

‘Exploiting the Potential of Creative, Digital Business Clusters: a Strategic Leadership Challenge’

by Steve Brewer and David Rees

(S.Brewer@soton.ac.uk, David.Rees@henley.reading.ac.uk)

ABSTRACT: For decades Silicon Valley has been perceived as a seed-bed of enterprise where digital technology and creative ability combine to deliver hugely successful products and services to world markets. Inspired by a plethora of Californian business success stories, and with the rapid provision of digital infrastructure and talent pools around the world, a network of creative, digital, IT-facilitated clusters is emerging that could bring significant economic growth and wealth to sector participants. To help understand this phenomenon this paper presents models of cluster development, identifies cluster stakeholders, describes factors that influence cluster success, and proposes a programme of research to guide future policy-making in the creative, digital sector. Leadership and business management challenges are set out that digital sector policy-makers, government agencies, local authorities, education providers, entrepreneurs, business owners and large corporates need to address with coherent strategies in order to capitalise on potential business development opportunities fermented by cluster formations.

Key words

cluster, convergent, creative, digital, IT, ICT, information technology, start-up, SME, district, transformation, innovation, digital economy, media, co-working,

Introduction

Based on findings from the Tech City UK Cluster Alliance, Baroness Joanna Shields¹ stated that “digital companies spring from collaborative communities of entrepreneurs supported by established businesses, universities and government all working towards common goals” (Tech Nation Report 2015).

In the same report, CEO at Tech City UK, Gerard Grech, adds that such businesses increasingly decide to locate in close proximity to each other, thus creating dynamic digital technology clusters throughout the UK.

Our paper builds upon this and other research in exploring the phenomenon of digital clusters in an attempt to identify the salient influences and factors that may determine their success and performance. We focus primarily on what we term as ‘creative, digital clusters facilitated by IT infrastructure’ where there is a high degree of original product and service design capability. Broadly, this is in line with the type of cluster that Shields’ Alliance and others have investigated, with attention to the ecosystems of small enterprise creation and development. Specific aims of this paper are to:

- Describe key features and characteristics of creative, digital clusters
- Identify cluster and stakeholder interests and influence
- Determine factors that stimulate enterprise start-up, growth and success
- Evaluate the need for short-term and longitudinal digital cluster research
- Propose the leadership and management challenges that lie ahead for successful cluster growth and development

In attempting to describe and make sense of the cluster phenomenon we take a largely pragmatist, exploratory approach to our research, drawing on existing published and non-published sources to help establish a general overview of the cluster experience. Four case examples are used to facilitate descriptions and explanations, and secondary data from existing studies enable us to probe the research gaps that we suspect exist. In order to limit the scope of this current paper we concentrate on UK creative, digital clusters but this should not be interpreted as an exclusive domain – these clusters are just part of the wider global competitive landscape. As the Economist² indicates, the label ‘tech’ covers a wide spectrum from semiconductor design to smartphone apps with an observation that ‘young software firms are geekier and more likely to be found in a Cambridge research lab than in Shoreditch’s trendy tech quarter’. Both these polar extremes come under the ‘tech’ umbrella and whilst university-based centres can be legitimately embraced within the cluster research field, this paper limits investigation of academic institutions, exploring the private-led business sector in greater detail.

Various speculative estimates of how valuable this sector is in economic terms have been offered³, and whether we take the highest or lowest calculations, the significant contribution that this hybrid sector delivers to an economy as a whole can be recognised.

¹ Chair of Tech City UK

² Economist, 21st Sept 2013, p 30

³ See, for example: <https://www.gov.uk/government/news/creative-industries> 14 Jan 2014

Thus, this is a highly appropriate moment to be reporting on our investigations, particularly concerning the potential roles that universities, business schools, government and investors can assume in supporting cluster performance.

Research Motivation and Vision

This paper follows up previous work undertaken by the authors in this field⁴. Convergent enterprises – the hallmark of cluster members where businesses integrate various disciplines to execute their vision – are most often found in urban high-density groupings which bring together dynamic start-ups, fast growing SMEs and various types of incubators and other informal co-working spaces from cafes to maker-spaces.

We want to understand how clustering manifests itself in cities and towns across the UK. We know that this phenomenon exists in many places around the world too, and we will be addressing this in a subsequent paper. In particular we aim to explore and understand the complexities at the heart of these vibrant communities. In this paper, however, we will develop four cluster case examples: Bournemouth, Bristol, Salford and Shoreditch, (inner London). The authors have been observing these clusters for some time including direct involvement and interaction with cluster stakeholders and enterprises themselves. Hence, these make valid subjects to draw on.

Clusters, hubs and collaborative spaces

What do we mean by creative digital clusters? Whether large or small, formal or informal we are referring to thriving ecosystems of organisations – commercial, not-for-profit, research-led, or a combination of these, - in close physical proximity that are competing and collaborating in ways that are innovative, creative and rewarding. Eze Vidra, head of Google's London Campus co-working space, has spoken of the pivotal role of London with the potential to become the leading start-up hub in Europe based on its access to talent, capital and, crucially, the density of activity. An ever-increasing number of co-working spaces contribute to this increase in density⁵.

But the cluster phenomenon is not new. Centre for Cities and McKinsey & Company (2014) identified 31 economically significant clusters across the UK in a range of sectors but recognised that whilst an agreed definition is not available, evidence of impact is identifiable dating as far back as 1890. Furthermore, they state clusters generate a disproportionately large economic impact for their footprint based on the knowledge sharing amongst workers.

Smart spaces and cool co-working

Underpinning the dynamics of clusters are novel and evolving trends in environments for working that are emerging around the world. The term 'smart space' is typically used to

⁴ Brewer, S and Rees, D 'Bournemouth Digital Pier', an ESRC-funded feasibility study examining convergence in organisations that combine high-tech competences with creative approaches and digital processes

⁵ <http://www.standard.co.uk/news/techandgadgets/google-chief-london-can-be-leading-hub-for-europes-tech-startups-9234955.html>

refer to environments that have been designed and then used in a manner that enables flexible, efficient and productive usage. Whilst this can be manifested in streamlined architecture with discrete technological facilities it can as easily be a science laboratory or design studio with the traditional paraphernalia associated with those communities.

Historical Evolution of Creative Clusters

‘Clustering’ is a term that can be applied to a variety of human, animal, biological and scientific states. Humans have clustered to derive synergistic benefits relating to hunting, defence, exploration, leisure and transportation, for example. Our interest, here, is in why and how individual enterprises in the creative, digital sector come together in well-defined geographical boundaries. Thus, the search is for explanations that reveal mutual benefits to cluster members and their broader stakeholders.

Whilst creative, digital clusters do not have specific size parameters, for the purposes of our discussions we are considering groups of enterprises producing a critical mass of business activity that have significant impact on the local economy through investment, employment, infrastructure and profitability. Cluster members will often trade together and establish partnerships but they also interact informally through socialising, networking, cultural activities, leisure and simply chatting over coffee. There may be common heritages amongst entrepreneurs and employees, too – education, interests, personality, and their journey through life. These features have been identified by many observers⁶.

Leicester and Sharpe (2010) point to the growing fascination of creative regions and their characteristics, ‘helping a shift away from traditional industrial innovation policy of the 1970s and 1980s - picking winners, investing in specialist entrepreneurs and improving training – towards the creation of enabling conditions for innovation in particular places and spaces, hotspots, clusters and cities’. They suggest this is all about fostering creative ecosystems and we can observe similar policy changes in other parts of the globe, too.

Cluster Types and Models

Organic Clusters

Creative, digital clusters often emerge in an organic format, a type of grassroots initiation and evolution. London’s ‘Tech City’ – roughly defined as the square mile south-east of Old Street Roundabout (‘Silicon Roundabout’) – is a contemporary example of this type of bottom-up development and is one of our case examples. As a work study analyst in the early 1970s undertaking projects in London Telecommunications Region, one of this paper’s authors tramped up and down the streets of Bethnal Green, Clerkenwell, Hoxton and Shoreditch to carry out his work. He recalls describing the area as “a jumble of filthy,

⁶ See, for example, Rees & Brewer (2013)

rubbish-strewn streets, lined with bomb-sites and dilapidated buildings, and populated by some of the poorest people I'd ever seen"⁷.

How did this small area contained within the EC1 V postcode transform in to what we see today – 15,620 enterprises commencing in a 12-month period leading up to March 2014⁸ alone, and the cluster now employing 251,590 people⁹?

Within the space of four decades a series of transitions occurred that saw business and residential properties vacated by people in search of more attractive places to live and work and re-occupied by new tenants. Property values and rents plummeted and empty spaces were occupied in the 1980s by the poor struggling 'performance creatives' – actors, musicians, artists, and a whole host of low wage or unemployed individuals who craved a place to 'hang out' with people holding complementary lifestyles, ambitions and tastes. Some of these went on to fame and wealth, eventually moving on to pastures new, but leaving behind an aspirant community that had an ability to attract a new wave of creative talent. By the late 90s, with the propulsion of digital technology and the dot-com boom, the fledgling creative digital entrepreneurs started to appear. Into the new millennium 'Tech City' has now emerged into Europe's biggest creative digital cluster and is expanding into neighbouring areas as growth continues.

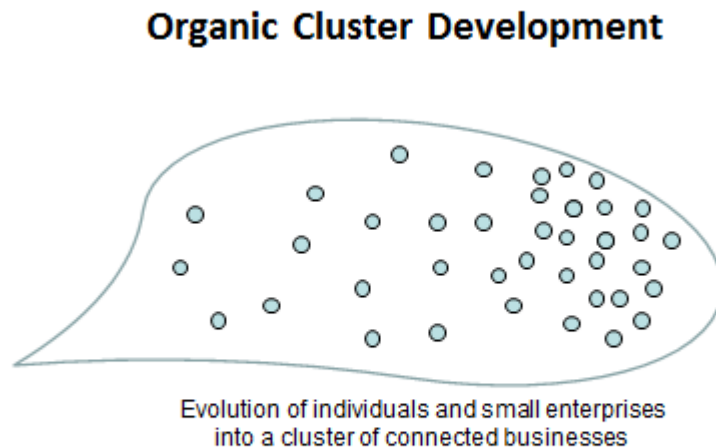
This type of cluster development is captured in Figure One, below, and for more detail of Tech City's evolution, see Appendix 'A'.

⁷ Rees, D. Personal recollections as an employee of UK Post Office Telecoms

⁸ <http://techcitynews.com/2014/06/10/silicon-roundabout-tops-uk-startup-chart-with-over-15000-new-businesses/>

⁹ Tech Nation Report, 2015

Figure One: Organic Cluster Development Model



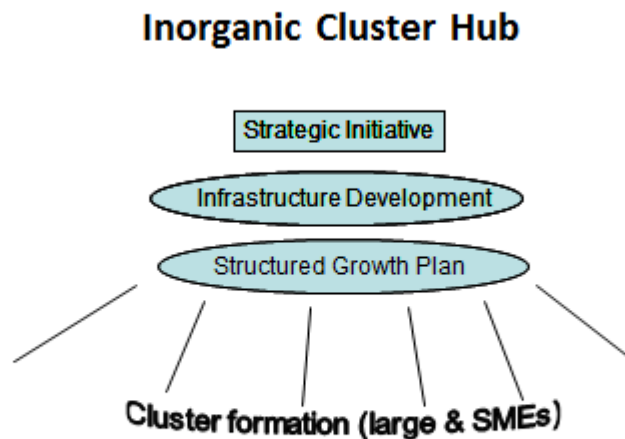
Inorganic Clusters

In contrast to the example of Tech City we can observe a different type of cluster development, one which is the result of strategic leadership from private sector investment, central government initiative, local authority economic stimulation, or other types of direct intervention. Here, the protagonist can see how the development of a digital local economy could respond to addressing a problem, meeting a challenge, or exploiting an opportunity.

We could see, for example, how a local university may wish to provide enterprise opportunities for graduates emerging from a degree course that has nurtured creative talent suitable for the digital sector. Or perhaps there are willing investors who decide that a certain geographical location has commercial advantages such as transport infrastructure which could underpin technology business success. Alternatively, a metropolitan council may view the development of a creative digital industry as the basis for urban re-generation. In all these situations the cluster is being formed and driven by an external change agent rather than the entrepreneurs themselves, and often anchored by one or a small number of key stakeholders.

A good example to consider is the recent re-generation project in Salford, Greater Manchester. Abandoned docks and industrial sites had decayed into tracts of wasteland breeding poor living conditions, crime and social problems. At the same time central government was keen to re-distribute employment opportunities and cut operating costs through relocating public services outside London. The BBC was such a public organisation affected by this policy and became attracted to the re-generation plan being offered by Salford. See Appendix 'A' for the story-line of this cluster's history, and the modelling of inorganic clusters can be seen in Figure Two, below.

Figure Two: Inorganic Cluster Development

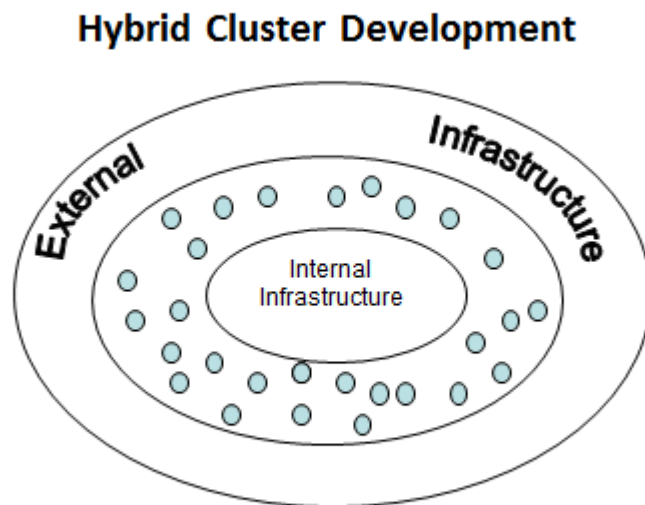


Hybrid Clusters

Our third type of cluster formation brings the natural street-level mutation of creative business interests together with strategic initiatives or support. In most of the cases we have observed¹⁰ an informal congregation of creative, digital enterprises within a defined location has evolved to a point where growth is no longer possible – or is difficult – without some kind of strategic initiative. Often, the external input comes in the form of infrastructure development – co-working spaces, transport improvements, broadband capacity, etc. The Soho area of London is a long-established cluster that grew out of a small number of businesses relating to the film-industry established early on in the development of the sector. Soho mirrors this hybrid model in that an organic cluster has been supported but not led by a series of initiatives, both technical and policy-based (Durmaz, 2010). The concept of this type of cluster development can be seen in Figure Three, below.

¹⁰ See, for example, 'Wired Sussex' (Brighton), 'Canary Wharf' (London) and schemes in Barcelona, Montreal and Melbourne

Figure Three: Hybrid Cluster Development



Bristol's 'Watershed' ecosystem reflects this mix of grass root and external involvement where the focus has been to support a creative arts industry with a policy to link arts and cultural organisations with the creative economy and ecosystems, and is our third case history at Appendix 'A'.

University-Based Technology Enterprise Centres/Parks/Incubators

Centres of academic excellence – usually universities and other higher education establishments – have come to understand how their intellectual property can yield value through market channels. This could be from public/private partnerships, setting up commercial organisations, non-profit mechanisms and support to aspiring entrepreneurs. It is the last of these that brings us to include such enterprise centres or parks in our discussions of creative clusters.

Often, the educational body acts as a hub for driving businesses through a knowledge-sharing partnership or, more occasionally, joint-ventures and strategic alliances. We have observed at University of Bournemouth and the Arts University of Bournemouth, for example, the emergence of a film industry production cluster where there is more or less a direct line of graduate talent creating their own businesses under the mentorship or guidance of their former university professors. Agreements are reached on how the IP is to be valued and realised, the creative digital enterprise gets off the ground, and the business owners retain a special (but not necessarily exclusive) link with the university.

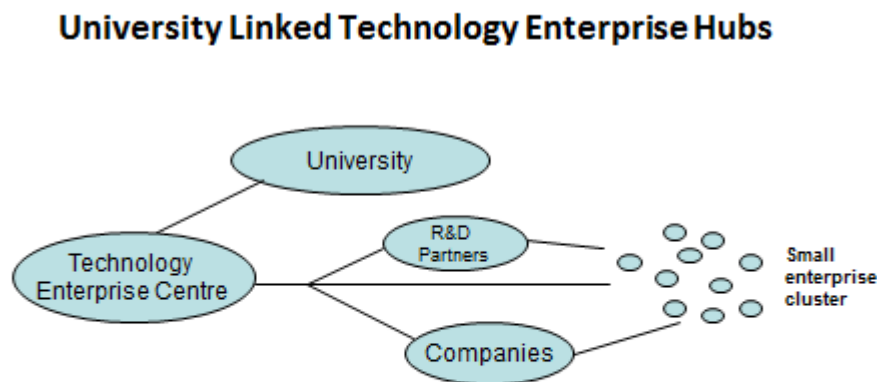
Within this clustering, the university and business enterprise may be supplemented by an incubation partner, typically separate from the main university campus and on the outskirts

of the university town or city. Both of the authors' affiliated institutions, Universities of Southampton and Reading, have successful examples of these types of centres/parks¹¹

Increasingly, such partnerships are offered by large digital technology corporates and the authors have witnessed first-hand accounts, presentations and discussions with companies who recognise the value of raw creative talent which is in need of incubation and acceleration to progress as a mature enterprise. This can become a two-way street where a corporate academy or internal R&D centre can support a new creative digital enterprise, incubate and accelerate its growth, and then monetise financial or resource investment.

Mike Lynch (founder of the company, Autonomy) says: "What you will find in Cambridge is something which is fundamentally clever. In Tech City the raw science isn't fundamentally clever – it's more attuned to the market and consumer. The government has realised that the economy could be benefit from connecting the two booming clusters. (Something as basic as better rail connections would help!)". (Economist, 21st Sept 2013, p30)

Figure Four, below, models this type of cluster.



Multiple Clusters

Many clusters develop a strong identity with a specific industry – educational technology in Birmingham, Marketing and Advertising in Bournemouth, and Games Development in Liverpool, for example¹². This is often the result of a historical industry legacy – aviation in Derby, film in Soho and creative arts in Bristol.¹³

¹¹ United Kingdom Science Park Association: <http://www.ukspa.org.uk>.

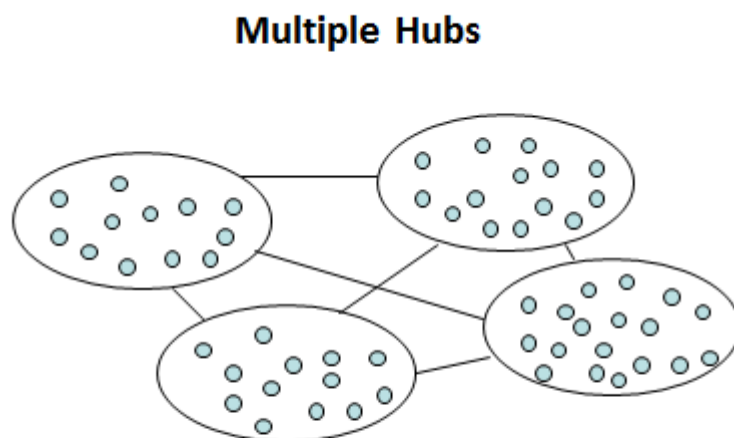
¹² Classifications from Tech Nation Report 2015

¹³ For more examples see Centre for Cities, McKinsey and Company 2014

We now observe an agglomeration of complementary specialist sector capabilities developing in a number of clusters. Taking Bournemouth as an example there are ‘hot spots’ around the conurbation that have a particular flair for UI and UX design¹⁴, for special effects, for media production, and for visual/audio design. Mini clusters form but each one is intrinsically linked to each other for the purposes of collaboration, sharing resources, exchanging ideas, and buying in services. The historical link to the advertising and marketing industry from all these specialist centres can be clearly seen.

Successful clusters such as Bournemouth (see Appendix ‘A’) and Soho are taking advantage of linking these hotspots to produce a powerful cocktail of related, integrated expertise that further marks out a cluster’s profile and reputation. Durmaz (2012)¹⁵ identified this type of cluster development in his study of the film industry in London and Turkey, terming these as ‘creative hotspots’. Figure Five, below, illustrates the concept of these linked specialist mini clusters.

Figure Five: Multiple Clusters



Pru Ashby, Director at Tech City Investments, articulated the competitive advantage that London enjoys as a leading global creative cluster comprised of these ‘hotspots’. In comparing UK with the USA¹⁶ she emphasised the proximity of several specialist clusters in and around London – fashion, film, design, music, creative arts, finance, advertising – enabling easy face-to-face contact between clients and firms. This is in contrast to the US

¹⁴ UI = User Interface UX = User Experience

¹⁵ Durmaz, D. *Creative Clusters and Place-Making: Analysing the Quality of Place in Soho and Beyoglu* PhD Thesis, Nottingham July 2012

¹⁶ 9th May 2013 presentation to a group of MSc students from University of Zagreb, facilitated by David Rees, Henley Business School, and CISCO at Google Campus, London

where centres of excellence are spread out across thousands of miles and differing time zones.

Cluster Start-Up and Growth Factors

From their previous study of the emerging creative digital cluster in Bournemouth, Brewer and Rees (2013) identified a number of potential characteristics and factors that could influence the development of creative clusters. Their work drew on other studies, including Durmaz, B., Platt, S. and Yigitcanlar, T. (2010)); Munn, B., Baum, A., Boscherini, G. and Perri, C. (2013); Bachmann, B., Dovey, J., Monaco, J., Sharpe, B., Reddington, C., Alexander, V., and Penny, D. (2012); Clare, K. (2013); Docherty, D. (2010); and Sapsed, J. and Nightingale, P. (2013). These can be summarised as:

- *Geographic location.* The vast majority of clusters are urban-based in cities or large towns. Physical proximity of businesses to one another and clients, plus integrated work/home/social locations are important factors.
- *Place.* This refers to the attractiveness of the work and social environment in which the enterprise is located and reflects the atmosphere, culture and sociability of the ecosystem.
- *Infrastructure.* Transportation facilities (rail, motorways, airports), broadband, schools, leisure and culture facilities are high priorities for would-be entrepreneurs.
- *Talent.* Availability of (largely) graduate, cross-disciplinary competence and capability for both entrepreneurs and the talent they need to hire. University locations with specialist reputations linked to clusters are especially favoured.
- *Investment.* Finance, incentives and speed of response are strong attractors.
- *Business Climate.* Optimism, excitement, peer group membership, association with success, public and industry profile, recognition – all factors influencing where entrepreneurs and employees want to be located.
- *Business complementarity.* Enterprise owners value the physical closeness and availability of services from other companies.

Stakeholder Interests and Influence

With recognition of the potential economic value that creative, digital clusters can bring to local, regional and national economies there is a discernible interest by various stakeholders to engineer the development of viable and sustainable enterprise ecosystems. We identify these stakeholders who may hold an interest and influence in the development of a successful, sustainable creative, digital cluster.

- Policy makers – national government, industry leaders, EU, WTO
- Local authorities – implementing national policy, developing local policy, infrastructure and utility provision, work/living and socially integrative environments
- Government agencies – regional, regulators, industry coordinators, cross-sector collaboration
- Sector bodies – trade and industry reps, grant/funding organisations, cross-sector coordination

- Think-tanks/consultancies/research organisations – gaining insights and understanding
- Large corporates – incubation, internal design and R&D departments, HR functions/developing HR strategies, managing creative talent, developing collaborative organisational cultures, leading business transformation, cross-sector partnering, physical environment, and positioning (location)
- Entrepreneurs/owner-managers – initiating, growing and managing the enterprise
- Investors – commercial, private, local authorities, foreign investment
- Financial service providers – banks, providers of credit, insurers
- Talent developers/universities – inter-disciplinary talent, demand for integrated/convergent entrepreneurial graduates and skilled employees
- Networking/partnering organisations – networking competencies, partnership broking,
- Suppliers/enterprise partners – aligning to client/partner needs (capacity, resources, culture, systems)
- Media organisations – investigating and reporting on sector developments
- Architects/urban and rural planners - creative workplace and business environment design
- Industry-specific partnerships – identifying partners, implementing partnerships

Themes, Issues and Challenges

Our investigations suggest that the UK and other governments recognise the potential economic and societal benefits that a successful digital industry can bring, and that national policies to support this sector are emerging. A major challenge, now, is cultivate a positive attitude amongst local authorities, local enterprise partnerships and private sector investors towards the development of viable, successful and dynamic businesses.

Strategic interventions by public authorities to stimulate enterprise growth are increasing through a variety of mechanisms. A particular strategy that we have observed is to replace deteriorating performance in traditional industry sectors with investments to promote and support the creative tech sector. Regeneration projects that may include transforming old work sites and buildings in to new enterprise space are gaining pace. Infrastructure development and urban design initiatives are crucial to facilitate digital sector growth and sustainability.

Enterprise structures and cultures within the digital sector are changing dramatically. Contrary to a line of popular argument that people will elect to work more from home our research is revealing something quite different. Studies we have referred to in this paper indicate a strong desire among the new creative entrepreneurs to engage socially with their peers in both virtual and face-to-face environments. Employees look forward to interacting with colleagues, customers and partners in the physical work-place. Business owners have to be careful to ensure that the free, creative spirit of their workers is not lost or diluted as the organisation grows – this is an immense leadership challenge.

And there are similar challenges for the big corporates. They have to learn how to interface and work effectively with their creative suppliers and partners. Many corporates, especially

those outside the tech sector, have little idea how the creative digital sector operates. They need to understand how to partner effectively as a customer, taking advantage of the opportunity to learn from their fast-moving and dynamic suppliers/partners. The organisational learning they may take from working with a phone app development company could be transferred and shared elsewhere in their business, gaining them a competitive edge over rivals.

For educational bodies, particularly business schools and universities, there is a need to develop the graduate entrepreneurial talent required for the tech market place. Often, the fledgling enterprise will require cross disciplinary talent and universities may consider how they best respond to this need. Business schools can certainly offer a great deal in providing executive education programmes to the stakeholders identified above and to support nascent entrepreneurs with skills and development courses.

Investors are becoming aware of the value of this sector on a long-term basis. Investment decisions need to be based on a full understanding of the culture of the sector, what may account for enterprise success and failure, and how enterprises look for guidance from experienced investors.

Conclusions

Our paper aimed to raise awareness of the role that clusters have in exploiting the creative, digital, IT-facilitated sector and we conclude that engineering such business ecosystems is likely to encourage faster levels of growth and higher rates of business performance than leaving cluster development to grassroots and market influences. However, ecosystems engineering is tricky; it is crucial to strike a balance between 'wisdom' and 'innovation' when leading, influencing or intervening. There is nothing worse than creating the 'distressed furniture look' – creative, digital clusters have to be authentic, and interventions should avoid disturbing the natural habitats and cultures of urban environments.

There is still a lot to be learned about the intricate nature of creative clusters – how different attraction factors rank and can be valued; how the interaction of cluster participants can be better facilitated; how the case for public and private investment can be more persuasive; how talent flows in to the industry can be broadened and managed; how we can measure and track performance of both individual enterprise and the whole cluster itself. This will require a major programme of research that is best conducted through a partnership of academic, practitioner, consulting, private-sector and governmental participants..

Whatever stakeholder position the reader adopts, the development of successful creative, digital clusters represents a major strategic leadership challenge to ensure that the opportunities for high-value employment, green economic growth and impressive returns in investment are not lost.

The authors are keen to discuss with readers how the research agenda can be progressed.

Recommendations

Depending which side of the 'disruptive innovation' fence you may be sitting on, the leadership challenges could be perceived as either threats or opportunities. The authors are quite clear where they stand – this is an opportunity for all stakeholders to take advantage of the benefits that these clusters bring.

To help leaders develop successful businesses and successful clusters an exemplar framework that can model cluster characteristics, behaviours and performance has to be proposed. This would be the first stage in an on-going programme of creative, digital cluster research. The measurement of cluster success is not yet properly defined. Plenty of published data describes size, growth rates, specialisms, successful cluster companies, and many other features but this doesn't necessarily equate with defining cluster performance.

Second, we strongly emphasise the need for research that can uncover the secrets of individual enterprise success – why do some cluster members succeed (and, at times, succeed handsomely) and others fail (sometimes, heroically)? Whilst there have been reasoned propositions relating to performance cause and effect, we have not yet found an empirically-based study using valid research tools and techniques that could claim a reliable confirmation of input/output factor correlation. It is possible that such correlations cannot be precisely determined but this needs to be tested. Importantly, such research needs to analyse the direct and indirect effects that cluster membership – whether formally recognized or not – have on enterprise performance. An expected outcome would be to propose approaches to enterprise design – its architecture, culture and leadership.

Third, it is imperative that we establish why clusters grow at the speed we have observed, how sustainable they are in to the future, and what impact they have on local and national economies. Various credible sources have offered data and insights – as we have referred to in this paper – but we confidently speculate there remains unconfirmed relationships between aspects of cluster operation and economic outcomes.

Fourth, a programme of training, development and business support has to be in place to capitalize on the opportunities of clusters and their membership. Business schools are ideally placed to deliver these services that could include workshops, simulations, think-tanks, experiential learning, discussion forums, presentations, research and networks.

Appendix A:

Vignettes of thriving hubs: Shoreditch, Bristol, MediaCity UK and Bournemouth

Whilst much change and many new technologies, businesses and products will come from established global and multi-national companies, there will nevertheless be considerable innovation and social dynamism coming from the clusters and hubs of creative-driven teams and individuals in the hearts of cities. The reason for this is that such communities are far better tuned into the needs and desires of the Millennial Generation who will be the consumers and shapers of these new markets. With the velocity of change increasing and swerving to the eddying currents of a turbulent planet, large companies will frequently collaborate with these urban superstars to tap into these new markets as they grow and evolve.

Shoreditch

Whilst Shoreditch itself is synonymous with Tech City, that term now covers a broader, fluid area, and indeed is also used to categorise other similar urban clusters elsewhere. Whilst what was a derelict business district is now highly desirable; Shoreditch has an interesting if unglamorous history. Despite a thriving Huguenot silk weaving industry in the 17th Century and a lively - if dissolute - theatre industry before that in the Tudor era, the area remained largely unknown until the Young British Artists (YBA) movement, with Tracy Emin at the vanguard, moved in during the economic downturn of the early 1990s. Once colonised, the advent of many small creative businesses and venues was only a step away. Inspired perhaps as much by the astronomical sums of money that some YBAs were enjoying for their creative activities, the newcomers to what was at the time an affordable entry point to central London began to establish small companies that were both creative and tech-based. These ranged from web-site and similar digital agencies to more technologically advanced start-ups from entrepreneurs who might otherwise have headed a few blocks south to take up the much higher remuneration on offer in the financial institutions of the City.

So what does Shoreditch look like today, in early 2015? A cursory stroll along Shoreditch High Street or any of the bustling side streets reveals the striking dynamism of a city in a state of permanent transition and growth. Cranes and skips indicate the new builds and conversions, cafes and shops are ambiguous in purpose with steaming coffee machines, rows of clothes and people at laptops going about their business. Go back a week later and something will have changed in any vista that you recall from your previous visit.

Indoors, the picture is just as frenetic as on the pavements outside. Whilst a few studios and offices are visible through street-level windows most of the activity takes place on different floors and behind closed doors. Given that, for now at least, most of the buildings are re-purposed from their original intent, the outside view is typically less than inspiring. Inside, the picture is very different with ad hoc arrangements, vintage furniture and sleek modern office technology crammed every which way into cool working environments. Within this dynamic ecosystem companies come and go with alarming speed. Some persist and evolve typically with business visions predicated on social cohesion as much as financial multipliers.

Bristol

With a long history of creative technology partnerships, the Bristol City region is now putting a commercial framework around future developments with the launch of 'Bristol is Open', a collaboration between the technology, media and telecommunications industry, formalised by a limited company which is supported by the University of Bristol and Bristol City Council. But this initiative builds on a forty-year history of innovation and creativity in the IT age although long before that the city was at the heart of the country's maritime industry. The current thriving convergent interdisciplinary cluster has its origins in a number of significant factors. The BBC Natural History Unit was formed in 1957 and to this day produces award-winning programs filmed around the world.

The City's two universities provide a pipeline of talented graduates from engineering to film special effects and drama. The city is packed with a vibrant collection of arts centres and creative companies. Watershed, established back in 1982 and claiming to be Britain's first creative media centre, now houses a thriving arts cinema, conference and events space as well incubation space for start-ups and also the stimulating Pervasive Media Studio. Award winning film-maker Aardman Animations also provide office space. Engine Shed was established in 2013 in the heart of the Enterprise Zone for start-ups and others requiring access to business facilities such as boardrooms and workshop and other types of event spaces. Engine Shed is supported by Bristol City Council, the University of Bristol and the West of England Local Enterprise Partnership and also acts as a home for Bristol's component of the regional SETsquared Partnership.

MediaCity UK, Greater Manchester

MediaCity UK refers to a unique public-private initiative to create a new media district that would act as a digital hub for a shared creative community to rival similar initiatives in Dubai and Singapore. Whilst the support of local councils and redevelopment agencies together with the leadership of site owner and developer Peel Group was important, it was the confirmation on June 2006 that the BBC would relocate a number of their key departments there that sealed the success of the initiative.

Walking across the landscaped piazza amongst the remodeled waterways, modern tramlines and imposing tower blocks presents a very different experience to other creative-digital clusters in the UK. Nevertheless, there are many recognizable sights such as the BBC logos and the iconic studio signs for "The Voice". For those able to gain access to the interiors of the buildings, the well-planned complementary nature of occupancy strikes a healthy chord. The substantial BBC teams and resources are augmented by a tower block-based post-production facility called The Landing. Editors, lab services, games testing services and digital-workflow facilities are all connected across the top five floors and connected vertically by high-speed links.

In addition to the major broadcasters and their supporting businesses there is the newly housed Salford University building with superb facilities to support the talent pipeline that falls at the feet of prospective employers. With regular transport links to central

Manchester, the new media community that straddles the City of Salford and the Borough of Trafford will continue to play a key role in the UK and beyond.

Bournemouth

Although a new town, founded in 1810, Bournemouth has recently been identified as having the fastest-growing digital cluster in the UK. This success is indicative of a trend in the conurbation that has been growing steadily for a couple of decades. With two universities generating a pipeline of creative and technical talent and a desirable coastal urban lifestyle it was only a matter of time before the town became a desirable business location. The trend is fuelled by two complementary demographics: new graduates choosing to stay local and create their own opportunities and, mirroring that, a trend for older professionals to relocate or return to the town for family or other reasons. The sub-sectors emerging strongly are digital marketing agencies, games and film special effects with others buoyant, too. Top UK special effects company FrameStore established an outpost in the town to attract graduates. In addition to the dominant local financial industries there is also a strong history of light engineering and electronics in the area which resonates in the newer maker-spaces and initiatives such as the Open Device Lab, reportedly the largest collection of devices available for testing new products.

Primary References

Economist, 21st Sept 2013, p 30

Tech Nation 'Powering the Digital Economy' www.TECHCITYUK.COM

<https://www.gov.uk/government/news/creative-industries> 14 Jan 2014

Industrial revolutions: capturing the growth potential, 2014 link:

<http://www.centreforcities.org/publication/industrial-revolutions/> by [Centre for Cities and McKinsey & Company](#), 2 July 2014

Brewer, S. and Rees, D: 'Bournemouth Digital Pier' ESRC Report Dec 2013

<http://www.standard.co.uk/news/techandgadgets/google-chief-london-can-be-leading-hub-for-europes-tech-startups-9234955.html>

Leicester, G. and Sharpe, B. 'Producing the Future: Understanding Watershed's Role in Ecosystems of Cultural Innovation' *International Futures Forum* 2010

Durmaz, B. *Creative Clusters and Place-Making: Analysing the Quality of Place in Soho and Beyoglu* PhD Thesis, Nottingham July 2012

Durmaz, B., Platt, S. and Yigitcanlar, T. (2010), 'Creativity, culture tourism and place-making: Istanbul and London film industries', *International Journal of Culture, Tourism and Hospitality Research*, Vol. 4 Issue 3 pp. 198 – 213

Permanent link to this document: <http://dx.doi.org/10.1108/17506181011067592>

Munn, B., Baum, A., Boscherini, G. and Perri, C. (2013) 'The Work Shop' CBRE AND Henley Business School

Bachmann, G., Dovet, J., Monaco, J., Sharpe, B., Reddington, C., and Alexander, V. (2012) 'Cultural Value Networks – Research Findings' Digital Cultures Research Centre, University of the West of England URL:

Clare, K., (2013) 'The Essential Role of Place Within the Creative Industries: Boundaries, Networks and Play' *Cities Journal* 34 (2013) pp 52 – 57 Elsevier

Doherty, D. (2012) 'The Fuse: Igniting High Growth for Creative, Digital and Information Technology Industries in the UK' CIHE Report URL:

Sapsed, J. and Nightingale, P. (2013) 'The Brighton Fuse' Arts and Humanities Research Council Report URL: