Ephemeral emergents and anticipation in online connected creativity

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Dr Lorraine Warren (corresponding author), School of Management, University of Southampton, Highfield, Southampton, SO17 1BJ, United Kingdom, Tel: + 44 (0) 23 8059 8976, Email: l.warren@soton.ac.uk

Professor Ted Fuller, Lincoln Business School, University of Lincoln, Brayford Pool, Lincoln, LN6 7TS, United Kingdom, Tel: +44 (0) 1522 886142, Email: tfuller@lincoln.ac.uk

Giles Lane, 4th Floor, 101 Turnmill Street, London EC1M 5QP, United Kingdom, Tel; +44 (0) 20 7490 0880, EmailL: info[at]proboscis.org.uk

Dr Nick Bryan-Kinns, Centre for Digital Music, School of Electronic Engineering and Computer Science, Queen Mary, University of London, Mile End Road, London E1 4NS, Tel: +44 (0)20 7882 5555, Email: nickbk@dcs.qmul.ac.uk

Dr George Roussos, School of Computer Science and Information Systems, Birkbeck College, University of London, Malet Street, London WC1E 7HX, UK, Tel : + 44 20 7631 6324, Email: g.roussos (at) bbk.ac.uk

Fredrik Lesage, Department of Media and Communication, London School of Economics and Political Science, 1 Endsleigh Place Passfield Hall, London, WC1H 0PW, Tel: (020) 7736 1139, Email: F.Lesage@lse.ac.uk

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Abstract
In this paper, we seek to address the challenge of online connected creativity by studying the emergence of novelty in the 'Sensory Threads' project, a six-month project currently underway as part of the EPSRC cluster project, http://www.creatorproject.org/, (EP/G002088/1), New Research Processes and Business Models for the Creative Industries. The cluster brings together practitioners from the creative industries with researchers from varied traditions that span ICT, the arts and humanities, the social sciences, and business studies, through the establishment of pilot projects, such as Sensory Threads that have a creative, technical and value-creating dimension. The paper extends previous conceptual and methodological work concerning the capture of the emergence of novelty and processes of learning and knowledge transfer in on-line settings comprising multiple actors, uncertain outcomes and diffuse data sources.

The UK is renowned for its creative industries in areas as diverse as music, animation, design, gaming and the visual and creative arts. It has been estimated that the creative industries account for 7.3% of the UK economy, parallel in size therefore to the financial services industry (DCMS, 2007). The livelihood of a growing proportion of UK citizens therefore depends upon the sector maintaining its growth trajectory, particularly in the South East. Together with London and parts of the East of England and South West, the South East region forms a "mega region" of world class significance in relation to the creative economy. The David Powell report (2002) suggests that the creative industries employ more than half a million people in the South East and contribute more than 40 billion to the regional economy. Creative and cultural industries represent around 30 per cent of its GDP, making it our region's fastest growing sector. Good understanding of the challenges and opportunities presented by the sector is therefore important from a regional development point of view. Yet studying the sector presents challenges from a research point of view:

- A diverse range of increasingly cross-linked industries (e.g. arts, culture, heritage, gaming, performance, sports)
- The potential for many inter-related (aesthetic) artefacts and services
- Digital technology can establish new resonances between social practices and the techno-creative milieu
- The need for continually (re) organising entrepreneurial & innovative team collaborations around new projects
- Novel, sometimes unorthodox, combinations of people and technologies for which there may be no precedent
- Values issues regarding interchange of artistic, cultural, social capitals (particularly where creative output is critical or challenging of powerful groupings).

Inevitably then, our research designs must address multiple contexts, locations (virtual and physical) and levels of analysis presenting an analytical challenge to management researchers (Pettigrew et al, 2001). In this paper, we seek to address this challenge by studying the emergence of novelty in the 'Sensory Threads' project, a six-month project currently underway as part of the EPSRC cluster project, http://www.creatorproject.org/, (EP/G002088/1), New Research Processes and Business Models for the Creative Industries. The cluster brings together practitioners from the creative industries with researchers from varied traditions that span ICT, the arts and humanities, the social sciences, and business studies, through the establishment of pilot projects, such as Sensory Threads that have a creative, technical and value-creating dimension.

Sensory Threads is based on earlier (and ongoing) collaborative work between the creative arts organisation Proboscis and Birkbeck College, on developing participatory sensing projects: building

and adapting platforms for environmental sensing by citizens that map and correlate the sensor data to other kinds of contextual knowledge. These projects have not only explored the nature of data collection but also issues of public engagement through playful and social activities such as street performance/carnival and hobbyist robotics. Sensory Threads continues in this vein, bringing in new partners to explore how sensor technologies increasingly mediate our perceptions of the world around us, and what happens when we extend the sensing of the 'environment' to include our own bodies. In terms of a timeline, the key events take place in September 2008 (a participatory workshop at a festival in Tokyo), subsequent development work in the UK, and further small scale trials, the project ending in February 2009. A further aim of the project is to examine processes of knowledge transfer, interdisciplinary teams and the exploration of potential business models for new products and services.

The research challenges presented by Sensory Threads are interconnected; the resulting research milieu is fluid, dynamic, reaching into uncertain domains (creatively and technically), yet highly interconnected. This challenge to researchers is compounded when, as is so often the case, specialist expertise is at a premium and project participants are located in different geographical locations. Participants are located in different organisations across the UK with some project activities taking place in specialist laboratory settings. Team meetings take place at proboscis premises in London. Some developmental events (will) take place in the public sphere, both in the UK and in Japan. Different personnel attend different events, both due to the specialist need of the project at the time, and simple availability, and a growing number of project participants have become involved over time. Thus, creativity takes part across the project as a whole, but is fragmented across space and time, with multiple data sources arising, sometimes unpredictably and in different forms. In such circumstances, project teams (or parts of them) may meet in person, as well as form an online connected community using software platforms such as Basecamp or Ning, not only to circulate documents and impart practical information, but also to support and develop the creative process itself.

This paper seeks firstly therefore, to address the challenge of capturing the emergence of novelty and processes of learning and knowledge transfer in Sensory Threads, a setting for online connected creativity comprising multiple actors, uncertain outcomes and diffuse data sources, connected through the Basecamp platform. Secondly, in doing so, we extend previous conceptual work that has investigated the significance of emergence in theorising entrepreneurship (Fuller et al, 2007a, b) into an exploration of how we might articulate the creation and flow of value and effective ontology in a creative landscape (Warren and Fuller, 2008).

Thus far, for Fuller, Warren et al (2007 a.b; 2008), the overarching research question has been, How do processes of entrepreneurship result in the emergence of new phenomena (new products, services, value creating systems) in particular social or industry contexts? While the agential dimension of entrepreneurship suggests that acts of creativity are significant in initiating change, the emphasis on context too is very significant. We argue that to remain fit over time in the dynamic, fluid landscape indicated above, it will be essential that creative firms constantly organise for novelty in anticipation of new collaborations, new networks and new patterns of consumer behaviour. Those seeking to engage will have to act on contingency, where strategy is what is possible in an environment where the future is unpredictable e.g. (Sarasvathy 2001), fast moving and contains many actors, artefacts and potential collaborators that may co-evolve in complex non-linear ways. Yet, as Lichtenstein et al (2006) discuss, the study of system-wide dynamics is challenging, as the process can span long periods of time and many modes of activity take place across different contexts (Low and MacMillan 1988). An obvious approach to dealing with this fluidity is to simplify research designs by focussing on one level of analysis, in most cases the individual, the firm or the industry. Yet this can only lead to partial, impoverished pictures of what is surely a far more rich and vibrant milieu.

Through understandings of complexity theory, Fuller, Warren et al (2007 a.b; 2008), have developed a framework designed to capture how novelty arises as emergent order over time (illustrated in Figure 1). Theoretically, we conceive that such temporary structures have ontological status, as ideas, mental models, thought experiments, casual connections and fleeting alliances attract and amplify creativity, energising new transformations, new patterns, new possibilities and new resonances. In this context, ephemeral emergents are meaningful, acquiring causal power as they bind resources and energy from both inside and outside a firm, or a collaboration, gaining legitimacy and potentially adding value. The continual construction of such temporary structures thus represents a form of 'anticipatory strategising' on the part of creative individuals, who, in their identification and exploitation of new and expanding niches, seek not to merely react to, but also to shape new forms of consumer and/or participant behaviour as industries change. Methodologically, we demonstrate that the framework has analytical potential too, using it to support effectively the collection of data: ordering and categorising empirical observations concerning how different phenomena emerge over time across the multiple levels of analysis and contexts (physical and virtual) in Sensory Threads.

References

Archer, M., (1995), *Realist Social Theory: The Morphogenetic Approach*, Cambridge: Cambridge University Press.
DCMS, Staying ahead: the economic performance of the UK's creative industries, 2007
Fuller, T., Warren, L. and Welter, F, (2007a), *Towards an Emergence Perspective on Entrepreneurship*, RENT XXI, Research in Entrepreneurship and Small Business, Cardiff Nov 22-23.
Fuller, T., L. Warren and P. Argyle (2007b), Sustaining entrepreneurial business; a complexity perspective on processes that produce emergent practice, *International Entrepreneurship and Management Journal,* 4, 1, pp. 1-17.
Lichtenstein, B.B., Dooley, K.J. and Lumpkin, G.T. (2006), Measuring emergence in the dynamics of new venture creation, *Journal of Business Venturing,* 21, 2, pp. 153-75.
Low, M.B. and MacMillan, I.C. (1988), Entrepreneurship: Past Research and Future Challenges, *Journal of Management* 14, 2, pp. 139-61.
Pettigrew, A. M., Woodman, R. W., Cameron, K. S. (2001), Studying Organisational Change and Development: Challenges for Future Research, *Academy of Management Journal*, 44, 4, pp. 697 – 713.
Powell, D. (2002), *Creative and cultural industries – An economic impact study for South East England* Research report by David Powell Associates Ltd., for South East England Cultural Consortium and the South East England Development Agency
Warren, L. amd Fuller, T. (2008), *Methodological issues arising from research into the emergence of enterprise in the creative industries*, paper presented at the Regional Studies Association Research Network on Creative Industries and the Region: Relationships between Places, Local and Regional Policies and Creative Production, Seminar, 24-25 September, University of Southanpton.

Figure1. Entrepreneurial mechanisms in the context of Sawyer's Emergence Paradigm

	Experiments	Reflexive identity	Organising domains	Sensitivity to (changes in) conditions
Social Structure (Level E)	The stability of social structures enables relative experiments to take place	Stable structures will provide grounding to self-identity. Also will create tension as between structures	Much will be 'taken for granted', such that stable emergents are seen as innovative and/or threatening	By definition, stable social structures will be resilient to change
Stable Emergents (Level D)	The results of 'successful' experiments, is ones supported by social action	Sense of self in context, both personal and at the level of the firm	Dominant logic clear through regular discourses and habitual actions	Perhaps identified as challenges or threats to stability
Ephemeral Emergents (Level C)	Whether as thought experiments, discussions or as short term practice, the transient nature of these emergents are a key part of ascertaining the legitimacy of particular sets of actions	The shaping of the individuals sense of self and the (new) ventures sense of self within the context of existing markets etc.	The salient organising domain is that of 'experiment', i.e. a overt reflexivity that links stability with instability	The ephemeral emergents are the manifestation of the sensitivity of the individual and organisation
Interaction (Level B)	Interactions in experiments are constrained by existing emergents and structures. The introduction of new discourses and meaning into the firm from external structures (e.g. new industries or new technologies) produces changes in interactions and emergents.	Discourse patterns for example, are both part of a the maintenance of identity and the renewing of expressed identity.	Discourse has been used to identify ephemeral and stable emergents in entrepreneurial practice	Interactions provide a mechanism of sensitivity to external conditions
Individual (Level A)	Entrepreneurial intention is seen as an important motivating reason for entrepreneurial action	Self-identity can form a stable emergent and in this model provide bottom up causality of emergence	Intention and personality have causal influence on emergence in entrepreneurial settings	The individuals cognitive awareness and openness to change / resilience will be causal to emergents