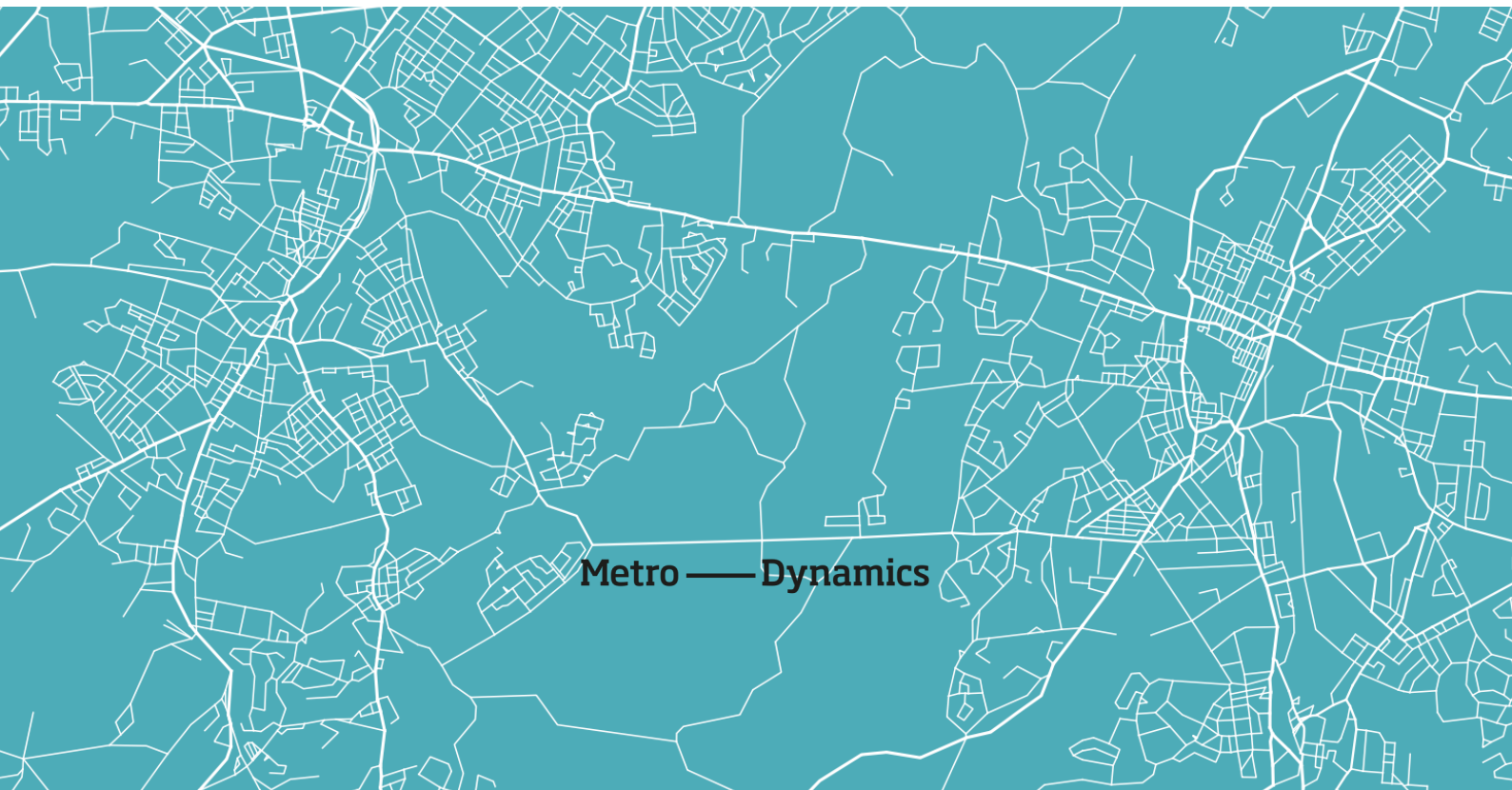




The Impact of Arts & Culture on the wider Creative Economy

June 2020



Contents

1	Introduction	1
	Context	1
	Definitions.....	1
	Structure of the Report	4
2	Context	5
	Economic Contribution of the Cultural Sector and the Creative Industries.....	5
	Understanding the Role of Arts and Culture in the Creative Industries.....	6
3	Impacts of Arts & Culture on the Creative Economy	8
	Innovation.....	8
	Education	12
	Collaboration	17
	Clustering	21
4	Conclusion	25
	Bibliography	26

1 Introduction

Context

Arts Council England commissioned Metro Dynamics to undertake a brief literature review exploring the impact of arts and culture on the wider creative economy. The research has been conducted at the same time that two other reports are being developed for Arts Council England – one on the impact of arts and culture on place, and another examining the international impacts of arts and culture.

This paper follows a 2017 report commissioned by the Arts Council, *Exploring the Role of Arts and Culture in the Creative Industries*.¹ As in 2017, it remains difficult to examine the impact of arts and culture on the creative economy directly or exclusively, since much of the evidence looks instead at the impact of the arts, culture and creative industries on the economy and society as a whole. However, there is a growing body of literature on the spillovers from the arts and culture sector to the creative and wider economies as well as case study evidence.

In addition to the review of previous reports and discussions with sector stakeholders, the brief for this study suggested several ways that arts and culture might impact the creative and wider economies. These initial research themes informed the development of the report and have been distilled into the four major areas of impact presented:

- **Innovation.** Arts and culture acts as an R&D lab for the creative industries, encouraging experimentation and in turn driving innovation and commercial activity.
- **Education.** Arts and culture enables access to a rich and diverse education, preparing young people with the skills and creativity needed in a changing world of work.
- **Collaboration.** Collaboration enables individuals and organisations to create new products and services outside of their established skillset and extend the value of their outputs.
- **Clustering.** The clustering of sectors within the creative economy creates an agglomeration effect, driving productivity through a supportive business environment.

Definitions

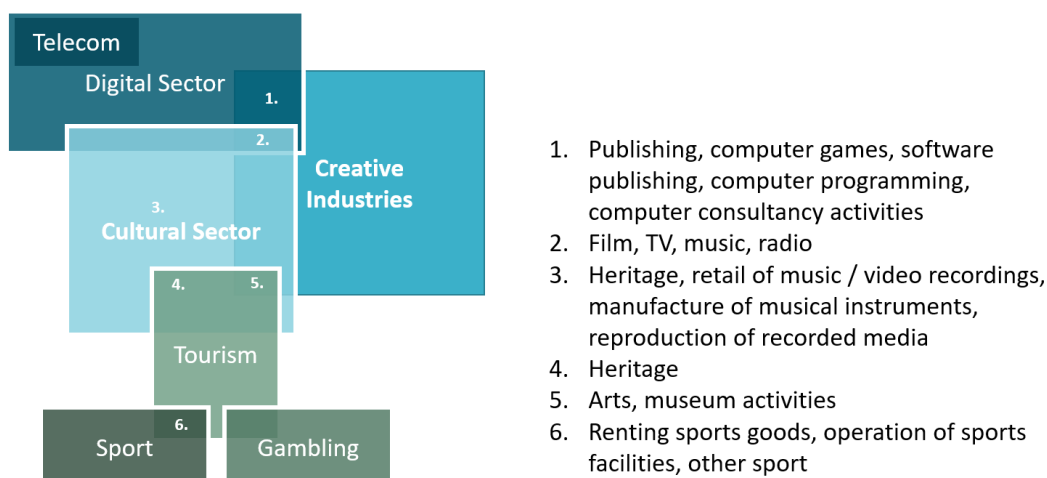
This project adopts Department for Digital, Culture Media and Sport (DCMS) definitions for arts and culture, the cultural sector, and the creative industries, which are based on Standard Industrial Classification (SIC) 2007 codes.

There are a number of conceptual challenges to understanding the links between arts and culture and the creative industries, one of which is the challenge of measuring arts and culture as separate from the creative industries (see section 2). Another is a lack of clarity in

¹Arts Council England, 'Exploring the role of arts and culture in the creative industries', (June 2017)

definitions of the sectors.² Untangling the various categories of activities can be complicated, making it difficult to understand already non-linear interactions.

Figure 1. Overlap between sectors



Adapted from DCMS, 'DCMS Sectors Economic Estimates – Methodology', 2016

There is a good deal of overlap between sectors, as shown in Figure 1. However, for the purposes of the report we adhere to the following definitions:

- **Arts and Culture:** The definition of the arts and culture sector is, for simplicity, linked to industry classification and national statistics. Arts and culture thus consists of sets / subsets of the product and sector groups, including: book publishing, sound recording and music publishing, performing arts, support activities to performing arts, artistic creation, and the operation of arts facilities including concert and theatre halls.
- **Cultural Sector:** DCMS defines the cultural sector as those industries with a cultural object at the centre of the industry, including: built heritage, film, libraries, literature, museums and galleries, performing arts, public broadcasting, and the visual arts.³
- **Creative Industries:** A subset of the creative economy that covers those working in creative occupations, regardless of their occupation – covering people in non-creative roles as well as creative roles. Those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property.⁴

² European Research Partnership on Cultural and Creative Spillovers, 'Cultural and creative spillovers in Europe: a follow-up review', (2018)

³ DCMS, 'DCMS Sectors Economic Estimates – Methodology', (2016)

⁴ Creative Industries Mapping Documents (2001); DCMS, 'Creative Industries Economic Estimates', (January 2016)

- **Creative Economy:** Those industries with a cultural object at the centre of the industry. This term covers the contribution of those who are in creative occupations outside the creative industries, as well as those employed in the creative industries.⁵

Types of Spillovers

The 2017 report used the three broad types of spillovers identified in a 2015 review by the Europe Cultural and Creative Spillovers European Research Partnership. The 2018 publication 'Cultural and Creative Spillovers in Europe: A follow-up review' identifies new spillover sub-categories, which invite further exploration.⁶

Although defined separately spillovers do not occur in isolation, but rather simultaneously or iteratively. However, the specific terms are useful in delineating the different impacts that arts and culture can have. These three primary types of spillovers remain useful categories to consider throughout this report:

- **Knowledge Spillovers:** New ideas, skills, innovations and processes developed within arts organisations and by artists and creative businesses that spill over into the wider economy and to society – without directly rewarding those who created them.

There is evidence of knowledge spillovers at both individual and organisational levels. In both circumstances, benefit derives from geographical proximity, which facilitates the spread of tacit knowledge.

- **Industry Spillovers:** Seen in productivity gains and innovations that flow from the influence of dynamic creative industries, businesses, artists, arts organisations or artistic events. These industry spillovers are experienced in the 'vertical' value chain as well as 'horizontal' cross-sector working.

There is evidence of these spillovers in cross-fertilisation of ideas between organisations and in the rate of take-up and the application of new technologies.

- **Network Spillovers:** The spread of tacit knowledge and deeper / broader labour markets, described as agglomeration effects, which arise from high density of arts or creative industries in a specific location – i.e. in the cultural quarter of a town or city.

There is evidence of network spillovers in the development of social cohesion, the branding of a city or place, and the development of a creative environment that fosters entrepreneurship.

⁵ Department for Digital, Culture, Media and Sport (DCMS), 'Economic estimates of DCMS Sectors'; DCMS, Creative Industries Economic Estimates, (January 2016)

⁶ Four potential new spillover sub-categories were identified in the 2018 review: pro-civic, democratic and political behaviours and participation; influence through soft power; environmental awareness and pro-environmental behaviour, sustainable growth; and culture as a sustainable international development tool or a method for inclusive growth.

Structure of the Report

Section two of this report sets out the economic context underpinning any assessment of the arts and culture sector and the wider creative economy. Section three then highlights and discusses some of the key interactions between arts and culture and the creative economy, split into the four highlight areas (innovation, education, collaboration and clustering). Finally, section four concludes with reflections and recommendations for further study.

2 Context

The Economic Contribution of the Cultural Sector and the Creative Industries in the UK

Arts and culture and the wider creative industries are intrinsic to economic growth. Investment in the arts, culture and creative industries can facilitate sustainable development.⁷ The intrinsic, or independent, value of culture and cultural outcomes can also generate other types of value through spillovers (section 1).⁸

The creative industries and the cultural sector are umbrella terms for a number of sub-sectors.⁹ As noted above, the distinction between both sectors is based on international industrial (SIC) codes, but there is some cross-over between the two, including crafts, film, TV and music. This division is statistical, and does not influence work in the sector, which remains highly inter-related. Using the DCMS definitions, this section provides an overview of the economic contribution of both sectors.

The sub-sectors of the cultural sector and the creative industries are each valued generators of capital in their own right. Enterprises that fall under these two wider sectors range from gaming to architectural firms to museums and designer-makers, all diverse but interconnected contributors to the economy. While firms and freelancers in these sectors may be different in outputs and attitudes, they are similar in their reliance on arts and culture skills, creativity and spillovers that foster innovation and creation.¹⁰

Owing to the sectors' diversity, measuring the economic contribution of creative industries and the cultural sector is complex. Often, the businesses in creative industries are less frequent users of public funding and are more likely to have traditional product and/or service driven business models than those in the cultural sector, which lend themselves to traditional measures of *direct* economic contribution. Direct measures such as output (Gross Value Added – GVA), employment and trade in services in each sector are outlined below (Table 1).¹¹ However, it is important not to lose sight of indirect economic contributions delivered through innovation, knowledge, talent and social impact. These are at the crux of this paper.

⁷ UNESCO, 'Reshaping Cultural Policies', (2015)

⁸ European Research Partnership on Cultural and Creative Spillovers, 'Cultural and creative spillovers in Europe: a follow-up review', (2018)

⁹ It should be noted that DCMS does not use the term 'arts and culture' as a sector, instead the creative industries and the cultural sector are umbrella terms for a number of sub-sectors which cover what is widely understood as constituting arts and culture.

¹⁰ Creative Industries Federation, 'Growing the UK's Creative Industries: What creative enterprises need to thrive and grow', (2018)

¹¹ It should be noted that Arts Council England's economic estimates (CEBR, 'Contribution of the arts and culture industry to the UK economy', (2019)) are different to the DCMS figures shown in Table 1. The Arts Council England covers fewer 'industries', reflecting the artforms and sub-sectors covered by their funding programme.

Table 1. Direct economic measures of creative industries and the cultural sector

	Creative Industries	Cultural Sector
Employment ¹²	6.2% of UK jobs in 2018 (2.0 million)	2.0% of UK jobs in 2018 (659,000)
	30.6% employment growth (2011-2018)	21.0% employment growth (2011-2018)
Output (GVA) ¹³	£111.7bn in 2018	£32.3bn in 2018
	7.4% increase since 2017	2.7% increase since 2017
Trade in services (imports / exports) ¹⁴	Imports of services by DCMS sector, 2018 - £17.8bn	Imports of services by DCMS sector, 2018 - £4.2bn
	Imports of services as a % of total UK services imports: 9.2%	Imports of services as a % of total UK services imports: 2.2%
	Exports of services by DCMS sector, 2018 - £35.6bn	Exports of services by DCMS sector, 2018 - £8.8bn

Source: DCMS, DCMS Sectors Economic Estimates (2018)

Understandably, given the wider definition, the creative industries sector is larger in terms of employment and output than the cultural sector, but it has also grown at a greater rate on both measures. From 2011 to 2018, output from the creative industries also grew more than five times the growth rate of the UK economy as a whole. The creative industries are a perennial driver of economic growth, supported by inputs from the cultural sector.

The gap between the sectors' economic performance measures can largely be explained by the differing business models common to each – the quantitative data can more easily demonstrate the cultural sectors' portion of economic performance. The indirect impact of the cultural sector in driving the overall performance of the creative economy is less easy to explain, but, as shown in section three, is essential in considering the value of arts and culture.

Understanding the Role of Arts and Culture in the Creative Industries

There is a strong case for understanding the role of arts and culture in the creative industries. Government interest in the creative industries and their potential to unlock growth and productivity has been expressed in a number of recent sources, including: the Industrial Strategy White Paper (2017), Sir Peter Bazalgette's Independent Review of the Creative Industries (2017) and the Creative Industries Sector Deal (2018).

¹² DCMS, 'DCMS Sectors Economic Estimates 2018: Employment', (2018)

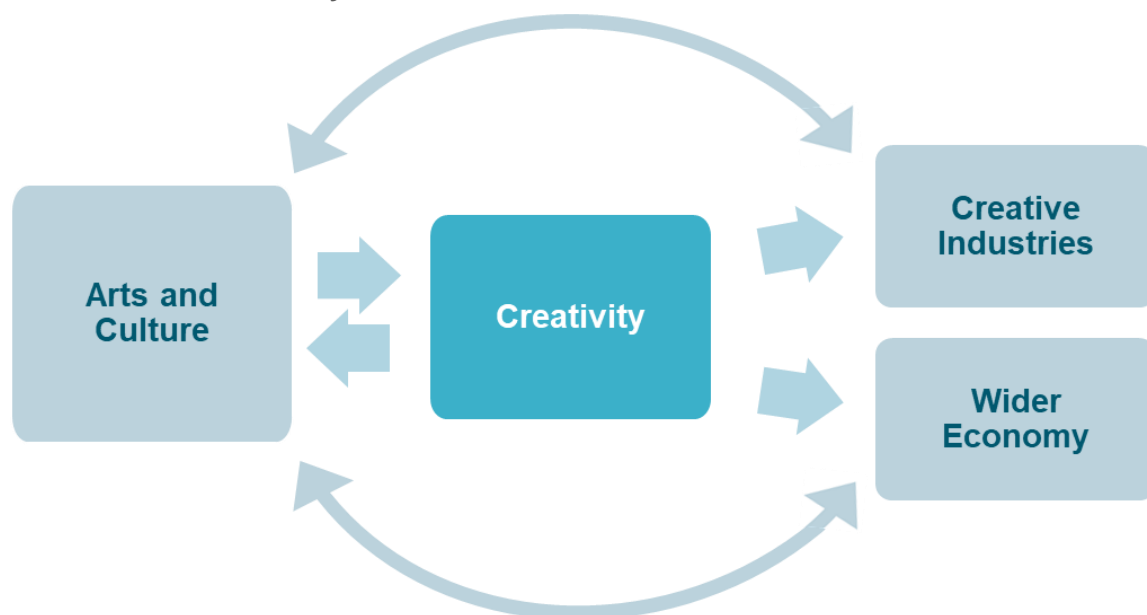
¹³ DCMS, 'DCMS Sectors Economic Estimates 2018', (2018)

¹⁴ DCMS, 'DCMS Sectors Economic Estimates 2018: Trade in Services', (2018)

Arts and culture features as an important component of the creative industries in the Sector Deal (i.e. music, arts & culture). Its important contribution has also been recognised widely in the addition of arts to STEM (Science, Technology, Engineering and Mathematics) academic programming and skills literature, resulting in a ‘STEAM’ agenda. However, the role of arts and culture in the creative industries goes beyond just the classroom, and into the workplace, onto our screens and into the world around us. Arts Council England’s Shaping the Next Ten Years notes that we have seen a flourishing of culture and creativity in the UK, despite austerity measures which cut so deeply into the sector and general economic uncertainty.¹⁵

The brief for this report asked us to examine explicitly the impact of arts and culture on creative industries, conceptualising arts and culture as producer of inputs to the creative industries. Our review of the academic, policy and sector-specific literature and discussions with sector stakeholders highlights that the relationship between these different components is more complicated than a simple one-way flow. The arts and cultural sector undoubtedly provides direct inputs to the creative industries, it also benefits from direct flows ‘back’ from it. In a context where arts and culture and the creative industries are conceived as separate entities, there is also significant in-direct flows via the stimulation of creativity – a vital input to both and economy at large. The sectors therefore exist in a unique ecosystem, contributing to and benefiting from one another, whilst also creating value in the wider economy.

Figure 2. The role of creativity in arts and culture, the creative industries, and the wider economy



¹⁵ Arts Council England, ‘Shaping the Next Ten Years’, (2019)

3 Impacts of Arts & Culture on the Creative Economy

Innovation

Arts and culture acts as an R&D lab for the creative industries, encouraging experimentation and in turn driving innovation and commercial activity.

Public funding plays a vital role in driving innovation in sectors across the economy. Public investment in research and development (R&D) for creative content supports the UK as a leader in the global content market.

In the creative economy, this investment comes not only through ‘traditional’ innovation funding via UK Research and Innovation and Research Councils, but also through strategic investment in the arts and cultural sector from organisations such as Arts Council England, Historic England and the British Film Institute.

This funding plays an integral role in creating the space and opportunity for experimentation and innovation, which translates to commercial activity in the creative industries.

Figure 3. The role of arts and culture in driving innovation in the creative industries



Discussion

Arts and culture organisations undertake research intensive, risk-laden projects, pushing boundaries and developing creative ideas, exploring new territory and technology, and creating something unique.

Activities in the arts and culture sector lead directly to opportunities for experimentation and innovation. By definition the thrust of much of its work is experimental; projects engage with a subject/concept/issue and investigate it, challenge it, pursue alternative interpretations and seek to provoke thought, reflection and new conclusions. In many other sectors of the economy, this would be called what it is – research and development (R&D).

R&D in the arts, culture and creative sectors is an under-researched area. The Industrial Strategy recognises this, noting creative research, and its applications, as distinct from traditional research-led sectors elsewhere in the economy. Definitions of R&D that exclusively examine science and technology advancement may preclude creative R&D from qualifying for tax credits. R&D in the arts and culture sector may not follow established processes or ascribe to the same level of rigor as R&D in traditional STEM sectors, making it difficult to assess and qualify.

The Bazalgette Review put forward recommendations for government-led review of the qualifications for R&D tax credits, as well as collaboration between industry and government to increase take-up of existing R&D tax credits by eligible businesses. However, as noted above, the arts and culture sector could also better align itself with existing definitions by articulating more clearly and consistently its research and innovation processes. According to the Creative Industries Federation, many cultural enterprises, especially SMEs, failed to sufficiently protect and maximise the value of their intellectual property.¹⁶

The 2018 Creative Industries Sector Deal pledged investment of an estimated £58 million in immersive technologies and also to double the UK's share of the global creative immersive market by 2025. Investment was also identified for a national Policy Evidence Centre, which would deliver eight partnerships between universities and creative businesses across the UK.¹⁷ The Sector Deal, and its resultant funding and investment, demonstrate acknowledgement of the value of arts and culture in driving innovative, productive and profitable business activity.

Public funding enables arts and cultural organisations to carry risk and test innovative processes and concepts that would otherwise be too costly to bring to market.

Public funding in arts and culture plays a vital role in creating the space and opportunity for organisations and individuals to engage in inherently risky research activity, where the process, as much as the outcome, is the object. This public investment stimulates additional private investment, increasing the scope and sustainability of innovation.¹⁸

Crucially, this public investment often assumes risk which the market would not take on. This 'risky space' is essential to the sector, as it plays a role in encouraging creativity and enabling innovation that might not otherwise take place. For example, the Digital R&D fund, a joint venture between Arts Council England, Nesta and the AHRC, supported arts and cultural organisations to work with digital technologies and expand their audience reach or explore new business models.¹⁹

¹⁶ Creative Industries Federation, 'Growing the UK's Creative Industries: What creative enterprises need to thrive and grow', (2018)

¹⁷ HM Government, 'Creative Industries Sector Deal', (March 2018)

¹⁸ Creative Industries Federation, 'Public Investment, Public Gain', (2019)

¹⁹ Nesta, 'Digital R&D Fund for the Arts', webpage: <https://www.nesta.org.uk/project/digital-rd-fund-for-the-arts/> (Accessed: 07 April 2020).

National Theatre Immersive Storytelling Studio

The Immersive Storytelling Studio at the National Theatre, one of the UK's most prominent publicly funded theatres, is dedicated to working with technologies including virtual reality, augmented reality, mixed reality, project mapping and motion capture. With the immersive technology industry still in its infancy, its commercial returns are not yet being realised. However, sustained public investment in the R&D of creative content helps to ensure that the UK will emerge as a leader in the forthcoming global content market.²⁰

As part of Arts Council England's national portfolio, the National Theatre receives an annual grant of £16.7 million, representing 16 percent of its turnover. The grant allows the organization to take risks and act as a catalyst for future innovative and creative development.

The Theatre's R&D investment helps to develop existing theatre talent as practitioners for immersive technologies, it experiments with how artists and producers can interact with and use immersive technologies, and it commissions immersive productions and content with future potential for generating revenue. The public subsidy is essential, allowing an emerging sector to innovate and develop skills for future commercial success.

The benefits of this risk-taking in arts and culture reach far beyond the organisations in which they are generated – in the form of knowledge and industry spillovers. The most often quoted example of this, and the only cultural sector for which detailed research has been undertaken, is the translation of works in theatre, from small productions to the West End or Broadway stage and onto the big screen. 'Subsidised' theatre is found to fuel risk taking and provide key breakthrough moments for talent, who go on to work across the whole sector.²¹

Firms that integrate arts and design skills and thinking into research processes are more productive, more likely to grow in the future, and more likely to produce radical innovations.

Growth in digital technologies and consumption has been transformational. An increasing number of arts, cultural and heritage organisations are exploiting digital technologies as tools to develop, reach and communicate with audiences in innovative ways. New business models that integrate digital technologies make the arts and culture sustainable in the face of a changing economy, help promote arts and culture as a viable career path, and also provide a valuable testbed in which to develop innovative processes and models.

More broadly, there is evidence that the wider the set of skills that a firm uses is, the higher its level of innovation and future growth potential. This is emphasised in the range of 'Fusion' projects that have been driven by Nesta and the AHRC.²² Collaboration, explored specifically later in the report, is a core means by which the sector innovates.

²⁰ Creative Industries Federation, 'Public Investment, Public Gain', (2019)

²¹ Creative & Cultural Skills, 'Publicly-funded arts as an R&D lab for the creative industries? A survey of theatre careers in the UK', (2013)

²² Nesta, 'The Fusion Effect: The economic returns to combining arts and science skills', (2016)

STEAMhouse at Birmingham City University

STEAMhouse is a centre for innovation, research and creative production that encourages the collaboration of the science, technology, engineering, arts and maths sectors. STEAMhouse's work aims to demonstrate how art, design and creative thinking can intersect with the STEM disciplines to stimulate economic and cultural growth across four sectors: Creative and Digital, Advanced Manufacturing, Health and Life Sciences and Low Carbon.

STEAMhouse supports SMEs with 1 to 250 employees to develop new ideas, skills, products and services by offering:

- Free tailored business support and free access to co-working space
- Opportunities to take part in innovation labs, collaborative workshops, networking events and masterclasses
- Grants of up to £2500 to support prototyping as well as IP advice and access to other investors

The programme has been created in partnership between Eastside Projects and Birmingham City University, with funding from the European Regional Development Fund and Arts Council England.²³ The Arts Council grant contributes to managing financial risk, and makes it possible for the creative industries to unlock growth in other sectors. The grant has specifically led to the university's role in supporting STEAMhouse as well as Birmingham's local growth narrative.²⁴

One of the businesses supported by STEAMhouse is **MakerLabs**, which creates courses and projects for budding 'makers'. MakerLabs has designed courses and provided consulting services to Apple, Google, the Department for Education, BBC and GiffGaff, among others. The company is currently developing a wide range of offerings, including MakerBoxes – a monthly subscription box for adults to get into making.

Another business supported by STEAMhouse is **HausBots**, which has created a wall-climbing painting robot using solid-state vacuum technology. The product, when complete, will be sold for use by commercial painting and decorating contractors. The robot can paint quickly and climb up to 5 metres, saving expenditure on scaffolding and improving the safety of commercial working sites.

²³ *STEAMhouse Prospectus*, (2018)

²⁴ Creative Industries Federation, 'Public Investment, Public Gain', (2019)

Education



Arts and culture enable access to a rich and diverse education, preparing young people with the skills and creativity needed in a changing world of work.

To produce a future workforce that is adaptable, resilient and innovative, we need to place greater emphasis on creativity in everyday learning. Though many creative education programmes are targeted at early-years or primary and secondary school children, we can do more to foster creative thinking in the workplace. Education enabling creative thinking and expression is a core output from the arts and culture sector, not only delivering a pipeline of talent for creative and cultural businesses, but also helping to improve students’ general attainment and skills development.

Figure 4. Impacts of arts and culture in education



Discussion

Arts, culture and heritage are part of the UK’s national character, and cultural education brings value in and of itself, as well as benefiting general creativity and improving attainment across disciplines.

Cultural education is the teaching of arts and culture as part of the curriculum or as an extra-curricular activity, such as dedicated music or drama lessons, as well as educational programmes and hubs. A decline in the take-up of arts subjects in schools as well as a decline in the provision of cultural education (both in school and outside) is a pressing concern, as is inconsistency of access to creative teaching across the UK.

Room 13 Hareclive

In 2003, Hareclive Primary school established Room 13 Hareclive as an independent art studio in its playground. Building on the original Room 13 model, Hareclive's studio is now part of a network of over 100 independent Room 13 studios worldwide.²⁵ Supported by two resident artists, the studio is run by the children who use it. Students can use the space to follow their own creative interests and projects, even during class time with the agreement of their teachers.

Because of their direct involvement in the management of the studio, young people develop transferable skills. The studio is run via a management committee of yearly elected students aged 9 to 10 working alongside adults as equals. The responsibilities include running a shop, raising funds for materials, financial management and developing partnership opportunities. Since the establishment of the studio, the school has seen an increase in the use of creativity in the classroom across all subjects and disciplines. This creativity and autonomy has helped students and members develop a sense of identity that benefits students' creative and emotional development.

A significant body of research evidences the importance of integrating arts into learning, and related improvements in pupil attainment across disciplines. A study by Cultural Learning Alliance identified several ways that participation in arts learning improves attainment and wellbeing:²⁶

- Participation in structured arts activities can increase cognitive abilities by 17%
- Learning through arts and culture can improve attainment in Maths & English
- Learning through arts and culture develops skills and behaviour that lead children to do better in school
- Students from low-income families who take part in arts activities at school are three times more likely to get a degree
- Children who take part in arts activities in the home during their early years are ahead in reading and Maths at age nine
- Students from low-income families who engage in the arts at school are twice as likely to volunteer
- Students from low-income families who engage in the arts at school are 20% more likely to vote as young adults
- Young offenders who take part in arts activities are 18% less likely to re-offend

Social and economic gain from arts and culture education transcends the creative industries – spanning into sectors directly related to health and wellbeing. Arts education can promote emotional health and wellbeing in schools and throughout individuals' lives.²⁷ Research for the National College for Teaching and Leadership recognised that a creative curriculum in

²⁵ Durham Commission, 'Durham Commission on Creativity and Education', (2017)

²⁶ Cultural Learning Alliance, 'The Case for Cultural Learning', webpage: <https://culturallearningalliance.org.uk/evidence/key-research-findings-the-case-for-cultural-learning/>

²⁷ City Arts, 'Art Works: Using the arts to promote emotional health and wellbeing in schools'

primary schools encourages students to think independently, collaborate with others and develop resilience and stamina.²⁸

Access to a cultural education, as part of a broad and balanced curriculum has been recognised as a government commitment.²⁹ This is particularly true in light of the growing role of arts and culture individuals and organisations in digital industries, for instance, artists are crucial to the success of the UK video games industry, film and animation sectors.

Any subject matter can be taught creatively – successful creative teaching in schools is best-achieved through a combination of pedagogies and practices, delivered by creative and dynamic practitioners.

A siloed, subject-based curriculum and early specialisation can obscure the importance of children’s ability to enjoy an education that benefits from and encourages creativity, making and enterprise.³⁰ Arts and culture make learning fun, encouraging students to stay in formal education, develop more positive views of themselves, demonstrate improved motivation, and develop their capacities for critical thinking.³¹ Creative education and its benefits for educational attainment can also improve social mobility³², while encouraging the development of skills needed for the future economy.³³

Iffley Academy

Iffley Academy is a special education school in Oxfordshire. The school has a highly developed curriculum that seeks to help every learner develop their full potential, regardless of background or need. Iffley’s Head Teacher, Tom Procter-Legg, puts his students’ creativity at the heart of their learning, no matter the subject.

The school has developed a successful partnership with the Oxford University Gardens, Libraries and Museums (GLAM). The Durham Commission described one project in which a University of Oxford scientist came to the school to discuss her work on bacteria and food poisoning.³⁴ The children then ‘designed’ their own bacterium on paper, and then a puppet maker returned to help the class turn their bacteria into puppets. The visit led to the class visiting the Oxford University Museum of Natural History’s exhibition, *Bacterial World*. This project shows the creative and multimodal means through which students engaged with a STEM subject.

The partnership with GLAM, facilitated by Arts Engagement Officer Miranda Millward, demonstrates a consistent model of arts and science learning, with students acquiring knowledge, creating new ideas, working with their hands and engaging with local cultural institutions. The school’s teaching staff have also been supported by GLAM to enable cultural learning to be integrated further into the curriculum.

²⁸ National College for School Leadership, ‘Designing a creative contextualised primary curriculum’, (2012)

²⁹ HM Government, ‘Creative Industries Sector Deal’, (March 2018)

³⁰ Warwick Commission, ‘Enriching Britain: Culture, Creativity and Growth’, (2017)

³¹ IVE, ‘10 Reasons why arts and culture make a difference to young people’s lives’

³² Which is counter-intuitive in the context of inequalities in the creative and cultural workforce

³³ Creative Industries Federation, ‘Social Mobility and the Skills Gap: Creative Education Agenda’, (2016)

³⁴ Durham Commission, ‘Durham Commission on Creativity and Education’, (2017)

Inherent in cultural education and participatory arts and culture are creative thinking (thinking beyond traditional norms, perspective, lateral thinking, originality) and creative practice (risk acceptance, resilience, confidence); both of which are in ever-higher demand across the economy.

Creativity is often thought as intuitive, but teaching and nurturing creativity is receiving growing attention internationally. The Durham Commission and ‘Towards cultural democracy’ report call for a similar approach to be taken in the UK. Opportunities for an individual to be creative throughout their life generate cultural capability, which in turn generates strong spillover effects in both social, wellbeing and economic terms.³⁵

Artlift

Artlift is a registered charity running courses and projects with proven health benefits. The charity makes courses available to Gloucestershire and Malmesbury Primary Care patients who are at risk of developing or who have developed poor mental health. Artlift is an example of social prescribing, and is an innovative use of cultural education to generate wide-reaching benefits.

At the heart of Artlift is the understanding that when people take part in a collaborative programme and learn new skills, they benefit from improved self-confidence and an improved sense of wellbeing. The charity works with the University of Gloucestershire to collect a database and assess arts’ positive impacts in health interventions.

The “arts-on-prescription” project has shown a 37% decrease in GP consultation rates and a 27% reduction in hospital admissions. This represents an NHS saving of £216 per patient.³⁶ Seed funded by Arts Council England, the scheme was in 2017 operated across nine surgeries and community spaces, with five additional pilots in Wiltshire.

Creativity, the capacity to imagine, conceive, express or make something that did not exist before³⁷, is both desirable and required in the labour market, as well as project management and organisational skills that are benefited by arts and culture education.³⁸ Practice of creativity means future generations are better placed to operate within uncertainty, handle risk and approach problem solving. The ability to problem-solve is a functional skill that features regularly in evaluations and forecasts of skills shortages and demands in the UK. Ability and approach to problem solving can be benefited by exposure to arts and culture or creativity, which encourage and embrace experimentation and innovation processes, albeit often without those labels.

³⁵ King’s College London, ‘Towards Cultural Democracy: Promoting cultural capabilities for everyone’, (2017)

³⁶ All-party Parliamentary Group on Arts, Health and Wellbeing, ‘Creative Health: The Arts for Health and Wellbeing’, (2017)

³⁷ Durham Commission, ‘Durham Commission on Creativity and Education’, (2017)

³⁸ Creative Industries Policy & Evidence Centre, ‘Creativity and the Future of Skills’, (2018)

The Creative Industries Sector Deal advocates a cultural education programme of music, arts & design, dance and drama as critical to developing a pipeline of talent for the UK's Creative Industries.

Building a talent pipeline is essential to addressing concerns raised in the Migration Shortage Occupation List, which come predominantly from the film, television or video games sectors.³⁹ With the upcoming changes to immigration brought by EU Exit and changes to international travel patterns, it is important to support domestic talent. There is a lack of regular, coherent intelligence on the sector's talent pipeline or on the alignment of the pipeline with industry needs.

There is also a lack of evidence on career progression in arts and culture.⁴⁰ Further information on talent pipeline, as well as clearer routes into the industry via apprenticeships or careers advice, could help address perceived and actual skills shortages while supporting the UK's talent pipeline. At the same time, policymakers often fail to understand the needs of the sector, for instance emphasising EBacc, an attainment measure which marginalises creative subjects.⁴¹ Young professionals in arts and culture may also be over-qualified, attaining degrees and certifications not necessary to operate in the sector, because of system-wide over emphasis on qualifications.⁴²

³⁹ Migration Advisory Committee, 'Full Review of the Shortage Occupation List', (2019)

⁴⁰ Carey, Heather, Rebecca Florisson and Lesley Giles, 'Skills, Talent and Diversity in the Creative Industries: Evidence synthesis and scoping summary report', Creative Industries Policy and Evidence Centre (2019)

⁴¹ Creative Industries Federation, 'A Creative Career Path', (2016)

⁴² Creative & Cultural Skills, 'Building a Creative Nation: Diversity and fair access', (2019)

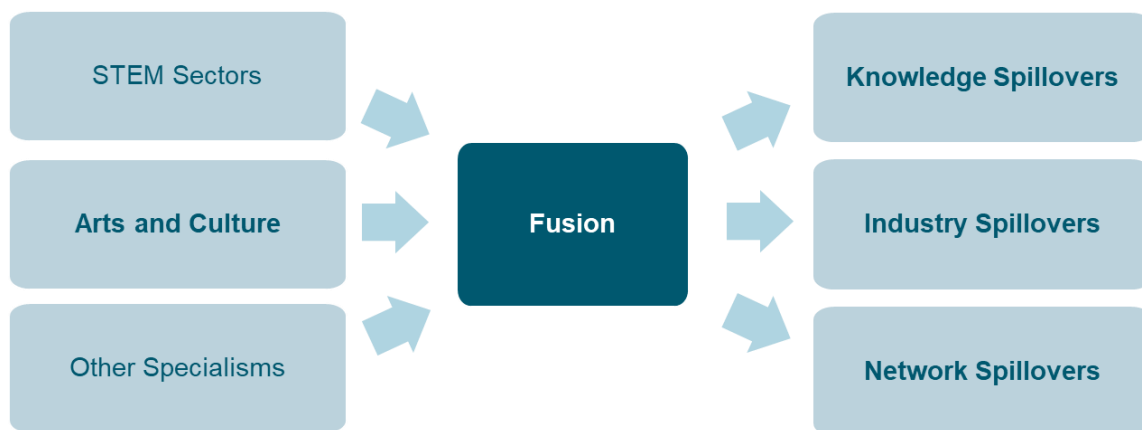
Collaboration



Individuals and organisations create new products and services outside of their established skillset and extend the value of their outputs.

Collaboration is a core process in the creative economy, a fundamental truth. Succinctly put by the Creative Industries Federation: ‘To a greater extent than in any other sector, commercial businesses, publicly funded organisations, and freelancers work hand in hand both across supply chains and internationally to produce the creative services and products that deliver this economic, social and cultural success. Without one part of the creative industries, others would fail.’⁴³

Figure 5. Collaboration within and beyond arts and culture generates spillovers



Discussion

Collaborations bring together combinations of academics, businesses, freelancers and arts and cultural organisations, working together to experiment and produce, achieving new results and products through the coming-together of disciplines.

The arts, culture and creative sectors are inherently collaborative.⁴⁴ Creative services and products often require enterprises to work closely with one another, both locally and with partners worldwide. The performing arts industry, for instance, is working increasingly with immersive technologies, while design is working towards cutting-edge solutions to global challenges, like climate change.

Networking is another facet of collaboration that is essential to the creative industries, providing a supply chain of talent. Many freelancers rely on networking for sourcing work. 1927, a micro business theatre company, depends on collaboration of freelancers, self-employed and autonomous collaborations. The company has a core team of 3 full-time and 4

⁴³ Creative Industries Federation, ‘Growing the UK’s Creative Industries: What creative enterprises need to thrive and grow’, (2018)

⁴⁴ Vecco & Konrad, ‘The Power of Partnership: Necessity or luxury in the cultural and creative sectors’, (2017)

part-time staff, but has partnered with 27 freelancers and 600 additional artists to create its productions and plays.⁴⁵

The benefits of networking and collaboration within and beyond arts and culture has direct and indirect impacts for the creative and wider economies. The direct impacts include the development of new products, improved performance, access to equipment and the provision of labour. The indirect impacts include business sustainability, knowledge and other spillovers, networks and knowledge partnerships and potential for commercialisation.

Creative Fuse North East

Creative Fuse North East is a partnership-based initiative that is exploring how creative, digital and IT firms can add value to the North East's economy and employment base. The partnership involves the North East's five universities (Newcastle, Durham, Northumbria, Sunderland and Teesside) as well as industry, cultural organisations, charities and the public sector. The partnership started by mapping the creative, digital and IT (CDIT) sector in the North East, and has since moved into facilitating new ways of working between businesses, freelancers and academics via 30 innovation pilots, business support activities, and over 25 monthly Collaboration and Knowledge Exchange (CAKE) events.⁴⁶

The project aims to support spillovers from creative and cultural SMEs into other sectors to maximise growth potential. The CAKE events have especially helped support collaboration within the CDIT sector in the region. These events were attended by more than 2,000 participants from 2017 to 2019, with an average of 80 attendees per event. Creative Fuse's data shows that networking at CAKE did generate new contacts, with 40% of attendees following up with those new connections.

CAKE 9: *Smart Data Innovation* helped facilitate a connection between freelance creative artists, three universities, and Prosoftware (a SME with a platform for customer relationship management). This connection led to a small research study on the wellbeing impacts for individuals participating in Noize Choirs, which uses the human voice outside of traditional choral settings, language or musical notation. The research project turned anecdotal evidence about the role of Noize Choir in promoting wellbeing into hard evidence collected via heart rate monitoring before and after participation.

Collaboration boosts creative outputs by fusing ideas and concepts to produce new products and processes.

Working creatively can encourage a desire to collaborate, helping to explain the importance of collaboration across the sector. Freelancing is used extensively across the arts and cultural sector and the creative industries as a means of drawing together specialists in temporary teams to pool and apply their knowledge and expertise.

Collaboration opens up possibilities and potential for arts and culture enterprises and organisations – there are not set ways of doing things in the sector, and value is derived from

⁴⁵ Creative Industries Federation, 'Growing the UK's Creative Industries: What creative enterprises need to thrive and grow', (2018)

⁴⁶ Creative Fuse North East, 'Project Report: 2019', (2019)

working with people with different specialist knowledge, experience and perspectives. In the gaming sector, every game designed requires the involvement of at least one artist, often freelancers. Car manufacturers like Jaguar adopt creative thinking by contracting out to arts and culture organisations or freelancers throughout their design process.⁴⁷

Collaboration can take place within sectors and across disciplines, which is often explored as a fusion of ideas and processes to create new products. Collaboration within and beyond the arts and culture sector is an effective way to develop strategic partnerships, facilitated by partnering with other organisations as well as by outsourcing work.⁴⁸ Creative Fuse North East is an example of a partnership established explicitly to facilitate collaboration between arts and culture and technology.⁴⁹ Likewise, Brighton Fuse's objective is to enhance creativity and innovation by connecting arts, humanities and design with digital and ICT.⁵⁰

There is not a clear line that shows how arts and culture influence digital technologies, but rather an iterative process by which they influence and contribute to each other, expanding the reach of both the cultural and digital sectors.

Digital technologies in particular are helping to break down the siloes between cultural sectors and to blend disciplines.⁵¹ Tech companies are collaborating with cultural organisations to create new experiences for audiences, while exploring the boundaries of new technologies. Connected Culture, a collaboration between King's College London and Ericsson, explored 'networked performances', which enabled musicians, actors, singers and artists located in different time zones to perform in a single, real-time production facilitated by 5G technologies.⁵² The industry spillovers from such collaboration between tech and culture are improved productivity and innovation, as well as the cross fertilisation of ideas.

⁴⁷ Creative Industries Federation, 'Public Investment, Public Gain', (2019)

⁴⁸ Culture and Creative Skills, 'Building a Creative Nation: Current and Future Skills Needs', (2018)

⁴⁹ Creative Fuse North East, 'Project Report: 2019', (2019)

⁵⁰ Brighton Fuse, 'Project Report: 2013', (2013)

⁵¹ DCMS, 'Cultural is Digital: Executive summary', (2018)

⁵² King's College London, 'Connected Culture', accessed at: <https://www.kcl.ac.uk/Cultural/-/Projects/ConnectedCulture>

Magic Leap & The Royal Shakespeare Company

The Royal Shakespeare Company has partnered with Magic Leap, a spatial computing pioneer, to offer six fellowships that will explore the future of digital theatre. The fellowship evidences the collaboration between a cultural organisation, a technology SME, and technology developed by the likes of NASA and beyond, to develop the future of theatre while contributing to the potential of immersive technologies. The fellows themselves have a range of backgrounds, from playwright to game artist, and will work together to shape the next phase of the RSC-Magic Leap partnership. Future projects will include the development of large-scale theatre performances using spatial computing.⁵³

The importance of combining arts with sciences has been recognised in recent repositioning towards the STEAM agenda (Science, Technology, Engineering, Arts and Mathematics). The combination is championed for generating creativity in both sectors, training employees with broad ranges of skills, and facilitating the commercialisation of new-to-market innovations. These effects are considered knowledge spillovers, as they are the ideas, skills and processes that occur thanks to collaboration.

⁵³ Royal Shakespeare Company, 'RSC and Magic Leap Welcome the first Digital Theatre Fellows', Press release accessed at: [https://www.rsc.org.uk/press/releases/royal-shakespeare-company-\(rsc\)-and-magic-leap-welcome-the-first-digital-theatre-fellows](https://www.rsc.org.uk/press/releases/royal-shakespeare-company-(rsc)-and-magic-leap-welcome-the-first-digital-theatre-fellows)

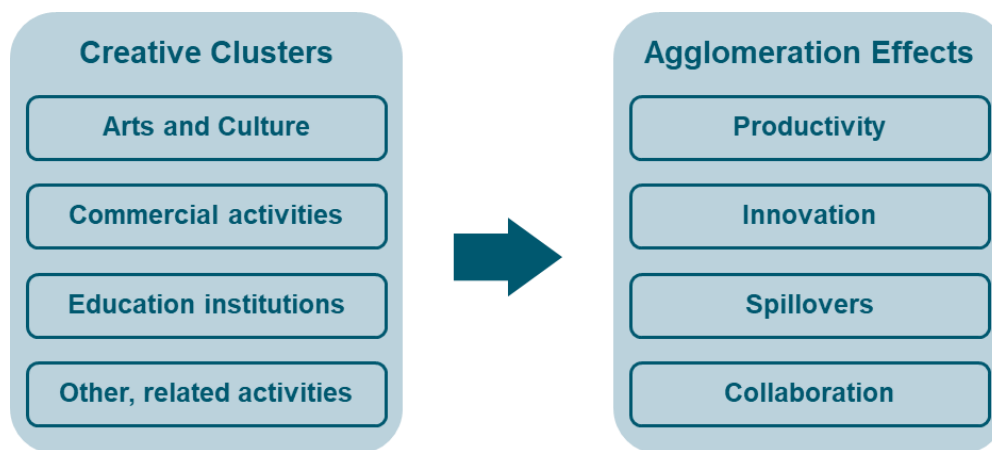
Clustering



The clustering of sectors within the creative economy creates an agglomeration effect, driving productivity through a supportive business environment.

Creative clusters promote innovation, facilitate knowledge and industry spillovers, can generate employment multipliers, and contribute to placemaking. Arts and cultural organisations are a core component of any strong creative cluster; where cultural institutions, arts venues, social enterprises and individual artists operate alongside (and frequently in collaboration with) ‘commercial’ enterprises and, often, educational institutions.

Figure 6. Creative clusters drive agglomeration effects and spillovers for the wider economy



Discussion

The spillover effects of creative clustering include the creation of new jobs, the improvement of places to live, and encourage clustering and economies of scale.

Clustering is best exemplified at sub-sector level, where organisations operating in inter-related fields benefit from proximity to each other, a local supply chain and the sharing of knowledge, talent and, often, facilities. Agglomeration is an economic result of clustering, in that businesses within an area of specialisation are more likely to be productive than those operating outside a cluster.

The clustering and agglomerative effects of the arts and culture sector can be both direct and indirect. The direct impacts include development of talent, R&D, infrastructure and intellectual property, as well as provision of business support and knowledge. Indirectly, clustering contributes to support networks, business sustainability and longevity, and placemaking or attractiveness. Shared meeting and social spaces in a creative cluster encourage collaboration between artists, businesses, clients and local communities. These relationships can extend to local schools, higher and further education colleges, as well as local skills and labour markets.

Agglomeration and co-location typically matter a great deal in understanding the economic performance of organisations and places. Whilst policy to support clusters is based on mixed evidence and can be difficult to target, the literature does indicate that encouraging cultural and creative clusters drives innovation and economic returns.⁵⁴ Thanet, for instance, saw 84 percent growth in creative business from 2013-2017, in which period its economy grew at five times faster than the UK average.⁵⁵

Additional productivity can also be driven by multiplier effects; for every job in the arts and culture industry, a certain number of local service jobs will also be created.⁵⁶ According to Cebr, arts and culture has an estimated employment multiplier of 2.77; for every job supported by the sector, an additional 1.77 jobs are supported in the wider economy through indirect and induced multiplier impacts.⁵⁷ The Heart of the Southwest Local Enterprise Partnership views the arts and culture sector's multiplier effect as increasingly measurable: according to their report, for every £1 of salary paid in the sector, an additional £2.01 is generated in the wider economy.⁵⁸ The same report finds the sector's GVA multiplier to be 2.43, for every £1 of arts and culture spending, £1.43 is produced through indirect and induced impacts. Beyond multiplier effects, agglomeration of arts and culture activity encourages knowledge spillovers, encouraging firm formation, productivity and success.

Creative clusters also encourage the protection of cultural infrastructure, which in the long term leads to greater direct investment, empowering creative individuals, organisations and places.

Arts and culture venues and organisations act as anchor institutions in clusters. An anchor institution is typically a 'large, spatially immobile organisation that plays an integral role in [its] local economy'.⁵⁹ The relationship between an anchor institution and local economy brings benefits to both. Anchor institutions recruit from and serve local communities, maintain an active profile in that community and can contribute to wider socio-economic outcomes.⁶⁰ Commonly referenced anchor institutions include essential service providers, like hospitals, councils, and education institutions, as well as libraries and religious institutions. It is important, however, not to limit conception of anchor institutions, as cultural institutions are fundamental to providing social imperative and value, balanced with and in addition to traditional essential services.

Cultural venues have incredible capacity to generate economic, social and personal wellbeing, develop stronger communities, make areas attractive to workers, attractive to enterprises and make a strong contribution to place branding.⁶¹ The Lowry in Salford is a

⁵⁴ Nathan and Overman, 'Agglomeration, clusters and industrial policy', (2016)

⁵⁵ Local Government Association, 'Growing the Creative Economy in Thanet, Kent', (2017) accessed at: <https://www.local.gov.uk/growing-creative-economy-thanet-kent>

⁵⁶ Moretti, 'Local Multipliers', American Economic Review: papers and proceedings 100, (May 2010)

⁵⁷ Cebr, 'Contribution of the Arts and Culture Industry to the UK Economy', (2017)

⁵⁸ Heart of South West LEP, 'Creativity and Productivity' (2018)

⁵⁹ CLES, 'Community Business and Anchor Institutions', (2019)

⁶⁰ CLES, 'Creating a Good Local Economy: The role of anchor institutions', (2015)

⁶¹ Arts Council England, 'The Value of Arts and Culture in Place-shaping', (2019)

good example of this, as from its inception to 2013 it has led nearly £1.4bn of investment in the regeneration of Salford Quays, fundamentally impacting the ambitions, opportunities and outlook for local communities.⁶² The Lowry's 'Beyond the Arts' report evaluated those economic impacts, as well as the impact of the Lowry on tourism, regeneration, education and volunteering, and general returns on investments in the facility.⁶³

Arts and culture also play a critical role in places' vibrancy. Cultural venues play a critical role in this vibrancy, generating significant economic impact, delivering social returns through their activities and frequently being the fulcrum for place-based regeneration, as shown in the 2017 Arts Council evaluation. From places to visit, perform and exhibit, to hosts of collections and archives, research institutions, pioneering commissioners, providers of education and professional development, publishers, retailers, venues, community hubs and more; cultural institutions are complex, multifaceted organisations.

The clustering of industries plays a role in place-making in the UK, improving places' reputations and attractiveness. It is important to distinguish the economic benefits of clustering and agglomeration from place-making – for more information on the creative industries and place, see the Arts Council's review of arts and culture and place.

Creative industries tend to cluster heavily in cities, but creative clusters and networks can be instrumental for economic development across urban and rural geographies.

Creative industries tend to cluster heavily in cities. In the UK, 53% of creative industries jobs and 44% of firms are found in just five cities.⁶⁴

Creative Enterprise Zones, London

London's Creative Enterprise Zones are a Mayoral initiative to designate areas of London where artists and creative businesses can find permanent, affordable space to work; are supported to start-up and grow; and where local people are supported to learn creative sector skills.⁶⁵ The six zones were established with the understanding that arts and culture and the creative industry are important contributors to inclusive growth and placemaking.

The Creative Enterprise Zones have helped local areas with accessing inward investment, enabling new and affordable workspaces for creatives, access to skills and training, and community engagement.⁶⁶ The zones are valuable in protecting space and resources for London's extensive creative workforce.

Creative cluster development follows a variety of models, including: incipient clusters,

⁶² New Statesman, 'The Lowry: Proof that investing in Arts is a Catalyst for Regeneration', (2013) Accessed at: <https://www.newstatesman.com/business/2013/12/lowry-proof-investing-arts-catalyst-regeneration>

⁶³ The Lowry, 'Beyond the Arts', (2013)

⁶⁴ Nesta, 'Creative Nation: How the creative industries are powering the UK's nations and regions' (2018)

⁶⁵ Mayor of London, 'Creative Enterprise Zones: Prospectus', (2017)

⁶⁶ West London Business, 'Great West Creatives Enterprise Zone' (2018)

creative conurbations, creative districts, creative capitals and creative challengers. Creative clusters take shape in city as well as non-city areas, as in Reading, High Wycombe and Guildford.⁶⁷ Cornwall has as its ambition to be a leading rural region for creativity and culture, recognising the economic and network benefits that can be reaped from clustering.⁶⁸

The Creative Industries Sector Deal recognises unequal distribution of opportunities, skills, finance and knowledge across the UK. Almost half (47%) of creative industries employment is concentrated in London and the South East. It is important to maintain growth in London and the South East, whilst encouraging ‘catch up’ elsewhere. To combat this imbalance, the Cultural Development Fund was launched by Arts Council England in summer 2018 with a budget of £20 million available for towns and cities, explicitly exclusive of London.⁶⁹ In the same year, the Creative Industries Cluster Programme launched, seeking to drive innovation and growth in the UK’s creative industries by growing clusters across the UK.

Bristol-Bath Innovation Cluster

The Bristol-Bath Innovation Cluster (B&B CREATIVE R&D) is a partnership that brings together Watershed and several universities in the region as well as industry partners. The cluster’s core objective is to partners with industry and inform understanding about user engagement in new platforms, including at sites where 5G connectivity, XR technologies and live arts overlap. B&B CREATIVE R&D is funded by the Creative Industries Clusters Programme, which is backed by the Arts and Humanities Research Council as part of the Government’s Industrial Strategy.⁷⁰

Even before the Industrial Strategy, the innovation cluster had been developing for over 25 years, based on overlapping and evolving sectoral understandings. The cluster is focused particularly on hi-tech and digital sectors, cultural and creative industry, aerospace and advanced engineering, and financial and business services.⁷¹

One significant area of partnership has been between key cultural assets and enterprises. The area is renowned for being highly networked, collaborative and open, which has encouraged cross-sector networking and the resultant development of new opportunities – particularly at the interface between technology and creative industry.

Businesses in Bristol and Bath today can trace their roots to earlier businesses, in both the cultural and creative and the hi-tech and digital sectors. This evolution has been supported through organisations like Watershed (a multi-arts venue) and Engine Shed (an enterprise hub). The private sector plays a large role in the interaction between arts and culture and innovative, particularly digital, activities in Bristol.

⁶⁷ NESTA, *The Geography of Creativity in the UK: Creative clusters, creative people and creative networks*, (July, 2016)

⁶⁸ Cornwall White Paper for Culture (revised March 2019), accessed at: https://www.cornwall.gov.uk/media/38059709/white-paper-for-culture-23_web_mar2019.pdf

⁶⁹ Arts Council England, ‘Shaping Places’, (2019) blog post accessed at: <https://www.artscouncil.org.uk/blog/shaping-places-0>

⁷⁰ Creativeindustriescusters.com [accessed: 09 April 2020]

⁷¹ SQW, ‘Bristol-Bath Innovation Cluster’, (2018)

4 Conclusion

This report has demonstrated four areas in which the arts and cultural sector impacts the creative industries and the wider economy:

- **Innovation** – Arts and culture acts as an R&D lab for the creative industries, encouraging experimentation and in turn driving innovation and commercial activity.
- **Education** – Arts and culture enable access to a rich and diverse education, preparing young people with the skills and creativity needed in a changing world of work.
- **Collaboration** – Collaboration enables individuals and organisations to create new products and services outside of their established skillset and extend the value of outputs.
- **Clustering** – The clustering of sectors within the creative economy creates an agglomeration effect, driving productivity through a supportive business environment.

The messages that emerge from these areas of inquiry echo the findings of the 2017 report, including the significance of individual practitioners and small enterprises to the interaction between the arts and culture and creative industries, the growing role of digital technologies in arts and culture, and the essentially collaborative nature of these sectors.

The collaborations and crossovers between art, culture and the creative industries make it difficult to clearly delineate the ways in which one impacts the other, which emphasises the importance of considering them as one. Whilst the statistical separation can help policymakers and people working in the sectors better understand the role of arts and culture in fields such as social inclusion and health, the division creates a false wall between the two in terms of the creation of economic impact. A thriving arts and cultural sector is a fundamental component of thriving creative industries and a thriving creative economy.

Recommendations for future study

This report highlights the difficulty in delineating different categories of the creative sectors, but also the presence of a language barrier, both within the sector and with the wider economy. It is likely that a lack of common terminology for describing the sector's research-intensive innovation processes limits broader understanding of their value. A project which seeks to narrow the gap in terminology between 'traditional/industrial' research processes and those followed in the sector would help to unlock some of this, improving literacy on all sides.

Further exploration and exemplification of the role of arts and cultural projects as catalysts for commercial work *and* for broader economic development would also help to reinforce the important role the sector plays. For example, tracking the commercial performance and outcomes of collaboratively developed products/services. Importance of this performance is acknowledged in case study evidence, but there is little empirical analysis. Forthcoming investments around immersive technology present an opportunity for strong data capture.

Bibliography

Methods & definitions, and spillovers

Arts Council England, 'Exploring the role of arts and culture in the creative industries', (2017)

Arts Council England, 'Shaping the Next Ten Years', (2019)

Creative Industries Economic Estimates, (2016)

Creative Industries Federation, 'Growing the UK's Creative Industries: What creative enterprises need to thrive and grow', (2018)

Creative Industries Mapping Documents (2001)

DCMS, 'Creative Industries Economic Estimates', (2016)

DCMS, 'DCMS Sectors Economic Estimates – Methodology', (2016)

DCMS, 'DCMS Sectors Economic Estimates 2018', (2018)

European Research Partnership on Cultural and Creative Spillovers, 'Cultural and creative spillovers in Europe: a follow-up review', (2018)

HM Government, 'Creative Industries: Sector Deal', (2018)

HM Government, 'Industrial Strategy White Paper: Building a Britain fit for the future', (2017)

Sir Peter Bazalgette, Independent Review of the Creative Industries, (2017)

UNESCO, 'Reshaping Cultural Policies', (2015)

Innovation

Cebr, 'Contribution of the Arts and Culture Industry to the UK economy: Report for Arts Council England', (2019)

Creative & Cultural Skills, 'Publicly-funded arts as an R&D lab for the creative industries? A survey of theatre careers in the UK', (2013)

Creative Industries Federation, 'Growing the UK's Creative Industries: What creative enterprises need to thrive and grow', (2018)

Creative Industries Federation, 'Public Investment, Public Gain', (2019)

Nesta, 'The Fusion Effect: The economic returns to combining arts and science skills', (2016)

STEAMhouse, 'Prospectus', (2018)

Education

All-Party Parliamentary Group on Arts, Health and Wellbeing, 'Creative Health: The Arts for Health and Wellbeing', (2017)

Creative Industries Federation, 'Social Mobility and the Skills Gap: Creative Education Agenda', (2016)

Creative Industries Policy & Evidence Centre, 'Creativity and the Future of Skills', (2018)

Durham Commission, 'Durham Commission on Creativity and Education', (2017)

King's College London, 'Towards Cultural Democracy: Promoting cultural capabilities for everyone', (2017)

Warwick Commission, 'Enriching Britain: Culture, Creativity and Growth', (2017)

Collaboration

Creative Fuse North East, 'Project Report: 2019', (2019)

Creative Industries Federation, 'Growing the UK's Creative Industries: What creative enterprises need to thrive and grow', (2018)

Creative Industries Federation, 'Public Investment, Public Gain', (2019)

Culture and Creative Skills, 'Building a Creative Nation: Current and Future Skills Needs', (2018)

DCMS, 'Cultural is Digital: Executive summary', (2018)

Royal Shakespeare Company, 'RSC and Magic Leap Welcome the first Digital Theatre Fellows', Press release accessed at: [https://www.rsc.org.uk/press/releases/royal-shakespeare-company-\(rsc\)-and-magic-leap-welcome-the-first-digital-theatre-fellows](https://www.rsc.org.uk/press/releases/royal-shakespeare-company-(rsc)-and-magic-leap-welcome-the-first-digital-theatre-fellows)

Vecco & Konrad, 'The Power of Partnership: Necessity or luxury in the cultural and creative sectors', (2017)

Clustering

Arts Council England, 'The Value of Arts and Culture in Place-shaping', (2019)

Cebr, 'Contribution of the Arts and Culture Industry to the UK Economy', (2017)

CLES, 'Community Business and Anchor Institutions', (2019)

CLES, 'Creating a Good Local Economy: The role of anchor institutions', (2015)

Heart of South West LEP, 'Creativity and Productivity', (2018)

Mayor of London, 'Creative Enterprise Zones: Prospectus', (2017)

Nathan and Overman, 'Agglomeration, clusters and industrial policy', (2016)

Nesta, 'Creative Nation: How the creative industries are powering the UK's nations and regions', (2018)

SQW, 'Bristol-Bath Innovation Cluster', (2018)

The Lowry, 'Beyond the Arts', (2013)



Metro — Dynamics

3 Waterhouse Square
138 Holborn
London
EC1N 2SW

020 3868 3085

Elliot House
151 Deansgate
Manchester
M3 3WD

0161 393 4364

