Universities as Creative Hubs: Modes and practices in the UK context

Dr Daniel Ashton, University of Southampton
Dr Roberta Comunian, King's College London

Introduction
The chapter critically reflects on the notion of 'Creative Hubs' from a higher education perspective. In recent years, many universities in the UK have initiated projects to interact and connect with the creative economy locally and regionally. Firstly, this chapter reviews the literature on universities engagement with creative hubs. Secondly, drawing on an extensive desktop mapping of practices in the UK, it develops a framework to understand the modes and practice of engagement of higher education institutions in the establishment and management of 'creative hubs' within or attached to their institutions. This includes outlining seven types of university creative hubs, reflecting on different dimensions, and exploring the distribution and institutional aims. Thirdly, a common approach around "managed interventions" is highlighted to raise some of the tensions and areas for further debate and discussion. These include the relationship with existing research and teaching agendas, the extent to which they connect with existing forms of creative (hub) activity, and issues of inclusivity and accessibility.

Part One: Introducing universities as 'creative hubs'

As Dovey and Pratt (2016: 2) note in the introduction to the British Council report, *Creative Hubs: Understanding the New Economy*, 'the word "hub" has become a universal but slippery term to label centres of creative enterprise, representing many different shapes, sizes and agendas.' This report includes a number of case studies and a scoping of hubs in key UK cities. Our focus in this chapter is on universities and/as creative hubs. This includes both a mapping of how universities intersect with the concept of creative hubs and reflections on the specific opportunities and tensions associated with this intersection.

While it is acknowledged that universities have been long-term supporters of artistic and cultural development in cities and regions throughout the UK (Chatterton and Goddard, 2000), their engagement with the creative economy is a more recent phenomenon that has been intensifying in the last decade both at national (Evans, 2009; Comunian, Taylor and Smith, 2014; Benneworth, 2016) and international levels (Comunian and Ooi, 2016). Comunian and Gilmore (2015) have identified three nested levels of engagement. The first level is linked to the basic co-presence of the university in its creative and cultural context and often coincides with the presence and development of venues, facilities and cultural

spaces within universities. The second level considers the importance of creative knowledge generated by universities and at the boundaries between universities and the creative economy. Here it is important to consider the role of 'third spaces' that facilitate opportunities for shared research and innovation. The third and final level, is at the core of this engagement and focuses on the creative human capital itself, - the academics, graduates and practitioners that interact within and across these spaces.

When we talk about universities as hubs for the creative economy, the centrality of creative human capital cannot be ignored. While physical and virtual infrastructures are important, Comunian, Gilmore and Jacobi (2015) describe the role played by academics and graduates on one side and researchers and practitioners on the other, in creating local networks and opportunities. Creative human capital is seen here as a permeable and hybrid concept, which tries to capture the importance of education with creative disciplines but also the value of knowledge and experience within the creative sector (Comunian, Faggian and Jewell, 2011). This concept connects with teaching and learning practices in relation to higher education and the creative economy (discussed in the next section), but also highlights the emergence of new practitioners within academia and the creative sector that are able to work at the boundaries of these sectors (Research and Enterprise in Arts Creative Technology (REACT), 2016).

Within the general trends and frameworks identified by Comunian and Gilmore (2015) there has been a recent trend for universities to establish "creative hubs" to develop their connection with the creative economy and their provision to students in this subject area. The concept of 'creative hubs' has of course been used for a long time to refer to "creative clusters" (Virani, 2015) and more broadly capture the opportunities that are generated when a critical mass of creative ideas and people concentrate in a specific locale (physical or virtual). These can be established with a range of objectives and formats (that will be explored later in the chapter) but all respond to the objective of pushing universities in their "third mission" to engage beyond teaching and research and general connections and impact within their locale (Benneworth, 2016).

In reporting on the activities of REACT, the 2016 report noted that 'creative economy hubs as an idea have historical roots stretching back at least 30 years' and 'are part of a long game, [and] will not work as randomly spaced short-term projects' (REACT, 2016: 13). One of the main recommendations is that, 'universities should establish long-term relationships with these delivery partners based around "third spaces" that offer neutral ground for collaboration' (REACT, 2016: 8). The concept of the "third space" is also explored by Comunian and Gilmore (2015: 18) as, 'spaces which are neither solely academic spaces nor solely creative and cultural production spaces but an open, creative and generative combination of the two.' These approaches help for establishing the importance of creative hub initiatives as co-constructed and collaborative. In addition to this broad conceptualisation or ethos, there are important steps to take in differentiating different modes and practices. In his analysis of the "creative hub" concept, Virani (2015) identifies five types of creative hub and services for creative sector SMEs. In this chapter, we undertake an extensive mapping exercise to unpack the various interpretations that the term 'creative hubs' takes within the higher education context.

Part Two: Mapping university creative hubs

Creative hubs types
The chapter is based on an in-depth desktop research conducted over 2017 that targeted all UK universities to explore any activities or infrastructure that could be loosely associated with the term "creative hub'. Through this research we identified a total of 128 hubs unevenly distributed across 86 institutions with most institutions having one such hub but others including up to 4 hubs. The nature of this exploratory research does not mean to be exhaustive and there might a number of hubs that might not have been captured by our mapping (due to the lack of visibility or because being project-based they had already ceased when the research took place). Reviewing the range of creative hubs present across UK universities, we have identified 7 types of hubs according to their objectives and focus, but also articulated by the type of investment and infrastructure on which they are based. It is important to clarify with some notes how we proceeded with data collection. Although a few institutions presented exhibitions, galleries and art spaces as 'hubs', we have not included this kind of infrastructure if there was no reference to other forms of engagement (with research, teaching or external creative practitioners) beyond exhibiting. We have also excluded projects which were not university-led (for example a creative hub owned and run by a local authority but where the university might have been mentioned). We then mapped some projects that have already ended (under the type 1 creative hub) when extensive web resources were still available. This is because we believed it was important to capture the temporary nature of some of these infrastructures. Finally, we focused on universities as hubs, so some of the projects where multiple universities were involved have been counted as individual projects and associated to each institution as we tried to map the connection between creative hubs and institutional type[i].

In our research, we have identified seven types of creative hubs. Of course, many included a range of activities and objectives and could have been considered under more than one of our categories. However, we looked at the main focus of the hub to define a single type for each of the hub identified in our online research.

   1. *Creative hub as temporary infrastructure*
Our mapping reveals a number of projects, which we could identify with the term "creative hub" but that were temporary in framework and have now ended. We still think it is important to include these in our reflection as they highlight two key aspects of the nature of creative hub. In one respect, they are often linked to temporary funding and therefore need to end. However, this is not always an issue as they are also based on the idea that stimulating networks and interaction can create long-term self-sustaining ecologies. For example, the four Knowledge Exchange Hubs for the Creative Economy funded by the AHRC which are now closed projects have been included in this category[ii].

   2. *Creative hubs as rented workspaces/incubator*
Many universities have themselves started /renovated spaces to rent out to professionals on a temporary basis or are involved in other external projects of these nature as partners. There are a range of advantages both in bringing in professionals (whether giving them access also to students and research within the university) and in creating spaces that

alumni and ex-students can also benefit from, often with the view to locally retaining talent. Some examples of these kind of incubators and rented workspaces are: the Creative Studios Project supported by Aberystwyth University (targeting mainly external practitioners as renters) and Marketplace Studios, supported by Manchester Metropolitan University specifically for its graduates from the Manchester School of Art.

3. Creative hub as research (impact/ industry-based) unit or brokering unit

Many universities interpret a creative hub as meeting space for industry and academic research, where academics and research can focus on "impact driven research" or commissions delivered for the benefit of outside partners and customers. Often these kinds of hubs are centrally driven by the institutions to engage with the industry as well as showcase current research project and activities. Examples of this type of hubs are the Digital Creativity Labs at the University of York or the CoAST Research Group at Canterbury Christ Church. They can vary in size and infrastructure as sometimes they can be centrally managed by the university or affiliated and created by an individual department.

4. Creative hub as shared/open lab

This interpretation of the creative hub is quite flexible and influenced by the emergence of the FabLab movement that connects with the idea of seeing a hub as an open space (Walter-Herrmann and Büching, 2014). The infrastructure is used for knowledge exchange, Research and Development support, and access to university networks, students and researchers. Often depending on the nature of the subjects involved, this can be seen as a gallery space or recording studios. The main characteristic of these types of hubs is the fluidity and flexibility that these labs provide, involving a range of stakeholders (internal and external) for different activities. An example of this type of hub is FACTLab based at Liverpool John Moores University.

5. Creative hub as student shared workspace / student-base service provider

In this format of the creative hub, students are key in the delivery of content and services to outside partners. This approach closely resonates with Virani's (2015: 8) discussion of the "Training Institution": 'This can be a college or university or course or programme. Training institutions in the creative sector primarily use apprenticeship-type learning. Fashion colleges with studio provision are a prime example of this type of hub.' As Virani's analysis shows, there are multiple configurations and aims associated with university initiatives operating with/as businesses. There were two examples from our analysis that have also featured in extant scholarship. Artswork Media at Bath Spa University is a creative industries simulated work-based learning environment. Students on a specific degree programme work together as part of "a creative agency" - moving off-campus to a dedicated facility located at the Paintworks creative quarter in Bristol (Ashton, 2016). As part of this, students aim to position themselves as industry professionals and develop industry identities in working on "real world" projects for external "clients" (Ashton, 2013). A similar initiative at Bournemouth University, Red Balloon, sees students also working for external clients. In distinction to Artswork Media, this activity is not assessed as part of a degree programme and the overall Red Balloon producer is a University staff member who acts as a gatekeeper and overseas students working in a freelance capacity on different projects. In both examples, the emphasis is on student employability and enterprise.

6. Creative hub as talent event / competition / festival

Rather than a physical or virtual space, some universities use talent events and competitions as a way to bring together students, current research and specific industry sectors. For example 'Tranzfuser', is a talent programme led UK Games Talent with the aim 'to provide an annual shot of top talent into the UK development ecosystem' and is hosted and supported by a range of universities throughout the UK. This can prove a cost-effective way to broker relationships with the industry without long-term financial commitments.

7. Creative hub as business support network

Some universities or specific departments engage with outside partners through the creation of a business support network, inviting external companies to events and opportunities and offering them support in relation to specific university expertise. This type of activity requires less infrastructure and investment. An example of this type of network is the Design Knowledge Network (DKN) at Birmingham City University. However, it is important to note that many other hubs (especially of type 2 and 5) also include business support networks activities.

Creative hubs dimensions

While these 7 types are present in many universities across the UK and, in many cases, some of the hubs performs more than one role, distinguishing precisely between types of hubs is problematic. However, we think it is important to place them all in a continuum, which tend to stretch across two axis.

● Physical vs. virtual spaces

Some hubs are just events, opportunities or web platform while others are much more based on the physical infrastructure of a studio or gallery. These two extremes often also coincide with the level of investment and commitment that an institution intended to make in its own hub, or the level of partnership and co-funding that some university can take part into in order to develop physical premises.

The hub as a "third space" can be further interpreted by shifting the emphasis on space away from physical locations to the activities that happen in the space created between/by universities and a range of key players that includes 'higher education, creative industries and arts and cultural sector, public policy, and community' as illustrated in Comunian and Gilmore's "Who's Who?" (2015: 8). For example, Virani (2015: 6) cites the concerns of the City Fringe Partnership (2005: 12) on the "placeness" of hubs and their association with 'a single organisation' or a building, rather as a 'focus on activities or processes.' Our approach of examining universities *as* creative hubs similarly puts the emphasis on the activities, events, and initiatives that are developed and facilitated by universities. Of course, there are highly visible manifestations established as buildings and organisational identities that form part of the public communication and construction concerning what universities are. For example, universities as organisations skilled in marketing are highly attentive to how they reach out to students, alumni, partners and so on (see Pettinger et al., 2016). As Virani (2015) argues in reviewing different articulations of the concept of hubs, seeing them as buildings or spaces only gives a partial account. Bringing together the different articulations, Virani (2015: 7) argues that, 'newer articulations of creative hubs view them as a combination of physical/virtual spaces that provide and facilitate important business

support activities and processes like networking, research opportunities, collaborations and the like.' For the university then, this is an important combination which highlights the situatedness within a particular region and accounts for the diverse range of activities and contributions. As Virani (2015: 8) summarises, 'creative hubs, arguably, become important nodes for creative SMEs partly because they provide these services, but also because they provide the spaces and places for these services to exist and coalesce around.'

- Internal and externally facing communities

The other axis addresses the hub in relation to specific communities it aims to serve. On one side, there are hubs which are mainly there to support students or academic research. On the opposite, there are hubs that do not aim to serve the academic community but to bring on campus companies and start-ups and engage them in the kind of services the university can provide. There is however a degree of mutuality when it comes to shared priorities around employability, the development of "industry ready" graduates and the development and retention of local talent. An important distinction then is between creative hubs which provide support, resources, etc. for creative businesses, and student enterprise units in which students work as business for clients on their projects and briefs.

The student enterprise unit can be situated within a broader pedagogical approach to employability which values flexibility and authenticity in student engagement with employers. The student enterprise unit is the focus of Jackson et al.'s (2014) report into university business services and is firmly connected with a creative economy vocational agenda that has been evaluated by a number of commentators (Ashton, 2011; Ashton, 2015; Bridgstock and Cunningham, 2016). There have been a number of reports that focus on employability and educational initiatives that provide students with "real-world" experiences (see Ashton, 2014). For Shreeve and Smith (2012), within the creative arts there are range of ways of providing "authentic" learning experiences, including industry practitioners setting briefs, students undertaking work placements and the replication of conditions of working in studio or workshop structure. As Ashton (2016: 27) suggests, 'enterprise education, as with other models of work-based learning, places a premium on "real-world", situated learning, and the formation of professional competencies and identities.' Pettinger et al. (2016: 10) show how this approach manifests globally in their research on the "industry" approach of Limkokwing University: 'as a teaching philosophy, industry was made manifest through pedagogical strategies where the classroom mimics the corporate world: such as working on "multidisciplinary teams on assigned projects based upon the world of work which will be group assessed" (Global Classroom).' This idea of the "real world" will be returned to in our discussion section when we reflect on notions of "managed interventions". As part of the range of learning and teaching approaches to embedding employability and encouraging entrepreneurship (see Ashton, 2013; Naudin, 2013; Pettinger et al., 2016), the student enterprise unit presents a distinctive offering around proximity to and in-betweenness with industry.

On the opposite side, there are hubs where the aim is not concerned with serving the academic community but rather bringing to campus companies and start-ups and engaging them in the kind of services the university can provide. Here we have for examples creative hubs that offer workspace specifically to external companies or research unit that are able to provide consultancy or other services to local industries and policy bodies (type 3). The

recent push for universities to be engaged more with this external impact agenda is recognised in the literature as an extension of both the civic role of the universities but also of their regional economic impact (Comunian et al. 2014). However, as discussed in the conclusions of this chapter, it is important to question of how much these opportunities can be 'engineered' by institutional policies.

Creative hubs distribution and institutional missions

In our data analysis we consider, firstly, the frequency of different types of hubs and, secondly, the connection between the nature of the institution and the type of hub. The first table below shows the numbers of 'creative hubs' mapped per each type. As it could be expected the largest number of hubs belong to the *creative hub as temporary infrastructure* type. Of course, this often requires limited financial and infrastructural commitments but also the projects are more numerous as we were able to map both some current projects and some that had recently concluded. The second most common type of hub (although the number differences between the overall count of hubs type 2-3 and 4 are very similar) is the *creative hub as 'shared/open lab'*. It was surprising to find such a large number of these type of hubs, especially as 'FabLab' style infrastructures are a recent phenomenon. However, we see that these kinds of hubs offer a great degree of flexibility as they cater flexibly for students, new research and external partners or commercial operations, so we see them as a growing trend in academia (as they are outside academia). The third type of hub by popularity is the *creative hub as rented workspaces/incubator*. We expected this to be a common option as the attention towards affordable workspace for both young graduates and local creatives has been a concern in the literature and policy field for the past decades. Many universities who see their mission in supporting and regenerating the local context, use this kind of intervention to benefit students but also to work with local authorities and partners. Fourth is the *creative hub as research (impact/industry-based) unit or brokering unit*. We expected this kind of hub to be even more common as impact has become very high on universities' research agendas. This needs to be facilitated and demonstrated to benefit external partners, but also to help with research funding and university ranking. The last three types of hubs are certainly more specific and less popular but still important. *Creative hub as student shared workspace/student-base service* provider is certainly a type of hub which applies to specific type of institutions (we discuss this later) as not all institutions aim to give professional level training to their arts/creative graduates. Similarly, *creative hub as talent event/competition/festival* would benefit more institutions with arts/creative graduates. Finally, the *creative hub as business support network* was very limited in presence but was often embedded in other projects (specifically in the type 2 and type 4 hubs) integrating physical with virtual/event-based support and infrastructure for practitioners.

Table 1: Creative Hubs types and their distribution

Creative Hub Type	Number of Hubs
1. Creative hub as temporary infrastructure.	32
2. Creative hub as rented workspaces/incubator	24
3. Creative hub as research (impact industry-based) unit or brokering unit	22

4. Creative hub as shared/open lab	27
5. Creative hub as student shared workspace/student-base service provider	11
6. Creative hub as talent event/competition/festival	9
7. Creative hub as business support network	3
	128

We are now interested in discussing how the presence of these hubs connects to the institutional types (and different mission and students/subjects they present) as illustrated in table 2. As we can notice *Creative hub as temporary infrastructure* are very popular both for Russell group universities and other old universities. This seems to connect with the strength and ability of these institutions to attract temporary research funding and activities to establish creative hubs. *Creative hubs as rented workspaces/incubator* are specifically important for Post 1992 institutions (and specialised institutions) as these include universities with many creative subjects and courses with a larger student population interested in these incubators and start-up opportunities. This is the case also *for creative hub as student shared workspace/student-base service provider*. *Creative hub as research (impact/industry-based) unit or brokering unit* has a strong presence in Russell group universities as well as in post 1992 and specialised institutions. *Creative hub as shared/open lab* are instead more popular with other old universities and post 1992 institutions capturing a mix of student focused initiatives and need for engagement with innovation and research. The last two types of hubs - *creative hub as talent event/competition/festival and creative hub as business support network* - remain more popular with post 1992 institutions again because of their activities and student focused initiatives.

Table 2: Creative Hubs and Institutional types

	Institutional types (in brackets number of HEIs mapped in each category)				
Creative Hub Type	Russell Group (13)	Other old (& former 1994 group) (22)	Post 1992 (42)	Specialist (8)	Total
1	9	16	4	3	32
2	1	5	14	4	24
3	6	3	8	5	22
4	4	8	13	2	27
5	1	1	9	0	11
6	0	0	8	1	9
7	0	1	2	0	3
total	21	34	58	15	128

Part Three: Debating universities as creative hubs

The chapter has highlighted the extensive range of ideas and activities captured by the expression "creative hub" across UK universities. Following Dovey and Pratt (2016: 14) and their analysis of creative hubs, this is less about 'enumerating the various types or instances of creative hubs, but rather in understanding the types of processes and values that shape and govern their day to day activities.' By focusing on universities as creative hubs, this chapter contributes to understanding how hubs emerge from 'particular histories and circumstances', take on 'emergent properties' and 'are forged in the experience of practice' (Dovey and Pratt, 2016: 14). We also highlighted the connections of the hubs with the institutional type and focus. While all these initiatives have different objectives and structures, there are certain commonalities in considering them as "managed interventions" that function as conduit between academia and the outside creative sector. Comunian and Gilmore (2015: 19) identify that many of the higher education interventions associated with the creative economy 'push for more managed interventions and business structures.' This point around "managed interventions" helps to raise a number of further points for discussion and debate.

Firstly, an important question remains as to how many of these creative hubs end-up serving established institutional teaching and research agendas, rather than offering a space for a range of unexpected and emergent practices to emerge across academia and the creative economy. Whilst there is no 'one-size-fits-all approach' (Dovey and Pratt, 2016: 6), the earlier emphasised core ethos of co-construction and collaboration was not always visible in the examples we reviewed. This was especially the case of *creative hubs as student shared workspace/student-base service provider*. Whilst there were indications that students could seek to take ownership of an initiative and contribute to the structure and vision for the hub (Ashton, 2016), the overall impression was that the processes and ways of working were set in place. The possibilities for emergent practices to develop spontaneously seem to be limited in light of the established aims and infrastructure. A related point may be made in looking at the Centre for Fashion Enterprise (CFE) started by London College of Fashion. In reviewing the CFE, Virani (2015) notes the funding from the European Regional Development Fund, the incubator status and the ways in which it uses targeted interventions. Whilst the CFE is tied to extant teaching agendas like the examples of the student shared workspace/student-base service provider, there remains a question of balance between exploring emergent possibilities and engaging with an established approach to fulfilling a set remit (i.e. developing a business through a programme of content including business advice, finance, sales, legal, and brand building).

This point has wider resonances with discussions on the role of universities in societies in ensuring measurable contributions to the creative economy and/or as spaces of experimentation (De Lissovoy, 2015). The possibilities for experimentation associated with universities has a longer history that precedes current attention on creative economy hubs. For example, Banks and Oakley (2015: 48) consider review critical perspectives on the art school, notably by Frith and Horne (1987), and argue that it is 'less as a conveyor belt or production line for fully-formed creative industry 'talent', and more as an indeterminate context for the cultivation of a type – the creative or artistic personality – whose 'career path', was regarded as an extrinsic and external matter.' It is clear that there are significant differences in looking to art schools in the 1980s and creative hubs in the 2010s - not least in the fate of arts schools and the ways in which they are positioned within universities (Beck

and Cornford, 2012). That said, an emphasis on university creative hubs within the 'developmental pathways between HE and creative industry' (Banks and Oakley, 2015: 49) raises this question around hubs as spaces of experimentation. This is not to overlook a number of examples of serendipitous meetings and spontaneous encounters leading to unexpected productive exchanges (see Virani, 2015; Crogan, 2015). Rather, an avenue to pursue here is the mix of the established and the emergent. Hubs as having a clear enough established set of aims and approaches to be coherent and compelling to those that it might engage, yet open and flexible enough to be emergent, co-constructed and collaborative.

Secondly, in some cases, it seems important to question whether the cultural milieu of the university and the other associated elements such as the Student Unions (see Long, 2011) can remain at the heart of these interventions or if the pressure for these hubs to become successful marketing or sponsorship interventions might be stronger (Comunian and Gilmore, 2015). The focus of type 3 creative hubs for example seems very much about externalising university research for the benefit of the industry/society rather than facilitating organic developments. Banks and Oakley (2015: 51) highlight the 'informal links between art school and the cultural sector, that sustained a relatively porous and indeterminate relationship between HE and the wider world' and how this has been replaced 'with a more formal 'knowledge transfer' model.' We can certainly see that some types of hubs have taken forward an agenda for knowledge transfer and are used as a formal output and impact activity rather than an informal activity.

Thirdly, there is an important next step to address in more detail around the practices, processes and politics of access. As Virani (2015) identifies in relation to The Trampery, there is a curatorship element in accepting entry to and bringing people together within creative hubs. Connecting with analysis of access and equality in relation to art schools (Burke and McManus, 2011; Banks and Oakley, 2015), work placements and internships (Allen, 2013; Ashton, 2014; Lee, 2013) and the creative and cultural industries more broadly (Allen et al., 2017), we would ask how practices of curatorship operate in relation to university creative hubs. Given the importance of creative hubs as nodes (Virani, 2015), an examination of how issues of access are managed is vital. Three of the five recommendations by Crogan (2015: 7-8) for the *Good Hubbing Guide* for indie games development address openness and inclusivity:

> Be open to new people and new talent: hubs need a regular refresh of the beneficiaries; Operate as a hub for the surrounding community of game and creative makers via events, social media and collaboration with other groups; Create open and accessible opportunities for 'non-members' in the local community to engage and exchange.

These issues of access and diversity also feature in the Birmingham Open Media case study discussed by Dovey and Pratt (2016: 50-51): 'BOM explores how to use the language of innovation and creativity to be accessible to a wide range people, e.g. BAME, LGBT+, precarious communities like refugees.' This approach is further elaborated on: 'rather than an "engagement plan" this is understood as establishing open access spaces' (Dovey and Pratt, 2016: 52). Noting the idea of "third spaces", further research into universities as creative hubs should address who can access and shape these spaces.

Conclusion: Communities of practice

Creative hubs continue to grow in importance as ways of organising creative economy innovation (Dovey and Pratt, 2016). This is a priority for universities too as they engage 'beyond the campus' (Comunian and Gilmore, 2015). Whilst there are definitional and mapping challenges, it remains productive to understand how creative hubs operate. As part of this broader examination of creative hubs, this chapter has focused on how universities have connected with the concept of creative hubs and make it happen in different ways. Whilst there are again definitional and mapping challenges and a range of contextual factors, the mapping presented here contributes both to understanding creative hubs and how universities can seek to engage with the creative economy.

The question of how creative hubs operate within a university context underpinned all the points raised in part three responding to hubs as "managed interventions": how do they align with or have the capacity to reshape existing research and teaching agendas?; how do they build on, replicate or hinder existing forms of creative (hub) activity?; how do they work towards accessibility? A further way to unite these questions is through the concept of communities of practice as defined by Wenger as a: 'special kind of community in which the bond is the shared interest in a specific subject or topic' (cited in Comunian, and Gilmore, 2015: 7). As Comunian and Gilmore (2016: 6) suggest, 'communities of practice are specifically relevant for the creative industries, as they build networks of knowledge and support among practitioners in specialised fields'. Across the seven types of hub we identified, there is a shared, core element of 'networks of knowledge and support'. However, as Comunian (2017) notes, with networks and collaboration it is also important to consider issue of power and institutional policy. Similarly, as England and Comunian (2016) highlight, while universities interventions in local creative ecosystems might aim to support local creative industries, it can sometimes create dynamics of competition and hinder the development of local small creative businesses. Across the three questions we raise in part three there is a shared concern around the creation of and connection between communities. Bringing together our analysis of hubs with some of the tensions around "managed interventions" leads us to three conclusions which we frame as questions for continued investigation. Firstly, how do creative hub communities of practice overlap and intersect with research and teaching communities? Secondly, how do creative hub communities of practice overlap and intersect with existing creative communities of practice within a local milieu? Thirdly, what are the mechanisms for ensuring accessibility for the creative hub as a community of practice?

Across the different types of hubs we identify, there was a recurring theme around the balance between connecting communities of practice and creating communities of practice. A balance between the extant and the emergent. How established is the knowledge and how open are the networks? As universities, practitioners and policymakers continue to explore the modes and practices of creative hubs within a university context, exploring this balance will remain of great significance.

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[i] We grouped HEIs under 4 commonly used categories: 1. Russell group universities (24 research intensive universities who receive the majority of research grant and contract income); 2. Other 'old' universities (including institutions who used to belong to the 1994 group); 3. New universities (or post 1992 established as part of the abolition of the binary divide in 1992); 4. Higher Education/Further education colleges also known as specialist colleges as in this case they include institutions that only teach creative subjects (such as Royal College of Music). The Russell group universities, followed by the other old universities are generally considered to be more prestigious

[ii] Further information http://www.ahrc.ac.uk/innovation/knowledgeexchange/hubsforthecreativeeconomy/