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NELSON MANDELA
UNIVERSITY

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Cultural and Creative Industry (CCI) Trends

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MEASURING & VALUING SOUTH AFRICA'S CULTURAL & CREATIVE ECONOMY

Summary

This paper considers current and emerging structural and strategic trends within the Cultural and Creative Industries (CCIs). It focusses primarily on macro-trends within the global economy and takes consideration of key debates and discourses on the creative economy in general and the CCIs more specifically. These debates impact the changing perceptions and conceptions of the creative economy. We survey and analyse the following structural and strategic trends: Firstly, we ground the paper by means of a compact intellectual history of the rise and institutionalization of the creative economy discourses and thereafter the CCIs. Subsequently, we consider the interplay between the creative economy and the 'digital revolution'. Then we examine the relationship between social media in production and consumption terms, and the CCIs and the creative economy more generally. In addition, we explore the effects of four key mega-tech trends namely, (i) virtual reality; (ii) augmented reality; (iii) artificial intelligence; and (iv) blockchain and associated encryption production and value chain options. In addition, the significant growth of CCI involvement in international trade is examined. This is followed by an exploration of key institutional and regulatory developments and issues. A related line of discussion considers the question of the experience of work in the creative economy and the related growth of the 'precariat'. An exploration of select policy developments closes out the overall analysis.

Authors

Prof Richard Haines

Unathi Lutshaba

Amy Shelver

Research Assistants:

Sinethemba Vitshima

Thembele Xhoxho

Key Findings

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- There is an expanding conception of the independent and linked notions of cultural and creative industries and of the creative economy.
- Creative work is largely precarious in nature, both a positive aspect and with negative consequences in terms of its lack of unionization and gender, class and race bias. Additionally there is room for greater social enterprise in the CCIs.
- Digital trends related to augmented reality, virtual reality, artificial intelligence and blockchain offer many opportunities to the creative sector and creators.
- The trade in creative and cultural goods is growing globally, but geographic balance of trade inequalities remain.
- At a macro- and extra-national level there is greater acknowledgement of the contribution of the creative economy to growth and jobs, but there are policy gaps and slippages mainly related to difficulty in containing and defining the creative sectors in regular economic terms.

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1 Introduction

There is growing evidence that the globalisation of creative markets has fundamentally changed the competitive conditions facing creative industries. A number of recent studies in international economics, strategic management and international business have examined how globalisation has affected the strategy and structure of established firms in a wide variety of industries (Bernard, Jensen, Redding, & Schott, 2007; Bowen & Wiersema, 2005; Hutzschenreuter & Gröne, 2009; Wiersema & Bowen, 2008) and the movement of goods and services across markets.

Our study contributes to the developing body of global competition research by mainly studying the current and emerging trends of a structural and strategic nature within the Cultural and Creative Industries (CCIs). To identify the latest trends and movements, requires that we included more popular and anecdotal references, such as blogs and news articles, as these are better able to point to immediate developments. Academic work, with its longer lead times to publication, cannot adequately reflect the fast-paced nature of change in key areas, such as digital innovation and mega-tech trends. Thus the paper is a strong combination of both academic analysis and trends-related commentary.

The study focusses primarily on macro-trends within the global economy, takes due analytical consideration of key debates, and discourses on the creative economy and the CCIs more specifically. Such discourses and debates play an anticipatory and reflexive role in the changing perceptions and conceptions of the creative economy. We survey and analyse the following structural and strategic trends: Firstly, we ground the paper by means of a compact intellectual history of the rise and institutionalization of the creative economy discourses and thereafter the CCIs. Subsequently, we consider the interplay between the creative economy and the 'digital revolution'. Then we examine the relationship between social media in production and consumption terms, and the CCIs and the creative economy more generally. In addition, we explore the effects of four key mega-tech trends namely, (i) virtual reality; (ii) augmented reality; (iii) artificial intelligence; and (iv) blockchain and associated encryption production and value chain options. In addition, the significant growth of CCI involvement in international trade is examined. This is followed by an exploration of key institutional and regulatory developments and issues. A related line of discussion considers the question of the experience of work in the creative economy and the related growth of the 'precariat'. An exploration of select policy developments closes out the overall analysis.

2 Cultural and Creative Industries in International Perspective

In locating the main strategic trends and challenges with the CCIs and creative economy more generally one needs to distinguish between two intersecting sets of developments. In the first place the creative economy is increasingly recognized as a dynamic field of economic activity outstripping, in many respects, the outputs and achievements of more traditional sectors in national and extra-national economies. It is viewed as a growing and productive field of cross-sectoral industrial and economic activity. Secondly, the last two decades have seen the embedding and construction of a discourse about the creative economy which is in turn conditioned by the imperatives of the nation state in the 21st century and the priorities of an expanding global economy. However this is not an uncontested space –particularly when considering the beneficiaries of such processes.

The intellectual history of the creative economy still awaits a detailed and seminal study, though there are increasing attempts to map its landscape. The concept of the creative economy's early origins are caught up with the efforts to rethink the nature of traditional state-business relationships and to incorporate shifts to retain and/or enhance competitiveness within national and extra-national economic systems. In this regard the structural shifts to

more flexible production and specialization processes, an increased focus on human capital, and the internationalization of finance capital within the global economy were key factors.

The formal use of the term 'Creative Industries' is quite recent with its first appearance in the Australian government's strategy document, *Creative Nation* (1994) which took note of the advent of the digital era of cultural industries and creativity. However there are earlier uses of terms such as 'cultural industries' dating back to the 1930s. But it was in the early 1970s when 'cultural industries' emerged more explicitly as an object of academic and policy concern. This shift was less the acknowledgement of the economic importance of commercial culture. Rather it represented the opening up of a new kind of 'cultural political' space.

In a real sense the idea of 'creative 'industries', 'CCIs' (creative and cultural industries) and the 'creative economy' was conditioned from the 1990s onwards by the expansion of the digital economy and its increased influence on and production of popular cultural forms and products. For a number of commentators, especially in the UK, the institutionalization of the idea of the creative industries was bound up with the advent of the 'new' Labour party administration in 1997. This return to power saw a self-conscious search for new policy options and state restructuring. New approaches were informed by the notion of the 'third way' which aspired in its more optimistic formulations to look beyond traditional and adversarial business-state relationships. The emphasis was to conceive of new public policy as a means of securing returns on public investment. This would include the Arts, Culture and Heritage spheres as well as the media (Hesmondhalgh 2008: 556; Oakley 2010).

Already in the 1980s, there was a growing consensus in new UK policy circles that cultural policy should take more cognizance of the play of commercial culture in people's activities, and that such new emphases might help, in time, to address linked spatial and cultural inequalities. At local government level, left-of-centre city councils began to deploy the notion of cultural industries. Such an emphasis was at odds with conventional and elitist ideas of art. There was a growing recognition that the majority of the citizenry experienced culture primarily through commercialized forms. In addition, public investment in such sectors could help reinforce efforts to achieve urban and regional revitalization (Garnham 2005). In 1997, the UK Government set out to conceptualize and define the creative industries more precisely, and assess their impact on the UK economy. The Department of National Heritage was superseded by the Department for Digital, Culture, Media and Sport (DCMS). The DCMS in turn set up a Creative Industries Task Team which included a group of leading creative entrepreneurs, and drew directly from the insights in *Creative Nation* (1994).

Consequently in April 1998 the DCMS published a report entitled *Creative Industries – Mapping Documents*. The report identified thirteen spheres of activity, namely, advertising, architecture, the arts and antiques market, crafts, design, designer fashion, film, interactive leisure software, music, performing arts, publishing, software, television and radio. A common feature in these areas of cultural and creative production was that they were predicated on 'individual creativity, skill and talent' and demonstrated 'the potential for wealth creation through the generation of intellectual property' (DCMS 1998).

A follow-up mapping study and analysis by the DCMS in 2001 revealed that this newly conceived sector was generating jobs at twice the prevailing rate of the UK economy as a whole. These two studies constituted the first detailed mapping of the creative industries in the UK, and have shaped future discussions and debates thereof, in Britain and internationally. While there were some amendments to the 1998 DCMS categorization of creative industries, the original definition of these industries is still essentially in place in the UK and has also been used as a basis by several countries for generating their own concepts and categorizations.

The shift from 'cultural' to 'creative' industries helped usher in a new paradigm that had both a symbolic and instrumental relevance:

- It reflected technological change. There was an increased emphasis on creativity, innovation, and skills in economic development; and changes in consumption and demand patterns.
- It purported to reposition culture from being elitist and exclusive so that to a working notion which is more incorporative, creative and even democratic in character.
- It produced a shift from seeing the production of culture as a separate industrial activity to seeing it as a sector, which takes into account the relationships, connections and clustering of cultural and creative activities.
- It adjusted views that the arts must be subsidised arts to include notion that cultural domains generate wealth.

The idea of creative industries was adopted not only by the UK Government, but also by Australia and the US, and also by cities and regions. For some scholars, these developments are linked to a coalescing neo-liberal consensus on economic policy in such countries which was increasingly evident from the early 1980s and onwards. As Ben Eltham emphasizes 'the keystone cultural policy of all three nations, the US in particular, has been the maintenance and extension of strong copyright and intellectual property regimes, especially in international trade negotiations' (2010: [online](#))

The notion of the creative industries was articulated within certain Commonwealth countries, and also found expression in parts of Latin America and East Asia. It also intersected with the design and implementation of cultural policy in the European Union (EU). Its form and even function varied with geographical and political settings. Two decades later the concept of 'creative industries' is internationally recognized. In some respects, however, it is being subsumed within the idea of a wider 'creative economy'.

The term 'creative economy' first appeared in John Howkins's book, *The Creative Economy: How People Make Money From Ideas* (2001). Howkins was the first to popularize the notion of the creative economy, and drew attention to the growing economic importance of intellectual property. Richard Florida developed the concept of 'creative class' (Florida 2003) and took a wider view on those working in or related to the creative industries. This concept was seen as including most, if not all, of those offering knowledge-based services and products.

Over time the realization that economic value of creative industries should not be de-linked with the social and cultural value of such enterprises grew among policy makers. A 2008 UN study stressed that the growth of creative and cultural industries was not a select experience but impacted on all continents. UNESCO itself took a somewhat guarded stance on the idea of the creative industries, but the 2009 revision of its cultural statistics framework took greater account of them. UNESCO opted for the linking cultural and creative industries as 'sectors of organised activity whose principal purpose is the production or reproduction, promotion, distribution and/or commercialisation of goods, services and activities of a cultural, artistic or heritage-related nature.' Hendrik van der Pol of UNESCO saw the difference between cultural and creative industries as follows:

Cultural industries relate to the creation, production and commercialisation of the products of human creativity, which are copied and reproduced by industrial processes and worldwide mass distribution. They are often protected by national and international copyright laws. They usually cover printing, publishing and multimedia, audio-visual, phonographic and cinematographic productions, crafts and design. Creative industries encompass a broader range of activities than cultural industries including architecture, advertising, visual and performing arts.

Despite increased consensus regarding the official organization of the CCIs, efforts continue to find new ways of conceptualizing the creative economy and whether to see the cultural and creative industries as more discrete sectors.

Part of the appeal of the notion of the CCIs, and the related idea of the creative economy, was the flexibility of usage. While there was some debate about the kinds of categorization of the

CCIs there exist areas of consensus. More significantly, perhaps, was the way these concepts were invoked for policy purposes. Representing different objectives for differing groups and citizens, they functioned not unlike Michel Foucault's 'floating signifier'. Notwithstanding the differences in interpretation and usage, the deployment does seem to have favoured a shift to less statist approaches to cultural policy.

3 The Nature of Work in the CCI Sector

A key paradox of the CCIs and the wider creative economy is that with a greater recourse to machines, robots and AI application the world will shed a range of jobs in coming decades (Autor 2015; Dao et.al. 2017). Jobs in cultural work and the creative economy generally appear to be more resistant, but not untouched. Precarity will, if anything, become more pervasive and constitute a defining quality of cultural and other work. Indeed it is likely the short-term contractual, under-paid and non-remunerated professional work will endure.

Trends about the nature of work in the cultural sector show relatively identifiable structural movements internationally. Jobs are often short-term, contractual and intermittent. The hours are long and dynamics of work bulimic. The workers in the sector generally exhibit a significant degree of mobility and often show a love for the work, notwithstanding the likelihood of lower pay scales. Some researchers note a mix of bohemianism and entrepreneurialism in the outlook of a good percentage of their respondents (Gill and Pratt 2013). On an existential level there is a good deal of insecurity and concern about securing work and earning sufficient money (Gill and Pratt 2013; McRobbie 2015). Maintaining and upgrading their skill sets and overall expertise and professionalism are related concerns (Connor, Gill and Taylor 2015; McRobbie 2015; Gallagher 2015; Santos 2017, Gill and Pratt 2013).

Thus, there is a continued tendency by policy makers to under appreciate the exploitative nature of work in many parts of the creative economy. The twin imperatives of working on a project-by-project basis, with the accompanying coordination costs for each project, and future-oriented working, contribute to an intensification of work. Indeed, the flexibility in flexible work is attached to the job rather than the individual (Conor, Gill and Taylor 2015:11). There is a further tension between the intensification of work on the one hand, and relative informality that is widespread in the sector in terms of hiring practices. This can result in amounts of unpaid time being devoted to networking to develop and maintain a profile (ibid.). A related development is the increasing use of unpaid internships (Shade and Jacobsen 2015:190).

Research has also underlined the great number of younger people in CCI sectors, gender inequalities, relatively high levels of education (Hennekam and Bennett 2017; McRobbie 2015; Snowball and Hadisi 2017) as well as in certain societies a relative lack of caring and familial responsibilities. The widespread incidence of precarity in the creative economy, along with the intensity of competition and a relative lack of regulation in the industries concerned, tend collectively to reinforce inequalities in regard to gender, race and class. For instance, a recent study by Sophie Hennekam and Dawn Bennet on women employed in creative industries in the Netherlands suggests the prevalence of sexual harassment. Furthermore, many women see this as part of their occupational culture and a condition for career advancement (Hennekam and Bennett 2017). The recent controversy regarding the predations of Harvey Weinstein, a prominent Hollywood mogul, indicates the prevalence of such practices at the pinnacle of the US film industry.

Internationally, signs of the widespread play of precarity in the creative economy, the intensity of competition and a paucity of regulation in the industries concerned, are reinforcing inequalities with respect to gender, race and class. Race and class factors also condition the world of work allowing the persistence of inequalities. In a recent study of the Philippine film industry, on key aspects of that country's shift to more explicit promotion of a creative economy, Janine Santos (2017) comments on the differing and unequal access to cultural

work and how those practitioners ‘born to wealth’ are far more likely to gain access to the creative industries: ‘Success in the Phillippine creative industries is often for the bourgeoisie.’

A further factor is the underdeveloped state of professional associations and trade unions in many of the CCI sectors. Their relative absence impoverish the collective sense of being a creative or cultural workers and in its place there is a more inward-looking and individual outlook (Connor, Gill and Taylor 2015; 13).

The thrust of recent critical research on the CCIs and the creative economy has been on the inequalities, increasing competitiveness and the pervasiveness of precarity within the sector. There has been less emphasis on the ways in which cultural workers have responded to such developments, and on the emergence of alternative approaches to cultural economic production. But there are signs that flexibly employed workers have begun to respond more coherently and collectively to the incidence of precarity in the CCI sector. Initiatives include collective organizations, campaigns, and mutual aid. The locus of these responses have been in the larger and more specialized CCI centres such as London, Montreal, Toronto and New York (de Peuter 2018). Also, those industries in the digital creative economy seem more influenced by such activities. Central to such efforts is the repurposing of digital platform and digital labour capacities in building collective actions and structures. Among the approaches and techniques used are name-and-shame protests by interns, and generally social media is spurring local labour activism (de Peuter 2018). The other interventions include looking to build labour solidarity among diverse workers across spatial localities. The Freelancers Union is one such example.

In advanced economies with a union tradition, social media has become important in organizing efforts by labour unions. Peter List, Editor of *WorkPlaceReport.com*, argues that over the past few years that Facebook, Twitter, Whatsapp and other social media platforms have been enlisted in organizing efforts to the increasing concern of employers. Such technologies allow workers to begin the initial stages of organizing and to discuss issues in their workplace ([List, n.d](#)). It also allows workers to coordinate with potentially allied national labour unions. This in turn provides organizers with information and advice regarding strategies and best practices. Chinese social media giants, Tencent Toutiao and Weibo have equal but under researched potential. Despite these efforts the levels of unionization in the CCI sector are low.

Despite the intensification of work and the play of precarity in the CCI sector globally, there has been an emergence in recent years of alternative approaches to cultural economic production and the associated work dynamics. As O’Connor noted in 2011: ‘New kinds of cultural practice across the globe, concerned to create new spaces of possibilities and collaboration, can be seen as part of work to invent new kinds of social collectivities’ (O Connor 2011). While such trends may not be moving at the kind of pace that O’Connor hoped for, there are coherent signs of more progressive and social democratic counter-trends.

In a study of the Berlin fashion industry, Angela McRobbie (2015) finds a number of cases of cultural industries informed more by social democratic practices than prevailing neo-liberal models, which she contrasts to centres such as London. Inter alia the notion of self-entrepreneurialism is significantly less important in discourses on creative work by fashion designers, associated cultural workers and policy makers. In Berlin, the fashion scene is informed strongly by a commitment to social projects with public support. These projects are aimed at generating sustainable jobs and promoting social inclusion through inculcating relevant skill sets, with a particular emphasis on women. McRobbie (2015) suggests that these kinds of initiatives should be expanded on an international scale. Job creation schemes in the cultural and creative industry sectors in the EU countries suggest some broader progress and possibilities in this regard.

Nevertheless, there are distinct limits to embedding such models on a broader scale. The policy imperatives of the policy elites of the majority of developing and emerging economies

would appear to be less susceptible to such interventions. This is due in part to the public costs of such interventions. However, there are signs internationally of the closer interaction between social enterprises and the CCI sector.

4 Selected Trends in International CCI Trade

Recent global data in the trade of cultural and creative goods and services is still sparse, but a 2015 and 2013 UNCTAD and UNESCO reports point to some key emerging trends. What is clear is that trade in cultural and creative goods and services, but mainly goods, is growing substantially, especially in Asian countries. However the trade flows also highlight entrenched inequalities. The Asian tigers, and other countries such as India and Turkey, are performing well in creative industry trade, while African countries tend to lag (UNCTAD, 2015). The driving force for this is the predominance of copyright and intellectual property applications – for which the broad design sectors (industrial, fashion, technology) account. Newly industrialised countries, such as South Korea, India and Turkey are outstripping for instance, many African countries, where IP and copyright applications are lower. In essence, IP regimes are indicative of the tension between what is ‘creative’ in a news that something new has been created (worthy if an IP application) versus what is more broadly ‘cultural’.

This section briefly outlines the trends informing the trade of cultural and creative goods and services. It looks at what international cultural goods trade flows look like, who dominates, why and in what sector(s). According to the UNESCO Creative Economy Report (2013), the creative economy is now one of the most rapidly growing sectors of the world economy. The 2005 UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions reiterates the special nature of cultural goods. The Convention also invites developed countries to open their markets to cultural products of developing countries (UNESCO, 2005). This is because international trade is an important driver of the economies of many developing countries, and trade has the potential to create higher value added employment (Cattaneo & Snowball, 2017).

The complexity of the globalisation and its impact on the flows of cultural goods and services has resulted in additional challenges for cultural trends measurement. Statistics are a key component for assessing the vitality of the trade in cultural goods and services globally (UNESCO 2016). According to Throsby (2010), globalisation has also influenced the transformation of cultural policy in recent years. The following areas where culture engages with the international economy are identified:

- International trade in tangible cultural products such as artworks, books, CDs, etc;
- International trade in intellectual property rights relating to intangible cultural commodities such as television programmes, movies, digitised music;
- International labour movements affecting cultural industries, such as the mobility of artists;
- International cultural exchanges such as touring by performing companies, the circulation of artworks and artefacts on loan in between museums and galleries;
- International cultural diplomacy and the exercise of soft power; and
- International cultural tourism (Throsby, 2010).

This positive outlook on the creative economy is reflected in the marked increase in trade flows over the past decade, where international trade in creative industries showed sustained growth (UNCTAD, 2015: 1). The global market for traded creative goods and services totalled a record of \$547,513-billion in 2012, as compared to \$302,058-billion in 2003 (ibid.).

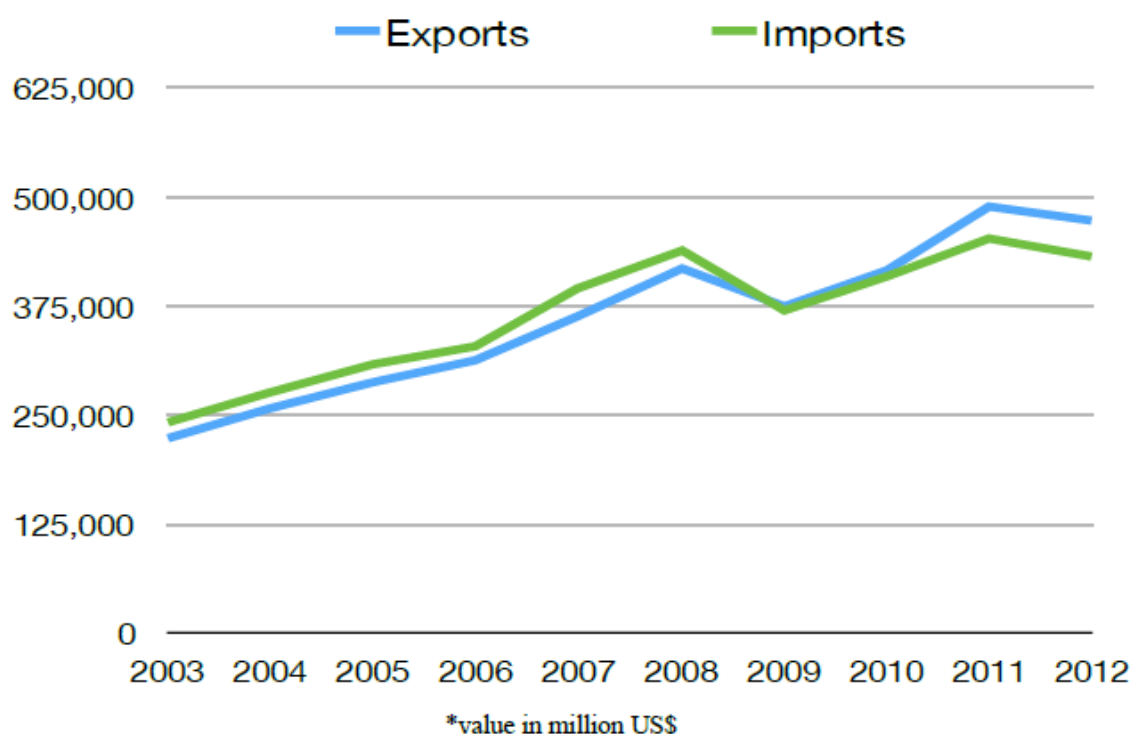


Figure 1: Imports and Exports of Creative Goods Worldwide, 2012, Source: UNCTAD Global Database on Creative Economy

From an export perspective, the global creative economy was looking positive in 2012; and more so in developing countries where, according to UNCTAD, exports were growing faster than in the developed world. It is however important to note that China and Hong Kong feature within the top five exporters from the 'developing' economies, which is not unproblematic considering the level of development of both China and Hong Kong. Even their separate listing is problematic.

Nevertheless, in 2012 developing countries' share of creative goods exports were growing faster than developed countries, reaching a total share of 57 per cent of world exports of creative goods in 2012 compared to a 42 per cent for developed countries. However, in terms of imports, developed countries were more important with a 69 per cent share of the world market of creative goods imports in 2012 (ibid, 2). Interestingly, 69% of sectoral export of goods came from design and new media, emphasising the value of IP, copyright and technology as a primary driver of value generation in the creative economy. Globally China is by far the world's leader on creative goods exports, with a 31.9% market share. It is followed by the USA, which lags behind at 7.9% (UNCTAD, 2015: 3).

While the creative economy picture for developed nations and some newly industrialised countries, especially Asian nations, looks bright, Africa is experiencing mixed growth. While African exports of creative goods reached \$1,900 million in 2012 compared to only \$778-million in 2003, it remains a net importer of creative goods with imports standing at \$5,100 million in 2012.

Off the back of this data UNCTAD (2015) argues that creative services sectors have shown stronger growth potential during this decade and as the knowledge-based economy expands around the globe, creative services will continue to grow.

The 2015 EY Report, Cultural Times, mapped similar findings, showing that CCI revenues worldwide exceed those of telecom services (US\$1,570-billion globally), and surpass India's GDP (US\$1,9-billion). Within the total, the top three earners are television (US\$477-billion),

visual arts (US\$391-billion), and newspapers and magazines (US\$345-billion). With 29.5 million jobs, CCI employ 1 % of the world's active population. The top three employers are visual arts (6.73m), books (3.67m) and music (3.98m).

Royalties and license fees based on intellectual property rights have outpaced global economic growth in recent years to generate an estimated \$180 billion in revenue a year, according to a United Nations report which says growing demand for such rights is stimulating innovation at businesses worldwide (UNCTAD, 2015: 11). Global filing activity for patents and trademarks grew in 2013. The estimated 2.6 million patent applications filed worldwide in 2013 represented a growth of 9 per cent on 2012 – indicating the real potential in innovation as a driver of the creative economy.

Broadly, the global market for traded creative goods and services totalled a record \$547-billion in 2012, as compared to \$302-billion in 2003. Exports from developing countries, led by Asian countries, were growing faster than exports from developed countries. EY's 2015 data reflects this showing that the Asia-Pacific accounts for US\$743-billion in revenue (33% of global CCI sales), with Europe and North America the second and third largest CCI markets, with significant growth potential in Latin America, Africa and the Middle East (2015:8). This is consistent with UNCTAD's findings that the creative industries are 'vibrant sectors of the global economy' (2015:1).

UNCTAD notes that 'increasing demographics, better access to ICTs and dynamic shifts to new lifestyles associated with creative products and services, makes trade in these sectors a promising avenue for future growth' (ibid). In the next section we cover a number of key digital trends. But the evidence of the merging of technology and the creative and cultural economy is clear in EY's data, which notes that the CCIs are a 'locomotive of the online economy'. According to their findings:

- the CCIs contribute US\$200-billion to global digital sales in 2013.
- Cultural and creative content also powers sales of digital devices, which totalled US\$530-billion 2013.
- Digital cultural goods are, by far, the biggest revenue source for the digital economy, generating US\$66-billion in B2C sales in 2012 and US\$21.7-billion of advertising revenues for online media and free streaming websites.

The question remains, in digital and data-led economies, how can trade be enhanced?

5 Meta Trends: High Technology and the Creative Economy

Technological advances are leading to the next digital revolution. Currently, the strongest demand for technology comes from industries in the creative economy (Isa, 2017). Or as Hall & Takahashi, 2017 argue, "The creative economy is at the intersection of creativity, culture, economics and technology, so it could be entirely reshaped by new technologies that promise to disrupt our interaction with content". Overall, the growth trajectory is based on the increased access to the internet and the ongoing digitization of the cultural and creative spaces, with companies and innovators hurrying to develop services that integrate content and information more seamlessly with our lives. There are four major technological trends which are informing the creative economy (Isa, 2017) and will collectively disrupt how we produce and consume creative content (Hall & Takahashi, 2017). They are: Virtual Reality, Augmented Reality, Artificial Intelligence and Blockchain.

5.1 Virtual Reality

Virtual Reality (VR) is "a scientific and technical domain that uses computer science and behavioural interfaces to stimulate in a virtual world the behaviour of 3D entities, which interact in real time with each other and with one or more users in pseudo-natural immersion via

sensory motor channels.” (Leovaridis & Bahna, 2017, p. 161). Si (2016) states that VR is based on immersive multimedia or computer-simulated life, replicating an environment that simulates physical presence in places in the real or imagined worlds and lets users interact with that world. Essentially, VR artificially creates sensory experiences-sight, hearing, touch and smell (Isa, 2017). The ultimate goal of VR is for the consumer to experience the computer world as if it were real (Leovaridis & Bahna, 2017).

VR is in its early stages and offers creators opportunities ‘to get in on the ground floor’. It has the potential to reshape the way people consume content and experience products. It could provide creative industries an opportunity to leverage creative skills market products and can make useful contributions to human performance (Leovaridis & Bahna, 2017). These are the CCIs widely benefiting from VR: Core creative arts-literature, music, performing arts and visual arts; core cultural industries-film, museums, galleries, libraries and photography; wider cultural industries- heritage services, publishing and print media, sound record, television, radio, video and computer games; related industries- advertising, architecture, design and fashion (ibid). VR is used in these creative industries to create a competitive advantage through media attention and has memorability and experimentation power; and immersive and story-telling ability (ibid). It can also be used as a force for good – for example, UN Secretary General Ban Ki-moon used VR in 2015 to spread awareness of areas experiencing wars and natural disasters (Hall & Takahashi, 2017).

For creators, VR has a few advantages. It is more expensive to create due to requiring another dimension of information; and it will for some time, protect professional creators to the exclusion of amateur creators who distribute content free or for low fees. Basically, consumers and amateurs have less scope to create and share their own content, for now. This is likely to change overtime as was seen in the CD and DVD market, but would not be overnight. For instance, in virtual reality concerts limits to sharing will be far stricter as VR headset scanning retinas and associated ticketing are individual oriented. This will strengthen creator's position relative to consumers for the first time in years (Forbes, 2015) since it starts with the innovators reaching consumers (Leovaridis & Bahna, 2017).

The challenges of VR is that it is five to 10 years away from mainstream adoption (Cook, 2016). VR is limited by the cost of computer hardware, health and safety issues and limited consumers and a paying audience (Isa, 2017). Additionally, there is the risk that without proper safeguards, data collection and surveillance could enter dangerous territory and threaten privacy (Hall & Takahashi, 2017).

5.2 Augmented Reality

Augmented Reality (AR) makes the real-life environment into a digital interface by putting virtual objects in real-time. Basically, it mixes a live real-world view with virtual interactive content on a mobile or wearable device (Si, 2016) by using the existing environment (world) and overlaying new information on it (Isa, 2017). AR has the potential to make content more powerful through new skills, feelings and understandings (World Economic Forum, 2018). As one AR company director remarked regarding the possibilities for museums, ‘The beauty of AR and mixed reality MR is that the technology is far less an intrusive experience than virtual reality. They blend reality with created reality and content in a way that can be very powerful’. In this regard the ability of AR systems to load different content onto a device for different viewers is significant.

Examples of AR are vast. Video gaming is now rivalling global film production. GPS Navigation is one of the best-known applications. The UK's Premier Inn is using AR wall maps in its London hotels. In France, the recently opened Centre International d'Art Parietal Montignac Lascaux walks visitors through a representation of a nearly historical site that has been closed to the public for years – the caves of Lascaux. AR and increasingly mixed reality (MR) are

being used to enhance the museum experience and engage visitors in contents in new and innovative ways. It is the need to retain the strength of content while providing an improved means of engaging with it that appeals to museums and curators.

The benefits of AR for creators is that it sets up for new methods of music production, visualization, mixing and control and that it will outperform VR (Isa, 2017). The challenges of AR is that content may be even more expensive to produce than VR content. The technologies are still in their early stages and confidentiality of information is one of the defining features of the emerging industries – it may not protect user's wellbeing (World Economic Forum, 2018).

5.3 Artificial Intelligence

The use of Artificial Intelligence (AI) in the creative and cultural industries has seen a range of advances in terms of the production, distribution and consumption of content. AI refers to the development of computer systems able to perform tasks normally requiring human intelligence and is making waves in the creative economy with application in music, art, fashion and film (World Economic Forum, 2018). AI is helping to make products and services more personalised –for example, digital publishers can use AI to learn user's browsing habits, which can then make recommendations tailored to their interest areas, personality and even mood (Hall & Takahashi, 2017). While AI has considerable potential for the creative economy, a range of the creative content is being routed through technology platforms. This re-shapes the relationship between creators, publishers and technology companies. With the convergence of platforms and the accompanying economies, AI creates a new setting in which the platform could exercise excessive influence on our information and entertainment diet.

AI can help fight crime, diagnose disease, play games, and more but it has been challenged in the creative space reserving creativity for humans (Cox, 2017). Examples of AI in cultural and creative industries are vast. A Chinese content industry AI installation writes articles and poems and even paints – the underlying algorithm is however developed by humans. Local media companies are adopting AI in some of their news writing. There is also evidence of increasing collaboration between human creativity and AI – for instance, AI algorithms are being used to reproduce images from an artist's oeuvre.

Some major challenges of AI are that free speech may be harmed and manipulation can occur without our knowledge (Hall & Takahashi, 2017) and that (mis/dis)information can be shared virally (World Economic Forum, 2018). As the fake news debacle deepens, one can see how the algorithm can generate negative outcomes. The ultimate pitfall is that creating involves making something new. So far AI can only follow instruction from true creatives who come up with the projects and concepts (Cox, 2017).

5.4 Blockchain Technology

Blockchain technology has its origins as the underpinnings for the cryptocurrency bitcoin, and the payment methodology linked with it. In essence, a blockchain is a public database that can store information about individual pieces of content, such as who created it, while sharing with a network (Richmond, 2017). "A blockchain is a secure distributed ledger, with security furnished by powerful token-based economic incentives (in a process called 'mining'), that records and validates 'blocks' of peer-to-peer transactions" (Potts & Rennie, 2017, p. 3). It is a tool for maintaining transparent (public) and distributed (over network) ledgers that can verify transactions with minimal third-party involvement – it solves the problem of trust; basically, it strips the middlemen from the economy and rewards the makers and doers who create value (Dellot, 2016). Blockchain also uses asymmetric cryptography as the basis for trust for transactions – with separate keys for encryption (public) and decryption (private) (Potts & Rennie, 2017; Hall & Takahashi, 2017).

Mougayar (2016) suggests that the technology is as important as the World Wide Web and that it 'might give us back the Internet, in the way it was supposed to be: more decentralized, more open, more secure, more private, more equitable and more accessible'. In fact, blockchain technology is known as the second generation of the internet (Potts & Rennie, 2017). The first generation of the internet transformed creative and cultural industries by lowering distribution costs to near free – the internet of data (ibid). Blockchain may transform the industry by 'tokenising' the creative economy – the internet of value (ibid). There has been constant friction between artists and those who feed off their talents (Tapscott & Tapscott, 2017).

The advantages of blockchain seem to be vast, especially in cultural and creative industries. Blockchain could usher in infrastructure for creative and cultural industries where it becomes much easier to create, protect, transact and license and to generally create and transact value (Potts & Rennie, 2017). Perhaps most important is that artists will finally be at the centre of their own ecosystem, not marginalised at the periphery (Tapscott & Tapscott, 2017) since blockchain lowers costs and pushes access and control to artist and fan directly (Potts & Rennie, 2017). In music, artists today receive 15-20% of their music royalties once the intermediaries (record labels, studios, retailers, streaming services, etc) have their cut (Dellot, 2016). Blockchain allows the value components to exist on the blockchain-payments, licensing, intellectual property management, contracting and governance, digital content storage and access which enables the relationship to be software and protocol governed rather than human intermediated (Potts & Rennie, 2017). In essence, it could have a significant impact to the creative economy, especially under-resourced smaller creative firms and practitioners in regard to protecting artists' rights and intellectual property more generally.

Blockchain allows for an artistic-centric model that Takahashi (2017) claims has five forces, which have the potential to transform the creative industry and rights management for intellectual property and artistic works:

- 1) It enables smart contracts, which are agreements that can be attached to blockchains to bring clarity to deal making – artists could load up their content and invite record labels to access it by agreeing to their terms of use (Dellot, 2016). These deals respect the artist as an entrepreneur and equal partner in any venture (Tapscott & Tapscott, 2017).
- 2) It establishes peer-to-peer (P2P) transactions by re-empowering creators through creating a direct consumer to creator network by cutting out intermediaries (Richmond, 2017).
- 3) It promotes efficient, dynamic pricing through providing fast, frictionless royalty payments and an instantaneous, digital currency (Dair, et al., 2016; (Richmond, 2017).
- 4) It allows micro-metering or micro-monetising. Artists can raise venture capital and is a way to improve discoverability and shareability (Tapscott & Tapscott, 2017; Richmond, 2017).
- 5) It establishes a reputation system through transparent ledgers, transparency through the value chain and piracy protection (Tapscott & Tapscott, 2017; Dair, et al., 2016). These ledgers assist in rights protection by providing an audit trail for all transactions on the network (Richmond, 2017). It also acts as a networked database for music copyright information (Dair, et al., 2016).

The challenges of blockchain lie in challenging the status quo through adoption and acceptability of the technology (Dair, et al., 2016; Takahashi, 2017). Artist promotion through the need for agents would be another challenge (Takahashi, 2017), since creatives cannot do everything alone. Takahashi (2017) notes that other challenges could be related to storage (on or off chain), that micro payment features are not enabled and the legal frameworks for Intellectual Property have not been established.

6 Institutional and Policy Issues and Trends

This section considers select macro-institutional and policy trends in regard to the CCIs. As pointed out earlier the economic promotion of CCIs has had the inside track in national and extra-national strategy and policy interventions.

Despite the significant growth of interest in the nature and effects of the CCIs, they were still somewhat removed from formal industrial policy in the late 1990s and early 2000s. In recent years the emphasis has changed most specifically in developed economies and regions, and in most large emerging economies.

However, there are still policy slippages and a variety of constraints to the centring of CCIs within industrial and economic development strategies. In part this is because the CCI sector is in flux and an awkward sector to address. In addition, there is still, at a meta-level, a degree of hesitation about bringing culture more directly into the economic mainstream. Significant here is that the supersession of the Millennium Development Goals by the Sustainable Development Goals in the period 2014-5 (and ongoing), has resulted in a seeming under-emphasis on culture and cultural production in the relevant agenda setting forums.

Moreover, there have been distinct slippages, most especially in regard to the question of responding to the issues of precarity, the intensification of work and the continued inequalities in the sector already covered above. In recent years these issues are being addressed but the relevant processes are uneven and the scope of the interventions remains relatively limited.

The reasons are complex and explained in part by the sets of challenges posed by the expansion of the digital platforms globally, and the instrumental aspects of the market-oriented discourses on the creative economy. The inter-disciplinary and multi-sectoral nature of the creative economy constitutes a further consideration. An additional dimension is how the contemporary state in various settings conceptualizes and confronts such developments and challenges.

6.1 The Four Tech Titans and the CCIs

It is surprising how quickly the giant tech companies have come to dominate the world economy. It is a development that has significant implications for nation states. Ten years ago, only one of them, Microsoft, was among the biggest companies in the world as measured by market capitalization. Nowadays, the top five usually consists of Apple, Alphabet (the parent company of Google), Amazon, Facebook, and Microsoft. Of these Apple, Amazon, Google and Facebook constitute in particular a conundrum for governments and pose serious challenges to indigenous business especially in the creative industry sectors. Writings by Scott Galloway (2017 and 2018), a Silicon Valley IT entrepreneur and professor at NYU, advocate a trust-busting exercise by the US government in regard to the four companies.

Currently the tech Four have a market capitalization of \$2.8 trillion (the GDP of France), a 24 percent share of the S&P 500 Top 50. Galloway stresses the destruction of jobs by the Four is dramatic. This is particular in terms of advertising and e-commerce. The tech quartet's contribution to revenue in the US is well below corporate averages. Outside of the US tax revenues are far less. Between 2007 and 2015, Amazon paid only 13 percent of its profits in taxes, Apple paid 17 percent, Google paid 16 percent, and Facebook paid just 4 percent. In contrast, the average tax rate for the S&P 500 was 27 percent.

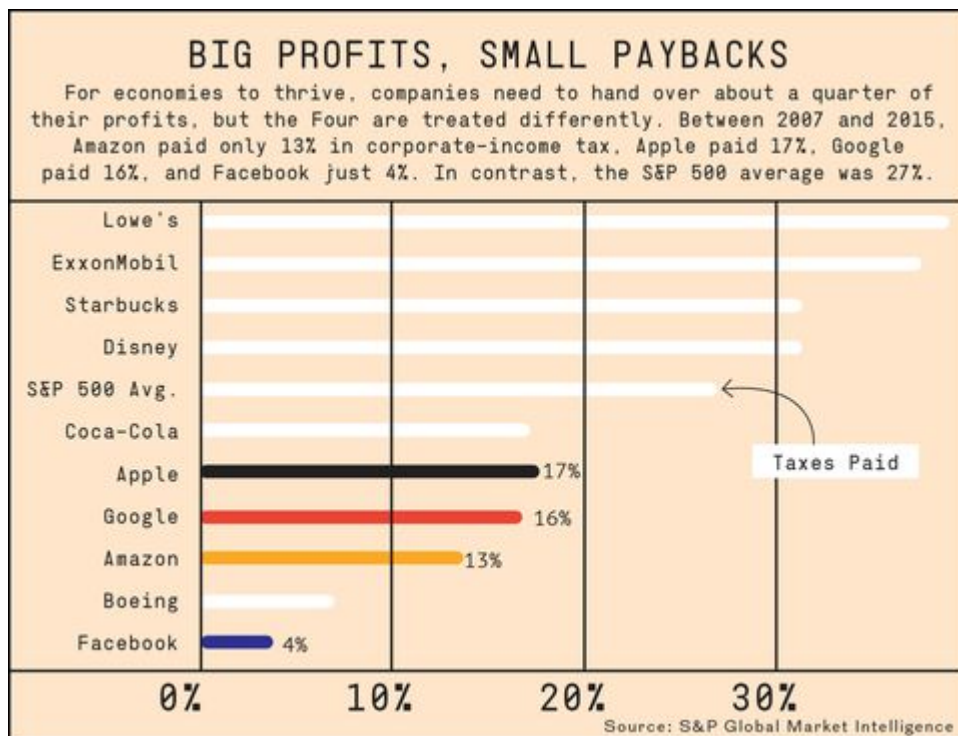


Figure 2: Percentage profit paid by Big USA based companies.

In general, nation states have mostly proved reluctant to confront the Four Tech corporations on matters of tax and the effects of their operations on local businesses. The most noteworthy moves have come from Margrethe Vestager, the EU commissioner for competition, who in May 2017, levied a \$122 million fine against Facebook for lying to the EU about its ability to share data between Facebook and WhatsApp, and in June 2017 penalized Google \$2.7 billion for anticompetitive practices (Galloway 2017). The ongoing impact of Big Tech on the CCIs needs ongoing analysis and is a major area of future research.

6.2 CCIs and Regional and National Economic Development

There are a number of trends that have informed the current moment and thinking on the value and contribution of the creative economy to national and international policy; and support for the CCIs. The CCIs are receiving increased attention nowadays than in previous decades particularly because of their potential for job creation, stimulating innovation and the growth of smaller enterprises. Nevertheless, there is still some unevenness to their incorporation into development policy and in certain nation states a distinct gulf between rhetoric and reality. In addition, along with increased emphasis on supporting the CCIs and the creative economy, we are seeing a seemingly paradoxical reduction in certain cases of public support for the arts, culture and heritage sectors, with the private and third sectors viewed as options for picking up the slack in terms of investment and social capital. This is in line with the continued expansion of macro-neoliberal thinking and policies and the overall decline in spending on public goods in many developed and developing economies. There are counter-trends at macro-regional levels, particularly in the EU where funding is available for regional and even local initiatives. Despite this paradoxical scenario, the creative economy and associated cultural and creative industries are viewed as a viable means to an end.

In the post-2008 period the increased invocation of clusters in regard to the promotion of the creative economy and CCIs more particularly has been a distinct trend. Linked to this development is the utilization of more dynamic and reflexive approaches to economic and industrial economic development. A good deal of the work happens at sub-national level. In certain of the regional blocs such as the EU, CCIs are receiving quite extensive coverage

ranging from specialist institutional structures, joint research & development (R&D) work, funding initiatives and incentives.

While agglomeration processes are evident in CCI sectors in developing and developed economies, the cross-cutting and inter-disciplinary nature of the CCI sector stands to benefit from *formal cluster initiatives*. The establishment of such functional clusters has made a difference to participants and the localities and regions in which they are situated. Accompanying such developments is a tendency to utilize CCI clusters more directly in new economic and industrial strategy approaches. In particular CCI clusters articulate well with 'smart specialization' and 'place-based' strategies.

In a place-based perspective knowledge about places is central to the design of regional economic and industrial strategies. Such strategies and policies need to locate or 'discover' new modes of knowledge and thinking. 'Smart Specialization' is an OECD framework for economic transformation which analyses and defines regional competencies and locates new areas of opportunity (OECD 2013; RDA Hunter 2016). It is oriented towards a place-based approach. Currently the EU is the locus of such interventions, but there is evidence of emerging programmes in both developed and transitional economies, most especially in Australia (e.g. RDA Hunter 2016).

Heterodox economic theory is playing an increased role in the articulation of new approaches and policy regarding the CCIs and creative economy, with space, place and history being accorded more systematic attention. Despite such interventions, concerns remain regarding reduced public funding in ACH sectors (Haines et.al. 2016).

6.3 The Smart State and the Creative Economy

Overall, the greater emphasis by the state and policy elites has been to look to creative economy strategies as a means to regenerate economies, rather than to look to provide more stability within the sectors and to cater more directly for the needs of creative workers. The policy instruments in play are in general under-coordinated. Murray and Gollmitzer (2012) divide such instruments in four broad categories, namely business support; awards and contests; education and training; and social security policies. Of the four there appears to be the least enthusiasm for social security policies. To help ameliorate the 'precarity trap' it is important to provide the sector/s with more in the way of social security measures. The authors argue for a revised form of 'flexicurity' which would provide a range of interventions including targeted, sub-sectoral, sectoral and broad-based strategies to help support cultural workers. Such interventions, see a convergence between social, labour and cultural policy (Murray and Gollmitzer 2012). This in turn requires a more agile state and more innovative and inter-agency interventions by the state to promote not only the CCIs but the cultural workers and practitioners operating in the spaces of the creative economy. There are signs of moves to provide more social undergirding of the creative economy, but this is much more the case in advanced industrial economies, most especially those with a social democratic tradition. Funding such policy shifts in most developing and emerging economies will on the whole be more problematic. Nonetheless, we may expect modest increases in social activism for improved rights and social funding for cultural workers in developing and emerging economies.

The further issue is one of the current shape and functions of the state. Despite burgeoning research on the nature, scope and dynamics of the creative economy and the embedding of CCIs within national and regional economic policy, there has been to date a relatively modest coverage of the kind of state required for running the creative economy in current times and in the future. The state it seems is often taken as a given rather than conceptualized as an integral part of the relevant social, political and economic transformation and restructuring. The state should embody creativity more directly in its structures, actions while the process of governing the creative economy, and CCIs, should be reflexive and smarter.

7 Conclusion & Policy Implications

This paper has considered select current and emerging trends on an international level in regard to the CCIs and the creative economy more generally. The main emphasis has been on globally identifiable trends. Given the rapidly changing digital environment impacting on the creative economy, our observations are not definitive but rather suggestive.

The first section of the paper explored compactly the contemporary discourses and debates on the creative economy and the CCIs more specifically. These we argued are worth considering in an historical context as they can provide one with an anticipatory and reflexive dimension. What is revealed is an expanding and dynamic notion of the creative economy and the CCIs. While progress has been made in achieving greater consensus among the national economies as to the nature and extent of the CCI sector, differences in emphasis remain. These provided some signals of further structural changes within current fields of creative and cultural economic production. There are signs of more specific sets of definitions within the context of a creative economy to take cognizance of the new forms of creative and cultural work and its further commodification.

The second part of the paper considered the nature and restructuring of work in the CCI sector. It noted the paradox of many of the practitioners and workers seemingly enjoying their work against a backdrop of increasing precarity and insecurity at work. The growing intensification of such work was also noted, as was the persistence of race, class and gendered inequalities. The low levels of unionization and the ways in which cultural workers were caught up in globalizing value chains were also noted. Concurrently, however, one found encouraging signs of new forms of social activism and niche unionism, as well as collective and more social democratic forms of creative industries. This included the slowly growing number of social enterprises operating in the creative economy.

Thirdly, the paper explored trends in the international trade regarding CCIs, with a focus on South Africa's global and macro national trends within the global economy. It also examined the country's growth in the CCIs involvement in international trade between 2005 and 2015. The main findings of the study are as follows: Creative goods exports showed a very slow growth trend up until 2005. During the 2008/2009 recession, exports took a deep, followed by the 2010 dividend that resulted in significant increase in trade. Since then, there was a decrease in trade.

The next section examined key meta-trends impacting on the creative economy. Four key technology developments that were already having a disruptive influence on the creative economy and the nature and orientation of CCIs were identified. These developments comprised VR, AR, AI and blockchain. The significance of such developments in allowing for greater control of artists rights and potentially more democratic ownerships of independent cultural production was discussed.

The final section explored strategic institutional and policy issues regarding the development of the CCIs and the regulation of the creative economy. The continued tension between the creative economy (and CCIs) as a force for economic development and the need for finding a counter to the increased incidence of precarity within the cultural workforce globally was considered. New forms of smart state intervention to secure a more sustainable and open creative economic work environment is a core policy finding here.

Inequalities in terms of the playing field/s for the CCIs need to be countered actively to expand the spaces in which such enterprises can flourish. The growth, dynamism and accompanying structural insecurities in the creative economy require research and smart policy interventions.

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Recommended by:	Charles Mabaso	Chief Director		05/04/18
Approved by:	Lisa Combrink	Acting Deputy Director General		06/04/2018