

Connected Communities

The role of complexity in the creative economies

Connecting people, ideas and practice

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Background

Executive Summary

The research project explored the importance of complexity theory approaches and methods in investigating different aspects of the creative economy. It has built a knowledge community and online resources to enable researchers to consider advantages and challenges presented by complexity theory in analysing the interconnections between people, ideas and practice. Through three independent pilot studies the project engaged with different dynamics of the creative economy at different scales: from idea generation and development dynamics, to collaborative work and knowledge exchange, to reconciling production and consumption and taking into account the role of intermediaries in regional creative clusters. While engaging with key issues of the creative economy the project reflected on the advantages and challenges presented by the use of complexity theory. Overall complexity theory allows researchers to unfold dynamics of different nature and directions, giving central stage to creative agents who are shaped by these dynamics while contributing to changes within local communities, creative events and activities and regional contexts. Complexity approaches used in the pilot studies have given us a clearer understanding of the multi-scale connections which characterise the creative economy as a complex system. The challenges met during the research projects – namely considering connections vs. causality and specificity vs. comparability – provide fertile venues for further research and for further expansion on the use of complexity theory in the creative economy.

Researchers and Project Partners

Researchers

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Project partners

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Key words

Complexity theory
Creative economy
Design
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Creative and cultural industries
Creative clusters
Creative production and consumption

Complexity and the creative economy

The project explored how complexity theory and its methodological approaches can help in providing a better understanding of the creative economy as a field of research by connecting various distinctive approaches. It investigated the interrelation of ideas, people and practices in the creative economy with broader socio, cultural and economic contexts.

Establishing a research and knowledge community

Despite an increasing body of research using complexity science in social sciences and the arts and humanities (Alexiou et al, 2009) there is still very little research aiming to connect complexity with the creative economy (Comunian, 2011; Potts 2011). The project has enabled the coming together of a new research and knowledge community through both virtual and concrete interactions. As part of the project, two very successful events attended jointly by more than 70 participants took place. The first event, held in June 2011 at NESTA in London, included presentations by leading international experts in complexity theory and the creative economy. The outcomes of this first workshop informed the research project and were made available to other researchers, policy makers and to the general public through a dedicated project website (including video podcasts of presentations and panel discussion) after the event. A report from the day was also published by the Creative Industries Journal (Comunian, 2012a).

The final event, held at the University of Birmingham, included not only the dissemination of early findings from the research project but also presentations and exchanges with other researchers and

academics working on similar issues (identified through a call for paper). Presentations from the event are also available online.

The events held and the development of a dedicated Jisc mailing list (COMPLEXITY-CREATIVE-ECONOMY@JISCMAIL.AC.UK) as well as the resources made available on the website have helped create a connected knowledge community, which will thrive beyond the length of the funded project. New contacts and new research projects have allowed the website to remain lively and to create an interactive platform for engagement.

Literature review and shared knowledge

Due to its multidisciplinary nature, knowledge and understanding of the way the creative economy works is still very fragmented. Economists tend to be interested in exploring macro-level dynamics in productions and consumption (e.g. Potts, 2011), geographers tend to focus on clusters and urban interconnections (e.g. Chapain and Comunian, 2010), planners focus on how cultural and creative activities can support regeneration and urban development (e.g. Evans, 2009) while arts and cultural theorists consider the value and meaning of ideas being generated within the cultural framework of specific social or historical contexts (Garnham, 2005). While all of this research is valuable within its own disciplinary boundaries, it often lacks relevance (and struggles to have an impact) in the broader understanding of the creative economy as a field of policy research or to make connections between the impact of micro-dynamics (such as the practice of an artist), the role of the meso-level (the operation of cultural

and creative activities in cities and regions) and/or macro-level dynamics (such as the growth of certain market outputs at the national and international levels).

Taking into consideration the broader reflections on complexity theory emerging both in sociology (Byrne, 1998) and economic geography (Thrift, 1999; Martin and Sunley 2007), the project engaged with the key theoretical principles of complexity theory (such as emergence, non-linearity, self-organisations and others) and considered them in relation to our knowledge and understanding of the creative economy.

In particular, the research considered the value of complexity theory in establishing a common platform of understandings across these disciplines and how they can interact and cross-reference each other. The project developed a review of the literature linking complexity thinking to the creative economy structured around a joint disciplinary and scalar analysis. The literature is structured as follows:

- 1. Connecting ideas and creative processes:** explores the literature focusing on the micro-level, touching on ideas generation, the role of individual creativity and the structures and processes that facilitate ideas flows and connections;
- 2. Connecting peoples and managing creativity:** explores the literature focusing on the meso-level, exploring the working of knowledge networks and communities, the role of trust within them and the management of creativity (both within organisations and across organisations), including references to the location where these processes take place (such as cultural quarters and creative clusters);

- 3. Markets, places and policy:** explores the literature that looks at the macro-level interactions and outputs, specifically the creative economy manifestations in terms of geographical systems and the interactions between creative production and consumption and the role of policy within these;

This structure facilitated our analysis but also revealed that current research tends to be limited within specific scale boundaries and only rarely aims to capture multi-level perspectives (across the micro, meso and macro scales).

Piloting complexity approaches to research the creative economy

Three pilot research projects were undertaken as part of the research. The pilot projects aimed to test and experiment – within small scale contexts – the challenges and advantages of using complexity theory and its methods in examining the creative economy. However, the pilots were also developed with external research partners and aimed to deliver valuable new knowledge and understandings of different aspects of the creative economy of interest to these partners.

While each researcher involved in the project overlooked the data collection and development of a single pilot project, the research design and approach were developed through some interdisciplinary discussion and shared understandings. In particular, as each of the team researcher came with a different disciplinary background, the joint collaboration in bringing these disciplines together, in designing the pilot projects and in analysing the data collected proved very fruitful. This synergy has been made easier by using complexity

theory to break down existing barriers between the team's different methodology approaches and disciplinary perspectives.

In order to further disseminate the findings from each pilot project and to share their findings with our collaborative partners, we drafted individual reports for each project (available on the website).

Pilot Project I – Collaborative design workshops: networked ideas and people

The first pilot project was developed in collaboration with The Glass-House Community-Led Design, a charitable organisation working to help people make better buildings, spaces, homes and neighbourhoods through independent advice, training and hands-on support. The research was co-designed with the Glass-House, to consider the impact and dynamics created within local community of their Design by Consensus workshops. The research undertaken explored the effects of collaborative design workshops into how various stakeholders connect to each other and how they become empowered to lead the regeneration/change process. Complexity theory was here used to capture underlying relationships and interactions that are not otherwise evident and enables researchers to quantify and provide scientific evidence for qualitative observations and hypotheses.

Pilot Project II: The impact of the Fuse festival on artistic practices, careers and connections

The second pilot project aimed to capture and understand the impact of Festivals (such as the Fuse Festival) on the creative practices of artists involved in these festivals as well as the impacts of this involvement on their

careers and in terms of the connections made within this type of temporary community of 'creative producers'. The project was designed in collaboration with the artistic director of the Fuse Festival. Using the complexity approach allowed us to better capture the range of exchange dynamics and collaborations amongst artists taking place before, within and after the Festival as well as the way the Fuse Festival impacted – with its commissioning, its partners and its spaces and audience – on artists' work and if it had generated any change in the way they operate as part of the creative economy. A working paper using data from the project (Comunian, 2012b) was presented at the 2012 Regional Studies Conference in Delft and a book chapter focusing on the cognitive mapping data collected within the project will be being published in 2013 (Comunian and Alexiou, 2013).

Pilot Project III: Exploring the linkages between creative clustering, creative education and cultural consumption in the South East

Based on the literature around creative clustering, this third pilot project aimed to test if the concentrations of creative firms in specific geographic locations in the South East are linked with the presence of creative education institutions and /or high degree of cultural consumption in these areas. The project is built on the theory of aggregate complexity (Manson, 2001) and combines various databases on firms, education institutions and cultural consumption in new ways in a multi-dimensional and multi-scalar quantitative analysis. It helped shed new lights on creative clustering processes and on the degree of their local embeddedness (Chapain and Comunian, 2010). In addition, the project engaged with potential policy

implications of the findings for the newly created Local Enterprise Partnerships. Findings were discussed with our non-academic partner, Charles Freeman from Partnership for Urban South Hampshire. A working paper (Chapain, 2012) using the initial findings from this project were presented at the 2012 Regional Studies Conference in Delft. A book chapter (Andres and Chapain, forthcoming) developing further project learnings with regard to creative industries' development in European, North American and Asian urban contexts will be published next year.

Complexity, methodological approaches and co-creation

Through the different pilot projects we were able to test the advantages and challenges presented by the complexity theory and its methodological approaches. The main premise of our research project was that complexity, as a theoretical and methodological approach, offered us the possibility to explore and identify interconnections across different levels of understanding of the creative economy (micro, meso and macro) as well as the possibility to integrate different disciplinary methodological approaches to generate new findings.

In particular, alongside observations and qualitative interviews, following a triangulation approach (Jick, 1979), these are some of the methodologies we adopted in our pilot projects:

- **Linkography:** a type of network analysis (Goldschmidt and Tansa, 2005), which places emphasis on constructing and visualizing the links between ideas or actions in design decision making;
- **Cognitive maps:** a visual representation of project work (Edkins et al. 2007) allowing to view and analyse the development and elements involved in the creative practice of artists;
- **Social network analysis:** a visual and statistic method which allows to capture connections amongst people (Wasserman and Faust, 1994) used in our case to capture the relations developed by artists during the Fuse Festival;
- **Multi-scalar geographical mapping and statistical analysis:** based on the principles of aggregate complexity (Manson, 2001), we combine Geographical Information System (GIS) representations with a descriptive and inferential statistical analysis to uncover the linkages between creative production, consumption and education at different geographical scales in the South East of England.

While overall the data collected have proved very rich and valuable to both researchers and partners, further research is needed to systematise our understandings of these approaches and experiment them in larger scale projects. In order to do so, each of the pilot project report contains methodological considerations which hopefully will enable future research to adopt the same complexity methods and replicate / test our findings or push further our reasoning by enlarging the scale of projects and case studies.

Finally, two of the project partners (the Fuse Festival and The Glass-House Community-Led Design) were also involved in the co-creation of research and research outputs. This will further our understanding of collaboration and collaborative work.

Concluding remarks

The project used small pilot case studies to explore methods and ideas from complexity theory and to examine what they can bring to our existing understanding of the creative economy. Overall, the findings suggest that a complexity perspective enables researchers to take a wider perspective of their object of study. While the focus might start with looking at the generation of a creative idea or the work of a creative practitioner, adopting a complexity perspective allows researchers to take into consideration the cascade of connections which are behind ideas development and creative work and how these connections affect the overall creative outcome in reference to a design project, a performance or a regional content.

References and external links

Academic outputs from the project

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