinking of the notion of creativity and its place in schools and institutions of higher education. The paper begins by providing a context in terms of a history of the knowledge economy and the historical tendency toward aesthetic or designer capitalism.

Knowledge Economy and the Increasing Significance of Aesthetic Capitalism
For analytical purposes it is both possible and important to distinguish among the different and competing strands and readings of the knowledge economy. It is an important intellectual task not only to provide something of a chronological order for these readings but also to recognize their different assumptions and descriptions as well as their embedded political values. Clearly, not all are based on neoliberal orthodoxy and some predate neoliberalism while others provide a critique of the neoliberal project of globalization.

Table 1
Readings of the Knowledge Economy

(1) Hayek's 1945 exploratory AER paper 'The Use of Knowledge in Society'[1] established the Austrian school perspective based on methodological individualism and the subjective theory of value;
(2) Economic value of knowledge studies based on Fritz Machlup's[2] studies of the U.S. production and distribution of knowledge in the late 1950s and after;
(3) Alain Touraine[3] and new social movements literature he helped develop forecasts a symbolic economy predicated on the industrialization of education and students as a new knowledge class;

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[1] Hayek's 1945 paper (available at http://www.econlib.org/Library/Essays/hykKnw1.html) poses the problem of the rational economic order as 'the utilization of knowledge which is not given to anyone in its totality.' Hayek's paper was also conceived as part of the attack on the socialist calculation debate.
[2] Machlup, a student of Von Mises and the Austrian school, came to the US in 1933 on a Rockafeller fellowship that took him to Columbia, Harvard, Stanford and Chicago. He held various visiting professorships at a number of US universities before accepted a post at Johns Hopkins in political economy in 1947, and later Princeton, where he completed work leading to the publication of *The Economic Review of the Patent System* (1958), *The Production and Distribution of Knowledge in the United States* (1962), and *Education and Economic Growth* (1970). He published the three volumes comprising *Information through the Printed Word: The Dissemination of Scholarly, Scientific, and Intellectual Knowledge* (1978) and the first three volumes of the projected ten volume series *Knowledge: Its Creation, Distribution, and Economic Significance* (1980, 1982, 1983).
[3] See Alain Touraine's *The Post-Industrial Society* and his social movements and later actor-network theory.

(4) Peter Drucker[4] focuses on the knowledge worker, the corporation as community and establishes the field of knowledge management;

(5) 'Technological revolution' studies popularised by Daniel Bell[5] and Alvin Toffler[6] in the 1970s based on the sociology of postindustrialism;

(6) Jean-François Lyotard[7] brings together the postindustrial economy with postmodern culture to suggest the leading sciences and technologies are significantly all language-based;

(7) Growth of knowledge management approaches (techno-centric, organizational & ecological) in the 1980s focus on the creation, distribution and transfer of knowledge and associated notions of intellectual capital[8];

(8) OECD's model of knowledge economy based on endogenous growth theory[9];

(9) The World Bank's 'Knowledge for Development' and 'Education for the Knowledge Economy'[10];

(10) 'New economy' readings of the 1990s[11];

(11) The learning economy based on Lundvall's work[12];

(12) The 'weightless' economy based on Danny Quah's work[13];

(13) Global information society derived from the World Summit (WSIS)[14];

(14) Postmodern global systems theory based on network theory, after Manuel Castells[15].

One of the main threads running through these different conceptions is an increasing formalism of capitalism characterized by the mathematicization and aestheticization variously expressed by reference to the linguistic, communicative, information, cultural turns that have been observed in fields as disparate as economics, philosophy, sociology, communication and cultural studies (see Peters & Besley, 2006, especially Chapter 2). The descriptions abound--the symbolic economy; the sign economy, the information

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[4] See Peter Drucker (1969; 1993) who also is instrumental in initiated the field of knowledge management.

[5] In *The Coming of Post-Industrial Society* Daniel Bell (1973) argued that such a society would be based on information, the centrality of new science-based industries and managed by a new technical elite.

[6] Alvin Toffler, the American futurist, predicted third-wave society based on knowledge production, diversity and demassification where 'prosumers' fulfill their own needs.

[7] Jean-François Lyotard (1984) lists these as: 'phonology and theories of linguistics, problems of communication and cybernetics, modern theories of algebra and informatics, computers and their languages, problems of translation and the search for areas of compatibility among computer languages, problems of information storage and data banks, telematics and the perfection of intelligent terminals, to paradoxology.' These technical transformations have permanently altered the two principal functions of knowledge—research and the transmission of acquired learning.

[8] See e.g., Nonaka & Takeuchi (1995).

[9] See OECD's (1996, 1997, 2001) early publications on the knowledge-based economy.

[10] See the World Bank's 'Knowledge for Development' website at http://web.worldbank.org/WBSITE/EXTERNAL/WBI/WBIPROGRAMS/KFDLP/0,,menuPK:461238~pagePK:64156143~piPK:64154155~theSitePK:461198,00.html

[11] See e.g., Brenner (2002), Baily (2002) & Temple (2002).

[12] See Lundvall (1992), Lundvall & Johnson (1994), Lundvall and Borra (1999).

[13] See Danny Quah's personal webpage for a selection of recent papers, at http://econ.lse.ac.uk/staff/dquah/index_own.html

[14] See the WSIS website at http://www.itu.int/wsis/index.html

[15] See, in particular, Castells (1996) and webpage at http://annenberg.usc.edu/Faculty/Communication/CastellsM.aspx#recentpubs

economy, the digital economy, the knowledge economy, the cultural economy, the creative economy, the aesthetic economy. They all point to the increasing significance of symbols and signs and their manipulation in encoding and decoding information flows that establish economic value-chains and encourage further technological innovation and diffusion. While the sources of the information or knowledge economy in its first theorizations can be traced to the 1960s it is not until the 1990s that the discourses of 'new economy,' 'knowledge economy,' and 'creative economy' are popularized and become policy metaphors, the latter two more in evidence after the dot.com bubble burst in 2001. This is my rough characterization of what I call 'Aesthetic or Designer Capitalism' in which the economy of information and ideas, and traditional and related notions of freedom, self-expression, and creativity become the central themes:

- 'The economization of culture and the culturalization of economics' (du Gay & Pryke, 2002) where 'Economic and symbolic processes are more than ever interlaced and interarticulated' (Lash & Urry, 1994: 64).
- The info-communicative turn based on digitalization, speed & compression –all new technologies significantly language-based (Lyotard, 1984).
- Underlying epistemologies of *design* for all knowledge systems including Web 2.0 and semantic web.
- Investment in human capital & emergence of immaterial labor – 'postmodern flexibilization facilitated by social networking' (Boltansky & Chiapello, 2005).
- Importance of intellectual assets & emergence of global intellectual property rights regimes – patents, copyright, trademarks, advertising, financial & consulting services, & education.
- Significance of electronic, databases & emergence of new media based on radical concordance of sound, text and image.
- Digital goods are nonrival, infinitely expansible, discrete, recombinant (Quah, 2001) & permit radical decentralization but also encourage geographically clusters and corridors based on face-to-face and tacit knowledge.
- Emergence of paradigm of social or cultural production (Benkler, 2006) where consumers are active co-creators.
- Organizational cultures structure cognition and affect and reconstitute situated knowledge practices and activities of fast 'knowing capitalism' (Thrift, 2005).
- Network systems that permit economies of scale and monopolistic tendencies even more dangerously than traditional industrial economies (witness the rapid rise of Microsoft and Google), tend towards either oligopolistic (e.g., broadcast media) or mass democratic (e.g., completely horizontal and deterritorialized) forms.

This is a sketch of a form of knowledge capitalism that with co-author Tina Besley I have discussed at length (Peters & Besley, 2006) together with its new educational forms and effects. Under the thematic of globalism, consumerism and empire, as Thomas M. Kemple (2007: 147) remarks 'a revived conceptual and critical vocabulary is emerging to account for – or discredit – the latest metamorphoses of "the new capitalism"' by which he means the works he seeks to review: one of Bourdieu's (2005) last works devoted to how '"the economy" cultivates particular modes of conduct …

and "schemes of vision and division" (habitus in Bourdieu's terms) articulated within fields of struggle over forms of capital' (p. 148); Boltanski's and Chiapello's (2005) *The New Spirit of Capitalism* represented by interactions among three dimensions justification / legitimation, social / artistic critique, and employability / profitability; and Nigel Thrift's (2005) *Knowing Capitalism* concerned with 'the actual business practice of "selling ideas"– that is, the pragmatic dissemination of knowledge and sites of performance of the new capitalism's many scripts' (p. 154). His Weberian interpretation insists on adding the Protestant values of autonomy and authenticity to Boltanski's and Chiapello's schematization of the three latest mutations in the 'spirit of capitalism' (SC) since the late 19th century, thus:

> SC1 (mid-18th century): pre-industrial ascetic work ethic infused with civic ideals
> SC2 (late 19th century): industrial assembly-line production combined with social engineering
> SC3 (mid 20th century): post-industrial restructuring in part provoked by countercultural values
> SC4 (late 20th century): postmodern flexibilization facilitated by social networking (p. 152).

The story of these mutations, I would argue could easily be retold or narrativized in terms of the central value of creativity as it relates to evolving liberal notions of freedom and self-expression, the growing significance of printing, publishing and copyright in the sixteenth and seventeenth centuries, together with the institutionalization of science and the modern research university, and its increasing formalization (mathematicization, computerization and aestheticization) in the late twentieth century. Such a story would of course also draw connections and parallels between what I have called 'the opening of the book' (Peters, 2007)—the shift from closed to open textual environments—and the larger context of the development of the open society and so-called free trade, although not uncritically. Creativity as a value takes pride of place in this liberal metanarrative and through the Romantic Movement also begins to re-marry elements of culture with economy in 'cultural economy', often inflected with 'ideas', 'knowledge', 'innovation' and 'learning' (Archibugi & Lundvall, 2002; Lundvall, 1992; Lundvall & Johnson, 1994; Lundvall & Borra, 1999; David & Foray, 2003; Hartley, 2007).[16]

Clearly, today there is a strong renewal of interest by politicians and policy-makers world-wide in the related notions of creativity and innovation, especially in relation to terms like 'the creative economy', 'knowledge economy', 'enterprise society', 'entrepreneurship' and 'national systems of innovation'. In its rawest form the notion of the Creative Economy emerges from a set of claims that suggests that the Industrial Economy is giving way to the Creative Economy based on the growing power of ideas and virtual value-chain—the turn from steel and hamburgers to software and intellectual property. In this context increasingly public policy latches onto the issues of copyright as an aspect of intellectual property, the control of piracy, new distribution systems,

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[16] There is some work the financialization of capitalism (Foster, 2007) and the relationship between the cultural economy and finance (see Pryke's & du Gay's, 2007, excellent review).

network literacy, public service content, the creative industries, new interoperability standards, the WIPO and the development agenda, WTO and trade, and the policy means to bring creativity and commerce together. At the same time this focus on creativity has exercised strong appeal to policy-makers who wish to link education more firmly to new forms of capitalism emphasizing how creativity must be taught, how educational theory and research can be used to improve student learning in mathematics, reading and science, and how different models of intelligence and creativity can inform educational practice.

Personal Anarcho-Aesthetics, Creativity and the Roots of Romanticism

> The highest demand that is made on an artist is this: that he be true to Nature, study her, imitate her, and produce something that resembles her phenomena. How great, how enormous, this demand is, is not always kept in mind; and the true-artist himself learns it by experience only, in the course of his progressive development. Nature is separated from Art by an enormous chasm, which genius itself is unable to bridge without external assistance.
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> J. W. Goethe, 'Einleitung in die Propylaen', 1798, at http://web.archive.org/web/20000621124111/www.warwick.ac.uk/fac/arts/History/teaching/sem10/goethe.html
>
> The true source of art and of the beautiful is feeling. Feeling reveals the proper idea and aim of art, and points to the certain knowledge of the artist's intention, though the proof of this lies in practice rather than words.
>
> Freidrich Schlegel, Extract from *Descriptions of Paintings*, 1802-1804.

In *The Roots of Romanticism* Isaiah Berlin (1999), the Latvian-born political philosopher and historian of ideas who was to become one of the leading liberal thinkers of the twentieth century, shies away from the problem of definition and yet suggests that the Romantic movement was a radical shift in values that occurred in the latter half of the eighteenth century. Berlin describes Romanticism as 'the greatest single shift in the consciousness of the West that has occurred' (p. 1). The book consists of a series of lectures –The A.W. Mellon Lectures in the Fine Arts--that Berlin gave at the National Gallery of Arts, Washington, D.C. in 1965 and broadcast by the BBC a year later. I turn first to Berlin on Romanticism because I want to argue that 'creativity' as a concept that comes down to us in one dominant form is 'Romantic' to the core and that its kinship concept map has to be drawn against a background of related concepts—'genius', 'individualism', 'the artist', 'Nature', 'emotion' or 'feeling', 'infinity', 'aestheticism', 'the irrational', 'primitivism', 'mysticism', 'the visionary'—that makes up a general pattern of change that cannot be reduced to a textbook definition. 'Creativity' and the genealogy of the concept, at least in the West is part of a defining tradition. It is difficult to separate out the concept from the network that sustains and gives it life. It is also a grave error then to want to fish it up out of the pond and to dry it off before exhibiting it as the causal link to some other desirable political or economic state, say, 'innovation', or 'liberty', or 'imagination', that then can be analyzed, opened up, dissected, and

reassembled for the brave new world of the postmodern creative state, school or economy.

The Romantic period emphasized the self, creativity, imagination and the value of art in contrast to the Enlightenment emphasis on both rationalism and empiricism. As such philosophically Romanticism represents a shift from the objective to the subjective. Its roots can be found in the work of Jean-Jacques Rousseau and Immanuel Kant and later in Johann Wolfgang von Goethe, Freidrich Wilhelm Joseph von Schelling, and George Wilhelm Friedrich Hegel in Germany and Samuel Taylor Coleridge and William Wordsworth in Britain. Under these writers the imagination is elevated to pride of place as the supreme faculty subordinating the Enlightenment's emphasis on the supremacy of Reason. Imagination for the Romantics is the source of the ultimate creative power that emulates Nature and God and in its active dynamism it is not only the basis for all artistic creation but actually helps us to *create* reality and to 'read' it, uniting feeling and reason, and synthesizing and reconciling the differences that we encounter in the world of appearances. For Kant in *The Critique of Judgment* imagination means the capacity or ability to re-present something which is not present; a kind of second seeing by the process of forming images that represents something not seen by means of what has been see.

This is how the WebMuseum in Paris describes the main characteristics of Romanticism in art. It is a description that highlights all the aspects of resistance against Enlightenment rationality, science and method to view the hero-artist as the supreme creator (a reflection of the divine) who struggles with the unconscious to give shape, truth and feeling (expression) to those forces—natural, spiritual and cultural—that unknowingly give direction and form to the inchoate stream of data and impressions.

Table 2
Characteristics of Romanticism in Art

- a deepened appreciation of the beauties of nature
- a general exaltation of emotion over reason and of the senses over intellect
- a turning in upon the self and a heightened examination of human personality and its moods and mental potentialities
- a preoccupation with the genius, the hero, and the exceptional figure in general, and a focus on his passions and inner struggles
- a new view of the artist as a supremely individual creator, whose creative spirit is more important than strict adherence to formal rules and traditional procedures
- an emphasis upon imagination as a gateway to transcendent experience and spiritual truth
- an obsessive interest in folk culture, national and ethnic cultural origins, and the medieval era
- a predilection for the exotic, the remote, the mysterious, the weird, the occult, the monstrous, the diseased, and even the satanic.

Source: WebMuseum, Paris at http://www.ibiblio.org/wm/paint/glo/romanticism/

These ideas that define and control creativity also define what we might call Romantic education that, in addition, identifies in the child the creative forces at play for children are closer to their emotions and at the same time not so tutored (as yet) in the logic of reason.

Romantic Education as 'Playful' and 'Creative'
Rousseau is largely responsible for the emergence of child-centered studies and education in the nineteenth century that in turn is also strongly associated with the centrality of the concept of 'play'. Play became nested within theologies and philosophies of the child based on the importance and story of 'freedom'-- freedom of self-expression in all the arts; cultivation of the imagination; and, above all, 'free play'.[17] As Feldman and Benjamin (2006), for instance, write:

> Froebelian-inspired kindergarten advocates in America originally linked the concept of creativity to educational aims on theological grounds. The strength of their spiritual convictions, which assumed a connection between the child's inner powers, the impulse to creative activity, and the Almighty, secured a place for creativity in the field of early childhood education. As the child study movement gained momentum in the US in the late nineteenth century, creativity continued to occupy a prominent position in descriptions of childhood education, although the rationale shifted from faith-based to quasi-scientific and, eventually, to psychological theory.

They provide a comprehensive and stage history of creativity studies in education starting from J. P. Guilford's Presidential Address before the American Psychological Association on 5 September 1950 in which he called for systematic study. After the Rousseauians Freobel and Pestalozzi heroized the child Feldman and Benjamin (2006) periodize American creativity studies thus: (I summarize and mentioned strategic or landmark texts)

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Table 3
American Creativity Studies

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- **The Guilford agenda: creativity research from 1950–1965**
- Torrance, E. P. (1963) *Education and the creative potential* (Minneapolis, University of Minnesota Press).

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[17] See the excellent essay by Andrew Gibbons (2007) who consider what counts as 'play'. He writes: 'Yet rather than trouble this child's historical construction, I am here interested in how the fiction that is this child subject offers up opportunities to explore difference in the philosophy of education—does it offer childhood as an unstructured, unregulated and unclassified playground in which to trouble claims to truth and assumptions of style in the philosophy of education? (p. 507).' He not only examines analogies between playfulness and philosophy by refernce to Wittgenstein and Nietzsche but also briefly looks at opportunities for 'child's play' in Aotearoa/New Zealand's national ECE curriculum framework, *Te Whāriki*.

- Torrance, E. P. (1966) *Torrance tests of creative thinking* (Princeton, Personnel Press).
- **Distinguishing creativity from intelligence: creativity research 1955–1975**
- Getzels, J. & Jackson, P. (1962) *Creativity and intelligence: explorations with gifted students* (New York, John Wiley).
- Wallach, M. (1971) *The creativity-intelligence distinction* (New York, General Learning Press).
- **Rebirth of the field: creativity studies 1975–present**
- conceptual frameworks that emphasize the dynamic, interactive nature of creative activity;
- developmental theories that attempt to determine the qualitatively distinct nature of creative advances in thinking;
- evolutionary frameworks that argue for random or chance causes for creative advance; and
- cognitive approaches that emphasize processes common to all forms of thinking

Perhaps the interesting feature in Feldman and Benjamin (2006) is the lack of a latest stage that has appeared as 'Creativity in Schools' based on the pursuit of instrumental value and revealed, for instance, in OFSTED's (2003) *Expecting the Unexpected: Developing Creativity in Primary and Secondary Schools*: Creativity is 'imaginative activity fashioned so as to produce outcomes that are both original and of value ... the outcome must be of value in relation to the objective'. As Howard Gibson (2005: 156) comments: ''Creativity is the application of knowledge and skills in new ways to achieve a valued goal''. But, in the absence of any sustained epistemological or ethical discussion of what *are* valued goals, creativity appears supine to the needs of the economy with education policy at heel: "... to boost competitiveness in the knowledge economy, we must make radical changes to the educational system." Gibson is providing a critique of Seltzer's and Bentley's (1999) *The Creative Age: Knowledge and Skills for the New Economy* as well as OFSTED's definition and guidelines based on the analogous critique of instrumental rationality first mounted by Horkheimer; and, the point is well taken.

The best review of creativity in the field of education in my opinion is that carried out by Shakuntala Banaji (2006) at the Centre for the Study of Children, Youth and Media with the help of Andrew Burn and David Buckingham. This report strongly contrasts with the psychological literature and 'takes as its basic premise the notion that the idea of creativity is constructed as a series of rhetorics', which as they explain, comprise the claims that are 'emerging from the contexts of research, policy and practice' (p. 4). By rhetorics, the authors mean 'a subset of discourse characterized by specific properties':

> • they are highly elaborated structures, drawing on distinctive traditions of philosophical, educational, political and psychological thought
> • they are organised to persuade and even intervene, in specific contexts of practice
> • they produce discursive frameworks such as key terms and taxonomies which can be learnt by practitioners who either need them or are obliged to use them (p. 4).

By adopting a 'rhetorics approach' the researchers want to reveal how

> organised, conscious, structured models of creativity, whether they emerge from policy imperatives, philosophical traditions or empirical research, are always mobilised, or ready to be mobilised, in the interests of intervention in practice or policy, and can be termed rhetorics as distinct from discourses (p. 4).

I have listed the 'rhetorics of creativity' as they appear in the review and include a one-page more detailed description in an appendix at the end of this paper because while the rhetorics approach is not made clear the review usefully identifies cross-cutting themes as a basis for future research.

Table 4
Rhetorics of Creativity

1) Creative Genius
2) Democratic Creativity and Cultural Re/Production
3) Ubiquitous Creativity
4) Creativity for Social Good
5) Creativity as Economic Imperative
6) Play and Creativity
7) Creativity and Cognition
8) The Creative Affordances of Technology
9) The Creative Classroom
10) Art, Creativity and Political Challenge

The conclusion details these themes under four key questions: is creativity is an internal cognitive function or an external cultural phenomenon? Is it a ubiquitous human activity or a special faculty? Is it inevitably 'pro-social' or can also be dissident or even anti-social? And, what are the implications for a creative model of teaching and learning?

Creativity, Networks and the Design Principle
The fact of the matter is that we need alternatives to both the Romantic stereotype of the creator as individual genius and the tendency of the modern creative industries to treat everything as a commodity. The Romantic hero-artist and the autonomous text to be interpreted according to the author's intention lives on as part of the legal structures in copyright and so-called intellectual property law that grew up alongside the Romantic Movement and helped to constitute its liberal juridical constructions. Indeed, the very privatization of art and the commodification of artistic creativity is dependent upon the legal fiction of 'the author' who is assigned 'ownership' as a sovereign individual, and also the notion of 'creativity' or artistic product that is an outcome of the creative process that can be owned and profited from. The Romantic notion of creativity and the individual hero-artist are the bulwarks of a system of political economy that juridically enables the 'creative industries' as part of the capitalist system.

Yet the two main pillars supporting the Romantic ideological infrastructure have been attacked and dismantled. The literary text is no longer regarded as a separate, individuated, autonomous work and the artist-creator is no longer regarded as the independent individual creative genius. In some ways the argument is the same and both the author and the text as original, autonomous and living works of arts have been radically questioned and deconstructed (see Peters, 2007). Both deconstructions of the author and the text proceed from the same source reconfiguring the notion of creativity and associated notions of originality, genius, art or work, thus dissolving also the overriding justification for the legal ownership superstructure built upon these notions.

In poststructuralist and cultural theory the author and the 'author function' has been relocated and resituated in a complex culture of writing and textual environments that exposes and critiques the lonely subjectivism, the privatization, and the heroic individualism, not to exclude the romanticism, that historically played a constitutive role in shaping the author, creative originality and ownership of works as well as defining the accompanying their legal fictions. Both the author and the text has given way to 'intertextuality', to the archive, canon, tradition, school or movement of other texts, or as we might say today, to the 'network' that now animates all forms and emerging genres of electronic textual environments and the knowledge systems on which they are based. This new nexus and wired discourse substantiates the poststructuralist theory of the hypertext as a collective creation and one dictated by living language systems and constituted through accumulated group transactions and interactions that settle new conventions of who can speak and write and under what conditions.

Julie E Cohen (2007) provides a lucid account of the interconnections between creativity and culture in copyright law and a clear statement of what she calls 'the creativity paradox'.

> Creativity is universally agreed to be a good that copyright law should seek to promote, yet copyright scholarship and policymaking have proceeded largely on the basis of assumptions about what it actually is. When asked to discuss the source of their inspiration, individual artists describe a process that is intrinsically ineffable. Rights theorists of all varieties have generally subscribed to this understanding, describing creativity in terms of an individual liberty whose form remains largely unspecified. Economic theorists of copyright work from the opposite end of the creative process, seeking to divine the optimal rules for promoting creativity by measuring its marketable byproducts. But these theorists offer no particular reason to think that marketable byproducts are either an appropriate proxy or an effective stimulus for creativity (as opposed to production), and more typically refuse to engage the question. The upshot is that the more we talk about creativity, the more it disappears from view (1150-1151).

She argues that creativity has been problematic for copyright scholars because they experience three interrelated methodological anxieties centered on rights or economics, merit or relativism, and abstraction over materiality. Rights theorists have generally described creativity in terms of individual liberty whilst economists beginning from the opposite end try to define the 'optimal rules for promoting creativity by measuring its

marketable byproducts'. The first problem concerns 'whether individual creators or broader societal patterns should be the primary focus of analysis' and Cohen goes on to assert 'it is possible to say both that particular outputs represent valuable additions to collective culture and that their value is determined by underlying knowledge systems that are historically and culturally situated'. She continues:

> The second anxiety has to do with the appropriate metric for evaluating creative output, and is experienced in the form of a required precommitment either to a linear, modernist vision of creative and cultural progress or to an oppositional stance that rejects notions of progress, artistic merit, and authorial will entirely. The third anxiety concerns the relative value of abstract and concrete components of artistic and intellectual culture, and is experienced in the form of a required precommitment to abstraction — to the paramount importance of the idea and the transcendent accessibility of the public domain — that crosses otherwise rigid philosophical divides (1153).

Interesting drawing on contemporary cultural and poststructuralist theory Cohen sketches a model of creative processes as *complex, decentered, and emergent*. She argues:

> Within this model, it is neither individual creators nor social and cultural patterns that produce artistic and intellectual culture, but rather the dynamic interactions between them. The artistic and intellectual value that emerges from these interactions is simultaneously real and contingent; it is possible to say both that particular outputs represent valuable additions to collective culture and that their value is determined by underlying knowledge systems that are historically and culturally situated. Like other cultural processes, artistic and intellectual processes are substantially and importantly shaped by the concrete particulars of expression, the material attributes of artifacts embodying copyrighted works, and the spatial distribution of cultural resources. Within a given network of social and cultural relations, an important and undertheorized determinant of creative ferment is the play, or freedom of movement, that the network affords (1151).

This is how Defillippi et al (2007: 511) describe the paradoxes of creativity and the organizational and management challenge of the cultural economy in a way that highlights the persistent significance and difficulties of the Romantic account:

> The current shift towards knowledge-based societies has turned creativity into a source of strategic advantage in the contemporary managerial and political lexicon. Perhaps in the most pronounced fashion, Florida (2002: 4) even boldly claims that creativity '. . .is now the decisive source of competitive advantage' (for critiques of this position, see Kotkin, 2005; Peck, 2005). Since creativity is also popularly regarded as something genuinely spontaneous and irrational and hence, by its very definition, impossible to control, the current managerial infatuation with creativity as a strategic asset for gaining competitive advantage must be squared with empirical research and extant theory.

Usefully, the authors provide an extended account of the model that I am discussing and comment on the difficulties for the private sector knowledge management and by obvious implication also the difficulty facing curriculum planners, educational policy-makers and teachers who think there is an easy fit or translation from creativity in schools to innovation in the workplace:

> Creativity in the 'Western' tradition from Plato to Freud and Popper has mostly been regarded as something divergent, impulsive and 'messy' (De Bono, 1992: 2). This particular perception of creativity precipitated the assumption that creativity is embodied in a particular type of personality: the individual creative genius (Bilton & Leary, 2002: 54; Boden, 1994b). Emblematic accounts of irrational genius and spontaneous invention in science and art, such as Kekule's discovery of the benzene molecule while dozing in front of the fire, Coleridge's poem Kublai Khan or Picasso's painting of Guernica have served to illustrate this construal of creativity (Weisberg, 1993). In this romantic perception of the enigmatic eureka!-moment, a scientific approach to creativity is not just philosophically uninteresting, but impossible (Boden, 1994b: 3) (p. 512).[18]

Under the spell of the creative economy discourse there has been a flourishing of new accelerated learning methodologies together with a focus on giftedness and the design of learning programs for exceptional children. One strand of the emerging literature highlights the role of the creative, cultural and expressive arts, of performance and aesthetics in general, and the significant role of design as an underlying infrastructure or epistemology for the creative economy. Another strand focuses on the architecture and design associated with Web 2.0 and the semantic web and the way a host of new platforms enable Web-enabled knowledge services and knowledge trading as well as supporting innovation, creativity, collaboration, social production and information sharing (*MIT Sloan Management Review*, 2007; Mentzas et al, 2007). It is worth dwelling on this aspect further given that it prefigures one of the two accounts of creativity that I seek to contrast. As Greaves (2007: 94) has commented 'Web 2.0 isn't a precise term. It refers to a class of Web-based applications that were recognized ex post facto to share certain design patterns'. He refers to Tim O'Reilly's (2005) early characterization of Web 2.0 using a set of oppositions against classic Web techniques and design metaphors: between directories and tag systems, Web site stickiness and RSS syndication, content management systems and wikis, screen scraping and open Web APIs, personal Web pages and blogs, and client/server style publishing and massive user participation. He goes on to argue:

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[18] Boden (2004) argues that computational concepts can help us understand creativity and she distinguishes three basic types of creativity:

(i) (re)*combination* of familiar items within some domain to form new ones;

(ii) *exploration* of an established conceptual space to discover new and perhaps quite unexpected possibilities within that space;

(iii) *transformation* of a conceptual space itself to arrive at things (ideas, artifacts, etc.) that were not even possible within the earlier space.

Many exemplary Web 2.0-style applications and companies now exist, including Flickr, Wikipedia, YouTube, Six Apart, Technorati, Google, del.icio.us, Greasemonkey, MySpace, Facebook, Zimbra, and many others. Most Web 2.0 applications share common themes, including

• weaving together different Web-accessible data and services (especially with UI technologies such as AJAX and powerful scripting languages such as Ruby on Rails);

• depending on collective intelligence, social networks, and user-contributed content and tags;

• addressing long-tail markets and scenarios (see Chris Anderson's article "The Long Tail" at www.wired.com/wired/archive/12.10/tail.html);

• repurposing and remixing Web-based data; and

• enhancing existing Web-based data with personalization capabilities, such as tailored feeds and contextual recommendation systems (p. 95).

As Kwei-Jay Lin (2007: 101) indicates 'There is no one set of technologies that every Web 2.0 system uses':

Many new technologies make the Web interface smooth and intuitive. Ajax, JavaScript, Cascading Style Sheets (CSS), Document Object Model (DOM), Extensible HTML (XHTML), XSL Transformations (XSLT)/XML, and Adobe Flash provide users with a rich and fun interactive experience without the drawbacks of most old Web applications. These technologies display and deliver Web services just like desktop software, making distributed processing difficulties invisible. Other new technologies make it easy for Web services to connect to multiple data and information sources. XML-RPC, Representational State Transfer (REST), RSS, Atom, mashups, and similar technologies facilitate the subscription, propagation, reuse, and intermixing of Web content. Perhaps the most important resource for Web 2.0 is the user. Providing friendly tools for user participation in content creation, consumption, and distribution has been the key to success (and failure) for many startups in the Web 2.0 era. Technologies such as blogs, wikis, podcasts, and vodcasts foster the growth of new Web communities. Technologies are also in place to make Web sites more scalable. For example, Google and Yahoo! Process most requests in less than a second, and connections to popular user-based Web sites such as YouTube and Flickr are nearly effortless (pp. 101-102).

It is these applications that have driven the likes of Lessig (2004) and Benkler (2006) to talk more broadly about the change in the mode of social production towards a new kind of freedom based on convergences between open course, open access, and the creative commons. Perhaps, more than any other this strand based around Web 2.0 developments with the democratic goal of encouraging all user-participants to create, share, distribute, and enjoy ideas and information, that brings commerce and creativity together in educational settings, not only in terms of education as a source and research center for creative applications for Web-based systems but also as spin-off university companies and, even more importantly, as a market subject to endless fashion gadgetry and redesign.

The suggestion made by a number of authors is to turn to concepts of *creative practices* and *cultural processes* in order to rethink cultural constructions of 'literature', 'design', 'author,' 'artist,' 'learner,' and 'entrepreneur' especially within webs and networks where the old Romantic assumptions about creativity and educations are radically challenged, as are the same assumptions as they enter into copyright law. As Kai Hakkarainen remarks in his survey of 'Theories of Creativity' it has now become accepted in the modern context that 'New ideas do not emerge accidentally or randomly and creativity is not based on a spontaneous, unique and unanalyzable subjective processes'; that 'New idea may arise as a sudden insight that is, however, preceded with a relative long period of working with a problem'; and finally, that 'By learning to know processes involved in creative activity, we may learn to help people to become more creative.' I agree broadly that this is the case but I am less inclined to accept that 'Creative processes and mechanism can be analyzed, explained, and understood scientifically' if by 'scientifically' Hakkarainen means in terms of experimental psychology. I am more sympathetic to an analysis of creative practices and processes in terms of their network and discursive properties.

What I call 'open knowledge production', certainly, is based upon an incremental, decentralized (and asyncrhonous), and collaborative a development process but whether it transcends the traditional proprietary market model as Benkler and other claim is yet to be determined. While it is true that commons-based peer production is based on free cooperation and not on the selling of one's labor in exchange of a wage, and that it motivated primarily by profit or for the exchange value of the resulting product still it is not yet clear whether this constitutes an entirely new mode of *social* production and the extent to which it exists independently or parasitically on existing capitalist modes of production. While it is the case that commons-based production is managed through new modes of peer governance rather than traditional organizational hierarchies and it is an innovative application of copyright that creates an information commons it is still not clear to me that it transcends the limitations attached to both the private (for-profit) and public (state-based) property forms.

Table 5
New Forms of Educational Capitalism

- Privatization, corporatization and commericalization of education with emulation of private sector management styles and globalization of education as tradeable services (TRIPS).
- Emergence of global online 'borderless education', rise of corporate virtual education providers, and online courses for public universities.
- Informatization & the postmodernization of education, the cultural archive & production/consumption of knowledge.
- Investment in human capital, key competencies and generic skills.
- Emergence of the entrepreneurial self with 'forced' private investments at critical points in the education career cycle ('self-capitalization').
- Distributed knowledge systems lessen costs of sharing of intellectual capital (research), academic publishing (dessemination), courseware (instruction).
- Growth of home-schooling, informal and 24/7 professional education.

- Emergence of the paradigm of social production (Benkler, 2006) where co-production & co-creation characterizes 'active learner-consumers' and 'citizen-consumers.'
- Design principle best illustrated through maxim that 'architecture is politics' where communication systems are considered a complex three tiers of content, code and infrastructure where each level might be controlled and owned or free (Lessig, 2004).
- Convergences of open source, open access and open education.
- Radical interpenetration of public and private educational spaces and increasing dependency on technological fix and latest gadgetry fashions.

I am more inclined to think that capitalism and new modes of educational capitalism (see Table 5) uses and rides on the back of social production, instituting it as in-firm incubators of creativity that simulate open knowledge production processes. If this is indeed the case then we face a much more complex and messy picture where different modes co-exist and are parasitic on one another in an age witnessing new forms of educational capitalism, where education is both input and output in a *socialized* knowledge capitalism increasingly dependent on creating the appropriate conditions for creativity.

Appendix
Rhetorics of Creativity

1) **Creative Genius.** This is a post-romantic rhetoric that dismisses modernity and popular culture as vulgar, and argues for creativity as a special quality of a few individuals, either highly educated and disciplined, or inspired in some way, or both. Culture here is defined by a particular discourse about aesthetic judgment and value, manners, civilization and the attempt to establish literary, artistic and musical canons. It can be traced back through certain aspects of the Romantic period to strands of European Enlightenment thought, in particular Kant's Critique of Judgment.

2) **Democratic Creativity and Cultural Re/Production.** This provides an explicitly anti-elitist conceptualisation of creativity that constructs it as inherent in the everyday cultural and symbolic practices of all human beings. Additionally, it sees these practices as being obviously or more obscurely about identity construction, most obviously in its contemporary form in the academic discipline of Cultural Studies. This rhetoric focuses particularly on the meanings made from and with popular cultural products. In one respect, it proceeds from empiricist traditions in which the material experiences of the individual in society lead to creative transformations. In an apparent contradiction, however, it also has roots in radical Romantic thinkers such as Blake, for whom children were agents of a revolutionary imagination, posing a political critique of church and state.

3) **Ubiquitous Creativity**. This entails the notion that creativity is not just about consumption and production of artistic products, whether popular or elite, but involves a skill in having the flexibility to respond to problems and changes in the modern world and one's personal life. While it is now commonly invoked alongside discussions of creativity as a social process and an ethical choice, the foundation of this rhetoric lies partly in early years education and the notion of providing young children with the tools to function successfully in the world.

4) **Creativity for Social Good** Seeing individual creativity as linked to social structures, this rhetoric is characterised by its emphasis on the importance for educational policy of the arts as tools for personal empowerment and ultimately for social regeneration. It stresses the integration of communities and individuals who have become 'socially excluded' (for example by virtue of race, location or poverty) and invokes educational and economic concerns as the basis for generating policy interest in creativity. This rhetoric emerges largely from contemporary social democratic discourses of inclusion and multiculturalism.

5) **Creativity as Economic Imperative** The future of a competitive national economy is seen to depend, in this rhetoric, on the knowledge, flexibility, personal responsibility and problem solving skills of workers and their managers. These are, apparently, fostered and encouraged by creative methods in business, education and industry. There is a particular focus here on the contribution of the 'creative industries'. This rhetoric annexes the concept of creativity in the service of a liberal economic programme and discourse.

6) **Play and Creativity** A persistent strand in writing about creativity, this rhetoric turns on the notion that childhood play models, and perhaps scaffolds, adult problem-solving and creative thought. It explores the functions of play in relation to both creative production and cultural consumption. Like aspects of the Democratic rhetoric, this notion of creativity as play, and its relation to education, emerges from strands of Romantic thought, in this case originating with Rousseau. There are important parallels between contemporary arguments for the role of creativity and the role of play in education.

7) **Creativity and Cognition** Ranging from theories of multiple intelligences and the testing of mental creativity levels to explorations of the potential of artificial intelligence to demonstrate creative thought and production, this rhetoric frames creativity in psychological and scientific terms. Its emphasis is on the internal production of creativity by the mind, rather than on external contexts and cultures. Its trajectory in education derives from the Piagetian tradition rather than from the more culturally situated notions of creative learning expounded by Vygotsky, Dewey and Bruner.

8) **The Creative Affordances of Technology** If creativity is not inherent in human mental powers and is, in fact, social and situational, then technological developments may well be linked to advances in the creativity of individual users. This rhetoric covers a range of positions from those who applaud all technology as inherently improving to those that welcome it cautiously and see creativity as residing in an as yet under-theorised relationship between users and applications. This rhetoric is characteristic of contemporary constructivist discourse in the field of education.

9) **The Creative Classroom** Placing itself squarely at the heart of educational practice, this rhetoric focuses on connections between spirituality, knowledge, skills, creativity, teaching and learning and the place of creativity in an increasingly regulated and monitored curriculum. The focal point of this rhetoric is frequently practical advice to educators. This rhetoric locates itself in pragmatic accounts of 'the craft of the classroom', rather than in academic theories of mind or culture.

10) **Art, Creativity and Political Challenge** This rhetoric sees art and participation in arts projects as politically challenging, and transformative of the consciousness of those who engage in it; and it describes the processes of institutional pressure that militate against positive and challenging experiences of creativity by young people, regardless of the efforts of practitioners. This rhetoric questions the expectation that the products of youth creativity are necessarily acceptable or socially appropriate in order to be of value. It develops from academic discourses of political critique in the field of culture and education, such as the tradition of Cultural Studies in which formal education is often conceived as an ideological instrument of state power, hostile to the authentic cultural experience of young people.

Source: Shakuntala Banaji (2006) Centre for the Study of Children, Youth and Media , with Andrew Burn and David Buckingham

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