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**Doctoral Thesis**

## Distant Neighbors: Collective Learning Beyond the Cluster

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**Distant neighbors**



# Distant neighbors

Collective learning beyond the cluster

**Alexander Cole**

PhD Series 20.2014

The PhD School of Economics and Management

PhD Series 20.2014

# Distant Neighbors

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## Collective Learning Beyond the Cluster

Dissertation by

**Alexander Cole**

PhD School in Economics & Management  
Copenhagen Business School

Submitted on September 29th, 2013

Alexander Cole  
*Distant neighbors*  
*Collective learning beyond the cluster*

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## ENGLISH SUMMARY

The co-location of industry in agglomerations of similar and related firms is one of the salient features of the contemporary global economy. Over the last thirty years, a large body of theory and case-literature has addressed this phenomenon and sought to understand the advantages that accrue when industries are spatially clustered.

Contemporary scholars in this tradition have focused on the advantages of face-to-face interaction and the access to spatially sticky information in the form of buzz available to cluster agents. They have further suggested that the development of local conventions and a local idiom facilitate knowledge circulation and collaboration within clusters while perhaps frustrating access to outsiders. The resultant learning views of agglomeration have become dominant within the field of economic geography.

In the past decade, however, this dominant view has been challenged by a counterview challenging the idea that physical proximity is neither necessary nor sufficient for economic learning. First, it has been noted that much of the learning that occurs in clusters may actually be organized through various forms temporary proximity. Secondly, it has been argued that knowledge circulates not by virtue of spatial proximity, but through participation in knowledge communities that share a basic epistemological framework and common purpose. These communities may be spatially clustered or may be widely dispersed.

The research presented in this dissertation aims to contribute to this debate on the relative importance of physical and relational proximity to processes of economic learning. It does so through a qualitative study of the European Animation Industry and its attempt to build supportive networks and institutions resembling those found in successful geographic clusters, but in the context of a spatially dispersed industry. It demonstrates how through the extensive use of temporary proximity in the form of conferences, market places, and workshops, European animation was able to create a dense social fabric supporting learning and collaboration among firms that were both geographically and culturally distant.

The dissertation is developed in three distinct articles written for journal publication. These are followed by Appendix One discussing methodological issue related to the research, Appendix Two providing empirical introduction to European Animation, the object of the dissertation's case study. They are followed by a brief conclusion discussing the dissertations findings.

The first article, *Distant Neighbors* (also the title chosen for the dissertation) refers to the idea that relational proximity may facilitate collective learning processes even when actors are not permanently co-located. Against a growing literature that has emphasized the advantages of clustering, especially in 'creative' industries such as film, advertising, and music, the case of European animation is used as a 'veto case' to the general idea that the tacit or 'symbolic' nature of knowledge in such industries, means they are best organized in clusters. The case describes the means by which European animators have created the institutions of a pan-European project-network and demonstrates the positive relationship between the accumulation of local animation firms and participation in this network.

The second article, *Negotiating Conventions and Creating Community: The Case of Cartoon and European Animation*, extends this analysis, providing an up-close account of the industry association Cartoon, and the bridging practices it developed to weave local productive communities in the animation industry into a 'network of practice'. The paper demonstrates how this community developed the repertoire to effectively negotiate issues of different geographic and institutional contexts and collaborate in the creation of animation products. The account shows how through conversation, interaction and networking, particularly in the context of temporary gatherings, entrepreneurs in European animation have been able to overcome geographical fragmentation and build a coherent 'world of production'. However, it also illustrates the tensions that are inherent in this project of spatial bridging.

The issues raised in the first two articles through an examination of European animation are more deeply theorized in the third article, *The Disjunctive Geographies of Knowledge as Skill and Knowledge as Context: Why Knowledge is both Locally*



*Sticky and Globally Mobile*. This theoretical article seeks to build on insights developed in the first two articles and address a paradox that the same learning dynamics that are used to explain localization may also be found locally. The article suggests debates on learning have often failed to distinguish between two types of learning: knowledge diffusion, which implies the learning and adaptation of knowledge developed in different contexts; and knowledge creation through the combination of different kinds of knowledge around a concrete problem. The article argues that the literature on knowledge communities has been more concerned with the first kind of learning – the ability of a community to circulate knowledge from place to place and the geographic and organizational topographies in which this happens. Clusters, on the other hand, may be better explained through the second kind of learning, knowledge creation through combination, which is facilitated by the ease with which workers can be assembled within the region.

The contribution of this dissertation is to challenge the ontological assumption that learning and learning relationships can usefully be divided between the local and global. First, the dissertation suggests that *learning* processes that are generally considered proper to clusters can be found at other spatial scales provided there is an incentive to interact and the proper institutional structures facilitating interaction have been created. In doing so, it also contributes to the emerging literature on trans-national knowledge communities, illustrating empirically how buzz and knowledge-circulation may be organized in a spatially extended knowledge community. The case studies of the European animation industry and *Cartoon*, the association that is largely responsible for organizing this industry, provide evidence concerning the many contextual issues that afflict attempts at sharing knowledge between actors in different social and institutional environments. However, they also demonstrate how, in practice, through the use of periodic meetings and the practical experience of collaboration, these contextual issues can be superseded and an effective knowledge community forged.



## DANISH SUMMARY

Samlokaliseringen af virksomheder i klynger af lignende eller beslægtede industrier er et af de vigtigste træk ved den moderne globale økonomi. I løbet af de sidste tredive år har en stor mængde teori og case-litteratur behandlet dette fænomen, og søgt at forstå de fordele, der opstår, når industrierne er rumligt agglomererede. Forskere har fokuseret på fordelene i ansigt-til-ansigt interaktionen og klyngeaktørernes lette adgang til ”lokalt fasthæftet” information i form af ”summen” (”buzz”). De har også argumenteret for, at udviklingen af lokale konventioner og et lokalt ”sprog” faciliterer spredningen af viden og samarbejdet i klynger, samtidigt med at de besværliggør adgangen for udefrakommende. Dette fremkomne ”læringsbillede” af klynger blev det dominerende indenfor feltet økonomisk geografi.

I det sidste årti er dette synspunkt dog blev udfordret af den ide, at fysisk nærhed hverken er nødvendig eller tilstrækkelig for økonomisk læring. Det er blevet foreslået, at for det første kan meget af den læring, der forekommer i en klynge, også foregå i forskellige former for midlertidig nærhed. Og for det andet er det blevet foreslået, at cirkulation af viden foregår i videnscommunities, som er skabt omkring fælles epistemologiske rammer og et fælles mål. Nogle af disse communities er geografisk baseret i klynger, andre er vidt spredt.

Denne afhandling bidrager til debatten om den relative betydning af fysisk og relationel nærhed for læring og innovation. Den er baseret på et kvalitativt studie af den europæiske animationsindustri, og dennes forsøg på at bygge støttestrukturer og institutioner, som minder om dem, man finder i succesrige geografiske klynger, men i form af en geografisk spredt industri. Den viser, hvordan den udbredte brug af midlertidig nærhed i form af konferencer, markedspladser og workshops har gjort den europæiske animation i stand til at danne et tæt socialt grundlag til at understøtte læring og samarbejde mellem virksomheder, som både var geografisk og kulturelt spredt.

Afhandlingen består af tre artikler, der er skrevet med henblik på journalistik udgivelse. Den første artikel, 'Distant neighbors' (som også er titlen på afhandlingen), argumenterer for at relationel nærhed kan lette kollektive læreprocesser, selv når aktørerne ikke indgår i en permanent sam-lokering. I modsætning til meget litteratur, der har understreget agglomerationsfordelene, især i de "kreative" brancher som film, reklame og musik, bruges casen med den europæiske animationsbranche som en "veto-case" til den generelle antagelse af, at på grund af den tavse eller "symbolske" karakter af viden i disse brancher, fungerer de bedst i klynger. Casen beskriver den måde, hvorpå europæiske animatorer har skabt en institution af et pan-europæisk projekt-netværk, og viser den positive korrelation mellem akkumulationen af lokale animationsvirksomheder og deltagelse i dette netværk.

Den anden artikel, *Negotiating Conventions and Creating Community: The Case of Cartoon and European Animation*, udvider denne analyse med et nærstudie af brancheorganisationen Cartoon, og de brobygningspraksisser, den har udviklet for at væve lokale produktionssammenslutninger i animationsbranchen sammen i et "praksisnetværk". Artiklen viser, hvordan dette fælleskab udviklede evnen til effektivt at overvinde den geografiske fragmentering og institutionelle forhold, og at samarbejde i skabelsen af animations-produkter. Artiklen viser, hvordan dialog, interaktion og networking, især i forbindelse med midlertidige forsamlinger, gjorde entreprenører i europæisk animation i stand til at bygge en sammenhængende "produktionsverden". Det viser dog også de spændinger, som er indbygget i dette projekt med at slå bro over geografiske afstande.

Emnerne, der er bragt op i de første to artikler gennem et studie af den europæiske animationsindustri behandles mere teoretisk i den tredje artikel, *The Disjunctive Geographies of Knowledge as Skill and Knowledge as Context: Why Knowledge is both Locally Sticky and Globally Mobile*. Denne artikel søger teoretisk at skabe en syntese af læringen i de to første artikler ved at adressere det tilsyneladende paradoks at den samme læringsdynamik, som kan bruges til at forklare lokalisering, også kan findes i ikke-lokale netværk. Artiklen argumenterer for nødvendigheden af at skelne mellem to typer af læring: videnscirkulering, som betyder læring og tilpasning af

viden, der er udviklet i forskellige kontekster; samt vidensskabelse gennem kombinationen af forskellige former for viden om et konkret problem. På den måde udfordrer artiklen den ontologiske antagelse af, at læring og læringsrelationer meningsfyldt kan blive opdelt efter det lokale eller globale.

I opsummering argumenterer afhandlingen for, for det første, at læringsprocesser, som almindeligvis betragtes som kun knyttet til klynger, også kan findes på andre geografisk skalaer, forudsat at der er et incitament for at interagere og de relevante institutionelle strukturer er etableret. Den illustrerer empirisk hvordan uformel information ("buzz") og videnscirkulation effektivt kan organiseres i et videnscommunity, der rumligt er spredt ud. Case-studiet af den europæiske animationsindustri og Cartoon, foreningen, som har hovedansvaret for at organisere denne branche, afdækker de mange kontekstuelle forhold som har indvirkning på de bestræbelser, der gøres i forhold til at vidensdele mellem aktører, der er placeret i forskellige sociale og institutionsmæssige sammenhænge. Ikke desto mindre demonstreres også hvorledes brugen af tilbagevendende møder og praktiske erfaring med samarbejde gør, at disse vanskeligheder kan overkommes, og et effektivt videnscommunity skabes.





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## CHAPTER 1

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### INTRODUCTION

## **1. INTRODUCTION**

Debates about economic geography, the geographies of knowledge, and innovation in economic geography have highlighted the importance of physical proximity and localization in the production and circulation of knowledge (GERTLER 2008). The large literature on ‘territorial innovation models’ and the numerous ‘success stories’ associated with clusters have seemed to offer strong evidence of the importance of co-location and proximity on processes of knowledge creation and circulation (MOULAERT and SEKIA 2003, ASHEIM and GERTLER 2005). The regional scale, or cluster, has seemed to play a prominent role in innovation and economic learning because spatial proximity creates opportunities for face-to-face interaction and the rich information exchanges this enables. Frequent face-to-face interaction has been said to intensify the circulation of information, ideas, rumors and shared narratives. This cluster “buzz” has been assumed to help keep cluster members abreast of developments in their industry and anticipate coming changes in the market (STORPER and VENABLES 2004, MALMBERG and MASKELL 2006). Over time these interactions may also stimulate the development of shared conventions, a common language and compatible interpretative schemes – referred to as relational proximity – facilitating the circulation of ‘tacit’ knowledge and promoting learning (STORPER 1997, LAWSON and LORENZ 1999, MASKELL and MALMBERG 2007). This canonical view on proximity, localization and learning is the starting point for the work undertaken in this dissertation.

### **1.1 LOCALIZATION AND LEARNING: THE CANONICAL VIEW**

The idea that there is a relationship between industrial structure, spatial relationships, and innovation can be traced back at least to the writings of Marshall on industrial districts in the late-19th century (MARSHALL 1890). During the late 1980s, following a period of debate regarding the on-going restructuring of Western industrial economies after ‘Fordism,’ the topic of industrial districts and economic agglomeration made a notable return to the agenda, as scholars asked if flexibility and clustering might hold the key to sustained economic growth and good jobs in advanced economies (PIORE and SABEL 1984, SCOTT 1986, STORPER 1989). In the early 1990s, economists began to join the debates regarding the causes and consequences of agglomeration (PORTER 1990, KRUGMAN 1991).

During the 1990's a 'learning perspective' emerged suggesting that advantages of clustering lay in 'learning' or innovation; geographic proximity enhances knowledge creation and innovation within clusters in ways not available to agents located outside them. Territorial innovation models were developed based on the idea that innovation is a collective activity that emerges from the 'exchange' or 'sharing' of 'tacit knowledge' in intensive face-to-face interaction. In contrast to earlier views that generally conceived of learning as the fruits of an individual's direct engagement with the world (an engineer, inventor, or even an R&D department were treated as individuals in this discussion), the localized learning perspective drew on a relational view of knowledge that conceived of innovation as the product of social and practical activity (ROSENBERG 1963). Through this lens, the economy can be understood as a social learning system in which dispersed, practical know-how, or capabilities, are constantly tested and refined (HAYEK 1945). Innovation requires coordinated action by different actors in the economy, so locally generated institutions and conventions play a fundamental role in smoothing collective action problems and facilitating entrepreneurship (STORPER 1997, LORENZEN and FOSS 2002).

Spatial clustering facilitates information flows both because co-location makes possible in-person, face-to-face interaction and because the constant circulation of people and ideas within the cluster facilitates the emergence of a dense information ecology (GRABHER 2001). Marshall, of course, famously referred to this on-going conversation as 'atmosphere,' and contemporary scholars have referred to 'buzz' (STORPER and VENABLES 2004) or 'noise' (GRABHER 2002) the constant stream of information, stories, rumors, and conjecture that help inform and situate local agents within their industry. MASKELL and MALMBERG (2006, p. 6) suggest that spatial proximity "increases the likelihood of fruitful unanticipated opinions, and ideas from a broader community of informed observers, not all of whom are necessarily directly involved in the current rent-seeking activities."

The focus on territorial innovations also directed emphasis to the importance of local institutions in facilitating learning within the region. According to this view, as people create new knowledge with which to transform the world, they also create a set of tools -- the codes, institutions, and shared understandings-- without which communicative action and social learning could not happen. These accounts suggested that 'institutional thickness'

facilitates information flows and interactions that generate collective learning (AMIN and THRIFT 1995), encouraging institution-building as a recipe for realizing ‘synergies’ within the cluster (ASHEIM 1996, COOKE and MORGAN 1998). This institutionalism was premised on the idea that co-location alone may be an insufficient condition for realizing synergies or external economies of learning within the region. For these synergies to occur, a proper institutional set up is needed to encourage co-operation and help ease information flows among potential rivals (STORPER 1997).

By the late 1990s, the various ideas about ‘localized learning’ in clusters had become somewhat of a dominant paradigm within economic geography and were widely adopted by neighboring academic disciplines, such as economic sociology and innovation studies (GRABHER 2006) and even mainstream economics (MORETTI 2012). Given that “The Death of Distance” as a result of new broadband Internet technologies was one of the leading memes of that decade (CAIRNCROSS 2001), establishing the continued importance of physical proximity for innovation, entrepreneurship and competitiveness was an important victory.

## **1.2 KNOWLEDGE COMMUNITIES AND RELATIONAL PROXIMITY**

By the early 2000s, however, the prevailing view became increasingly questioned. The focus on learning as a largely localized phenomenon, it was argued, overestimated the importance of local relationships while under-estimating the significance of long-distance ties (OINAS 1998, RALLET and TORRE 1999, AMIN and COHENDET 2004, LAGENDIJK and OINAS 2005). The emphasis on localized learning, it was argued, had largely been developed by ‘sampling on the dependent variable’ (successful clusters), in disregard of proper comparisons with other types of regions and firms outside of clusters (STABER 1996, HÅKANSON 2005, STABER 2009).

During the following decade, a growing literature sought to formulate a more differentiated notion of physical proximity, pointing out, for example, that face-to-face interaction can be organized without permanent co-location (TORRE 2008). This point is clear in the case of business travel – a fact that was never really questioned by scholars of the region – but the

newer literature also highlighted other forms of temporary proximity, such as conferences, trade fairs, and workshops. MASKELL, BATHELT, et al. (2006) described these meetings as ‘temporary clusters’, highlighting the similarities in function with how they believed permanent clusters operate. Later research has documented how such meetings can enable multiplexed forms of interaction, offer opportunities for observing rivals, scoping out partners, and tapping into industry ‘buzz’ in ways not unlike those found in the most lively learning regions (POWER and JANSSON 2008, BATHELT and SCHULDT 2010, SCHULDT and BATHELT 2011).

Drawing on the recent literature in the sociology of knowledge, the dissenters argued that knowledge circulates through knowledge communities – variously referred to as ‘communities of practice’ (BROWN and DUGUID 1991, WENGER 1998, BROWN and DUGUID 2000), ‘epistemic communities’ (BRESCHI and LISSONI 2001, AMIN and COHENDET 2004, HÅKANSON 2005) or ‘networks of practice’ (DUGUID 2008). Although the idea of communities of practice was originally proposed to describe small-scale, localized communities, organizational scholars could see analogies with larger-scale and sometimes spatially-stretched networks where people share a common enterprise, face common situations in their daily working life and speak a common ‘language’ (AMIN and ROBERTS 2008, DUGUID 2008). These communities are defined by *cognitive* and *relational* proximity; their members share a common base knowledge and epistemological culture, as well as a common understanding of the institutions and conventions that govern their behavior and interaction (BLANC and SIERRA 1999, RALLET and TORRE 1999, BOSCHMA 2005, GRABHER 2006).

Like the idea of localized learning, this argument also had its problems. The ‘communities of practice’ concept, as formulated by LAVE and WENGER (1991), referred to small, localized communities and work groups. The simple substitution of ‘relational’ for ‘physical’ proximity begged the question of just where relational proximity came from and how it could be maintained without regular interaction (STORPER and VENABLES 2004). There was also considerable room for overlap and synthesis between the two concepts, as the cluster was reinterpreted as more of an open knowledge system

characterized by both internal knowledge exchange through ‘buzz’ and through ‘pipelines’ to distant knowledge sources (BATHELT, MALMBERG, et al. 2004).

### **1.3 CONTENT AND CONTRIBUTIONS**

The aim of this dissertation is to evaluate the literature regarding the power of spatially stretched knowledge communities to circulate knowledge and facilitate learning using a particular problematic case: the European animation industry. Creative industries draw largely on ‘symbolic’ knowledge bases rooted in local culture and conventions and are often characterized by high degrees of market uncertainty. Geographically, they tend to be organized in tight agglomerations characterized by intense social interactions (CHRISTOPHERSON and STORPER 1986, SCOTT 1999, CAVES 2000, SCOTT 2000). European animation, however, had seemingly organized these networks at a much larger spatial scale – linking different local communities in a trans-national network that seemed to mimic much of the functionality of a geographic cluster. The case of European animation thus provided a vehicle for examining and testing claims regarding the adequacy of temporary proximity as a substitute for permanent proximity and geographical clustering in organizing knowledge circulation and learning in an industrial system.

Through the examination and analysis of this case, this dissertation has sought to examine and provide insight in to three related sub-questions:

1. To what extent can a project ecology organized around long-distance networks reproduce the advantages attributed to localized networks in successful clusters?
2. If knowledge communities are increasingly able to circulate knowledge and facilitate learning at a distance, in what ways might permanent proximity in clusters enhance knowledge creation and circulation in ways that a non-clustered network cannot reproduce?



3. If the circulation of knowledge is not strongly bound by cluster geography, then what are the proper micro-foundations for explaining the clustering observed in the contemporary knowledge economy?

As I will elaborate below, the evidence provided through the European animation case seemed ambiguous. In some aspects it provided evidence that trans-local knowledge communities can effectively organize the circulation of knowledge and encourage learning in ways not dissimilar to successful clusters. In other aspects, regarding the overall performance of the non-clustered network examined proved problematic. This differentiated result provided an impetus for further refining and developing theory regarding just how ‘relational proximity’ is generated in networks and the relative importance of permanent and temporary proximity in this process.

#### **1.4 GUIDE TO READING THIS DISSERTATION**

The three articles that constitute the core of the dissertation are not, and were not intended to form, a monograph. However, they do reflect a learning trajectory in my understanding of the relationships between physical and relational proximity and how these affect the way an industry such as animation becomes spatially organized.

The first article, *Distant Neighbours: The New Geography of Animated Filmmaking in Europe*, is the most exploratory of the three. I here use the case of European animation to learn to what extent a network or ‘project ecology’ organized through temporary proximity might be functionally equivalent to the spatially clustered project ecologies that are typical of other creative industries. While most creative industries are organized in tight spatial agglomerations, the European animation sector consists of dozens of studios, broadcasters, distributors, producers, schools, and of course, artists, spread among the various member states of the European Union. This widely distributed community interacts regularly around a series of events – film marketplaces, workshops, etc. – and collaborates regularly in financing and producing animated films. The article investigates how productions are organized across locality, looks at how talent is sourced, and how the networking takes place. It argues that the creation of relationships beyond the local has been instrumental in

the growth of the industry in many locations that are too small to support much of an industry without outside collaboration.

The second article, *Negotiating Convention and Creating Community: The Case of Cartoon and European Animation*, delves more deeply into how, starting from a situation of institutional fragmentation, the European animation industry was able to overcome institutional differences and develop a ‘learning community’ that engages extensively in both knowledge sharing and collaboration. The analysis highlights the role of temporary proximity – in the form of co-production markets and workshops – in bringing people from different national industries together and providing a space where they can become familiar with the variety of institutional arrangements and cultural traditions that characterize the industry; its focus is the role of Cartoon, an industry association, in providing consistency in these efforts. Through sustained efforts of Cartoon, a relatively coherent network of practice was formed between animators all over Europe. However, the study also reveals the contradictions and trade-offs involved in trying to bridge distinct, local communities of practice.

Departing from the insights gained through the case studies on European animation and on Cartoon, the third article, *The Disjunctive Geographies of Knowledge as Skill and Knowledge as Context: Why Knowledge is Both Locally Sticky and Globally Mobile*, returns to the themes presented in this introduction and the debate about the relative importance of permanent or temporary proximity in the circulation of knowledge and learning in greater depth. The article analyzes how ‘learning’ has been conceived of in the literature and suggests a distinction between learning by combination, which is rooted in the mobilization of diverse skills or knowledge bases, and learning through acquaintance, imitation, and adaptation, which requires contextual knowledge. The paper suggests that these two kinds of learning involve different geographies and require permanent or temporary proximity to different degrees.

In addition to the three articles, the dissertation includes two extensive appendixes that contain valuable material that could not be included in the published articles. Appendix One discusses Methodological Questions and the Research Methods used in the dissertation.

Appendix Two provides background information on the animation industry and issue regarding this industry in Europe. Readers who are not familiar with animation may find it useful to read this section before beginning Chapter Two.

An overview of the questions and findings of each chapter as well as the status of each paper is presented in Table 1.

**Table 1**

Chapter	Abstract	Status
2	A growing literature on the organization of cultural products industries has highlighted their tendency to cluster in tight agglomerations. This paper explores the implications of a case, animated feature-film production in Europe, which offers a notable exception to this tendency and uses the case is used to more deeply explore the logic of agglomeration in cultural production and probe exceptions to this logic.	Published in <i>Regional Studies</i> , Vol. 42, Issue 8, 2
3	This chapter examines the construction of transnational 'learning communities' in an industry that is fragmented by various local and national institutional environments. It examines the process through which the European animation industry created a coherent "world of production" despite its origins as separate national industries shaped by different institutional environments. The paper highlights the important role played by an industry association, Cartoon, in developing common conventions and facilitating learning among European animation firms across geographic and institutional contexts.	Submitted to <i>Journal of Economic Geography</i> . Presented at Proximité Days Conference, May 2012, Montreal.
4	This chapter reconsider the issue of localized and non-localized learning, introducing a distinction between knowledge creation, which often, although not always, requires sustained face-to-face interaction between people with different expertise, and knowledge circulation, which requires that people with similar expertise and experience translate and adapt their knowledge and skills in new social, economic and geographic contexts. The paper investigates the role of proximity or distance in each of these distinct processes and suggests that they may describe divergent geographies, with the one requiring localization while the other does not. In a final section, four potential combinations of localization and dispersion in knowledge creation and knowledge circulation are explored.	Submitted to <i>Geography Compass</i> .
A1	ON METHODOLOGICAL ISSUES AND METHODS USED IN THIS DISSERTATION	
A2	AN EMPIRICAL INTRODUCTION TO THE EUROPEAN ANIMATION SECTOR	

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## CHAPTER 2

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### **DISTANT NEIGHBORS: THE NEW GEOGRAPHY OF ANIMATED FILM PRODUCTION IN EUROPE**

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**Abstract.** A growing literature on the organization of cultural products industries has highlighted their tendency to cluster in tight agglomerations. This paper explores the implications of a case, animated feature-film production in Europe, which offers a notable exception to this tendency. This case is used to more deeply explore the logic of agglomeration in cultural production and probe exceptions to this logic. Specific strategies are suggested for institutional strategies to help firms that are 'born in the wrong place' create a more supportive ecology for themselves.

Key words: animation, cultural production, project ecologies, socio-spatial networks

## 2.1 INTRODUCTION

With few exceptions, literature on the geography of cultural industries has focused on their tendency to cluster in tight agglomerations characterized by intense social interactions.<sup>1</sup> There are, however, other geographies of cultural production. In this article I examine one of these 'other' geographies, scrutinizing the case of animated film production in Europe. It is argued that the recent growth of animated feature-film making in Europe is largely due to the creation of an institutional framework that has encouraged and enabled cooperation and learning between geographically distant studios and allowed filmmakers to transcend the constraints of the local resource base. In effect, Europe's animation industry has created a spatially-extended 'project ecology' that shares many qualities with those tightly agglomerated clusters that populate much of the geography literature.

To understand how feature-animation in Europe came to exhibit its peculiar spatial and organizational features and to explain why it deviates from the ideal-typical clusters described by other scholars, my analysis focuses on the feedback mechanisms between the organizational requirements of production, firm strategy and geographical patterns of production. Scholarship on cultural production has pointed to the pervasive uncertainty of product markets, the ambiguity of productive outcomes, and the urgency in production schedules, arguing that these make spatial proximity

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<sup>1</sup> NORCLIFFE & REDANCE (2003) and COE (2000, 2001) are notable exceptions.

advantageous if not essential when organizing cultural production processes. The usefulness of proximity in facilitating factor markets and organizing production processes is thought to place strict boundaries on what kind of geographies of production are likely to be viable. From the present investigation of the animation industry, particularly its European variant, the author has concluded that the organizational importance of proximity has been somewhat overstated. While co-location and frequent face-to-face meetings may represent something of a best organizational practice, they do not represent the only viable one.

Although, the dominant 'neo-Marshallian' framework of the last twenty years has emphasized issues of coordination and learning when assessing the role of geographical proximity, firms often have other concerns such as access to particular market niches or sources of finance. In developing and exploiting organizational opportunities that do not require proximity, Europe's animation firms have opened up new strategic opportunities that both draw upon and reinforce the creation of extra-local project ecologies. The case of Europe's animated filmmakers raises important questions for how one understands the geography of cultural production and in particular the forces that lead firms in these industries to cluster. Can agglomeration be explained entirely by reference to the inherent logic of organization and coordination in these industries? If so, does the relatively dispersed geography of Europe's animation industry represent at best a 'second best' institutional arrangement appropriate under given conditions, or might dispersal have real advantages as an institutional arrangement in an age of modern telecommunications?

The research strategy used in this paper is to examine critically the dominant ideal-typical explanation by contrasting it with a case study, European animation firms, that does not conform to certain key predictions of the ideal-type. Divergences between the ideal-type and the actual outcomes of the case are then examined and processes generating these divergent outcomes are suggested.

The case of European animation proved particularly difficult to study because the industry consists of shifting networks of small firms, many with a short life-span,

spread across an indistinct and expanding geography. Defining the exact extent of the network (e.g., which firms to include) and finding systematic data on these firms is a task daunting enough to convince this author why scholars prefer to study geographically distinct clusters of firms. Because the sector is characterized by fuzzy boundaries and highly heterogeneous practices internally, the core research consisted of interviews with 22 key actors – producers, line-producers, directors, and studio heads at several medium-sized studios in Denmark and Spain, as well as the director of the Cartoon Media Program. These actors were chosen specifically because of their ability to lend insights into new developments in the field and the entrepreneurial opportunities opened by new organizing strategies. In addition, to learn about the industry the author has relied heavily on a vibrant secondary literature, particularly the insightful articles and interviews available in *Animation World Magazine* and other publications written by and for the world of independent animators, and has attended several ‘masters courses’ such as *Cartoon Feature* and *Cartoon Future* that aim to educate and inform people in the field, as well as conferences such as *SIGGRAPH* (in Los Angeles) and others more narrowly focused on European animation, particularly *Cartoon Forum*. These courses and conferences have provided an occasion for innumerable informal conversations, which mostly reinforced by occasionally gave reason to question the information gained from interviewees. Finally, Tim Westcott of *Screen Digest* has done the most comprehensive surveys of European animation and the paper has relied heavily on his research.

The paper begins with a literature review that sets out what the author believes to be the dominant ideal-type in the geographical literature on cultural production, explains the logic of this ideal type, and examines some of the challenges that have been posed to it. Against this background, the case study is then developed in four sections: a general background on the sector and the competitive position of the firms studied is followed by two sections that explain how geographical constraints are overcome in organizing projects and input markets, and how they are overcome in the production process. These two sections are followed by a section illustrating how firm strategies both shape and are shaped by the emerging networked structure of the industry. This analysis suggests that the specific spatial pattern adopted by flexible networks of

firms may be path dependent and highly sensitive to initial conditions. The conclusions return to the theme of multiple geographies and discuss the merits of a strategy of linking disparate pockets of resources for firms that do not have access to a critical mass of resources locally.

## **2.2 THE GEOGRAPHY OF CULTURAL PRODUCTION**

This study seeks to add to a burgeoning literature on the geography of cultural industries, particularly those that are focused on producing media content such as film, recorded music, advertising, and video-gaming. There are important reasons why these industries have become the object of increased scholarly scrutiny. To begin with, growing demand, fuelled by the fact that consumers have more money to spend and time to dedicate to leisure activities, means that these industries are growing relatively quickly. Perhaps more significantly, the importance of creative labour in these sectors – scholars such as CAVES (2000) actually call them ‘creative industries’<sup>2</sup>-- means that they embody organizational practices and face organizational dilemmas that are becoming increasingly common in other sectors as the knowledge economy spreads (SCOTT 2000).

This dual agenda is evident in the seminal research of Michael Storper and Susan Christopherson on the Hollywood film industry (STORPER 1989, STORPER and CHRISTOPHERSON 1987, CHRISTOPHERSON and STORPER 1986). Their work, which was part of a broader research program on the geographical implications of flexible specialization, focused on how, from the 1950s onward, the vertically

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<sup>2</sup> Matters of definition have become somewhat tricky when writing about these industries. While Scott uses the terms ‘cultural industries’ (a definition that emphasizes the importance of culture as both an input and output) other authors such as Caves use ‘creative industries’ (a definition that emphasizes the role of creativity in the productive process), ‘entertainment industries’ (see HESMODNHALGH D. (2002) *The Cultural Industries*. Sage Publishers, London.), or ‘content industries’ (a definition that points towards the markets that they compete in). For the purposes of this article I will use the term ‘cultural industries’, however, these can be seen as a subset of ‘creative industries’ since it is the problem of organizing creative labour processes that is supposed to provide the greatest constraints on their geographical organization. Should the reader wish to pursue definitional matters further, an excellent discussion is available in MARCUS C. (2005) *Future of Creative Industries: Implications for Research Policy*. European Commission..

integrated studio system of Hollywood's classic period was gradually replaced by a vertically disintegrated production system characterized by producers and service providers temporarily collaborating around particular projects. This new organization of production exhibited what they dubbed a 'split locational pattern'. On the one hand, the restructuring of the industry into numerous specialized firms collaborating on specific film projects meant that deal-making took on new importance in the industry. This restructuring created considerable advantages to locating in and around Los Angeles where one could keep tabs on the ever-shifting coalitions making key decisions about projects and use 'face time' both to gather important information and to negotiate the details of deals. On the other hand, vertical disintegration and the ability to recombine specific resources according to the needs of each project combined with new, more mobile equipment to make it easier to move filming and production activities to sites outside of Los Angeles.

Successive studies of different cultural industries have reaffirmed these findings. In numerous case studies and more general theoretical reflections, SCOTT (2000, 1999, and 1997) shows how the spatial processes identified by Christopherson and Storper are common to a number of 'cultural industries'. GRABHER's (2002a, 2002b) work on the London advertising industry suggests that much the same is true for creative industries more generally. Scott and Grabher point to the same factors of localization first described by Alfred Marshall and now familiar through the relentless emphasis they are given in the neo-Marshallian discourse that currently dominates economic geography: the creation of a local pool of labour, the availability of specialized inputs that firms can easily access, and an environment that is conducive to information sharing (MARSHALL 1890). Because cultural production often takes place in temporary organizations that assemble unique constellations of resources only to dissolve when the project is finished, agglomeration is fundamental to providing labour-market flexibility (LORENZEN and FREDERIKSEN 2005).

Following this line of reasoning, both Scott and Grabher emphasize the important learning effects that emerge from the localization. Scott argues that it is within place-based communities, aided and re-enforced by institutional infrastructure such as

schools, training establishments and apprentice programs that mutually complementary skills are developed and the norms and conventions that tie them together are reproduced. The constant social intercourse in these places facilitates communication and creates an industrial ‘atmosphere’, which encourages innovative activities. In a similar vein, Grabher discusses the way that clusters of localized communities generate ‘buzz’ or ‘noise’, a kind of information that people are aware of without really having to search for it consciously. Borrowing a key idea from the literature on situated learning (LAVE and WENGER 1991), he notes how localization facilitates the kind of ‘hanging out’ and ‘peripheral participation’ that allow newcomers to become acculturated into the norms and conventions of a creative community.

Because of its emphasis on local sources of competitive advantage, the importance of non-local ties has until recently been somewhat neglected in this literature. In a scathing critique of Storper and Christopherson’s interpretation of Hollywood as a Marshallian industrial district, ASKOY and ROBINS (1992) argued that the major film studios, which have integrated into multi-national media conglomerates, continue to exert effective power over the industry by effectively monopolizing distribution outlets and thus exerting effective financial and creative control over content producers. This view has largely been accepted, and SCOTT (2002) has argued that the geography of the “New Hollywood” derives from the overlap of localized productive networks with the centres of control for global networks of finance and distribution. According to Scott, rather than undermining the power of a dominant agglomeration such as Hollywood, multinational distribution extends its geographic reach by moving the cultural products it creates to ever-wider markets. Borrowing a notion proposed by AMIN and THRIFT (1992), KRATKE (2003) suggests that the geography of such industries consists of Marshallian nodes of cultural production articulated within Global Networks of distribution.

In line with neo-Marshallian theories of clusters more generally, recent contributions have also emphasized the importance of local productive systems having strong links to non-local sources of knowledge. This point was made emphatically by

GRABHER (1993), who pointed out that a local production and communications systems risk 'lock-in' and stagnation when it cuts itself off from outside sources of ideas and innovation. A common refrain now is that successful regional economies are characterized by both by strong local processes of imitation, adaptation, and learning and strong connections to non-regional knowledge sources. NACHUM and KEEBLE (2002) have used the Soho (London) media cluster to argue "Why Being Local Just Isn't Enough." BATHELT, et al. (2006) have suggested that a healthy cluster requires both 'buzz', characterized as information that is available by just being there, and 'pipelines,' specific investments made to access knowledge from distant partners. The problem with such a metaphor is that it conflates geographical proximity with social proximity defined by networks (TORRE and RALLET 2005; BOSCHMA 2005). This is a bit like claiming that my close friends all live close to me while the people that I left in California are distant relationships. While proximity may facilitate social closeness at a particular historical juncture, in a world where local relationships can be quite heterogeneous and people move around, they are not always the same thing. Using Marshallian language, we can say that firms benefit from external economies, particularly input-output relationships and knowledge spillovers that are not localized.

It would seem that this outcome is particularly likely for less-favoured regional economies for the simple reason that exogenous resources are likely to be of higher quality than anything that the region can generate endogenously. COE's (2000, 2001) work on the Vancouver film industry has described just such a situation. Vancouver's film and television industry emerged largely as a peripheral site where Hollywood producers, enticed by lower labour costs and a cheap Canadian dollar, could locate 'runaway' TV and film productions. Since most production was organized in Hollywood, and the industry also benefits from various national schemes to promote the industry, any analysis of the world that film producers live in necessarily require that local, national, and international scales must all be taken into consideration. According to Coe, Vancouver can be seen as a 'hybrid agglomeration' that combines the qualities of an export-platform, totally dependent on outsiders to organized production, financing and distribution, with the greater local autonomy of a



Marshallian industrial district. Coe's case study exemplifies a point made by PHELPS (2004) that we should be careful not to collapse the idea of external economies into localization economies because the relationship between these is likely to change with the development of new social, institutional, and technical infrastructures facilitating communication.

In terms of the case examined in this paper, the author claims is that key actors in the animation industry have both incidentally and intentionally created a degree of relational closeness and that this relational proximity is actually increasing, despite the fact that they often live in different countries. There are few precedents in recent literature for describing such spatially dispersed project ecologies although NORCLIFFE and REDANCE's (2003) work on artisanal comic book producers describes a networked production system that strongly resembles that formed by European animators. Because European animators lack the financial resources to make a product of the scale and quality necessary to compete with top Hollywood productions, these producers rely on their intimate cultural connection with national and linguistic niche markets and their relationships to national sources of financing as their main source of competitive advantage<sup>3</sup>. However, this means that they must organize other externalities – specialized inputs, sources of cutting-edge knowledge, and to a lesser, but not insignificant degree, labour markets – from a distance. The recent growth in animated film production across Europe is a testament to their ability to do this.

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<sup>3</sup> Both TSCHANG T. (2003) The Effects of Product Development and Cultural Sourcing on the Location of Creative Industry: The Case of the US Computer Game Industry. Singapore Management University, Wharton-SMU Research Center of Singapore Management University. and AOYAMA Y. and IZUSHI H. (2002) Hardware gimmick or cultural innovation? Technological, cultural, and social foundations of the Japanese Video Game Industry, *Research Policy* **32**, 423-44. elaborate the thesis that the national cultural milieu is the most important locational factor for the creators of culture.

## **2.3 EUROPE'S ANIMATION INDUSTRY: RAPID GROWTH AND STRUCTURAL WEAKNESS**

Although European animation has undergone tremendous growth during the last 15 years, it remains structurally weak and only marginally competitive on international markets. Three stylized facts are particularly relevant for understanding the competitive position of the industry. First, there has been a notable increase in the quantity of production both for television and feature-length films. Second, production budgets for European animation are growing, but generally remain quite small when compared to major Hollywood productions. Print and advertising budgets that reflect the resources put into distributing and promoting films, are particularly under-funded. Third, with a few notable exceptions, box office receipts for European films have been quite small. For the most part these remain niche products with little commercial potential.

The growth in European animation can be seen most clearly in the production of television serials, the bread and butter of the industry, where the volume of production has increased from just 80 hours a year in 1988 to more the 1,200 hours in 2003 (figures provided by CARTOON). While production responded to the demand created by the emergence of private television networks and an expanding number of channels, in order to capitalize on this opportunity European producers had to find a way to compete against cheap U.S and Japanese exports in a market – children's afternoon programming-- that was largely indifferent to quality.

Building on capacity developed in television production, animation companies have jumped into feature film production as well. While only 150 animated features were produced and released in Europe between 1920 and 1977, in the seven years between 1997 and 2003, 81 features were released.<sup>4</sup> In terms of numbers of films produced, Europe now exceeds both the United States and Japan.

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<sup>4</sup> Facts and figures are taken from WESCOTT T. (2002) European Feature Animation. Cartoon: European Association of Animated Film. – who also made a presentation at the Cartoon Feature 2004

**Table 1: *New Animated Feature Film Releases in Europe (1999-2003)***

	1999	2000	2001	2002	2003
<b>European</b>	9	17	12	10	14
<b>US</b>	10	6	7	13	9
<b>Japanese</b>	4	2	4	5	3
<b>Other</b>	0	0	0	1	1
<b>Total</b>	23	25	23	29	27

Source: Screen Digest

While these increases are very encouraging for those who want a vibrant European cinema, they represent only a partial success. The total output of films has grown, but their market share is still quite low. Most releases have been fairly small-scale and most animated films are only shown in one or a few national markets. The average budget for European feature films is around €6 million and only a few have exceeded €10 million, which is about one-tenth of the budget of Hollywood blockbusters such as *Finding Nemo* (2003) or *Shrek* (2001), although budgets are rising. The small size of production and marketing budgets in an industry characterized by large first-copy costs makes it nearly impossible for these films to compete with studio-funded films. As a result, most releases have been fairly small-scale and most animated films are only shown in one or a few national markets. Pan-European distribution remains a rarity, and except for *Chicken Run* (2000), which was distributed by DreamWorks, Europe's animated films have not been released in the United States.<sup>5</sup>

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in Munich, Germany—and an excellent article in Animation World Magazine by MOINS P. (2003) Panorama of European Animated Feature Film, *Animated World Magazine*..

<sup>5</sup> Recently a couple of European features have broken into the U.S. market, albeit with very small-scale releases.

Table 2: *Top 10 Animated Films Released in Europe (up to 2003)*

		year of release in Europe	admissions in Europe (1000s)	admissions USA
Finding Nemo	USA	2003	37.934	56.337
Tarzan	USA	1999	31.285	33.643
Toy Story 2	USA	2001	25.555	47.84
Shrek	USA	2001	24.296	49.66
Monsters, Inc.	USA	2001	23.776	47.253
A Bug's Life	USA	1999	22.316	6.931
Ice Age	USA	2001	21.157	30.412
Dinosaur	USA	2000	19.452	25.045
Chicken Run	UK/USA	2000	16.259	19.424
Pokeman: The First Movie	USA	2000	12.211	7.956

source: Screen Digest

Again, only *Chicken Run*, which is something of an anomaly with its big studio backing, has attained the top ten internationally in terms of box office releases.

Table 3: *Top 10 European Animated Films Released in Europe*

		year of release in Europe	admissions in Europe	admissions USA
Chicken Run	UK/USA	2000	16,259	19,424
Der kleine Eisbar	DE	2001	3,307	0
Help! I'm a Fish	DK/DE/IE	2000	2,426	0
La Gabbianella e il Gatto	IT	1998	1,873	0
Kirikou et la Sorciere	FR/BE/LU	1998	1,828	0
Pettson & Findus	DE/SE	1999	1,685	0
Kapt'n Blaubar	DE	1999	1,43	0
Werner--Gekotz wird spater!	DE	2003	1,197	0
Les Triplettes de Velleville	FR/BE/CA	2003	1,165	182
Pettson & Findus-- kattonauten	DE/SE	2000	1,048	0

source: Screen Digest

This alliance, between European creative talent (working in Europe)<sup>6</sup> and the financial and marketing might of a U.S. major, is somewhat exceptional, although it does present an interesting model that will likely be used more widely in the future.

<sup>6</sup> It should be noted that there is a lot of European talent working in the USA. What is different about *Chicken Run* is that it was made in Europe (Bristol, U.K.) by a European company (Aardman).

The other film to break into the American market was the art-house release, *Les Triplets de Belleville* (2003).

Table 4: % Market Share of animated film admissions in Europe (1999-2003)

	1999	2000	2001	2002	2003
European	10.1	19.4	13.9	3.6	9.0
US	89.7	64.0	73.1	93.9	87.7
Japanese	0.3	16.6	12.9	2.5	3.3

source: Screen Digest

Europe's share of its *own* animation box-office since 1999 has fluctuated from just 3.6 % in 2002 (a year when *Finding Nemo* and *Shrek* combined to dominate the box-office) to a high of 19.4 % in 2000, the year *Chicken Run* was released. The fact that this result compares unfavourably even with overall trends in the audiovisual industry, where 73.7 % of box office receipts and 70 % of television fictions in Europe come from US imports, can be accounted for by the ease with which animation can travel across cultural and linguistic borders and the importance of technical brilliance in distinguishing the product. In other words, the industry is still based around making products for particular market niches defined either by national markets or specific age groups and has little hope of competing directly against well-funded US films.

Although few European animated films have so far achieved real international success, the increase in feature filmmaking is part of a notable rise in independent animated productions around the world. In Europe, three factors account for this growth: an accumulation of resources and competences in closely-related markets such as television; the legitimacy given to such projects by a few well-publicized successes; and the strategic maneuvering of firms attempting to differentiate their productions from an over-crowded television-animation market.

The accumulation of resources and competences in other markets is particularly important for the present account because it helps explain the dispersed geography of the European animation industry. Through the 1980s, animators in Europe could generally survive only with a great deal of persistence and a willingness to take any work that was available. In practice this meant working for local advertising agencies, making educational films, doing service work for larger studios, or temporarily moving to get work on the few feature projects that were being made at that time. Only in France and Germany, where government support combined with fairly large domestic markets, and Spain, which had a history of service work on American television animation, was there anything resembling an animation industry.

Beginning in the late 1980s, various small, often economically marginal animation studios began to form associations in order to produce series for local television. One of the main collective tasks was to create institutions to link the emerging animation production industry to this new source of local demand. Without such institutions there could be very little communications between producers and distributors in different European countries. Therefore, instead of investing in European productions, distributors tended to buy cheap, established programs from US or Japanese producers. Periodic markets such as MIPTV, a huge audio-visual market with over 10,000 attendees that is held in Cannes, France, each April, have played the role of linking supply and demand. Even more important than this traditional market was the Cartoon Media programme's creation of a unique market-like organization, the Cartoon Forum. Unlike the larger markets where the buying and selling of existing programs is the main activity, the Cartoon Forum is a place where producers can present projects to financiers when they are in the early stages of creative development, allowing them to raise early financing and find co-production partners from other European countries. The fact that the Forum is small, is set as a 'retreat' where participants are almost forced to interact with each other, and is focused exclusively on animation make it an ideal setting for encouraging deeper interactions and making possible cooperation between actors in different parts of the vertical commodity chain. In response to this new market European producers began to

rationalize their organizational practices in order to produce the volume of animation required in a timely matter.

Rising demand for TV meant that for the first time in the history of European animation, animators could find steady work and studios could begin to rationalize production. Professionalization was assisted by a number of service organizations, schools and training institutes that taught new production technologies and techniques for handling the difficulties that come with large-scale production and distribution. By the mid-1990's, a genuine industry, centered on producing relatively inexpensive animation for television emerged from this process.

The move into feature filmmaking was encouraged by both pull and push factors. To many people in the animation industry, the emergence of DreamWorks in the mid-1990s signaled the end of Disney's dominance in the genre and the possibility of exploring new styles of animated filmmaking. More locally, a couple of European successes in 1997, particularly the French production, *Kirikou et la Sourcière* (1998), seemed to offer a model of how to make a feature animated film on an extremely low budget. While creative talents, predictably, had long nurtured dreams of making feature films, these two events seemed to have a particularly strong effect on those responsible for providing the resources to realize such projects-- the distributors and financiers—and the resources were suddenly more available.

At the same time, by 2001 markets for TV animation were becoming less favourable because a fall in advertising rates made the fees paid for animation uneconomically low. Faced with diminishing prospects, some producers took a calculated risk to enter the feature film market. The higher quality that feature filmmaking requires is an excellent way to gain visibility and show-off one's abilities to others in the industry. The reputation gained can be seen as a kind of cultural capital that the producer and creative talent can then leverage to gain access to greater resources such as new funding, talent, and future distribution deals. In particular, while feature films are riskier, on the upside they offer more possibilities for capitalization through DVDs, TV sales, and spin-offs such as dolls and playing cards. Finally, the fascination

among animators with producing a feature film cannot be underestimated. Many film-makers, producers and other creative talents were fulfilling lifelong dreams by moving into film production. Although it is a complicated and financially risky undertaking, feature films are also a good basis for building up a studio because they keep hundreds of people employed over a relatively long period of time and are likely to draw in the best talent.

## **2.4 CONSTRUCTING THE MARKET FOR INPUTS**

Scholars of the post-Chandlerian network economy have tended to hold contradictory views about the factors enabling a switch from corporate to more market-based forms of governance. Some have pointed to the widespread adoption of market- supporting institutions such as formal specifications, which allow for a measure of modularity in the productive process (LANGLOIS 2002, STURGEON 2002). Modularity rests on the possibility of adopting standard interfaces between different parts of the productive process, greatly reducing the cost of exchanging information, thus allowing customers and suppliers to interact almost as if they were operating on spot markets. Others have argued that vertical disintegration rests critically on an increased use of social mechanisms and relationships that facilitate the exchange of information and the formation of trust between transacting parties (see SABEL and ZEITLIN (2004)).

Studies of creative industries have almost uniformly fallen into the later camp. Inputs into creative parts of the productive process are characterized by what CAVES (2000) calls “infinite variety”: they differ along many different dimensions of quality and may not be evaluated by all consumers in just the same way. Therefore, they are only imperfect substitutes for each other. Pervasive uncertainty in output markets and the creative nature of the labour process mean that coordination requires a great deal of reflexivity. Tasks are constantly modified in light of contributions from other workers. This situation may frustrate attempts at imposing modularity. If so, the informational complexity and high levels of reflexivity that characterize these markets explain why cultural producers tend to agglomerate in dense clusters close to final



consumers or in the case of mass-media industries, the distribution agents who get to decide what consumers want.

This standard argument, however, seems only partially to capture the ways that coordination is achieved in creative industries. First, while cultural industries are characterized by the widespread use of social mechanisms in governing the market, the social relationships underpinning these markets may be stretched across great distances and need not be confined to certain localities, even if in practice they often are. This distance spanning is achieved by embedding transactions in ongoing relationships, arranging periodic face-to-face meetings, and where possible, using modern communications technologies as a partial substitute for such meetings. Secondly, the line between ‘strategic’ interactions that require face-to-face communication and those that do not is to some extent subject to organizational choices. By separating the core decisions that require reflexivity, decision-making process can be simplified. For these types of interactions, actors in the animation industry do draw on standardized understandings of roles and shared metrics in structuring their relationships, thus reducing the amount of information that parties must exchange. This process can be seen in the thriving global market for animation services, particularly in Asia and Eastern Europe.

After a long period of absence from the geographical literature, the role of periodic markets in tying together spatially dispersed actors is again receiving renewed attention.<sup>7</sup> Drawing on notions from time-geography developed by THRIFT (1977) and PRED (1981), NORCLIFFE and REDANCE (2004) describe how comic book artists gather from different rural and urban location in North America to form a ‘periodic social economy’, meeting up with each other at annual comic conventions or weekly readings the local comic shop where they may engage in intense periods of sociability before dispersing again to take up their creative labour in relative solitude.

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<sup>7</sup> BOGGS J. S. (2005) Theorizing the Frankfurt Book Fair (Or: Why transaction cost analysis still matters), *Regional Studies Association Conference on Regional Growth Agendas*, Aalborg, Denmark.(2005, p.8) notes that “The role of periodic markets was once a staple in Economic Geography,” and offers a review of the thriving literature on the subject that, until 1942, was produced by this field.

These authors point out that generating the social interactions that underpin economic transactions in the cultural industries does not require that comic book artists be *permanently* co-located, only that they co-locate at *some point in time*. Similarly, MASKELL et al. (2006), three scholars who have explored the knowledge generating aspects of firm clusters extensively, have noted that ‘temporary clusters’ and ‘permanent clusters’ are functional substitutes for each other in many respects. In short, trade fairs, markets, and other periodic gatherings seem to be an essential aspect of many industrial ecologies, particularly those for which the need to be close to dispersed customers makes it impossible for producers to co-locate.

Members of Europe’s animation community meet, share ideas, and negotiate deals at markets such as MIPTV, Cartoon Forum, and Cartoon Movie. Cartoon Forum, which is focused on animation for television, and Cartoon Movie are smaller gatherings focused exclusively on animation where several hundred potential investors come together with the aim of uniting animation producers together with potential distributors and investors in order to negotiate financing for new projects. These meetings combine intensive work sessions in which projects at various stages are pitched to potential investors and co-production partners with business meetings, socialising and sightseeing. As such, these temporary meetings create places where the kinds of ‘strategic information’ that Storper and Christopherson point to as the anchor of the Hollywood agglomeration can be exchanged.

Such socializing allows producers to ‘sound out’ projects and learn about trends from distributors such as what the demand for new television shows is likely to be in the coming year. One commentator at the Cartoon Forum noted:

*The most effective part of the Cartoon Forum is probably the bar. The nicest thing about Cartoon Forum is the one thing that everybody rails against; they always choose some God-forsaken remote place that takes you a whole day to get to! You can*

*guarantee the hotel doesn't have email points and has faxes that turn into some sort of scroll when they finally get them delivered to your room.*<sup>8</sup>

What is interesting about these comments is that they stress that 'being away' from somewhere else may be just as important as 'being there' in that it intensifies social experiences by taking people out of the normal patterns of their work and home life. Periodic markets are supplemented by other meetings such as film festivals where artists, fans, critics and producers show and discuss work, Masters' courses that introduce new skills and technology to professionals are offered, and student exchange programs that encourage that cement relationships between future professionals from different parts of Europe operate. Together these kinds of programs ensure that a vibrant animation community can stay in touch, share ideas and its members can inspire each other.

Recently, economic geographers have begun to pay more attention to the important role played by longer distance networks that are formed as people move from place to place in tying together labour markets and diffusing information about entrepreneurial opportunities (COE and BRUNELL 2003, AMIN and COHENDET 1999, SAXENIAN and HSU 2001). Such networks can constitute 'small worlds' in which people enjoy the informational benefits of relational proximity even over large geographic distances. The more artistically ambitious segments of the animation industry have always constituted a fairly small world. During the 1970s and 1980s the slack demand for animators even in the United States created a generation of 'gypsies' who moved from city to city and country to country working on any project that would keep them employed for a while (SITO 2004). With the animation boom of the late 1980s and 1990s, many animators in the United States were able to find permanent employment and to settle down. However, in Europe it is still common for animators to move from place to place following jobs and to spend long periods away from home. Such migrations have been a powerful force creating a shared sense of

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<sup>8</sup> John Bullivant, cited in KENYON H. (2001) A Look at Europe's Cartoon Forum with John Bullivant, *Animation World Magazine*..

community among animators from different countries; several people in the industry who I interviewed referred to the animation industry as ‘a family’, united by its shared love for their art. Ironically, given the emphasis on localization in the current geography literature, it is the experience of being ‘alien’ or out of place that often cements a common bond among animators. Because travel removes them from other social obligations such as going home to their families, their emotional dependence on each other is intensified.

While informal relationships obviously play an important role in forming the market, particularly when it comes to knitting together deals and defining projects, it is important to recognize that other, more formal mechanisms are also used to structure transactions in the animation industry. Rather than the opacity and indeterminacy that an emphasis on reflexivity suggests, less strategic interactions may in fact be relatively straightforward. Using a combination of institutionalized understandings about how jobs are done and pragmatic instruments to monitor each other’s compliance, animators seem able to collaborate even in situations where there has been little time to generate shared understandings and their appears to be little basis for trust.

When pulling a project team together, actors in the animation industry are able to draw on a well institutionalized set of roles, each of which is responsible for certain tasks. The diverse skill set and roles that make up an animated production are fairly standardized and, with some exceptions, these standards tend to be the same from place to place. The standardization of roles on a project team makes it much easier for employers to evaluate the skills and experience levels of employees and to describe the requirements of a given job (CHRISTOPHERSON 2003). Much of the technology, and hence the techniques that go along with this technology is also quite standardized. As one producer told me,

*“What is behind all of this [outsourcing] is not technology. It is that we speak the same language. English, yes. But we also speak animation.”*

Where standard descriptions fail to provide the full range of information necessary for a transaction, pragmatic measures may also be used. In particular, as with other creative industries, it is not uncommon for a producer to ask for a work sample before outsourcing work to a new studio. The relationship between partners will then typically develop slowly, with more or more complicated tasks being sent out if earlier ones are completed in a satisfactory way. Such practices are far from perfect and it is commonplace for relationships to dissolve in the middle of a production because the work submitted by a service studio isn't deemed of high enough quality or because the contracting studio is asking for more work than they pay for. However, combining social mechanisms such as reputations or face-to-face interaction, standardized metrics, and pragmatic instruments such as screen tests, the market seems to work well enough.

## **2.5 ORGANIZING PRODUCTION: CREATIVITY, TAYLORISM AND DISTANCING**

Once the necessary resources have been assembled, the animation producer must then effectively coordinate their use in the productive process. Presumably creative labour processes are particularly difficult to organize over long distances. Since tasks cannot be specified precisely, organizing tasks may require a great deal of negotiation as well as back and forth interaction, both of which will raise transaction costs. These interactions may be considerably easier to bring to a satisfying conclusion when the parties can meet face-to-face, where misunderstandings can quickly be cleared up and ruffled feathers smoothed over, and feasible solutions easily be demonstrated. The possibility for producing animated film in widely dispersed production sites also rests on the ability to separate the creative, iterative parts of the process in which the project is conceived and given shape from the more routine tasks of 'rendering' this creative vision in animated footage. As has long been understood, the ability to separate creative or conceptual tasks from routine production is a basic pre-condition facilitating outsourcing.

Similar to other audio-visual products, the process of making an animated film is divided between creative development, pre-production, production, and post-production, after which the finished product is sent to a distributor.<sup>9</sup> In animation the normal procedure is for some or all of the production process to be outsourced, depending on the film's budget and the quality aimed for by the producers. The easy divisibility of the labour process, in which creative work is separated from more routine tasks, assures the creative control can effectively be maintained even when the work is done in a distant location. Thus, for lower budget productions such as made-for-video films and television serials, a common procedure is to prepare a pre-production package meticulously and then outsource the entire production process to some lower cost producer, often in Asia. For higher quality productions, certain parts of the animation such as key animation may be kept in-house while intertwining and ink-and-paint work are outsourced. Even within the pre-production processes, a certain amount of distancing is possible, if not desirable. Irish scriptwriters, for instance, may be employed to write Danish feature animation while living in Dublin and only be physically co-present with the rest of the pre-production team on occasion. Because this kind of creative work requires a great deal of solitary labour, the benefits of co-location are not clear-cut.

The articulation and coordination of creative and more routine tasks occurs in two ways: through parameter-setting, or specification (LENT 2001); and by using supervision, which requires both direct observation and dialogue in which tasks are redefined locally. Specification involves the creative worker in setting parameters for other workers such that the latter will have sufficient guidance in executing the task. Sometimes these specifications leave some room for creativity, as when a key animator has to use his artistic talents to bring the lead character to life, but often they define routine tasks, such as ink and paint work that can be easily executed by a worker with little understanding of their general significance.

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<sup>9</sup> Readers who are interested in knowing the details of the animation production process can find a reasonably complete description in Pixar's annual report to investors (10K), which is available through their website, [www.pixar.com](http://www.pixar.com). WINDER C. and DOWLATABADI Z. (2001) *Producing Animation*. Focal Press, Amsterdam. also offer an excellent description of the production process.

Specifications are embodied in the animation in a number of boundary objects (STAR and GRIESEMER 1989), documents and artefacts that are used to communicate the parameters in the absence of the directing artist. The script, the story-board, colour keys, timing sheets showing the precise timing of certain scenes, and exemplary pictures are all physical artefacts that enable the spatial and temporal disarticulation of the production process. In some cases, such as timing sheets, the parameters strictly determine the actions of the directed worker. In other cases, such as when a creative director includes examples of an art work that is supposed to be inspiring or to exemplify certain stylistic elements she requires, the boundary object is merely directive, providing a 'good enough' sense of what is needed that the artist can fill in the rest.

However, there are limits to the amount of coordination that can be achieved simply through the setting of specifications. Coordination in the context of an animation project usually requires a large amount of managerial oversight and interaction between workers. Direct communications is important not only to assure specifications are met, but also to negotiate and adjust in those situations where they don't meet local contingencies. More importantly, direct communications are necessary for communicating commitment and intent and making sure that everyone understands their contribution to the overall goal of the project. Obviously, this may be achieved in different ways. Sometimes a phone call is sufficient. In other situations there is no substitute for getting on an airplane and visiting distant production sites.

Current developments in computing and communications have made distributed production easier and cheaper, and more importantly widened the range of tasks that can be outsourced. However, given the ease with which creativity and rendering can be separated in animation, outsourcing was heavily used well before the development of the latest generation of communications technologies (SCOTT 1984). What has changed with new computing and communications technologies also is that these technologies make it possible to circulate the artefacts that bind and guide their labour. Thus the use of FTP sites and mirrored servers which allow a producer and director in two different places to look at the same piece of work in real time have

recently replaced the fax machine as a key instrument for moving documents around. Whereas a few years ago the 'bible' containing the storyboard, colour keys and visual guides for animators was literally a book, today it might well be a database which is updated as different scenes are completed, thus allowing animators located in different parts of the world to reference each other's work and achieve greater continuity.<sup>10</sup> Thus the greater ease of circulating artefacts, particularly those artefacts that play a central role in defining and coordinating the tasks of different labourers, complements and extends the well-known features of communication technologies such as email and video conferencing in allowing people to communicate across time and space.<sup>11</sup>

The upshot of this is that geographically distributed production, already a well-established practice in the animation industry, is only likely to increase with the intensive use of communications technologies and the ever-decreasing cost of airtravel. For the European feature film industry where productions are often funded with budgets one-tenth the size of the average Disney feature film, the ability to outsource large parts of the production process easily as well as the existence of competent and inexpensive subcontractors around the world created by previous rounds of outsourcing are necessary conditions allowing for economical productions. Where today's independent producers both in Europe and in North America and Asia go beyond earlier generations is in the variety and quality of the work that they

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<sup>10</sup> For an account of how the Toronto based animation company, DKP, is using high-powered mirrored servers and databases see SHACHTMAN N. (2004) *The Secret Life of Off-Duty Characters*, *The New York Times*, New York..

<sup>11</sup> See (BAKER, et al. 1999) for a more in depth discussion of creative collaboration using communication networks in the media industries. They claim that:

Studios and companies involved in animation work are another industry segment that are early adopters of network technologies. The main reason is that suitable artist-technologists are not available in sufficient numbers in the primary work locations, so these organizations are setting up work groups where the talent is. For example, a separate group of animators based in San Francisco will be linked with the main animator group in LA, allowing for more of the production to be carried out in parallel. One of our participant organizations had a project that involved a lot of model work on a spacecraft. Part of the work was done in London, part in Ardmore in Ireland, and part in Los Angeles. As one UK post-production company executive noted, "It's a question of being able to work where the talent is rather than being frustrated by the physical limitations." (p. 320)



outsource. While outsourcing began in the 1950s as an extension of Taylorist work practices, in the new century co-development, the collaboration between distant parties on the more creative tasks that define the production, is quickly taking hold.

## **2.6 FIRM STRATEGY AND NETWORK STRUCTURE: SKILL CONTAINERS AND SHIFTING COALITIONS**

The key players in feature animation projects are a number of small and medium-sized studios, most located in major cities such as London, Paris, Copenhagen and Munich, but many located in smaller urban centers such as Santiago de Compostela in Spain and Galway in Ireland. The strategic problem these firms face is to minimize the risks inherent in making large, sunk investments when demand is uncertain while at the same time accumulating the capital, skills and reputation that will allow them to compete for more ambitious projects such as feature films. For such firms, maintaining the full employment of a core group of workers and finding challenging projects that develop their capabilities and enhance the firm's reputation are balanced against short-term profit motives in taking on projects. Following KRISTENSEN (1994), these studios can be described as 'skill containers', in that they are loosely structured collections of artistic and managerial workers whose skills are readily adaptable to the requirements of different projects.

The standard accumulation and growth strategy for these firms consists of leveraging success and recognition into new and better project opportunities. Success can be defined in different ways: a wonderfully creative project or the managerial savvy to bring a project in on-time and budget, for example. What matters is that the firm gains a reputation that can differentiate it from competitors.<sup>12</sup> The prospect of better pay and more interesting work is then used to attract and retain a better labour force. Ideally a single success can trigger a virtuous circle by helping the studio build its competencies while providing a reputation that is visible to distributors, financiers

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<sup>12</sup> FAULKNER's (1983) *Music on Demand: Composers and Careers in the Hollywood Film Industry*. Transaction Books, New Brunswick, New Jersey. work on Hollywood studio composers is the classic reference on the accumulation of reputation in free-lance markets.

and talented workers. These assets are then used to find larger and more interesting projects. However, because small studios lack their own risk capital, a common problem is that they are unable to hold onto the rights to their productions and thus do not benefit financially from unexpected successes.

Practices such as work-sharing, sub-contracting, and co-production are instrumental in compensating for demand uncertainty and for allowing studios to grow without putting their core financial and human resources at risk. Numerical flexibility, the use of part-time workers who are then laid-off when a project ends, is practiced to some extent by all firms involved in animation production. Here firms that are located near to other animation firms, or in a city with a large audio-visual sector and workers who can easily be trained, have a considerable advantage. The ability to draw on a common labour pool is a significant advantage to co-location that suggests that at least some cluster advantages will persist. At the same time, firms practice functional flexibility, relying on workers to wear ‘many hats’ as the needs of a project change over time (for a discussion of these concepts see ATKINSON (1984) and KALLEBERG (2001)). These practices are complemented by strategies for reducing demand-side risk such as co-production, where the cost of financing is shared among two or more partners, and portfolio strategies where work on high-profile, risky projects such as a feature film are balanced against lower-risk projects and service jobs. Financial integration into larger media groups is also common because it allows studios access to working capital while minimizing the risks that one unprofitable project will sink the firm.

The Copenhagen-based A-Film, exemplifies this kind of firm. A-Film was formed by a group of animators who had worked on the Danish animated production, *Valhalla* (1986). While the production of a feature film had created a pool of moderately experienced talent, the problem with building a studio in a small market like Copenhagen lay in the difficulty of finding enough work to keep creative talent employed. Unlike a large labour market such as Los Angeles, an unemployed animator in Denmark will likely have to emigrate or give up the art for something else entirely. A-film has managed to nurture its core talent by working in a number of

different markets. These include advertising, television serials, educational work, and service work for studios such as Warner Bros. Feature Animation, Don Bluth Studios, Fox Feature Animation, and MTV Productions.

In 2000, the studio released an animated feature, *Help, I'm a Fish*. This film was made as a co-production with companies situated in Ireland and Germany, but also employed studios from Spain, France, England, China, Thailand, Canada, the USA, and several independent animators in different parts of the world. Bringing in co-producers not only allowed A-Film to triple the size of its budget (the film cost \$15 million); it did so without increasing the risk incurred by the company. It also permitted A-Film to assemble a team that was much larger than the local talent-base would have permitted. While A-Film did not expect to make a profit on this movie — with 2 million admissions in Europe but no U.S. release it has just about broken even — the studio wanted to demonstrate its ability to manage a complex project and produce character animation of international standards. This strategy paid off when A-Film was chosen in 2003 by the French distributor M6 to produce *Asterix and the Vikings*, a film whose \$25 million budget made it one of the largest European productions to date.

The case of A-Film illustrates the reciprocal relationship between the growth strategies of small and medium-sized studios and the construction of a spatially-extensive project ecology. Formed by a small group of talented animators with large dreams, A-film's growth was greatly enhanced by its ability to take advantage of a number of externalities that were not available and likely would not be sustainable in a small market such as Denmark. In Denmark there is a small but thriving animation community. However, meeting up with producers and animators from other countries in places such as film-festivals, seminars, and the Cartoon Forum provided the creative talent at A-Film with a group of peers with whom they could learn how to conquer larger projects and a reasonable benchmark to inspire and challenge them. Presentations at the Cartoon Forum and Cartoon Movie provided important feedback to the firm while it was at the early stages of designing and developing projects as well as exposing its work to future co-production partners. Finally, the ability to

externalize even some of the more creative and hence complex tasks involved in making an animated film allowed the firm to pursue a strategy of flexible-accumulation despite the lack of local firms with the skills to do the work.

## **2.7 CONCLUSIONS: THE FUTURE OF EUROPE'S ANIMATION INDUSTRY**

In contrast to a large literature that has sought to explain the tendency of cultural industries to cluster in tight agglomerations, this paper has explored the case of the spatially extended project ecology of the European animation industry. The main arguments explaining why cultural industries cluster have rested on extensions and elaborations of Marshall's original insights regarding the importance of external economies to industries where small-scale, artisanal production remain important. However, the fact that national markets are restricted by linguistic factors and that key sources of financing are also local has meant that agglomerations have never really been an option in the European context. Instead, the project-ecology for the European animation industry has been shaped by an institutional framework that encourages cooperation and learning between geographically distant firms, a framework that has supported firms as they pursue a strategy of flexible-accumulation. This institutional innovation has allowed firms to partially overcome an underdevelopment trap in which fragmented markets led to exceedingly small production budgets with little chance of market success, while the stop-and-start nature of the industry meant that talent was constantly forced either to leave the industry or find employment elsewhere.

In elaborating a theory of geographical industrialization, STORPER and WALKER (1989) argued that new industries, free from existing input-output relationships, are the motors for creating new regions. 'Contrary to Weberian location theory,' they contended:

*Industries are capable of generating their own conditions of growth in place, by making factors of production come to them or causing factor supplies to come into being where they did not exist before. (STORPER and WALKER 1989, p. 71)*

Europe's animation industry, however, suggests that a different strategy is possible for peripheral firms and industries that are unable to make the large investments required to create or otherwise obtain new pools of resources. This pattern consists of organizational innovations such as the Cartoon Forum, where face-to-face communications and relation-building can take place, supplemented and facilitated by new communications and transportation technologies that allow for functionally broader bandwidth communications than was previously feasible. The combination has enabled Europe's animation firms to connect a previously under-utilized resource – a pool of talented and motivated workers – to new and larger markets. As a result, instead of one large agglomeration, the geographic pattern towards which animated production in Europe seems to be evolving is one of smaller agglomeration around specific labour pools supplemented by more long-distance connections where other kinds of important externalities are realized.

Going somewhat beyond the scope of this paper, it is interesting to ask whether the 'European model' of animated film production represents a true alternative to agglomeration or only a 'second best' institutional arrangement appropriate under specific conditions. While the analysis of the animated film industry indicates that geographical agglomeration is not a necessary condition for economic success, it does not indicate that European animation firms can be confident that they will be able to rival large, Hollywood, agglomerated firms in the long run. There are serious limits to a strategy of exploiting under-utilized resources that Europe's animation industry will have to overcome if it is to continue to grow. These limits are not based on a lack of agglomeration economies per se, but on the inadequacy of a strategy of flexible-accumulation in an industry characterized by strong increasing returns. European animators have to compete against films produced in the USA that have budgets up to ten times their size. To the extent that larger budgets translate into better quality, audiences will prefer to see US productions, except when local productions have

some special characteristics that are valued by a specific market niche. While European animators have had limited success in competing in specific national and linguistic markets, the overwhelming box office dominance of Hollywood productions (and, hence, their greater ability to create high-quality films irrespective of geographical considerations) points to the ability of Hollywood films to challenge even these niches. Ultimately, the talent, creativity and resourcefulness that have allowed the European industry to develop over the last decade will have to be supplemented by larger production budgets if their animation is to have a serious chance to compete on global markets.

What are larger budgets likely to mean for the European organizational model? Some forces are pushing both towards a continuation and extension of the European model of co-production and geographically far-flung collaborations while others seem to be leading towards a more 'Hollywood-like' model where production takes place largely within a single studio, although those studios may not always be part of a larger agglomeration. To take the latter case first, larger budgets will almost surely require the development of some kind of major studio capable of coordinating more closely the financing, production, marketing and distribution of films across multiple markets. This may occur either through the development of European majors, or through the assimilation of Europe's elite animation studios into the orbit of Hollywood majors. The current five-film agreement between Aardman, the production studio for the films *Chicken Run* (2000) and *Wallace & Grommit and The Curse of the Were-Rabbit* (2005) and the American distributed DreamWorks (recently bought by Paramount) is an example of the latter. With large budgets one is likely to see resources concentrated in a hand-full of more successful studios and some pulling back from the model of distributed multi-studio productions as studios seek tighter control over production in order to minimize the risk of something going wrong in production. With studio productions, the imperative of 'doing it cheap' gives way to the imperative of 'doing it right'. On the other hand, many of the techniques and practices of geographically distributed production are now well established and are even being adopted by major US studios such as DreamWorks. With recognized talent now available around the world, and often at a much lower cost than what is available in

Los Angeles, studios have found it advantageous to find ways of using this talent.  
How this situation will play itself out is uncertain.

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## **CHAPTER 3**

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### **NEGOTIATING CONVENTIONS AND CREATING COMMUNITY: THE CASE OF CARTOON AND EUROPEAN ANIMATION**

**Abstract.** This article examines the construction of transnational ‘learning communities’ in an industry that is fragmented by various local and national institutional environments. It examines the process through which the European animation industry created a coherent “world of production” despite its origins as separate national industries shaped by different institutional environments. The paper highlights the important role played by an industry association, Cartoon, in developing common conventions and facilitating learning among European animation firms across geographic and institutional contexts. In particular, the analysis highlights Cartoon’s use of temporary meetings as a space where common understandings could be negotiated, new norms developed, and transnational relationships worked-out.

### **3.1 INTRODUCTION**

Every art, as indeed, every collective endeavor, is underpinned by a set of shared rules and conventions that help guide participants’ actions, make them mutually intelligible, and suggest common solutions or ways of doing things (BECKER 1982). These conventions may emerge organically through the give and take of daily collective work or may be created quite consciously and imposed by managerial fiat. Over time, conventions become embedded in routines and practices; they come to define “the way things are done” in a workplace or company, and through the movement of workers and managers may spread and become generalized beyond the boundaries of the firm to an entire industry. They form an essential part of the architecture of collective action.

Conventions and their close cousins, institutions, have played an important role in contemporary debates in economic geography. As conventions arise in a given social, economic, and institutional context, they are shaped by unspoken assumptions about power-relationships, the regulatory environment or the market. Conventions that make sense in one place may be hard to adapt in another place and may, indeed, seem quite irrational or counter-productive there. Scholars such as STORPER and SALAIS (1997), GERTLER (1995, 2003, 2010) and LORENZEN and FOSS (2002) have argued that the development of localized conventions often facilitates the coordination and knowledge development between local actors while frustrating close

collaboration and learning between actors from different regions or countries. This is particularly important in entrepreneurial or creative endeavors, where the inherent uncertainty and inventive nature of the enterprise means that shared but usually tacit understandings and reference points are needed to ground effective communication, coordination and mutual endeavor.

By the early 2000s, however, the idea that knowhow mostly develops through local or regional relationships and the focus on localized learning was increasingly being challenged; scholars such as ALLEN (2000), COE and BUNNEL (2001), and AMIN and COHENDET (2004) pointed out that knowledge creation occurred within knowledge communities that to an increasing extent were being organized globally. They pointed to the ways that even tacit, highly contextual forms of knowledge could circulate globally within and between ‘communities of practice’, ‘epistemic communities’, or professional communities located in different parts of the world. The literature on global knowledge communities has built on the idea that people engaged in similar practices – engineers, musicians, or psychologists, for example – also share the codes, frameworks, tools and practices of their profession that facilitate their understanding of each other’s work and engagement in productive interactions. While some interpretations of this view seem to suggest simply that location does not matter and that knowledge will easily flow within such communities regardless of where the members are, a more nuanced version of this approach acknowledges that in reality, different conventions and institutions may fracture communities of practice, but argue that under the right conditions differences these fractured communities may be bridged by a variety of mechanisms.

This article contributes to the debate on the geography of contemporary knowledge communities through a case study of the European animation industry and of the industry association, Cartoon. We argue that Cartoon has acted as a bridging organization, helping local animation communities successfully to align themselves and to form a transnational network of practice. The study of Cartoon is particularly interesting for two reasons. First, existing theory tells us that creativity and inventiveness in an industry producing cultural products like animation should be

particularly dependent on locally shared and often-tacit cultural understandings and institutional norms. Indeed, the academic literature on the geography of cultural industries has focused on their tendency to cluster geographically in tight agglomerations where industry players can easily engage each other, interact and form localized networks of learning (LORENZEN and FREDERIKSEN 2005, SCOTT 1997, STORPER and CHRISTOPHERSON 1987). Secondly, the European animation industry represents an especially challenging environment for studying these issues because it is constituted by firms from relatively small nation-states, each with their own language and culture, posing unusually challenging barriers to generating the relational proximity to successfully collaborate or share knowledge. As a consequence, Cartoon provides a useful case for exploring the middle ground in which the local contexts in which knowledge is embedded are negotiated and for understanding successful intermediation within cultural industries. While the literature on communities of practice has often focused on the role of global firms as intermediaries in creating common conventions and connecting knowledge communities (HILDRETH, KIMBLE and WRIGHT 2000; HILDRETH and KIMBLE 2004), this case highlights the role played by an industry association and suggests that geographers need to pay attention to the global associational economy and the role that associations may play in structuring global learning communities (HOWELLS 2006).

### **3.2 ORGANIZING LEARNING IN GEOGRAPHICALLY DISPERSED COMMUNITIES**

In recent decades, the importance of knowledge as a competitive asset has come to be recognized across a range of academic fields, from economics to organization and strategy to geography (COWAN, et al. 2000). Within this context, one of the fundamental contributions of economic geography has been to document the localized nature of much knowledge creation. This finding has found support in econometric studies of innovation and patent studies, but most importantly, the importance of ‘localized’ knowledge has emerged from the hundreds of studies of industrial districts, clusters, learning regions and other kinds of localities that have been the



mainstay of economic geography over the last two decades (see BRENNER and MUHLIG (2007) for an overview).

In explaining the localized nature of knowledge production and the apparent paradox that much competitively valuable knowledge in today's global economy is 'sticky' (e.g., it adheres to its setting of origin), it has been common to invoke the concept of 'tacit knowledge'. This line of argument emphasized that while codified knowledge such as industrial recipes, programs, and blueprints could circulate far and wide (and thus become 'ubiquitous') the tacit knowledge required to make competitive use of this codified knowledge would tend to stick to the people and places where it was developed (MASKELL and MALMBERG 1999a).

AMIN and COHENDET (2004) call this an 'islands of innovation' view of knowledge in that it suggests that knowledge creation, or innovation, mostly happens on local islands of dense interaction and that this knowledge is then codified at which point it becomes globally mobile. These authors challenge the implicit dualism in this view between locally sticky, 'tacit' knowledge versus globally mobile codified knowledge (also see ALLEN 2000). As HÅKANSON (2005) points out, the dualism between locally tacit and global codified knowledge rests on a fuzzy concept of knowledge, and particularly the use of 'tacit' knowledge as a discursive catch-all, defined mostly in contrast to its supposed opposite, codified knowledge. When using the concept of tacit knowledge, reference was often made to Michael Polanyi, and particularly his writings on processes of scientific discovery (POLANYI 1966). Polanyi, of course, noted that knowledge may emerge as a hunch before the knower is able to articulate this knowledge and fully communicate it. Focus on the process of articulation highlighted by Polanyi (as contrasted with already articulated 'codification') may actually offer important insights into the spatial organization of creative or inventive industries such as animation, in which products first take shape when collectivities of artists -- writers, character designers, musicians, and programmers-- may literally engage in acts of creation that are analogous to those described by Polanyi (HÅKANSON 2007). Such collective creativity may well benefit from the close interactions of participants including physical gestures and the

use of physical space – hand waving, or improvisationally acting out parts. From this perspective, it seems natural that the physical workshop and workplace are likely to remain important places of creativity even as digital and virtual tools play an increasingly important role in the craft.

However, while Polanyi's ideas help to explain the importance of proximity on the micro-scale of the workshop in processes of complex or ambiguous knowledge formation and articulation, they don't really help explain why knowledge might be regionally or locationally sticky. Knowledge that is shared within the region is clearly articulated and discussed, so it is not 'tacit' in the sense Polanyi described. Besides, this articulation often rests on reference points, metaphors, or shared understandings – the conventions referred to in the introduction – that are clearer and easier to understand within a locality or region (BECATTINI and RULLANI 1996). In short, what geographer and organization scholars have been referring to as 'tacit knowledge' is really an issue of 'context' and the shared contexts within which a given bit of knowledge makes sense or is practically useful (GERTLER 2003). HÅKANSON (2005, p. 441-2), who is highly critical of the tendency to associate local knowledge with 'tacitness', sums this viewpoint up as follows:

All knowledge is context-dependent. It requires for its meaningful interpretation and effective application mastery of the codes (language, vocabulary, symbols, etc.) in which it is expressed, at least intuitive understanding of the theories (implicit and explicit cognitive frames, beliefs, mental maps, etc.) to which it refers, as well as familiarity in the use of tools of the associated practice. Neither tacit nor explicit knowledge can therefore be defined without reference to the context of the social community where it resides.

For GERTLER (1995, 2003) this context is strongly associated with societal level institutions such as education and finance, as well as the ways that economic routines and practices are shaped by higher-order institutional restraints – which he associates with the seminal writings of Michael Polanyi's older brother, Karl (POLANYI 1944) -- although in later work he allows that much learning can and does occur successfully across institutional context (GERTLER 2008). In Gertler's work and

much of that associated with the ideas of ‘varieties of capitalism’, learning on the micro-scale is both guided and constrained by higher-level institutions and social rules. However, much institutional-evolutionary thinking within geography, particularly that which is focused on learning regions and clusters, has a more symbolic-interactionist slant (STORPER and SALAIS 1997), focusing not on the constraining features of institutions, but on the ways that ‘conventions’ or conventional knowledge, routines, and practices may emerge from day-to-day problem solving within a given context and become embedded in the cultural repertoire of a group. These conventions then become part of the community’s shared repertoire and shape the kinds of learning that may happen in the future in a path-dependent way. MASKELL and MALMBERG (1999b), for example, discusses how firms within a region may be able to successfully imitate and adapt each other’s innovations because they share sufficient contextual knowledge to make sense of and draw correct lessons from their observations. Common or shared conventions may also play an important role in facilitating the organization of complementary competences into value chains by providing shared understandings and ‘conventional’ solutions that are seen as legitimate and functional in a given regional environment, but might not function or even make sense elsewhere (LAWSON and LORENZ 1999, POUDER and ST. JOHN 1996).

A contextual view of knowledge implies a different geography from that implied by a dualistic division between tacit and codified. Context appears not as an absolute, but relationally, as a more or less shared and mutually understood background against which the foreground of focal knowledge is interpreted and acted upon. Furthermore, unlike ‘tacit knowing’, which remains somewhat personal and mysterious, context can be learned. Indeed, much communication rests precisely on establishing shared context (BATESON 1972, DURANTI and GOODWIN 1992).

In sharp contrast to the idea of “localized learning”, which rests on the ways local contexts can become the springboard for engaging in rounds of learning, the ‘transnational learning communities’ literature can be seen as an argument that local contexts are less important than the context and common dispositions that are shared

among people that engage in common practices (COE and BRUNELL 2003). RALLET and TORRE (1999), for example, argue that two neighbors who are geographically proximate may share little common knowledge. In contrast, people who are geographically distant but who share a common professional disposition or are part of the same organization will have the needed context to engage, communicate and learn from each other; the 'local' differences in applying their knowledge in practice is likely to be fairly unimportant. Such transnational learning communities share the codes, theories and tacit knowledge that go along with their trade.

The research presented in this paper leads us to a middle ground where issues of context are neither trivial nor so pervasive that useful learning and collaboration cannot occur 'at a distance'. To understand this situation, we make reference to a small body of scholarship that has attempted to supersede the dichotomy between locally embedded and globally mobile knowledge by examining the practices used to bridge contexts or create common sets of institutions and conventions that transcend local context. This literature does not deny the importance of local institutional and conventional grounding of knowledge but argues that under the right conditions these variations can be bridged. DUGUID (2008), who argues strongly that practical knowledge is tacit and developed locally, nonetheless suggests that local communities of practice can be springboards for participation in wider 'networks of practice.'

FAULCONBRIDGE's (2006, 2007, 2010) studies of knowledge circulation and creation among architects, advertising executives, and legal professionals in global service firms are exemplary. In these studies, he emphasizes the ways that knowledge circulation does not happen through the transfer of best practices, but through 'conversation' (KROGH and ROSS 1995) with foreign colleagues and foreign artifacts such as texts, photographs or architectural plans, that stimulate the production of new knowledge as the parties involved grapple with issues of context and which aspects of their knowledge are useful or applicable in a given context. These conversations are means by which participants 'articulate' knowledge about

context that had previously remained tacit and attempt to form broader theories about their practice (BROWN and DUGUID 1991; HÅKANSON 2010).

In addition, Faulconbridge's contributions place our attention squarely on the process of knowledge translation, and particularly the organizations or 'institutional entrepreneurs' (BATTILANA, LECA and BOXENBAUM 2009; HARDY and MAGUIRE 2008) that help bridge local and non-local practices. The case of Cartoon, the industry association we examine, suggests that industry and professional associations may play a central role in mobilizing knowledge and stimulating the creation of non-localized learning relationships. The role of different 'intermediate' (COOKE and MORGAN 1999) or meso-level actors in providing the socio-cultural conventions that 'encourage dialogue and learning based on sharing knowledge and information exchange' (AMIN 1999, p. 370-371) has played a prominent role in the learning regions literature (AMIN and THRIFT 1994; AHEDO 2004, 2006). Again, we reference the careful empirical work of FAULCONBRIDGE (2007), who documents how local associations were able to seed communities of practice that mediated collective learning processes between lawyers and advertising executives in London and New York. The case examined in this study suggests that industry associations may play a similar role in mediating geographically distant learning processes. It furthermore raises the question as to whether in cases where local industry lack sufficient scale it might be more effective to create such an associational infrastructure internationally, rather than on a regional or national level as the learning regions literature generally suggests.

Because such associations lack the centralized, hierarchical power of multinational corporations to codify and enforce norms across a network, they have to use other modes of intervention to stimulate shared conventions. For example, institutional entrepreneurs often produce industry-wide "codebooks" (COWAN, DAVID and FORAY 2000) such as international voluntary standards for quality control, accountability of sustainable performance, or socially responsible investment (see SLAGER, et al. 2012 for a recent review). The transnational organizations producing these codebooks often have to deal with subtle difficulties regarding the creation of

shared conventions, as adoption of those voluntary standards not only depends of the will of the stakeholders, but also of the capacity of the “codebooks” to deal with different stakeholders vocabularies, cultures and practices (MAGUIRE and HARDY 2006; ETZION and FERRARO 2010; SLAGER, et al. 2012).

Besides codebook production, other modes of institutional intervention are particularly relevant to the story of European animation. Sponsorship of different kinds of temporary gatherings has been the main mean for achieving the goal of generating shared understandings between various players in the animation industry. Recent literature on temporary gatherings and periodic meetings, which has highlighted the role of ‘temporary proximity’ in facilitating network formation, informal learning and information exchange as well as providing the physical context for actual transactions (NORCLIFFE and RENDACE 2003; TORRE and RALLET 2005). BATHELT and SCHULDT (2010, 2011) describe in great detail myriad opportunities for formal and informal exchange, observation, networking, and conversation that constitute ‘global buzz’ at large successful trade-fairs. A related literature from organizational sociology on ‘Field Configuring Events’ has discussed how such meetings play an important role in institutional change and stressed their importance in “normative issues such as setting standards, defining practices and codifying key vocabularies” that create coherence in an organizational field (LAMPEL and MEYER 2008). However, as we will see, our evidence suggests that it is not simply the ‘event’ as a one-off occurrence but the repetition of encounters and the stable identity provided by the association that help account for the creation of this trans-national network of practice.

The rest of this paper is organized as follows. The next section briefly introduces Cartoon and the historical context of the European animation industry during the late 1980s and 1990s when it was formed and began to shape the industry. The following three sections describe the modes of intervention used by Cartoon in its goal to promote shared conventions. Section 7 depicts the community built on those common understandings, and Section 8 brings to the debate the dissenting voices inside that community. Section 9 concludes.

### **3.3 BACKGROUND: CARTOON AND THE EUROPEAN ANIMATION INDUSTRY**

The main character in this story, Cartoon, is a non-profit association which was founded in 1988 with the remit to support the animation sector in Europe, with funding from the European Union's media program. During the 1980s, privatization and the spread of cable television had rapidly increased the demand for all kinds of programming, including animation. Europe's animation sector, however, was weak and unable to meet this increased demand, which instead was filled with imported programming from Japan, the U.S. and Canada. Many studios that had worked largely in local markets, producing advertising or the occasional short special for the national television station, were still using 'artisanal' production methods. Industrialized production techniques such as those required to fill a 26-week schedule with 22-minutes of programming was largely beyond their capacity. Most importantly, there was almost no inter-European trade in animation.

Cartoon was formed with the idea of remedying this situation and building a "European" industry capable of filling the large demand for programming. Its early efforts at doing so focused in particular on convincing broadcasters to consider funding programming from other European countries as an alternative to imports. The Cartoon Forum, one of its first and most successful initiatives, created a co-production market where producers from around Europe could pitch to distributors and other investors for funds for their projects. The Forum contrasted with other existing markets in that it focused exclusively on animation. More importantly, the Forum was a place where projects in their incipient stages could find financing and co-production partners. Another early initiative encouraged the formation of studio-groupings between studios in different European countries. An English producer might form a group with studios from Belgium, France, and Germany, and collectively they could help produce each other's projects, sharing resources and overhead costs. International groupings of this kind were particularly useful because of the existence of laws in many European countries mandating the allocation of broadcasting funds towards local productions.

The success of these early initiatives can be seen in the rapid rise of a significant industry focused on producing animation for television. From just 80 hours of programming in 1988 when Cartoon was formed, the industry grew to produce over 1200 hours in 2003. As the industry grew, Cartoon began to sponsor new initiatives. Among these were quarterly masters’ classes where professionals and industry newcomers could learn about the latest developments and trends in the industry. They covered topics such as film financing, feature production, and the changing technology of animated filmmaking.

In late-1997, Cartoon also started a new co-production market for animated feature films called Cartoon Feature. As with television, co-productions in which studios from different countries work together were widely adopted in financing and producing these films; over half of the animated films produced in Europe between 2000 and 2010 were international co-productions.

**Figure 1: # of European Feature Film Productions (1990-2010)**

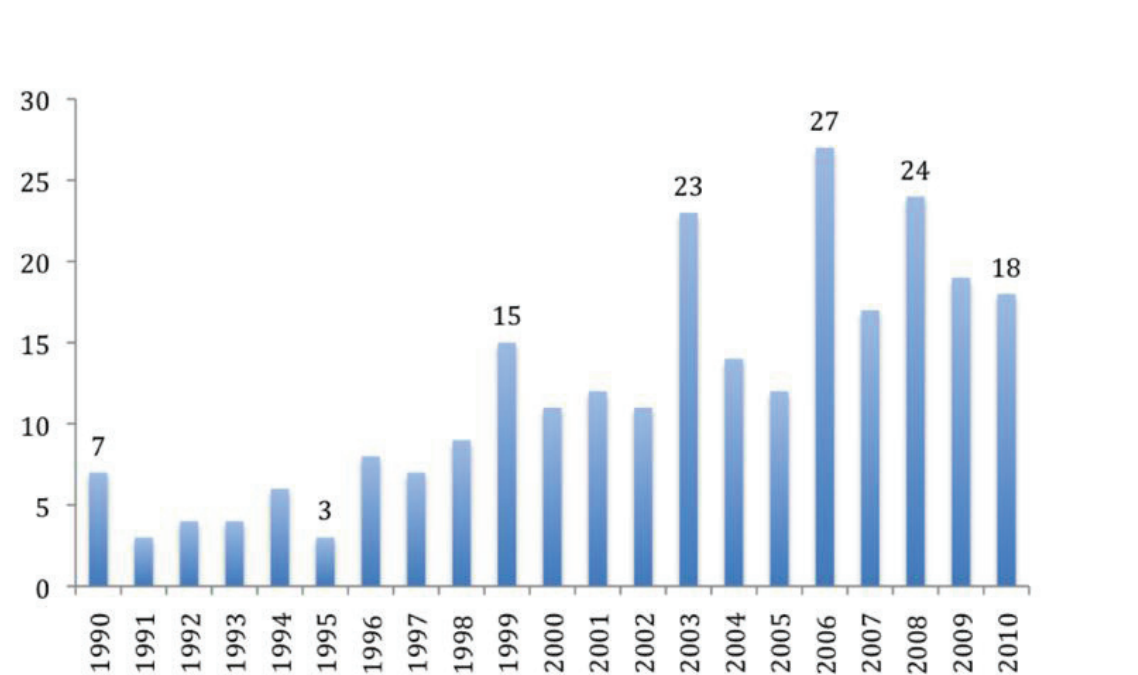


Figure 1 shows the large increase in feature films starting in the later half of the 1990s.



The frequent use of co-productions is one of the key features of European audio-visual production and is particularly pronounced in animation, where the visual and narrative characteristics of the medium allow the product to travel well. Another important characteristic is the extent to which programming relies either directly on public funding or on mandates that require broadcasters to purchase some part of their programming locally. The combination of these mechanisms means that European animation is often produced through a coalition of studios, each of which is able to tap into local financing sources to fund their work. While many European co-productions involve interesting, creative collaborations, they are almost inevitably motivated by a search for territorially specific funding sources. Producers in France find co-producers in Belgium or Luxemburg to make up part of their budget. Danish producers look for Irish, German, or Norwegian partners. And so on. The result has been an extraordinary internationalization of the animation industry in Europe and a very heavy reliance on multi-studio, multi-location productions.

This increased internationalism was accompanied by an increased institutionalization of the industry as well, with Cartoon playing an important role as mediator/facilitator. Prominent in this regard has been Cartoon's role in enculturating new participants into common "European ways" of making and financing animation. It has also been pushed along by a general climate of globalization, and the increased opportunities to learn of standard industry practices. Finally, it has emerged somewhat organically, although not accidentally, through Cartoon's efforts to create cross-cultural dialogue within the industry.

The following three sections discuss the work of Cartoon in detail, focusing on the tools it used to forge a European animation community and how these facilitated cooperation and learning across the industry.

### **3.4 THE CREATION OF STANDARDIZED WORK PRACTICES**

One problem that frustrated a greater cooperation between European animation professionals in the late 1980s was that local animation studios, which had grown up

in different national environments, used widely different practices to organize production. Creating a truly European animation industry required that local studios find a way to overcome local differences and work with studios using very different creative and cultural conventions. Some of these conventions are cultural and aesthetic. For example, European cultures have different ideas on issues such as what kind of humor is appropriate for a five year old. They may also have an attachment to different visual styles. This kind of cultural difference, while presenting a barrier of types, is also a font of creativity and aesthetic expression. It is the very Englishness of Nick Parks' creations, such as Wallace and Grommit, that make his animation appeal to audiences around the world. Attempts to erase the cultural specificity and aesthetic quirks in European animation have largely been derided for creating a bland, American-style of animated storytelling that yet isn't quite as good as the American ideal-type it aspires to emulate. The issue of creating international appeal while staying true to one's local stories and ideals continues to bedevil the industry, as it does European filmmaking more generally.

When Cartoon formed in the late 1980s, a whole range of practical issues needed addressing. As noted above, many studios in Europe simply didn't have the managerial and organizational practices in place to deal with large-scale production, such as the production of a regular, 22-minute TV series. This would be a particular problem when companies sought to cooperate in or co-production arrangements where work would be moving from one studio to another. Remembering those days, one participant of one of the few co-production projects carried on told me *"In 1981 we had a huge debate about how many minutes long each episode of x should be and how many episodes should be in a series."* (Interview with R.W., 9/12/2011)

Industrial scale animation as practiced by U.S. producers had a well-established set of conventions regarding how things should be organized and managed. Animation in the United States had long been organized using a detailed division of labor first created for the mass production of footage by Joseph Bray, who was directly inspired by Taylorist practices of a fixed and rigid division of tasks (SITO 2006).

In the early 1990s, Cartoon sponsored the publication of the European Animation Industry's Production Handbook, a 400-page guide to various practices for producing and managing the production process. To research the book, three experienced animators were sent around Europe to visit studios over the course of two years before writing began. The stated aim of the book was to create "a springboard for the harmonization of standards in search of future European standard. (ERNEUX 1991)"

The very attempt to create these standards is revealing both of the state of the industry as it existed when Cartoon was formed in the late-1980s and of the kinds of conflicts that a project to unify the industry would entail. As one of the authors recounted,

What was interesting was that the British animation industry seemed to me to be organized very much like a cottage industry. I was appalled at the lack of organization of some quite big-name companies. (Interview with R.W., 9/12/2011)

In both Britain and in Spain, which was a major site for low-cost service work at that time, putting out systems were widely used and workers would only show at the studio to collect assignments or submit approved work. Basic tools such as sign-off sheets to track artwork and make sure that sequences were completed were often not utilized.

"In early 90's ... usually studios would print their own folders and there would be something like a table on the front of it in which each person filled in and you signed your name, so you took some responsibility for what was in that folder. And I know at a later stage, in Hahn Film, they even added a barcode system as well. He invented a sort of barcode thing so he knew where everything was at any given time. But when you went to British studios, everything was in the folder, but there was no writing on it. And it was just left to someone to remember who got what and what stage it was at. (Interview with R.W., 9/12/2011)"

This situation seemed fairly typical of European animation except in Ireland and France. In Ireland, the animation industry had absorbed workers from a hand-full of large American productions that located there during the 1980s. In France, industrial

habits seem to have diffused when the French animation house, DiC, moved to California, exposing many French animation professionals to the American system.

“At the time we were putting together The Technical Bible, there was some sort of industrial standard, as practiced by US companies like DIC, and adopted by many French companies. Some French producers would say that they came up with it in the first place. This system was very unpopular in the UK, where it was felt to be rigid, industrial, and anti-creative. Animation in the UK has always clung to its artistic pretensions, and this was reflected in its (not too efficient) production methods. (Personal email from R.W.)”

‘The Bible’, or Handbook, as it was often called, went on to describe the various systems of charts, folders, dope-sheets, bar-sheets and other standard tools for coordinating large production in animation at that time. However, according to contemporary accounts, later confirmed in interviews, there were also disagreements regarding the extent to which standards should be imposed. One solution, preferred by one of the Handbook’s authors, was to codify clear guidelines and prescribe best practices. A different idea, which ultimately made it into the book, was to describe the different practices in use and give multiple examples of how a given issue might be addressed, in hopes that professionals could understand their purpose and adopt them in part or whole according to their local needs and preferences. As one author stated,

“Attempting to impose standards from the outset is also running the risk that under these circumstances some people may have no use for the Bible. I moreover do not believe that we must necessarily harmonize everything, both techniques and working methods, in order to achieve our aims, namely much more intense cooperation between European production companies. (ERNEUX 1991)”

As a result, part of the book was written as a dialogue, discussing the merits of different systems instead of presenting a single standard.

Ultimately, this frontal attack on the issue of standardizing conventions may not have changed anyone’s behavior. However, the book did provide detailed information on the practices in use, so that studios did not have to reinvent these every time they entered in production.

Managerial and workflow practices have improved over time and the industry has become “professional” since the early 1990s. The main form for this change, however, has been organic and gradual change, rather than a radical shift prompted by the publication of standards. As competition has increased, studios with efficient production methods have prospered at the expense of those that did not. This is particularly true for service-providers, for whom efficiency is a core selling point. The vast increase in co-production has also helped diffuse better practices as studios have opportunities to learn both skills and working methods from their production partners. “Our studio grouping,” one informant told me, “brought us into close company with studios with quite different ways of working. We adopted several ideas from some studios (the French and Belgian) and tried to put the Germans on a more efficient course. (Interview with R.W., 9/12/2001)” The circulation of labor during the past 20 years has also played an important role in exposing animators to the best contemporary practices. This circulation has occurred in Europe, but it also includes large numbers of animators who have worked in the United States before returning home. Currently, the recruitment of animators from California’s large studios by studios in developing countries attests to the important role of individuals as carriers of these cultural practices.

More than 15 years after the publication of ‘the Bible’, as this book was called, considerable differences between practices were still in evidence, as a conversation with a Danish Production Coordinator reveals:

There are a lot of national differences. In some places you would pay people for footage meaning you would pay them according to how much they get a piece. That’s not something that is usual in Denmark. That means that you would have a difference. You would have the same job needing to be done and depending on whether it was done in Germany in Ireland or in Denmark the same job would be paid differently.

... The same hierarchy was still apparent...but when you work with other people whom you hadn’t worked with before you will find out that one drawing is not necessarily defined as one drawing in two different studios. The definition of one type of work process might vary from one place to another. So we needed to tune into each other’s ways of how the work was defined in different places. (Interview with I.D., 6/10/2003)

The spread of Digital Asset Management systems has helped assure standard managerial practices among studios in different locations. STEINMULLER (2000) has written about the important role of the software industry in creating large incentives to codification and standardization. While their use is still far from universal, programs for managing digital assets are now fairly standard on larger projects such as feature films. These systems allow for a vast reduction in managerial resources and the easier management of digital assets, even when these are being produced at studios in different locations or even different continents. Actor network theory has emphasized the importance of ‘non-human actors’ in networks and the ways in which interacting with similar non-human actors may exercise an isomorphic effect on practices in different contexts (FAULCONBRIDGE 2010; TAKTEYEV 2009). In a very real sense, the use of Digital Asset Management and other software actually enforces a change in local practices as local studios adapt their practices to work more effectively with the software.

The tensions between standardization and local adaptation that have played out in European animation are a miniature version of those that afflict globalizing capitalism more generally. In corporate systems, this struggle is resolved by the power of management to impose standards (or refrain from doing so). In a networked system, such as the heterogeneous networks that define European animation, a less direct method seems to have been more effective. This has involved the creation of an environment where people are exposed to new knowledge, to encourage their cooperation, and to ultimately trust in their ability to take and adapt what they need or find themselves at a disadvantage on the market.

### **3.5 PERIODIC MEETINGS, BUZZ, AND SHARED UNDERSTANDINGS**

In contemporary geography of creative industries, the social aspects of agglomeration have come to play an important role in explaining ‘competitive advantage’ and have been seen to provide an important explanation for why such industries agglomerate. Beyond the ease and convenience that living in a place like Hollywood (SCOTT 2002, 2004) or London’s advertising village (GRABHER 2002b) might provide,

professionals in the film or advertising industry choose these places because of the access to fresh information and rumor they provide and the desire to participate in the ‘conversations’ that define the bleeding, innovative edge of the industry. To be in an ‘it’ place is to know things before people elsewhere do, get a sense for how others perceive this information, and to be able to anticipate the future (STORPER and VENABLES 2002). Economically valuable information has a ‘social life’ (BROWN and DUGUID 2000) and being around the people who form the center of an industry affords the opportunity to take part in this social economy.

Information becomes socially sticky when it is either highly contextual to a given a social circumstance – so it only makes sense in that context – or perhaps will only be exchanged when the receiving party is known and their reactions can be gauged. Taken individually, most such information is of little value. However, collectively, this concatenation of information, rumor, opinion – this ongoing conversation about the ‘who’, ‘what’, ‘why’ and ‘how’ of local industry – may provide important contextual clues that help an individual understand and navigate a creative field. Alfred MARSHALL (1890), in his famous passage on industrial districts, poetically wrote that “the secrets of industry are not secrets at all, but exist, as it were, “in the air.” Contemporary followers of Marshall have used ‘buzz’ or ‘noise’ to describe much the same phenomenon (BATHELT, et al. 2004; GRABHER 2004).

In industries that are only emerging or where the race for novelty is relentless, buzz or noise are valuable guides helping individuals to focus and invest their energy and resources. Confusion about the nature of the knowledge exchanged through buzz has led some scholars to argue that important innovations don’t rely on the haphazard, non-directed communications. This misses the point, I believe, conflating directly rentable knowledge – such as patents or know-how — with the broad awareness of the creative field that is necessary for an individual to effectively engage with others. This later kind of knowledge, which is highly contextual, is part of the knowledge that the individual uses to more effectively make sense of the field.

However, buzz is not simply a local phenomenon. Information circulates through many routes in today's economy. Periodic meetings and markets where professionals gather from various places to meet, exchange information, learn about developments in their profession or industry or trade, play a particularly important role in the circulation of information and the question has arisen to what extent this kind of 'temporary proximity' may substitute for the more permanent co-location of industry in a given locale (BATHELT, et al. 2004). In their study of comic book writers and artists, NORCLIFFE and RENDACE (2003), use the terms "periodic social economy" to describe how artisans use meetings and conventions to stay in the loop, engage in professional networking, and catch up on their industry. SKOV (2005) has illustrated how fashion fairs create the conditions for framing and comparison between products that help participants make sense of their market environment. BATHELT and SCHULDT (2010) note that the co-presence of people from all parts of industry – suppliers, producers, users, retailers, media representatives, and interested experts— stimulates Buzz, which helps orient actors around common conventions and understandings. The opportunity for intensive face-to-face interaction, create an opportunity for very rapid and open-ended communications. The possibilities for observing and listening-in offer contextual clues and stimulate questions that might not have otherwise come to mind. Conversations are fomented in which different interpretations of events in the industry are put forward.

At the center of Cartoon Media's work with the animation sector are a series of meetings where the industry from around Europe meets up to learn, do business, but also play together. The most important event over the years has been the Cartoon Forum and Cartoon Movie, where producers, financiers, distributors and some members of the press gather to discuss the financing and co-production arrangements for animated television and feature films respectively. The Cartoon Forum was first held in 1991 and was first major initiative undertaken by Cartoon. It was formed at a time when the expansion of European television was creating increased demand for animated programming. However, European producers, locked into financing film projects in their home territories, were unable to meet the budgets to compete with



American and Japanese programming, which was widely available in syndication. Cartoon Movie, which was first held in 1998, aimed to replicate the success of the Forum and encourage early investment and co-production agreements in feature films.

Cartoon Forum and Cartoon Movie are both structured around a public pitching process. Distributors, financiers and producers gather in lecture rooms, and producers with projects are allotted a 30-minute time slot to make a pitch. The public nature of pitching provides an opportunity for producers to both broadcast their own creations to a large audience and observe how that audience responds to other pitches. This is different from how most film markets work, where the meetings are all in private. The public pitch creates the possibility of generating buzz around a project; when a broadcaster stands up in front of others and shows enthusiasm for a show her enthusiasm immediately signals to others to take note. As they do, the chance of more investors coming on board is increased. The very public discussions of the merits or drawbacks of a given idea also provide important information for everyone in the room, and often filter out to other participants in the industry through subsequent conversations.

As LAMPEL and MEYER put it (2008), in the emergence phase of fields and industries the focus of field configuring events such as Cartoon meetings, “is on the processes that transform a disparate set of organizations and individuals into a community of organizations that partake of a common meaning system.” Indeed, over the years, one effect of regular meetings has been the emergence of shared standards within the industry around technical issues such as the length of broadcasts. Producers who wanted to export their product in the 1980s faced the issue that different national broadcasters followed different conventions regarding the length of individual broadcasts and number of broadcasts in a series. What worked for one market wouldn’t necessarily work for another. The Cartoon Forum is often credited for changing this situation.

In the early days of Cartoon ... there was absolutely no coordination among broadcasters in those slots at all. I think one of the results of the Cartoon

Forum is for broadcasters to realize that they need to line up with each other to some extent or else everything is going to be far too expensive for them. So, I think with broadcasters being more aware that if they had the same sorts of slots as everyone else they were going to be able to buy their programming. At the same time, production became a bit more organized because you could actually learn from somebody else's production and not kind of reinvent the wheel every time. (Interview with R.W., 9/12/2011)

By being present in the same room and discussing projects together, broadcasters came to recognize the advantages of harmonizing their time slots so that they could share the investment costs on projects. This came about without any particular mandates. While these standards provide guidelines to producers, they are also subject to change as the broadcasting industry evolves. For example, short interstitial animation — one, two or five minutes long, first shown on themed channels - have become a mechanism through which new ideas and fresh animation ideas can be tried out and, if successful, perhaps expanded into full-length series.

Cultural conventions are also articulated as the meetings provide a very public place to discuss what works and what doesn't in a given pitch, and more importantly, what the distributors believe their public would like to see or see more of. Some of these conventions are aesthetic: they relate to what audiences in different countries enjoy and expect out of a given film or program. Of course, the demand for 'freshness' within the industry means that that these needs have to be met in a way that doesn't feel like it's already been done. Other conventions have to do with institutional issues such as complying with formal, legal regulations. Through these discussions, tacitly held ideas about what 'works' can be articulated. In other cases, knowledge that is already articulated and well known to one segment of the community is simply made public and shared with others. For example, at one pitch during the 2005 Forum, a representative of the BBC made it clear to a producer pitching a children's show that dangerous, but cartoonish, behavior of the characters (they were sticking their finger in an electrical outlet to power a toaster) would not pass regulations in the U.K. because it was inappropriate for small children. Knowledge of this standard may have been widely shared among those present in the room. However, the discussion provided an arena for all of the broadcasters and producers to come to a better

understanding of these formal constraints and how to meet the demands of a market with these kinds of constraints.

Cartoon has also sponsored a series of professional courses, the Cartoon Masters, which bring together professionals from around Europe. The Masters classes started in 1991 as a way to educate animators, particularly those who were trained in the artistic aspects of animation but did not necessarily understand the practices of industrial-scale animation. Quickly, however, the focus of the Master's changed from vocational education to one of providing professional development and giving insights and information on current developments within the industry. Currently, four Masters courses are generally offered annually: Cartoon Future (sometimes called Cartoon Digital), Cartoon Finance, Cartoon Movie and a Masters for trainers in the industry. These three-day courses, like similar professional development courses in other industries, provide a chance for newcomers to become quickly acquainted with the field, and for more experienced professionals to stay abreast of new developments.

For many years in the late 1990s, Cartoon Movie was dominated by debates on the merits of traditional hand-drawn animation versus the new, and increasingly popular computer generated methods of animating. As that debate has faded, others, such as the emerging market for mobile platforms, have come to the fore. While the original goal of the Masters was to provide in-depth knowledge, they quickly morphed into events that serve more to inform professionals about new developments and give them a broader general awareness of the field, so that they can then seek out the knowledge or expertise that they might need according to their specific goals. The Masters classes are structured not as complete curricula but as a menu of topics that are designed to engage professionals in exploring new creative possibilities and resources available. Often, the presentations involve the discussions of case studies and exemplars. For example, the development, organization and financing of a popular or successful film will be discussed in one session, the box office success in various countries in another.

In all the Masters courses, discussion and debates are often featured as well. The result is a learning environment that is structured somewhat along the lines of a bazaar, where individuals with very different needs and preference can all find some knowledge to take home. The abundance of debates and case-studies provide an open-ended way of learning, where individuals are challenged to translate the information provided into insights relevant in his or her particular context. The use of cases and exemplars creates a common repertoire for the community to draw on while allowing ambiguity in their interpretation. Rather than leading to ‘strong convergence’, the discussion of cases and exemplars permits heterogeneity and difference of perspectives while at the same time providing common reference points facilitating conversations and common activities.

This kind of contextualized learning helps participants become broadly enculturated into the history of the community, what different participants are trying, why they might find success and why they might have come up short. It is identical, in this regard, to the type of practical, contextual knowledge that often forms the basis of localized communities of practice. These cases and discussions come to form a common background that professionals around Europe share and draw on in their discussion, and a baseline from which future plans are created.

### **3.6 SOCIAL SPACES AND NETWORKING**

Almost everyone involved in European animation points to the networking — the chance to meet other professionals from around Europe — and the sense of familiarity and even community that has emerged from this as Cartoon’s most important accomplishment. The periodic gatherings at different events where many of the same people are encountered create a feeling of familiarity and generate multiple opportunities to form new relationships, hear the latest rumors and news, and catch up with old acquaintances. The structured activity of the meetings often provides an anchor for interaction — a common context that brings people together. But the less-structured times allow for a looser exploration of the creative field by engaging in conversation and meeting people. BATHELT and SCHULDT (2010) compare trade

fairs to the “Garbage Can model of organization,” (COHEN, et al. 1972) in which people with a high degree of relational proximity are organized in only the loosest fashion — through co-presence — and are left free to explore new connections according to their own disposition and needs. It is the very loose structure of meetings – where spatial proximity allows relationships to develop – that makes them ideal places to engage in exploration, for new ‘know what’, ‘know who’ and ‘know why’.

The intense social interaction happens between the “main events” – the classes, the pitches, or the movies-- but in fact, this interaction may constitute the main benefit for many participants.

In animation people are very friendly and very nice to introduce you to other people. Half the success is eating, wining, dining, going to receptions and going to festivals. Nowadays, we don’t but to the extent we go to festivals... you will be put at a table with other people. If you have to give a speech you will be sat with other speakers who have come from DreamWorks, Pixar, a French studio, a German studio. You have to eat together. So you’re constantly meeting people. Out of that arise relationships. (Interview with A.D, 11/17/2005)

While functionally it is possible to see conversation and networking as distinct activities, in practice they are tightly bound up with one-another. The conversations, while often stimulated by the pitches or presentations, provide an opportunity for display, mutual engagement and evaluation as well, as a little bit of one’s world view is revealed while information on the topic is divulged. Of course, many of the relationships formed at these meetings have little life beyond the immediate context of the room or meeting. They are often strictly exploratory.

A lot of these people you eat with, you talk about their daily life, but you don’t ever know if you’ll do a project with them. Every studio has a different approach to what they like to do, what their approach is and what their strengths and weaknesses are.’ (Interview with A.D, 11/17/2005)

Still, while such knowledge may not lead directly to new projects, it broadens the participants’ understanding of the field and is an important part of professional competence in the industry.

For newcomers, such places of buzz are particularly important places to learn about the creative field and to make new connections. One producer, who started attending Masters courses after moving from video-game production to animated television, described this learning in the following terms:

(I learned) everything! Everything! Who is who; who is doing what; who is on the top; who is down, who is where. Who are the major players; who are not. Whom to avoid; everything! (Interview with G.S., 9/8/2011)

The movement between classes and social time provides a specific rhythm to the proceedings, similar to that of academic conferences. Periods set aside for specific topics and speakers mix with breaks, where people are free to mix. The learning aspect of the Masters attracts lots of newcomers; people who want to explore but might or might not have a deep commitment to the profession. More experienced professionals are often brought in as speakers; they have a chance to meet newcomers, to share their knowledge, to engage from the other end. They may also get a first look into promising projects. However, when asked about their participation, these kinds of ‘utilitarian motives’ were not often mentioned, and one suspects, that pro-social motives really are more important than calculated interests. In several interviews, professionals told me that they simply enjoy sharing their expertise and contributing to their professional communities and “helping others find their path” (Interview with B.U., 9/14/11).

Conversely, the very ease of access that these events provide was the cause of complaints by some professionals, who felt that the connections made were often of such low quality as to be almost worthless. This brings up an issue that is rarely touched in the recent literature celebrating ‘buzz’, but is often mentioned when one researches the phenomenon: those who are most likely to engage in gossip are often on the periphery of an industry. Many ‘serious’ professionals – partly of this reason – see it as a distraction or a waste of time.

In this regard, it is useful to remember James MARCH’s (1991) dictum on the trade-off between exploration and exploitation. The relative newcomer, unsure of the field

and how he or she will find a place in it, is necessarily pre-disposed to exploration. The more experienced professional usually finds it more useful to exploit the network they already have – people who are known and known to be of value; many told me that the time around the meetings was mostly taken up with dinners and conversations with old business partners and acquaintances.

But, not everyone shared this attitude. One very experienced producer explained:

The Masters are great...they are terrific networking. And they bring you in touch with people... the problem with the Forum is you tend to see the same people. The Masters is great because there are lots of new people and so people tend to learn about the industry. Because there's always a lot of younger people there, which is always very good because you get refreshed when you're there. (Interview with R.W., 9/12/2011)

One suspects that this is partially a matter of personal proclivity – some people like the social aspects of their business more than others. As small worlds research has noted, it is not necessary for everyone to engage in exploration; as long as some people are actively exploring, the industry continues to be open to new ideas and people. However, there is also a very strong functional reason for 'exploration' when working in a creative field such as animation; even when new opportunities are relatively limited, one is always on the look out for the new event or individual that may come and shake things up (CAVES 2000). For this reason, even those people who publicly expressed the useless churn of much of the activity and argued that much of the business in the industry could be transacted between a small group of in-group producers and broadcasters who continue to show up to these meetings, often at considerable personal expense in both time and money.

### **3.7 THE ANIMATION VILLAGE: AN IMAGINED COMMUNITY**

Repeatedly, animation people in Europe referred to their industry as a village, in reference to its relatively small size and somewhat quirky nature. This sense of belonging to an imagined community (ANDERSON 1983) elicits pro-social behavior,

reinforced by the continual circulation of the same faces through different events throughout the calendar year.

POWER and JANSSON (2008) have pointed out that trade fairs are not simply one-off events; that often the same people meet up over and over at different fairs over the course of the year. The yearly calendar for many European animation professionals — especially the producers and distributors who are involved in the ‘deal-making’ side of the business — are filled with meetings, where often the same familiar people meet up and re-acquaint at a regular basis. Several producers who met at the Cartoon Forum mentioned that they would see each other again at MipCom two weeks later. One producer described the European circuit as follows:

February is the Berlinale; March is Cartoon Movie; April is MipTV, May is Cannes Film Festival, June is Annecy, September is Cartoon Forum then October is MipCom. Seven events. Then you have Cartoon Masters. Sometimes I go and sometimes I don’t. And some other things might spring up. So basically my work as I see it is travelling around, meeting people, mingling. Once you’re in the loop with the proper guys, you can jump from one to another. (Interview with G.S., 9/8/2011)

Such an intensive circuit of meetings clearly has a cost. During the recession of 2008 and 2009 most companies cut back on their attendance or sent smaller groups of people. The ‘buzz’ or purely social aspects of meeting were notably reduced as companies focused more intently on getting deals done. Exploitation of opportunity became the order of the day; exploration was at least temporarily, pushed to the side. Importantly, however, the meetings have, over time, had the effect of creating a shared sense of relational proximity.

Scholars of industry districts have often focused on the ‘trust’ that is built up through constant interaction and the sense that one is dealing in a community where one’s reputation will catch up. This is also the case in European animation. As one informant told me:

This is a small world. So if you f\*\*\* up once you can be sure that you have jeopardized your own reputation for further possibilities. So it’s in



everybody's interest to live up to standards. So it's not that you have to put everything in writing. Many of us would prefer to put things in writing just to be on the safe side. But there is a much more dangerous consequence of not delivering: It is that basically you will not get any more jobs. That's the risk. You will be the last one of anybody's studio's choice. If you haven't delivered on time you be the last one anyone calls next time. (Interview with I.D., 6/10/2003)

Nonetheless, although repeated businesses are quite normal, the animation industry seems to be characterized by 'fast trust' as well; people meet, feel an affinity for each other's style of work, and decide to collaborate, staking a great deal on the commitment of partners who are barely known. Fast trust, as GRABHER (2002a) points out, is fairly typical of industries where freshness and variety are highly valued and job roles are well defined.

Fast trust, however, rests on a sense of shared values and understandings – membership in an imagined community. This community has been built up through the constant circulation and interaction of its members over many years. The most notable kind of circulation have been the temporary meeting places of markets and masters courses and the familiarity that repeated interactions has bred among the animation profession. These temporary meetings have given a strong impetus to the networks that have come to define the industry.

Labor mobility has also played an important role in building a common set of understandings, and many animators spend time working in studios abroad. This too has been encouraged by Cartoon through the development of internship programs placing students in studios across Europe. Thus, for example, an award winning Irish studio now finds most of its labor not in Ireland, but from leading animation schools in Denmark, France and Italy (Interview with P.I., 9/22/11). Labor mobility has also been set in motion by the simple fact that co-productions and collaborations between studios give professionals experience of working together. Often, when projects are over, professionals from partner studios in other countries are called to work on the next project. Because of this, the animation industry is filled with migrants, or as one professional put it, 'gypsies' who are willing to move where the work is. This is the

temporal shadow that has been cast by temporary meetings and the networking that occurs in them. In this way, once the process of international collaboration was set in motion, it has tended to sustain itself.

It's a very little business. So people know each other and there is a tendency that ... people within the business travel with the projects...which is of course not very good for people if they want to have a family and if they want to be home in their place, wherever that might be. But we know each other, we know people all over Europe. The rumour spreads that "now there is a project coming up here and they seek good talent. People apply and we might request people because we know them from previous projects. So it's a small business.

There is also a tradition among studios in Europe that when the deadline gets close and people might be running a little bit late they will start looking for companies that they can outsource work to. And then those companies will say "Sure, we can take five seconds of animation and clean it up for you." And then we will get people in Copenhagen Area. And then those guys in say Italy or Germany will get to know those guys in the Copenhagen area because they will be working on the project through A-Film. So it's a small family in many ways and we know each other. If you look at the credits for many of the bigger European and International productions there will be names repeating themselves. (Interview with I.D., 6/10/2003)

In this way, meetings at the Cartoon Forum, Cartoon Movie or Masters class are not isolated events; the networks that are formed at these events may cast long shadows that shift the spatial structure of the industry.

### **3.8 THE DOWNSIDE OF CARTOON: RENT-SEEKING THROUGH CO-PRODUCTION**

A great deal of the academic literature on networking and community formation has assumed a neat, functionalist form, eliding the conflicts that often exist within both networks and communities (GRABHER and IBERT 2006). While I have held Cartoon up as an example of a business association that has helped generate common institutional understandings and facilitate network formation across national contexts, I did encounter people who cast doubt on the value of events such as the Cartoon Forum and on Cartoon's ability to create a truly viable animation industry in Europe.

All of these critics had directly benefited in their careers and businesses from Cartoon's programs.

The main issue that critics point to is the poor record of European animated feature films at the box office when compared to American feature animation or even co-productions between American distributors and European animation studios. Of the top eight European animated films in terms of box office during the last decade, seven are co-productions between European studios and American distributors (*Arthur* is the only exception). All of these films were made in Europe, but each of them was made outside of the "European system". Although some of them benefited from public-support schemes, for the most part they were privately financed; and none of them appeared at Cartoon Movie to look for financing. In contrast, the large majority of films that have appeared at Cartoon Movie have performed poorly at the box-office. With a few notable exceptions, they have also traveled poorly between different European countries and few managed to earn back production costs.

One criticism that was commonly voiced was that the work-splits created by the international co-productions impose onerous costs on projects, both in terms of extra-spending and lost creativity in the workplace. These costs can usefully be described using Scott's concept of spatial transaction-costs (SCOTT 1986). Territorial support schemes mean that co-productions are usually motivated not by the access that co-producing partners might have to support or tax shelters in a given area. So, for example, a Danish producer might find a German co-producer in order to gain access to the support offered by the Bavarian government. Although most experienced professionals in the industry emphasized the importance of finding the right partners – one whose capabilities and vision complement and align well – financial considerations are clearly primary.

The results are that typically 20 to 25 percent of a production's budget is lost in coordination costs. These costs include duplication of managerial systems, frequent communications and the time and expense to travel back and forth between studios. They also include the need to re-do work because of communications problems that

are inevitable when studios in different countries are involved. New software managing the large number of drawings or digital assets that are required to make a film can help minimize these costs by reducing the number of people required to manage a project and automating coordination between studios. However, problems remain in terms of getting artists up to speed on a project and overcoming differences in creative vision or in practical priorities.

In addition to direct, financial costs, the distributed production model may have negative consequences on the ultimate quality of the project. One of the common complaints in the European co-production community is the problem of “Euro-puddings”, films that have no clear cultural or creative identity (interview with C.J., 6/22/2003). As one producer told me:

I think co-production is a pain in the \*\*\*... Co-production, when you have animation when you normally have a certain size of project it is almost a must. But the problem is that it sometimes takes the soul away from the project and when you have too many studios working, it becomes a problem. So you have two countries, OK. If you have more, it's a real pain. (Interview with M.S., 01/11/2011)

The views expressed by Petteri Pasenen, the producer of the much-acclaimed 2008 movie, *Niko and the Way to the Stars*, are fairly typical:

We should challenge the old financing system. With the co-production system you can lose up to 30% of your budget just because of the work split.

Then the approving system, even though it really made our movie better, it takes ages. You have lots of Skype conferences with ten people or more, trying to say something about something and you speak for hours... I'm not a big fan of this old financing system. I'm really looking for something else. (Cited in Cineuropa, 19/07/2010)

Of course, while electronic communications tools like email and Skype can help overcome some of the frictions of distance, most informants (but not all) agreed that traveling and personal visits are still a necessary part of working together. Often, the problems that arise during production are ones of trade-off. For example, a foreign studio is asked to work overtime when a production falls behind. They may have

other projects that they are working on as well and may resent the request or decide to put less-qualified talent on the job. Although the tasks could easily be communicated via Skype, a personal visit, and a dinner, still serves to build trust and commitment in a way that remote communications cannot. (Interview with I.D., 9/28/2011)

Although the above comments are typical, not all the subjects I interviewed agreed that remote production was a problem. Some saw collaborating with foreign studios as a learning opportunity, while others simply saw no difference between working with people in a common studio and working with them at a distance. In part, of course, it depends on the complexity of the project involved and comes down to personal experience.

A second criticism that dovetails with the issues of distributed production is that most European films simply don't make enough money to pay for themselves. They are highly dependent on subsidies to make their budget and reduce risk for private investors. This criticism, which is spelled out in length in *The Movie Game*, Martin Dale's excoriation of what he sees as the corrupt, elitist practices of European state support for film, was generally whispered sotto voce (DALE 1997). The bulk of European films, I was told, are simply not good enough to compete and therefore should not be made. "€6 million is a lot of money to pay for someone for a vanity project," one informant told me (Interview with B.D., 9/9/2011). The fact that money is available simply for locating productive activities in a given country or territory, he argued, led to decisions that worked against the quality and creativity of projects. Many producers, in their zeal to make up a budget, will find co-production partners who can bring in money, but assign them only low-skill or relatively unimportant tasks on the film. The result not only undermines the purpose of support schemes to build up local industry, but also changes the logic of filmmaking towards one of subsidy-chasing (also see (MORAWITZ, et al. 2007).

The obvious alternative to this model is the higher-quality, higher-budget films financed and distributed by American majors and mini-majors. While this model may also produce flops, it is notable that all of the top-earning European films are either

American co-productions or European productions that are made on production budgets that offer something of a discount from large American productions while emulating the marketing and production organization of the American model. These films may occasionally subcontract work to service studios, but as a rule, they keep work in house. As TSCHANG and GOLDSTEIN (2004) have carefully explained in their analysis of Pixar, American producers use very different models for producing low-quality, television animation than they do for the higher-quality animation required for top feature-films. While television animation is almost always outsourced to Asia for production, after the script and pre-production have been prepared in the U.S., feature films generally keep all of the work in house. This in-house model of production allows for creative synergies and rapid adjustments in the creative process that help account for the high quality of the product ultimately produced (also see PRICE (2009)). One of the problems with European films might therefore be that they are using a model of production that is not appropriate for the high-quality media they are seeking to produce. While outsourcing may be appropriate for television and for low-budget films, it is not appropriate for films that want to compete as mass-entertainment.

The fact that American film studios are now looking to Europe as a location for feature films speaks well for how much the industry has developed over the last 20 years. Many European artists who had previously emigrated to the U.S. in order to work at top studios are now returning to Europe (FORDE 2011). However, if a switch to a model of filmmaking with fewer, high-budget films were to make significant inroads and public subsidies were to be cut, it would likely lead to the extinction of many of the smaller studios in Europe and the concentration of animation talent in fewer locations. The currently distributed nature of animated filmmaking in Europe, partially an artifact of institutional conditions and especially the way that financial resources have been politically mobilized, may then no longer be viable.

### **3.9 DISCUSSION AND CONCLUSIONS**

This paper has discussed the role of Cartoon in promoting the development and growth of Europe's animation industry over the last 20 years. Cartoon has via a long-term project promoted interaction and collaboration between various players in the animation industry, generating relational proximity, shared understandings, and personal trust among professionals, broadcasters and financiers." Since its creation in 1988, Cartoon has played a central role in stimulating multi-locational production practices. In the late-1980s, the liberalization of television in several European countries created a demand for animated content. However, little trans-European trade existed and station programmers were more likely to buy content from the U.S. or Japan than from another European country. Cartoon was formed to unify the European animation industry by creating a common set of institutions and understandings to create and facilitate cooperation and within both formal and informal industry networks. The institutional practices created by Cartoon have helped producers break out of their national markets and expand internationally by and brought institutional coherence to the notion of "European Animation."

This case study makes a couple of distinct contributions to our understanding of how learning communities can be fostered in creative industries. First, Cartoon offers a concrete example of how learning communities may be generated both across and within regions, and provides concrete evidence on the types of learning-by-interaction that are necessary to build a successful industry. Through this case, I have tried to illustrate an expanded from a narrow emphasis on innovation our understanding of what 'learning' looks like in a system where the collaboration of different actors with different roles must be achieved. I have tried to show that while actors may occasionally gain specific and actionable knowledge through casual interaction, their main benefit of such interaction is the chance to explore their environment and to develop shared understandings, conventions and awareness of the thoughts, opinions and goals of others in their field. In short, this kind of learning allows people to expand out from one specific geographic, organizational or cultural context and

become competent at collaborating with others who may bring different contextual assumptions to their work.

These findings contribute to the literature on transnational knowledge communities; illustrating empirically how buzz and knowledge-circulation may be organized in a spatially extended community (COE and BRUNELL 2003). In AMIN and COHENDET's (2004) seminal account, these communities seem to cut across local geographies, thereby, questioning the idea that highly "tacit" forms of knowledge will generally circulate only locally. According to their argument, such communities consist of people who share a high degree of 'relational proximity' as well as a common purpose or professional orientation, enabling mutual communication regardless of geographical distance. The counter-argument suggests that knowledge in such communities is – perhaps inevitably – fragmented by the different ways that practices are articulated in different local contexts, making the sharing of knowledge and collaboration in production across distances more difficult (GERTLER 1995; LAM 1997). At times, this literature has presented a pessimistic picture of the possibilities of knowledge exchanges outside of closely-knit geographic communities, a picture that feels quite at odds with how many people experience contemporary globalization.

The evidence of Cartoon is better in line with the more nuanced view evident in GERTLER's more recent writings (2008), which depict the contextual nature of knowledge as potentially problematic but surmountable provided the proper context and motivation (FAULCONBRIDGE 2007, 2010). In this framework, Cartoon well illustrates the kinds of activities that foster learning across contexts. Cartoon's institutional entrepreneurs attempted several ways to promote shared conventions, such as the "Bible" and the temporary gatherings happening in Cartoon Forum and Masters. However, these modes of intervention have been unevenly successful: whereas a more radical shift prompted by the publication of the "Bible" has been largely forgotten, the more organic and gradual mode of change stimulated by the temporary gatherings seems to have been more effective.



I am far from suggesting a strong normative implication derived from this fact and related with the convenience of celebrating this kind of meetings. Indeed, recent institutional entrepreneurship research has stressed the controversies that can be created around these sorts of events. For example, in his study of the emergence of a new medical technology, GARUD (2008) highlighted the bitter disagreements about standards happening in several multi-stakeholder conferences. Thus, instead of pointing to narrow normative implications, I believe the lessons to be extracted are more related to recent research on institutional work (LAWRENCE, et al. 2009, 2011; LAWRENCE and SUDDABY 2006), which –in its effort to overcome previous “heroic” conceptions of entrepreneurship- highlights the existence of unintended consequences and failures in the various means used by institutional entrepreneurs. The story of the struggles of Cartoon in finding an effective way to promote shared conventions in the European Animation Industry powerfully resonates with the “muddles, misunderstandings, false starts and loose ends” (LAWRENCE, et al. 2009, 2011) which characterizes a more realistic and non-linear perspective of the everyday effortful practices of institutional entrepreneurs.

These findings are relevant for industrial policy beyond the animation industry, especially to policy-making efforts to promote ‘learning’. Regional policies have often focused on thickening relationships within geographic ‘clusters’ of competing and related industries, on the assumption that this will lead to more robust endogenous innovation dynamics. The arguments invoked to support this assumption were often based on the notion that ‘tacit knowledge’ can only be exchanged in ‘localized learning’ processes in especially privileged ‘learning regions’, the emulation of which should be supported by regional policy. Later versions suggested that it was also important to build ‘pipelines’ with outside sources of knowledge (BATHELT, MALMBERG and MASKELL 2004), but the precise meaning of this metaphor has remained somewhat unclear.

The case of Cartoon and the analysis presented here suggests that, at least in a European context, the promotion of transnational and trans-regional networks of practice, furthering competitiveness through scale, novel combinations, variety, and

learning may be an alternative and possibly more efficient mechanism than the national support of local clusters.

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## **CHAPTER 4**

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### **THE DISJUNCTIVE GEOGRAPHIES OF KNOWLEDGE AS SKILL AND KNOWLEDGE AS CONTEXT: WHY KNOWLEDGE IS BOTH LOCALLY STICKY AND GLOBALLY MOBILE**

**Abstract.** Over the last decade, claims within geography about the necessity of localization and proximity for the production and circulation of tacit knowledge have been challenged by a ‘networks’ perspective that has sought to correct a perceived overemphasis on local knowledge and localized learning. The resulting conversation has opened the field up, and it is now accepted that *both* local and non-local relationships may be important for the creation and dissemination of knowledge. In this paper, I reconsider the issue, introducing a distinction between *knowledge creation*, which often, although not always, requires sustained face-to-face interaction between people with different expertise, and *knowledge circulation*, which requires that people with similar expertise and experience translate and adapt knowledge and skills in new social, economic and geographic contexts. The paper investigates factors creating proximity or dispersion in each of these distinct processes and suggests that they may describe divergent geographies, with the one requiring localization while the other does not. In a final section, four potential combinations of localization and dispersion in *knowledge creation* and *knowledge circulation* are explored.

## 4.1 INTRODUCTION

Debates about economic geography and the geographies of knowledge and innovation over the last several decades have centered on the importance of physical proximity in the production and circulation of knowledge (GERTLER 2008). In this regard, the innumerable success stories associated with clusters and other ‘territorial innovation models’ seemed to offer irrefutable evidence of the importance of co-location and proximity to processes of knowledge creation and circulation (MOULAERT and SEKIA 2003, ASHEIM and GERTLER 2005). The regional scale, or cluster, was highlighted because of the rich opportunities afforded for face-to-face interaction and the intensive circulation of information, or cluster buzz, keeping cluster members abreast of developments in their industry (STORPER and VENABLES 2004, MALMBERG and MASKELL 2006). Furthermore, spatial proximity was thought to stimulate the development of shared conventions, a common language and compatible interpretative schemes – in short, relational proximity — facilitating the circulation of ‘tacit’ knowledge and promoting learning (STORPER 1997, LAWSON and LORENZ 1999, MASKELL and MALMBERG 2007). The connection between regionalization

and learning became embodied in concepts such as ‘the learning region’ and ‘localized learning’ and became a dominant paradigm within economic geography (GRABHER 2006).

However, increasingly this dominant line regarding the causal relationships between localization and learning has been challenged (AMIN and COHENDET 2004). Critics of the prevailing consensus have argued that geographical proximity is neither necessary nor a sufficient guarantee for tacit knowledge exchange (OINAS 1998, RALLET and TORRE 1999, TORRE and RALLET 2005). First, it was pointed out that in place of permanent and continual proximity offered by co-location, temporary physical co-presence might be sufficient for collaboration (TORRE 2008). For example, the role of trade fairs, conferences, and other forms of ‘temporary clustering’ in supporting knowledge circulation seemed to mimic those of the permanent cluster (NORCLIFFE and RENDACE 2003, MASKELL, BATHELT, et al. 2006, BATHELT and SCHULDT 2010, BATHELT and TURI 2013). Second, scholars pointed to important structures of informal collaboration, fueled by travel and Internet connectivity, that reached well beyond the cluster (BATHELT and TURI 2013). These networks were conceived of using a language of ‘knowledge communities’ – reference often being made to ‘communities of practice’ (BROWN and DUGUID 1991, WENGER 1998, AMIN and ROBERTS 2008) or ‘epistemic communities’ (BRESCHI and LISSONI 2001, AMIN and COHENDET 2004, HÅKANSON 2005). Knowledge, it was argued, is likely to flow easily within these communities regardless of their geography, but will move only with difficulty between them. So, whereas MARSHALL (1920) had famously noted that information in localized industrial districts moves so freely that ‘the secrets of industry are seemingly in the air’ and his neo-Marshallian followers had celebrated ‘local buzz’ as a source of information that kept entrepreneurs and firms within clusters a step ahead of their competitors elsewhere, BRESCHI and LISSONI (2001) argued that knowledge spillovers within industrial districts are not "in the air" but “in the network.” Against the ontology of place that was at the center of the clusters story,

these scholars asserted the primacy of the ontology of the network, without focusing a priori on any one spatial scale (BUNNELL and COE 2001).

During the decade since this ‘knowledge communities’ view was first articulated, the geography of knowledge has proceeded in an eclectic way. The field has generally recognized the importance of trans-local or global networks in circulating knowledge, and research has expanded on this topic. A somewhat uneasy synthesis between seemingly opposed paradigms has gradually become accepted, notable in concepts such as ‘buzz and pipelines’ (BATHELT, MALMBERG, et al. 2004). It is generally acknowledged that even if economic transactions are not necessarily localized, localization is still important (BATHELT and TURI 2013) and that each perspective has a valid contribution to make. Rather than challenging each other’s accounts, the respective proponents focus on different cases, contexts and empirical evidence. While this approach may help guard against an overly narrow fixation on only one dimension of the geographical puzzle – the benefits of localization – it leaves unanswered the basic question as to the importance of proximity in the creation, circulation, and sharing of knowledge and how this issue relates to the geographic clustering of competing and complementary industries. If the production and circulation of knowledge can occur non-locally as well as locally, then how do we explain agglomeration and regional learning?

In this article, I try to shed some light on these questions through a re-reading of the debate on tacit knowledge, clustering and knowledge networks. I suggest that the debate around localized learning and learning in non-localized networks has been muddled by a failure to specify the kind of knowledge that is being acquired and the different kinds of learning taking place. I contend that the discussion about the geography of learning has failed to clearly separate two dimensions of practical knowledge and understand how they are acquired. The first kind concerns knowledge of a particular domain – such as that of a discipline or a practice – that can be relatively invariant and consistent across contexts. ‘Domain knowledge’ includes not only theoretical knowledge but also practical skills and know-how developed through experience in the exercise of a profession or practice. The second kind relates to

‘contextual knowledge’ of the social and economic environment in which these skills are utilized. This kind of contextual knowledge is often acquired through processes of ‘acculturation’ into the workforce.

The argument developed in this paper is based on the observation that much knowledge creation takes place through combinations of knowledge from both overlapping and different domains; it often requires intensive negotiations around the potential and feasible combination of knowledge elements, the framing and definition of problems, and the alignment of the criteria that the participants bring to the process (GRANT 1996, MUTHUSAMY and WHITE 2005, HÅKANSON 2010). *Knowledge creation* – particularly when it involves complex and tacit forms of knowledge – often requires intensive face-to-face interaction. The geography of innovation through complex combinations of knowledge is therefore shaped by the spatial transaction costs of getting knowledgeable people to meet in the same place over a sustained period of time. *Knowledge diffusion*, on the other hand, typically involves people with overlapping domain knowledge and therefore may occur as a byproduct of contacts through daily work, but can also be organized between individuals who only see each other occasionally, or know each other only through their virtual presence.

Marshall’s seminal writings on industrial districts offered a version of this distinction, attributing the success of industrial districts both to the advantages of pecuniary externalities such as localized labor markets and the availability of specialized inputs *and* to non-pecuniary, informational externalities, the ‘industrial atmosphere’ that clung to such places and gave people there a sense of what was happening in local industry well before the rest of the world (MARSHALL 1920). Theories of localized learning and learning regions have tended to focus on the latter point, non-pecuniary externalities – atmosphere or buzz – recommending that policy-makers facilitate their creation and exploitation through, for example, local institution building and encouraging more exchange *within* the cluster (AMIN and THRIFT 1995, BATHELT, MALMBERG, et al. 2004, ASHEIM and GERTLER 2005). In contrast, I place a reduced emphasis on the institutional aspects of clustering. I suggest that knowledge communities may be increasingly cosmopolitan so that even highly tacit



developments in their knowledge base may circulate widely. However, the creation of new knowledge often requires flexible and timely collaboration, which facilitates different domain knowledge to be recombined. The clustering of specialized talent greatly facilitates this process.

In the following section, I develop the theoretical distinction between domain and contextual knowledge. Section Three discusses the issue of knowledge circulation and diffusion and how the geography of knowledge communities is determined by issues of context and the ability of such communities to adapt knowledge from context to context. Section Four returns to traditional arguments regarding agglomeration, discussing how the need for face-to-face interaction when combining tacit and context dependent knowledge may lead to agglomeration. In Section Five, I trace the consequences of the distinction between the geography of knowledge circulation in a knowledge community and the geography of knowledge creation in teams and highlight four geographies of knowledge that might emerge from their combination. While most of the debate on the localization of knowledge has focused on situations where both processes are localized, I demonstrate that other feasible combinations need to be explored.

## **4.2 TACIT KNOWLEDGE AS SKILL AND TACTIT KNOWLEDGE AS CONTEXT**

The standard view on the localization of knowledge circa the year 2000 was based on fairly simple presuppositions about the nature of knowledge. The first of these was the idea that knowledge can usefully be divided into that which is *codified* in or *codifiable* into some shared language, code or system of notation while ‘*tacit*’ knowledge is that which is not or cannot be codified in this manner<sup>13</sup>. Tacit

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<sup>13</sup> The distinction between tacit and codified knowledge was introduced into current discourse most prominently in the writings of NELSON and WINTER (1982) through their extensive referencing of the philosopher of science, Michael POLANYI (1966). In subsequent usage, ‘codified knowledge’ has conventionally come to refer to all knowledge that can adequately be recorded and communicated through a recipe, blueprint or instruction manual, permitting its near costless dissemination, both through voluntary transfer and involuntary imitation. By contrast, tacit knowledge is residually defined as all knowledge that cannot be communicated in such a direct way.

knowledge in this view can only be acquired through trial and error personal experience, sometimes aided by advice and instructions obtained in a master-apprentice relationship. On the basis of this distinction, it was assumed that codified knowledge will easily diffuse to the point that it becomes ubiquitous, while tacit knowledge will be locally sticky (MALMBERG 1996, KIRAT and LUNG 1999).

The dichotomy between tacit/local and codified/global knowledge provides a simple shorthand for thinking about why knowledge might not diffuse easily. However, in conflating location with social context, it is also misleading (ALLEN 2000, HOWELLS 2002). It obscures what is really a more complicated relationship between a knowing subject, a context, and the system of representation that mediates between the two. There are different reasons why knowledge may be difficult or impossible to codify. On the one hand, knowledge may escape formal articulation because it is *embodied*, known in an automatic and subconscious way and so much a part of our physical and mental skills that we can't fully describe how we do something (TURNER 1994). On the other hand, knowledge may be tacit because parts of what we know are *embedded* in social interactions with others with whom we share common assumptions about how the world works. These assumptions are often so much a part of our everyday perception and of our social environment that they escape notice. In practice, much articulated knowledge rests on a large body of tacit knowledge that remains unarticulated. This may be because the codes to properly articulate it have not (yet) been developed, often because no one has found it economically valuable to do so (COWAN, DAVID and FORAY, 2000; HÅKANSON, 2007).<sup>14</sup>

If the tacit knowledge problem were only about the inherent difficulty of articulating certain aspects of skilled performance, in and of itself, it would probably not merit the

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<sup>14</sup> A classic debate on the nature and meaning of tacit knowledge appeared in the journal, *Industrial and Corporate Change*, between COWAN, R., P. A. DAVID and D. FORAY (2000). "The Explicit Economics of Knowledge Codification and Tacitness." *Industrial and Corporate Change* 9(2): 211-253, JOHNSON, B., E. LORENZ and B. Å. LUNDVALL (2002). "Why all this fuss about codified and tacit knowledge?" *Industrial and corporate change* 11(2): 245-262.

attention that it has been given within the ambit of economics. While it is difficult to learn to serve a tennis ball or sew a dress without at least observing somebody do it, the purely physical aspects of doing these tasks, while not fully describable in language, can usually be worked out for oneself (TURNER 2001). This use of tacit knowledge refers to personally embodied kinds of knowing -- skills we possess without being able to fully articulate them. Unless mastered with extreme and very rare perfection, such skills have typically no or only trivial economic value.

The problem becomes more interesting when we consider more complex activities carried out between teams of workers. Michael Polanyi, of course, noted that knowledge often emerges as a hunch before the knower is able to articulate this knowledge and fully communicate it (POLANYI 1966). Frequently, knowledge-creation involves the combination of skills and knowledge of different experts with differing cognitive frameworks and logics of practice. However, even when this is not the case and two or more workers are trained in the same knowledge domain, combining knowledge may require complex adjustments. Successful new combinations of existing knowledge are a non-trivial accomplishment, often involving successive rounds of knowledge articulation, as knowledgeable agents engage in a 'generative dance,' articulating parts of what they know in light of problems, constraints and solutions that are being put forward by others (LEONARD and SENSIPER 1998, HÅKANSON 2007).

These processes of collective knowledge creation usually benefit from the close interactions of participants, including physical gestures and the use of physical space, reference to documents and other physical boundary objects; hand waving, or improvisational acting out of parts, a common orientation in space, conversations in fast interruption and repair, and non-verbal means such as the subtle or not so subtle performance of hierarchy (BECHKY 2003a, 2003b; HARGADON and BECHKY 2006). In short, physical co-presence – which provides a shared social and physical context and rich opportunities for face-to-face interaction— is ideal for knowledge formation.

However, while Polanyi's ideas help to explain the importance of proximity on the micro-scale of the workplace in processes of complex or ambiguous knowledge formation and articulation, their relationship to the region, and the question of why 'tacit' knowledge should be regionally sticky, remains under specified. It has widely been assumed that knowledge diffusion, whether regionally or globally, depends on that knowledge being articulated to some degree. So, the common idea that knowledge that is 'tacit' can only be shared locally is a strange one (HÅKANSON 2005). Rather, what makes knowledge sticky when it comes to knowledge circulation are a second set of factors that have been associated with the tacit – the context-dependent nature of knowledge. Knowledge that is being shared regionally is articulated, but the articulated and codified part rests on and refers to reference points, metaphors, or shared understandings, conventions and norms that are common to a community of people, presumably defined by their membership in a regional industrial community. As BRUSCO (1996, p. 150) writes:

The second type of knowledge is local (tacit), crystallizes in the intelligence, imagination and skill of people who live side-by-side and who swap news and experiences, working together. This local know-how is passed on by doing things and seeing how other people do things, through informal chit-chat. The language that is used to convey it is full of local expressions and idioms, often drawing on metaphors or references that have no meaning whatsoever beyond the restricted area in which they are used and in which they have been developed. Above all, this form of knowledge is necessarily rooted in a specific area in which people are linked by the bonds of a shared history or values, where specific institutions work to the benefit of people and where codes of behavior, lifestyles, employment patterns and expectations are inextricably implicated in productive systems.

In short, a different dimension of what geographers and organization scholars have been referring to as 'tacit knowledge' is better thought of as an issue of 'context' and the shared contexts within which a given bit of knowledge makes sense or is practically useful. The need to focus on the socio-spatial context of knowledge was argued by GERTLER (2003) in his paper, *Tacit Knowledge and the Economic Geography of Context, or the Undefinable Tacitness of Being (there)*. Gertler suggests that the 'tacit knowledge problem' comes about because knowledge that is generated in one local context may be difficult to transfer to another, and notes that the problem,

ironically, may be better explained with the seminal ideas of Karl Polanyi on institutional embeddedness than with those associated with his younger brother Michael (POLANYI 1944). However, as I argue below, regional contexts are in most cases not as important as Brusco or Gertler would imply.

As a result, the geography implied in co-developing and articulating complex tacit knowledge, which may involve different knowledge holders bringing their knowledge together in a workplace, and the geography of the knowledge community in which that knowledge is stored and circulated, may be quite different. Lurking behind the concept of tacit knowledge as it has commonly been used in geography are two distinct questions. One regards the fact that knowledge use is performative, requiring the application of knowledge, parts of which are tacit while other parts are articulated. The creation of new knowledge or its application in new settings will thus often require intense and open-ended interactions between different people around concrete situations. The second conception regards the context-specific nature of the knowledge created and the ability of people who don't share the same assumptions about context to learn and absorb, imitate and adapt, knowledge created elsewhere.

#### **4.3 GEOGRAPHY OF KNOWLEDGE AS SOCIO-SPATIAL CONTEXT**

While face-to-face meetings provide a rich medium of communication, successful communications always require something more. Our interactions rest on a history of past interactions through which we have aligned our frameworks, developed shared context, and built up a set of tools that help us make sense of what people mean when we communications are incomplete. In other words, knowledge is always embedded in particular contexts that provide us with commonly held and mutually intelligible frameworks for social action. Shared contextual knowledge makes it easier for us to interpret and predict the behaviors of others, even when we are uncertain about their exact circumstances (CHOI 1993). Common institutions may provide sets of rules or procedures for organizing action that reduce conflict while helping us deal with the persistent uncertainty that necessarily pervades a world of interdependent choices. Shared context makes it easier to understand what others are doing in the absence of

complete information (STORPER and SALAIS 1997, LORENZEN and FOSS 2002). In the absence of mutually compatible frameworks, communications becomes more difficult and outcomes less predictable.

Both the localized learning and the global networks views that have developed in response to them grow out of an institutionalist way of thinking about economic action (GERTLER 2010). The main disagreement regarding the role of localization in learning centers on what the relevant and non-trivial context is, and on the spatial scale of relevant institutions. For those who favor the localization thesis, context mostly means local context. As industries grow in a location, they also develop conventions and institutions that facilitate communications among cluster members. Along with this development, a rich informational ecology, industrial atmosphere, or ‘buzz’ also develops, giving a distinct advantage in sectors where innovation is relentless or where markets are driven by fad and fashion (HIRSCH 1972, GRABHER 2002). Against this view, the scholars who have favored the global networks thesis have tended to look at knowledge communities of various kinds – communities of practice, professional communities, or epistemic communities – as the locus of knowledge circulation and to some extent knowledge creation. Knowledge in this framework is shared among people who already possess the same basic tacit and codified knowledge and thus have the ‘absorptive capacity’ to engage in learning conversations. The question becomes the extent to which these communities are rooted in particular places and to what extent these communities are capable of sharing knowledge across local contexts.

#### ***4.3.1 The Localized Learning View of Conext***

Beginning in the early 1990s, scholarship on clusters and ‘industrial districts’ went beyond a simple transaction-centered view of life in the cluster to emphasize the role of institutions and conventions in shaping economic activity and enabling learning (AMIN 1999). These accounts suggested that ‘institutional thickness’ facilitates the information flows and interactions that generate collective learning (AMIN and THRIFT 1995), often encouraging institution-building as a recipe for realizing

‘synergies’ within the cluster (ASHEIM 1996, COOKE and MORGAN 1999). This institutionalism is premised on the idea that co-location by itself – simple geographic proximity between agents – may be an insufficient condition for realizing synergies or external economies. Rather, these synergies occur where the proper set of institutionalized understandings encourage co-operation and help ease information flows among potential rivals (STORPER 1997).

Some institutionalists, such as GERTLER (1995), have emphasized the role of societal-level institutions that govern education, labor markets, capital, and anti-trust in shaping and informing ground-level practices. Others, such as STORPER and SALAIS (1997), who use the related idea of ‘conventions’, have focused on endogenous processes of convention building aided by the intensity of interaction between cluster actors. Coherent conventions may emerge from the day-to-day activity of solving problems in a given context but become embedded in the cultural repertoire of the group.<sup>15</sup> These conventions help solve difficult co-ordination problems by guiding actors towards standard and appropriate forms of action. Shared knowledge about ‘the way things are done’ may then shape the kinds of learning that may happen in the future in a path-dependent way, creating a localized learning trajectory (MASKELL and MALMBERG 1999).

Institutional thickness – the idea that the cluster is characterized by myriad crosscutting networks – will ideally facilitate the flow of information of all kinds through the cluster. To live in an ‘it’ place is to know things before people elsewhere do, get a sense for how others perceive this information, and to some extent to be able to anticipate the future (STORPER and VENABLES 2004). Economically valuable information has a ‘social life’ (BROWN and DUGUID 2000) and being around the people who engage in an industry affords the opportunity to take part in this social

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<sup>15</sup> There are strong parallels with Edgar Schein’s classic definition of organizational culture: “A pattern of shared basic assumptions learned by a group as it solved its problems of external adaption and internal integration, that has worked well enough to be considered valid and, therefore, to be thought to new members as the correct way to perceive, think and feel in relation to those problems. (SCHEIN, E. H. (2006). Organizational culture and leadership, Wiley. com., p. 12)”

economy. This is what MARSHALL (1920), meant by 'industrial atmosphere'. Contemporary scholars have used the concept of 'Noise' (GRABHER 2002) and 'Buzz' to refer to the same phenomenon.

BATHELT, MALMBERG and MASKELL (2004, p. 38) tell us that:

Buzz refers to the information and communication ecology created by face-to-face contacts, co-presence and co-location of people and firms within the same industry and place or region. This buzz consists of specific information and continuous updates of this information; intended and unanticipated learning processes organized in accidental meetings, the application of the same interpretive schemes and mutual understanding of new knowledge and technologies, as well as shared cultural traditions and habits within a particular technology field, which stimulate the establishment of conventions and other institutional arrangements. Actors continuously contribute to and benefit from the diffusion of information, gossip and news by just 'being there.'

STORPER and VENABLES (2004, p. 9) describe Buzz as "a highly efficient technology, a means of overcoming coordination and incentive problems in uncertain environments." Taken individually, most such information might be of little value. However, collectively, this concatenation of information, rumor, opinion – this ongoing conversation about the 'who', 'what', 'why' and 'how' of local industry – may provide important contextual clues that help an individual understand and navigate a creative field. As BATHELT, MALMBERG, et al. (2004) note, the constant exchange of information also plays a role in shaping a set of conventions and other institutional arrangements. The ephemeral, informational aspects of buzz sit upon, but also feed into, more long-standing arrangements and understandings that bind a community or network together.

Within the localized learning story, the constant exposure to information combined with the shared conventional knowledge to make sense of this information, create a powerful mechanism for learning in the cluster. POUDER and JOHN (1996) suggest that the density of social interaction in 'hot spots' leads entrepreneurs to converge around 'shared cognitive frameworks.' Such shared frameworks make the



entrepreneur's actions intelligible to collaborators and hence provide legitimacy in their interactions with other cluster agents such as venture capitalists. They also allow practices to be benchmarked and imitated by entrepreneurs who have little problem interpreting each other's actions. Similarly, MALMBERG and MASKELL (2002) lay out a theory of learning in which firms within clusters learn by observing and imitating or improving on innovations put forward by rivals.

Proximity, it is argued, is important for the collective learning processes outlined above for two reasons: First, because frequent in-person interactions facilitate the flow of information within the cluster; second, because people who live and work in the same community are more likely to understand and interpret this information in a mutually intelligible manner. The information is valuable because the person or people interpreting it can fill in the context and act appropriately.

#### ***4.3.2 The Global Networks View***

Against this view, scholars such OINAS (1998), COE and BUNNELL (2003), and AMIN and COHENDET (2004) have argued that the idea of co-location as a prerequisite for learning has been taken too far, becoming something of a spatial fetishism. While the 'localized learning school' sought to generalize from the case of successful clusters, these scholars argued that in the cosmopolitan world, mere physical proximity actually says little about the relationships between people. To give an illustration of this point offered by RALLET and TORRE (1999), two neighbors who share a common wall between their apartments may never talk and may indeed have little in common, but may have friends and colleagues scattered all over the world. These authors suggest a distinction between geographical proximity – essentially co-localization in space — and relational or organizational proximity, which measures the similarity or difference between two people on some social-interactional scale. While geographical proximity denotes the physical distances between actors, relational and organizational proximity refers to the closeness of actors in relational or organizational terms (BOSCHMA 2005).

While these scholars agreed with the general institutionalist approach to knowledge espoused by the learning regions and localized learning literature, they suggested that knowledge is not generally available simply by virtue of location, but travels among networks of people who have the same general training and knowledge orientation. In his critique of the common practice of invoking ‘tacit knowledge’ to explain localization, HÅKANSON (2005, p. 442) writes:

All knowledge is context-dependent. It requires for its meaningful interpretation and effective application mastery of the codes (language, vocabulary, symbols, etc.) in which it is expressed, at least intuitive understanding of the theories (implicit and explicit cognitive frames, beliefs, mental maps, etc.) to which it refers, as well as familiarity in the use of tools of the associated practice. Neither tacit nor explicit knowledge can therefore be defined without reference to the context of the social community where it resides.

So, contra ideas of ‘localized learning,’ which rest on the ways local contexts can become the springboard for engaging in rounds of learning, the ‘learning communities’ literature argues that local contexts are less important than the context and common dispositions that are shared among people that engage in common practices.

These criticisms on the specificity and irreproducibility of local contexts found support in literature from the sociology of knowledge on ‘communities of practice’ (BROWN and DUGUID 1991, WENGER 1998), ‘epistemic communities’ (COWAN, DAVID, et al. 2000, AMIN and COHENDET 2004, HÅKANSON 2005), and ‘occupational communities’ (BECHKY 2003a, 2003b). While the three terms have different histories and different uses, they all suggest that knowledge is organized and shared primarily among people who share a common knowledge practice, cognitive frameworks, and identity (WENGER 1998); in short, people who have invested in a particular branch of knowledge.

People who are geographically distant but who share a common professional disposition or are part of the same organization will have the needed context to

engage, communicate and learn from each other. Such learning communities, which may or may not be defined by geography, share the codes, theories and tacit knowledge that go along with their trade.

However, the learning communities view can also be criticized. In particular it often appears that scholars in this tradition assume ‘relational proximity’ – that there is sufficient similarity in the organizational and institutional environments within which people are working – and fail to give proper recognition to local contextual factors that may frustrate efforts to collaborate or draw useful lessons. LAM (1997), for example, has written about the immense differences in the way engineering is practiced and institutionalized in England and Japan and the problems this caused for efforts to share knowledge and collaborate between the English and Japanese branches of a multinational firm. Research like this suggests that behind the appearance of a professional community, in reality knowledge practices may be deeply fractured by institutional and cultural differences. It is useful to remember that the concept ‘communities of practice’ was developed through observations of highly localized work groups constituted through regular face-to-face interaction (LAVE and WENGER 1991). The term has since been generalized to allow for groups that share a similar outlook and share knowledge and insights, but may never actually meet in person. However, the degree to which geographic context matters for the ‘sharing’ or ‘co-creation’ of knowledge within these various knowledge networks is an issue that geographers are just beginning to come to grips with.

Two factors are likely to determine the answer to this question and thus the degree to which knowledge networks form around specific local contexts or are able to spread trans-locally. The first factor is the degree to which a given knowledge-practice is context-sensitive. The second is the incentives and means available to actors to overcome differences in contextual knowledge and learn to translate their knowledge and insights in new places.

### 4.3.3 Stretching Knowledge Relationships Through Disembedding

While recognizing the context-dependent nature of knowledge-in-practice has provided profound insights into the geography of knowledge, it is important to also recognize that not all knowledge practices are equally context-sensitive. Writing about economic development the 1950's, HIRSCHMAN (1988) noted that airline accidents were exceedingly rare, even in Third World countries where one was likely to find peasants driving donkey-carts right outside the boundaries of the airport runway. While the airports were located in a Third World environment, the practices around air-travel were *disembedded* from the norms and practical work culture of the societies around them. They were, in essence, islands of modernity in the middle of pre-modern cultures.

Many knowledge practices may take this form, existing in semi-isolation from local practices around them. This is particularly the case when the practice requires a high-degree of internal consistency from place-to-place. Epistemic communities may then circulate knowledge fairly easily without regard to distance because members can be fairly confident that the knowhow they are conveying will land in an epistemic environment that is sufficiently similar to the one it is being sent from. TAKTEYEV (2009), for example, discusses how similar socio-technical environments enable Java programmers in Brazil to learn their trade through practical problem solving and the aid of written manuals – codified knowledge – imported from the U.S. Drawing on actor-network theory, he suggests that knowledge circulation is facilitated by the fact that the knowledge context within which Java is used is common both to the Americans writing the manuals and to the Brazilians using them.

This insight into context also explains ASHEIM, COENEN, et al.'s (2007) finding that 'analytical knowledge communities' such as the hard-sciences communities may rely little on buzz. The authors make a distinction between 'analytic', 'synthetic', and 'symbolic' knowledge, which corresponds roughly with scientific, engineering, and creative industries. Their argument is that industries based on analytical knowledge – scientific labs, for example – depend less on buzz than industries based on synthetic

or symbolic knowledge. One may question the underlying distinction; some 'symbolic' industries, such as classical music or jazz, for example, are able to isolate their practices from their local cultural surroundings, thereby permitting largely consistent expression around the world. However, their basic insight can be explained by the fact that industries based on analytic knowledge are, by design, islanded or dis-embedded in order to gain internal consistency.

#### **4.3.4 Bridging Local Contexts**

In spite of the obstacles, there is evidence to suggest that – given the right circumstances – even heavily context-dependent kinds of knowledge may also be geographically mobile, although the process here is altogether more difficult and uncertain. Although highly context-dependent knowledge may be more spatially (and organizationally) sticky, there are often strong economic reasons for actors to participate also in non-local circles of knowledge-exchange. The advantages of doing so in order to gain access to a wider pool of knowledge exchanges can provide a powerful incentive to engage in codification and articulation of knowledge (COWAN, DAVID, et al. 2000).

DUGUID (2008), who argues strongly that all knowledge is context-dependent, nonetheless suggests that membership in a community of practice in which knowledge is generated and shared within a very specific, local context, may become a springboard for membership in a spatially dispersed '*network of practice*'. Duguid's account of how communities of practice connect to spatially extended 'networks of practice' rests squarely on an insistence that tacit knowledge matters and that 'knowing how' always has a tacit dimension based on immersion in practical activity. However, participation in local communities of practice provides the background against which relationships of knowledge circulation and knowledge creation can be stretched to encompass a wider network of practice. It is not that tacit knowledge doesn't matter in these networks; rather it is the case that practitioners from place to place share enough of their practice – the tools, cognitive models, and common purpose – to be able to translate what they know and communicate effectively across

geographic context. So, for example, an economist trained in California may co-author a paper with colleague from Europe or Asia. A Shakespearean actor becomes involved in theatre locally, but then enters the relational ‘world’ of Elizabethan theatre and becomes part of a network tying her to the national or international ‘theater world’.

Institutionalization is at least partially endogenous with respect to the process of relationship building. When two partners form a relationship, routines and conventions emerge as they build up a history of interacting (EGIDI and NARDUZZO 1997, LAZARIC and LORENZ 1998). At first, communication may be difficult and the partners may prefer to keep interactions routine, but with time, they often develop shared understandings of their interaction and, possibly, a specialized ‘codebook’ to facilitate more complex and open ended types of exchanges (MAGUIRE and HARDY 2006, ETZION and FERRARO 2010, SLAGER, GOND, et al. 2012). Eventually, such institutionalized behavior may be replicated throughout a wider network of actors, as new actors find it increasingly desirable to adopt similar institutionalized understandings in order to gain access to the resources that the network commands (COWAN and FORAY 1997).

Geographers have provided some important caveats to this vision of an easy progression from localized to cosmopolitan knowledge relationships. The process of spatial dis-embedding does not always proceed smoothly and in some cases actors may remain fettered to localized knowledge worlds. GERTLER (1995, 2003) and LAM (1997) have documented the problems that multinational companies have in transferring best practices or organizing social learning processes between subsidiaries in different countries (SZULANSKI 1996). The smooth functioning of communities across space cannot simply be assumed by stating that the actors involved enjoy a high degree of cognitive, institutional or social proximity. Embeddedness in local institutions may obstruct the formation of common practices, thereby frustrating the *transmission* of knowledge. However, the success of a network is often more dependent on its ability to *adapt* embedded knowledge from one context to another (HELPER, et al. 2000).

The topic of how knowledge is translated from place to place, the contextual work that is required and the social and institutional arrangements that facilitate this work all need to be researched more deeply. Current examples of this research come from studies by Faulconbridge of knowledge circulation and creation among architects, advertising executives, and legal professionals in global (FAULCONBRIDGE 2006, 2007, 2010). In these studies, Faulconbridge emphasizes the ways that knowledge circulation does not happen through the transfer of best practices, but through ‘conversation’ (KROGH and ROSS 1995) with foreign colleagues and foreign artifacts such as texts, photographs or architectural plans, that stimulate the production of new knowledge. This circulation happens as the people involved grapple with issues of context and which aspects of their knowledge are useful or applicable as they move to other contexts.

Current research on ‘Global Buzz’ supported by global trade-fairs, conferences and other forms of periodic gatherings also offers insights into this process (BATHELT and SCHULDT 2010, SCHULDT and BATHELT 2011, BATHELT and GIBSON 2013). The argument is that these events provide the information ecology through which global knowledge communities may become more connected. As Bathelt and Schultdt have argued, these events create multiple learning opportunities for members of a knowledge community, helping them to engage in the type of learning by observation and imitation believed to be the hallmark of localized learning. The gathering of large segments of a community at these events may also make them important sites for the emergence of institutionalized norms and conventions throughout the community.

My own work suggests that through regular attendance at such events, member may learn other ‘idioms’ and become better at translating their knowledge and communicating with colleagues who work in distinct knowledge local contexts. As participants to these events engage in periodic exchange, they are able to overcome distanced contexts and build a transnational ‘learning community’ based around a common knowledge base (COLE 2008). This kind of temporary face-to-face interaction seems adequate for exploring relationships and building a network,

particularly when the contacts are renewed periodically through repeated meetings in different contexts (POWER and JANSSON 2008). Through selective dis-embedding, institutionalization of non-local networks, and a learned ability to translate between different contexts, knowledge communities are likely to become much more effective at creating a shared body of knowledge across different geographic and organizational contexts.

The arguments outlined above suggest a pragmatic approach towards the spatial reach of knowledge communities. Some kinds of knowledge practice are sufficiently insulated from the local environment that moving knowledge practices from place to place is trivial. However, it appears that communities may also effectively transfer and translate strongly context-dependent knowledge. How this occurs has lately attracted much research interest; travel, international conferences and trade fairs, participation in online communities all seem to play a part in the increasingly global circulation of knowledge in the contemporary era.

#### **4.4 THE GEOGRAPHY OF SKILLS AND COMPETENCE**

As argued above, knowledge is not always ‘locally sticky’ and there is good reason to think that the literature on *localized learning* exaggerates the role of local context as a barrier to knowledge diffusion. However, that does not mean that geographical clustering of competing and complementary industries is unimportant or unrelated to the accumulation of know-how. First, while the local context in which know-how is applied may not be a significant barrier to knowledge diffusion or may be overcome through learning and adaption, that is different from saying that context does not matter at all. Second, when workers with the same *domain* knowledge are able to figure out issues of context, the actual use of this knowledge in the production process, particularly when this production is innovative and not routine, will often require proximity.

Traditionally, co-location was driven by indivisibilities in capital goods – buildings, machinery, and other tools – but as cases such as Wall Street (BEUNZA and STARK



2004) or Silicon Valley make evident, agglomeration may be even more important in industries whose outputs are largely immaterial and where work is largely screen-based – advanced services, intellectual property, and management, for example. In general, geographers agree that agglomeration can be explained with reference to the importance of skilled labor and the usefulness of co-location in solving complex co-ordination issues when applying tacit knowledge to create products and services.

#### **4.4.1 *Face-to-Face Communication in the Articulation of Complex Tacit Knowledge***

Knowledge creation in the contemporary economy is often a collaborative process involving interactions between people. It may often involve the combination of different kinds of knowledge, rooted in different epistemological frameworks<sup>16</sup>. These interactions can be routine and unproblematic, following well-defined and accepted rules and conventions or they may be quite complex, requiring the intensive negotiation around the potential and feasible combination of knowledge elements, the framing and definition of problem, and the alignment of the criteria that the participants bring to the process. Such knowledge transactions – particularly when they involve complex and tacit forms of knowledge – often require intensive and sustained face-to-face interaction (BECHKY 2003a, 2003b).

While physical co-presence is not always necessary for processes of co-development and articulation of complex tacit knowledge, the power of face-to-face interaction

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<sup>16</sup> Although ‘recombination’ is considered the source of novelty in canonical accounts of the relevance of knowledge in contemporary capitalism (NELSON and WINTER 1982, NONAKA and TAKEUCHI 1995), the question about the ‘nature’ of these recombined knowledge elements is still not well solved. Whereas some authors limit recombination to elements from *different* knowledge domains, others highlight the opportunities of recombination in ‘restless’ knowledge domains (METCALFE 2002), in which new elements are constantly added to one domain through time, thus creating ‘space’ for more recombination between ‘temporary distant’ elements (O'DRISCOLL, RIZZO et al. 1996). I keep agnostic on this point: although the creative potential of bridging different knowledge domains is evident, accounts of creativity at the workplace highlight the ability of more ‘closed’ communities to innovate ‘restlessly’ (LATOUR and WOOLGAR 1979, BROWN and DUGUID 1991, METCALFE 2002). See ARTHUR (2007) for a nice illustrations of novel combinations of ‘temporary distant’ knowledge in the domain of electric engineering.

allows for a richness and breadth in communications practices that other media cannot match. Far from being a simple exchange of messages, effective communication demands that we negotiate some order in which messages make sense (DURANTI and GOODWIN 1992). This means that we must establish the situation, the roles and identities of those we are interacting with, and the meanings and actions that our communications refer to. While such a process may seem rather uneventful in routine communication, this is just a testament to the vast communicative resources that we possess. Nonetheless, we are always in a position of making sense from incomplete information: a part of a sentence heard here, a subtle change in body language, or an expression that flashes across someone's face (COLLINS 1987). Under such situations, face-to-face interaction facilitates the rapid adjustment between various parties in a conversation – interruption, repair, feedback and learning—that are virtually instantaneous (NOHRIA and ECCLES 1992).

Of course the need for face-to-face communication is not absolute and virtual modes of communications have improved immensely over the two decades since Nohria and Eccles first extolled its virtues. While electronically mediated information exchanges were seen as a poor substitute for face-to-face interaction at that time, and even by STORPER and VENABLES (2004), who were writing in the early 2000s, the spread of new tools for social collaboration have opened up possibilities for choreographing knowledge-work that in some situations show advantages over physical co-presence (MORISSET and MALECKI 2009, GRABHER and IBERT 2013). For example, scholars have found that hierarchy and rank in virtual settings influence problem-solving much less than it is face-to-face environments (SPROULL and KIESLER 1992).

This secular shift, however, has not made face-to-face communications unimportant. While the development of different tools allowing for 'virtual presence' may allow for more complex patterns of interaction, they do not, in most situations, overcome the need for traditional workplaces. The recent example of the pioneering Internet company, Yahoo!, cancelling telecommuting and insisting that employees work from the office illustrates this point (MILLER and PERLROTH 2013). However, in-person

interactions now blend with on-line presence in complex patterns as collaborators move between on and off line communication. Within projects, for example, the planning stages of the work often require that the principal participants meet and work out a general plan detailing what the project consists of, establish general lines of authority, build trust, and decide on the division of labor (SAPSED, GANN, et al. 2003). After the initial planning stages, when more routine channels of communication are established, face-to-face meetings become less frequent (assuming that things go 'according to plan'). Physical workplaces, from the workshop to the office to the studio, the meeting room or the factory floor, remain important sites of knowledge creation even as digital and virtual communications tools increasingly penetrate everyday working lives (WALKER 2000).

Of course, the need for co-location in a single workplace is also relative to the intensity of interactions required by the nature and design of production processes. SCOTT (1986) developed a framework based around 'spatial transaction costs' for analyzing this issue. The concept has similarities to WILLIAMSON's (1985), notion of transaction costs, but Scott was more interested in the spatial aspects of transacting. In general terms, when transactions are subject to uncertainty, unpredictability and the information involved cannot be fully codified, they are likely to be highly sensitive to geographic distance. Such interactions typically require a great-deal of face-to-face interaction, often by highly paid individuals, and travel time will represent a significant cost. In contrast, less frequent, simple or easily codified transactions may be carried out through more routine forms of communication (telephone or email) perhaps supplemented by short-term business travel. As knowledge problems can be decomposed into distinct sub-problems connected by well-defined, relatively routine interfaces, they can be worked on by distinct groups of people within an organization but also, importantly, by people who are not co-located. For this reason, the highly innovative, high-value activities at the leading edge of the economy will tend to be carried about by groups of people interacting face-to-face (LANGLOIS 2002).

#### **4.4.2 From The Workplace To The Cluster**

As outlined, geographic proximity manifests itself first at the level of the ‘micro’-scale of the workplace, where people interact on a daily basis to produce new knowledge. The region, or cluster, then appears not as a *first order* manifestation of the need for proximity but as geographic ‘meso-scale’ where resources – the workplaces and working capital, infrastructure, organizations, and the people that need to be brought together on a daily basis to create new knowledge, reside. Clustering becomes important because it allows workers access to a number of potential employers and similarly offers employers access to a large pool of qualified workers. It was Marshall who first elaborated on how the industrial district or cluster provides a market for specialized labor:

Again, in all but the earliest stages of economic development a localized industry gains a great advantage from the fact that it offers a constant market for skill. Employers are apt to resort to any place where they are likely to find a good choice of workers with specialized skill which they require; while men seeking employment naturally go to places where there are many employers who need such skill as theirs and where therefore it is likely to find a good market. (MARSHALL 1920, p. 225-226)

At its most basic level, the formation of clusters can be ascribed to the convenience to workers of living within commuting distance of many potential employers and the reciprocal advantages that employers gain from relatively easy access to personnel. In this sense, the cluster is simply a geographic focal point where firms and labor meet.

This is not to say that embodied knowledge is inevitably tied to specific regions. The transaction cost framework suggests that teams of workers who frequently collaborate with each other will tend to co-locate in order to minimize spatial transaction costs. However, when competition rests on ‘exceptional talents’ – for example, a star scientist or creative talent – that individual may be able to re-locate and bring a supporting transactional structure along to a new location (MAIER, KURKA, et al. 2007).

In some regards, clustering may be accentuated by the spread of information technology: vertical disintegration or ‘unbundling’ of value chains (MORISSET and MALECKI 2009). Production processes, whether material modules, such as parts of airplanes, or immaterial goods, such as customer relationship management, IT services or marketing, are increasingly carried on outside of the firm. This trend was first analyzed in the literature on ‘flexible specialization’ where it was noticed that such arrangements allowed for the flexible reorganization of resources as entrepreneurs reconfigure the value chain in response to shifting markets. It reaches its extreme form in many ‘creative industries’ where the need to vary the resource mix from project to project is driven by the rapidly shifting demands of the market (LORENZEN and FREDERIKSEN 2005), but it can be found to some extent in many innovative industries where the use of resources needs to shift quickly. Writing about the most classic case of this phenomenon, the Hollywood film industry, FAULKNER and ANDERSON (1987) explain that,

When complex combinations of specialized activity have to be quickly assembled, cost-bearing contingencies can be better handled by hiring on a per-project basis. Producers, as buyers, can turn to alternative sources of supply; their work is facilitated when they can obtain human capital on more favorable terms, especially when there are armies of qualified bidders for their films. The advantages that accrue from this partial market solution are substantial, offsetting the diseconomies of large, once-and-for-all contracts that are often coupled to sustained role commitments (WILLIAMSON 1975, p. 27-33, cited in text).

The economies of scale created through pooling resources and accessing them on the market also encourages specialization, as workers can more easily find employment for their specialized knowledge across a number of firms than they could internally to any one firm. Vertical disintegration also lowers barriers to entry, as new ‘teams’ can be formed quickly and easily using locally available talent (SCHMITZ 1999).

#### **4.5 GEOGRAPHIES OF LEARNING BEYOND THE REGION**

This paper began by noting the rather unsatisfactory situation in debates about the geography of knowledge and innovation. As GERTLER (2008, p. 203) has written,

“at the very foundation of contemporary economic geography is the idea that proximity matters.” The general consensus in the field held that proximity was important because it is a needed precondition for knowledge creation, or ‘learning.’ The innumerable success stories associated with clusters and other ‘territorial innovation models’ seemed to offer compelling evidence of the advantages of co-location in knowledge creation, and these advantages were used to explain agglomeration.

Yet increasingly, this line of scholarship has been confronted by dissent from within the field. This dissent has been based on the idea that knowledge is most likely to circulate not among people who share ‘spatial proximity’, but among people who form a knowledge community through the mastery of similar knowledge, both tacit and codified. While initially conceived of as supplementary to the idea that learning happens mostly in localized clusters, the idea that learning also occurs in trans-distant networks seemed to challenge the very micro-foundations on which clustering had been explained.

I have suggested that this apparent paradox is due in part to a tendency to conflate *knowledge circulation* with collaborative *knowledge creation*. The idea of localized learning was based on the idea that knowledge circulates more easily within localities because common conventions and contextual knowledge facilitate its absorption. The dissenting position, which has now been widely accepted within the field, has pointed out that that with *occasional proximity* through travel, conferences, and *online interactions*, people who share common domain knowledge or belong to the same knowledge community are generally able to circulate knowledge among themselves fairly effectively. *Knowledge creation*, on the other hand, often requires intensive negotiations around the potential and feasible combination of knowledge elements, the framing and definition of problems, and the alignment of the criteria that the participants bring to the process (GRANT 1996, MUTHUSAMY and WHITE 2005). Such processes often benefit from *sustained and regular* interactions which give rise to workplaces and through the flexibility and adaptability that come about when

productive resources are pooled, to clusters and regions. The networks that sustain these different kinds of interaction may operate at different spatial scales.

The two-by-two matrix in Figure One, below, illustrates some of the implications of distinguishing between geographies of knowledge creation and geographies of knowledge circulation.

Figure 1: The Disjunctive Geographies of Knowledge Creation and Knowledge Circulation

Geography of Knowledge Circulation	Geography of Knowledge Creation		
		Localized	Not Localized
	Localized	<p>Classic learning region in which the network of transactions creates a spatially agglomerated productive fabric.</p> <p>Learning and knowledge sharing occur both unintentionally through imitation and intentionally through cooperation and the mediation of local institutions.</p>	<p>Clusters may exist even where there is very little day-to-day interaction in terms of daily knowledge creation or where such activities <i>could</i> be carried out through arms-length or occasional contacts, but where the local knowledge spillovers between people or firms, are strong.</p> <p>Examples of this situation are most obvious in the fine arts, where painters or writers congregate to a place because of the local 'creative buzz'.</p> <p>.</p>
	Not-Localized	<p>Localized clusters of production (or a free standing firm) in which workers (and capital) are brought together daily in the production process. However, much of the learning related to innovation is mediated through learning communities and networks that stretch beyond the locality.</p> <p>Most real world clusters probably approximate this structure, with non-localized learning become more important to the degree that the cluster is not at the leading edge of innovation and can access valuable knowledge elsewhere.</p>	<p>In this situation the daily work of knowledge production is geographically dispersed, either among small work groups or in smaller clusters. However, codified and less-codified knowledge circulate widely through trans-local 'networks of practice' or 'epistemic communities.'</p> <p>Examples of this situation can be found in any range of activities. Many knowledge-intensive industries -- education, medicine, business consulting, or performing arts-- cannot cluster because of the need to serve local clients and yet find it imperative to share knowledge and best practices.</p> <p>However, firms in other industries where a suitable labor force can be found in many locations, or acquired through distant networks may also be found in this category.</p>



Across the top of the matrix, two situations are described. On the left, knowledge creation is localized as complex interdependencies in the workplace are facilitated by spatial proximity. This localization could occur at the level of the individual firm or workplace; for example, the highly innovative animation firm, Pixar, which does not form part of any animation cluster. Typically, of course, geographers have been concerned about proximity at the scale of the region. Clustering allows for the rapid assembly of project teams when it is difficult to engage in long-term employment relations. On the right, individuals, firms or other organizations in similar industries or workplaces are able to perform their work in various locations. This is often the case in knowledge-intensive industries such as management consulting, architecture, medicine, or teaching, where the need to locate close to consumers or patrons dictates a more dispersed locational pattern.

Moving vertically down the matrix, the top row represents situations where *knowledge circulation* is strongly localized, either because information is held within a local network or because this knowledge is embedded in local practices and conventions in a way that makes it hard for outsiders to interpret and use. On the bottom row, knowledge circulates effectively between localities and distant members of the relevant knowledge community are able to effectively bridge local contexts.

Real geographies of learning, of course, always consist places of sustained interaction (workplaces) and places of occasional contact (the local bar, the conference center, the airport, the corporate meeting room) linked together at multiple spatial and temporal scales. However, in organizing places of knowledge creation and places of knowledge circulation in a matrix, as we have above, four ideal-typical situations are revealed.

**Upper Left:** When spatial transaction costs in production are high and the conventions that define the knowledge community are local, then we are dealing with a learning region or the classic Marshallian industrial district described by localized learning theorists and exemplified by leading as Silicon Valley, Wall Street, or the Hollywood film industry. These places host strongly localized project networks,

making it easier to create a team using top industry talent than it might be elsewhere. In addition, the rapid evolution of industry networks in response to competitive pressures means that entrepreneurs are often crossing un-trodden ground, creating the conventions and shared understandings that allow teams to co-ordinate at the same time that they create new industry knowledge. The ambiguity that faces outsiders who are not participants in the process may slow the rate at which knowledge diffuses outwards, giving a competitive edge to those who are quickly learn from and incorporate the innovations of their neighbors.

**Lower Left:** Moving downwards, we come to the situation in which a localized cluster of firms facilitates interactions among teams of collaborators, but people who make up these teams are also embedded in knowledge communities that go beyond the cluster. This combination of localized networks for knowledge production and non-localized networks for knowledge circulation seems characteristic of many industries and has been theorized in terms of ‘buzz and pipelines’ (BATHELT, MALMBERG et al. 2004). Of course, such a cluster may exist with no buzz at all if local actors find little reason to interact beyond the founding of new firms (BATHELT 2005, BOSCHMA and TER WAL 2007).

The combination of localized and non-localized relationships, of course, rests on the different frequency and intensity of in-person interaction that are required to sustain these two kinds of activities. Whereas knowledge creation is mostly occurring in specific, specialized domains among colleagues who need to interact frequently, sparser, less-frequent interactions are sufficient for circulating and updating knowledge among distant colleagues who have strongly overlapping knowledge-bases and epistemic attitudes (STORPER and SCOTT 1995). The fact that individuals belong to a strong ‘epistemic community’ means that collaboration on specific projects even among distant parties is at least possible, and such communities may give birth to knots of activity (ENGESTRÖM 2008) as ‘latent relationships’ that evolve into closer, working relationships in different places, becoming a key path of globalization. However, much work is still done within the cluster.

**Lower Right:** The lower right quadrant represents a situation where knowledge creation may be carried out in multiple localities. This may be the case because the interactions involved are more routine and can be embedded in longer-distant collaboration. Or it may be that firms and organizations are able to organize work internally, recruiting specialized labor through long-distance networks. As the knowledge community is dispersed in different locations, institutions have been developed to effectively circulate knowledge either through extensive codification or through regularized travel and face-to-face contact. This is the ‘archetypical’ situation forwarded by the global networks literature (COE and BUNNELL 2003) and ‘proximities school’ (RALLEY and TORRE 1999).

This situation is typical of all kinds of knowledge-intensive industries where the need to locate near to clients means that clustering is not viable. The requirement to educate means that academics in any given discipline find themselves dispersed at different universities; doctors need to work at hospitals located in different cities; management consultants consult at corporate headquarters all around the world. In this regard, the cases for which this ideal-type is suitable have little to do with those for which localized learning is suitable since the need to locate close to customers or clients precludes clustering.

However, even in industries where customer-relationships are arms length, such as most manufacturing, firms or small clusters may be able to manage the transactions involved in daily knowledge production internally. This is the case of Pixar, the highly innovative and creative animation studio. While Pixar is strongly embedded in international technological communities and sources its talent internationally, it is not locally embedded in any meaningful way (PRICE 2009).

This also suggests a large grey area between the lower left and lower right quadrants in which networks of distant collaborators may try to engage in knowledge creation beyond their region despite the complexities of doing so. As communications technologies within the workplace steadily improve the possibilities of creating

knowledge through combinations of proximate and distant collaborations become greater, making this area highly dynamic.

**Upper Right:** Finally, it may be that a given industry or activity can be performed relatively autonomously by individuals or organizations with little need to interact around production. However, there may still be local knowledge spillovers, and a unique, localized knowledge community may emerge. This situation represents a different kind of cluster such as the classic fine-arts community where writers or visual artists congregate in a given place. Some of the cultural or creative industries are ‘transaction intensive’ in that large groups of professionals are required to work on projects. However, others require only small groups or solitary individuals who may only need to interact occasionally around specific tasks. The Danish landscape painters who gathered in Skågen during the later-19<sup>th</sup> century are an example of this, as are groups of intellectuals and writers, who gathered in centers such as Paris or New York. While SCOTT (1999) has argued that cultural clusters are often tied together through transacting relationship—proximity to galleries, printers, and publishers, for example – it is clear that many of these transactions are infrequent enough to have little material effect on how work is carried out. Rather, the main locational draw is the ability to be part of a place-based ‘conversation’ that defines a knowledge sub-community.

Biographical of individuals in artist communities often highlight the importance of meetings in well-known restaurants or bars, where permanent familiarity allows to “go there without an appointment” to exchange ideas with other fellow artists or writers<sup>17</sup>. These places are examples of temporary *and* local proximity, where the two elements are equally necessary to foster idea exchange: proximity must be temporary to allow writers and painters to work alone; at the same time, locality allows familiarity without planning. “Artists residencies”, where creative individuals spend various months and join fellow artists and writers in specific moments of the day (at

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<sup>17</sup> “Hitch-22”, by the writer Christopher Hitchens, is a nice and recent example of this works. Hitchens devote excellent pages to his meetings in a London bar with a large group that included the best British writers of his generation.

dinner, for example) are also contemporary examples of places joining temporary (during dinners) and geographic (during some months) proximity for fostering idea exchange in jobs which have to be performed mainly alone.

#### **4.6 IMPLICATIONS**

The analysis in this article has aimed to show the usefulness of considering *knowledge circulation* and *knowledge creation* as distinct, if interrelated, problems in the geography of knowledge. *Knowledge creation*, I have argued, often requires intensive negotiations around the potential and feasible combination of knowledge elements, the framing and definition of problems, and the alignment of the criteria that the participants bring to the process (GRANT 1996, MUTHUSAMY and WHITE 2005). It draws on knowledge and skills that are embodied, and so give rise to geographies governed by the spatial transaction costs of bringing interacting parties together or over a sustained period in an efficient manner. The issue with *knowledge circulation*, on the other hand, is that knowledge produced in one context may travel poorly across institutional cultural and organizational boundaries and be difficult to interpret outside of the socio-spatial context in which it originates. This circumstance may create a situation where local observers learn through imitation and adaptations of successful innovations, that others outside the cluster are unable to understand as effectively (MALMBERG and MASKELL 2002). However, I have also pragmatically suggested that, contra ideas of localized learning, the contextual issues posed by the context-dependent nature of much new knowledge can often be overcome when there is a strong desire to do so.

Adopting the view that these two knowledge issues are distinct and may play out at different spatial scales allows for a more differentiated, and I believe, realistic view of knowledge geographies. The classic debate regarding ‘proximities’ was set up as a dualism: knowledge circulation either requires permanent proximity or it does not. I have suggested that some activities (knowledge creation when it involves complex exchanges) may benefit from localization while others (knowledge sharing) can be arranged through more occasional contact. However, the opposite geographical

situation might also be true, in which productive activities hardly require proximity, but a local knowledge conversation nonetheless creates localization.

A failure to recognize the distinction between knowledge creation and knowledge circulation in order to understand what might be particular to clusters and what instead might occur through ‘temporary proximity’ at other spatial scales, can lead to policy failures. Regional policies have often focused on thickening relationships within the geographic cluster, by building institutional relationships that encourage feedbacks and learning and encouraging cluster buzz (ASHEIM 1996). It is assumed that this will lead to more robust endogenous innovation dynamics (BATHELT 2005). However, these ideas of building institutional connections *within* the cluster are now being re-evaluated (HASSINK and KLAERDING 2012, RUTTEN and BOEKEMA 2012) as the value of tapping into knowledge networks organized at a much larger scale beyond the region is recognized.

On the other hand, the assumption that the availability of ‘contextual knowledge’ and the ability to form part of a knowledge community at a distance means that ‘being there’ no longer matters may also lead to inappropriate policies. My research into the European animation industry investigated the extent to which the ‘temporary clusters’ and other temporary gatherings that European animation had organized could substitute for the fact that many of the firms involved were not permanently co-located, or clustered (COLE 2008). I found that these meetings were quite successful at bridging institutional differences and allowing learning and collaboration between studios in different localities. However, in terms of the creative work of developing high-quality animation content, the spatial dispersion caused problems. Attempts to distribute production among multiple locations often led to high spatial transaction costs –expressed in terms of time spent traveling, missed communications, and wasted work-- as teams tried to coordinate complex knowledge work through spatially distributed collaborations. More importantly, attempts to organize productions in a way that didn’t require co-presence often inappropriately reduced the scope to which team members could apply and use tacit creative skills in the production process. Aspects of production that could have benefited from the creativity and judgment of

the workers involved were often simplified to accommodate the limited ability of workers to engage in multi-dimensional conversations. Referring back to the matrix presented in Table One, the policy of European animation assumed that animation belonged in the lower-right quadrant, but in fact the lower left quadrant, in which cosmopolitan knowledge flows are combined with localized production, would be more appropriate.

Finally, the distinction between knowledge creation and circulation may help to overcome a puzzle regarding the common assertion that localization can be explained with reference to the idea that tacit knowledge can only be transferred locally. As the literature on global knowledge networks has developed, and scholars have begun to investigate the importance of temporary places such as global conferences and marketplaces in knowledge circulation, the unique suitability of the cluster for knowledge circulation has come in doubt. Writing about trade fairs, or what they call ‘temporary clusters’, MASKELL, BATHELT, et al. (2006, p. 997) have asked: “If regular participation in temporary clusters can satisfy a firm’s need to learn through interaction with suppliers, customers, peers and rivals, why is the phenomenon of permanent spatial clustering of similar and related economic activity so pervasive?” Answering their own question, the authors suggest that the ‘temporary clusters’ and ‘permanent clusters’ serve similar functions, but that permanent clustering allows for learning that is deeper and broader. The analysis in this article suggests a different answer to this question: while global fairs may fulfill many of the knowledge circulation functions that occur in clusters, because of their temporary nature, little, if any production of complex knowledge creation is likely to take place at them. Proximity over a longer duration as is found in clusters, on the other hand, helps facilitate the sustained or ongoing collaborations that are required for much knowledge production.

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## **CHAPTER 5**

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## **CONCLUSIONS & DISCUSSION**

This dissertation inserts itself into debates about the role of proximity and the advantages of clustering. It asks whether the advantages that accrue to firms through clustering may not be equally well realized through relational ties at other spatial scales.

In the last decade, the literature on localization and clustering has evolved from a closed-systems model to an open-systems model that emphasizes the importance of networks, and particularly knowledge networks, stretching beyond the locality. COE's (2000) work on the Vancouver film industry, which emphasized how producers need to embed themselves in *both* local networks through which they could mobilize productive resources *and* the national and international networks through which projects were financed, illustrates this shift. In a similar vein, BATHELT, MALMBERG, et al. (2004) suggest that a healthy cluster is characterized by both 'local buzz' and by 'global pipelines.'

This recognition of different and complementary forms of knowledge circulation and production acknowledges the importance of non-local learning relationships and participation in global knowledge communities. However, the formulation is also highly metaphorical, suggesting an ontological distinction between the local and global and that learning at each of these scales is qualitatively distinct.

This dissertation set out to improve our understanding of the relationships between proximity, geographic clustering and the creation and circulation of economically useful knowledge. The main question explored was whether the advantages attributed to well-functioning geographic clusters in terms of knowledge sharing and collaboration might also be reproduced in a long-distance network characterized only by temporary proximity. The hypothesis that this might be possible was initially explored through the examination of a particularly problematic case: the European animation industry.

A growing literature in the late 1990s and 2000s had examined the geography of creative industries and developed a body of case evidence and theory explaining why

spatial proximity often plays such an important role in their development (CHRISTOPHERSON and STORPER 1986, SCOTT 1999, CAVES 2000). European animation, however, had seemingly organized these networks at a much larger spatial scale than previously studied– linking different local communities in a trans-national network that seemed to mimic much of the functionality of a geographic cluster.

In choosing a case that seemed to contradict this evidence, I hoped to understand whether, given the right institutional conditions, a network organized through temporary gatherings might functionally mimic a geographic cluster. In choosing an extreme case (FLYVBJERG 2006), one where it seemed unlikely to find such a network, I hoped to be able to make a more general case regarding conditions that generated the need for permanent proximity and clustering in knowledge exchange. The case of European animation thus provided a strong vehicle for examining and testing claims regarding the adequacy of temporary proximity as a substitute for permanent proximity as well as geographical clustering in organizing knowledge circulation and learning in an industrial system.

Through the examination and analysis of this case, this dissertation has sought to examine and provide insight in to three related sub-questions:

1. To what extent can a project ecology organized around long-distance networks reproduce the advantages of knowledge circulation and knowledge creation attributed to successful clusters?
2. If knowledge communities are increasingly able to circulate knowledge and facilitate learning at a distance, in what ways might permanent proximity in clusters enhance knowledge creation and circulation in ways that a non-clustered network cannot reproduce?
3. If the circulation of knowledge is not strongly bound by cluster geography, then what are the proper micro-foundations for explaining the clustering observed in the contemporary knowledge economy?

## 5.1 RESULTS

The results of this dissertation were developed in three articles, which are presented in Chapter Two, Chapter Three and Chapter Four.

The first article, *Distant Neighbours: The New Geography of Animated Filmmaking in Europe* (Chapter Two), is the most exploratory of the three. It uses a case study of the European animation industry to explore whether a network or ‘project ecology’ organized through various forms of temporary proximity might be functionally equivalent to the spatially clustered project ecologies that are typical in many creative industries. Animation in Europe has been organized into a coherent industry through the creation of a number of temporary marketplaces for co-production, workshops and educational events that bring the community together and both encourage and facilitate collaboration on the financing and production of animation products.

The article sets out to document how European animation has organized itself in the absence of permanent physical proximity. It describes the construction of relational markets that draw both on connections made in periodic gatherings and on a history of prior collaboration. It also describes how work is organized to take advantage of creative and less-creative resources in different localities. A final section examines the case of A-Film, a Danish animation house, to illustrate how the creation of a pan-European project-ecology enabled and co-evolved with the growing capabilities of small, flexibly organized animation companies.

Although the article demonstrates how the European animation was able to organize a spatially-extended project ecology and reproduce at a pan-European scale many of the characteristics of highly clustered project ecologies in creative industries, it also identifies shortcomings of the European model, noting that it has been more successful at filling a niche for lower-budget films and animation for television than at making large-budget feature films that can compete internationally. It suggests that a change to larger budgets might lead to changes in the way that European animation

is organized, with greater spatial proximity in the production processes (and fewer multi-studio productions) removing some of the impetus driving the network.

The second article, *Negotiating Differences and Creating a Network of Practice: The Case of Cartoon and European Animation* (Chapter Three), builds on the empirical work of Chapter Two. However, the research takes a more narrow focus, examining the role of *Cartoon*, an industry association, in bridging institutional differences and facilitating knowledge sharing and collaboration within the animation sector. The article discusses the immense institutional differences that frustrated cooperation in the 1980s and early 1990s and describes how, through the practical experience of temporary interaction at market places, workshops and longer-term collaborations on projects, a self-reinforcing process of network building developed between animation professionals across Europe. The case of Cartoon illustrates practices and processes that enable adaptation and translation between different nationally inflected practices and industry conventions. It focuses on relatively unsuccessful efforts at codifying practices and on a more successful, organic approach, involving temporary proximity through periodic meetings, conferences and workshops. Through these events, much of the industry literally comes together several times a year to negotiate, converse and observe each other in action. The meetings generate ‘buzz’ and the animation community takes shape.

The case therefore helps move the literature on knowledge communities beyond simple assertions concerning the need for ‘relational proximity’ and provides an up-close account of the bridging practices that were employed to create this proximity and give coherence to a ‘network of practice’ capable of effectively sharing knowledge and collaborating across local contexts (DUGUID 2008). By providing a detailed and in-depth account of how this network of practice was formed and how issues of local context were dealt with, Chapter Three helps fill a gap in the literature on knowledge communities and communities of practice. In line with recent work by FAULCONBRIDGE (2006, 2007, 2010), it attempts to move the discussion away from theoretical speculation on the local or global scale of knowledge networks and empirically examine the practices through which relational proximity across a

dispersed network is achieved. By avoiding the tendency to categorize knowledge as either 'local' or 'global', the article focuses attention both on the processes through which knowledge may be translated between different contexts and on the real obstacles that exist to doing so.

The third article, *The Disjunctive Geographies of Knowledge as Skill and Knowledge as Context: Why Knowledge is Both Locally Sticky and Globally Mobile*, (Chapter Four), is a theoretical examination of the relationship between localization, knowledge, and learning. The paper starts from the observation that debates on the relationship between localization and learning have failed to distinguish between two distinct meanings of learning and the kind of knowledge that is needed to support them. On the one hand, knowledge may refer to skills and knowledge that are applicable in a given domain and combined within a given problem to create new knowledge. This process occurs, for example, when a group of trained animators comes together in a given locale to produce the characters for a new film. The second kind of knowledge is contextual knowledge about the social and economic operating environment in which that knowledge is being used. This contextual knowledge allows for the kinds of observation, imitation, and adaptation that MASKELL and MALMBERG (2002) associate with localizational economies.

The article suggests that the two kinds of knowledge may trace distinct geographies and require permanent or temporary geographies to different degrees. Institutional theories of the cluster have suggested that the contextual nature of knowledge makes it spatially sticky. Against this claim, the literature on global knowledge communities has begun to highlight the ways that even highly contextual forms of knowledge may be shared or circulate among a geographically dispersed knowledge community who share similar base knowledge. This sharing occurs either through building common conventions around their practice, or by developing organizational structures that allow actors to learn, negotiate and translate knowledge between different institutional environments, as occurred in the case of Cartoon and European animation, studied in Chapter Three.



Temporary forms of proximity often seem adequate for achieving this translation. Domain skills and knowledge, on the other hand, are embodied in people. To the extent that creating new knowledge requires complex and sometimes sustained collaborations, the need for more permanent co-location comes into play, leading to proximity at the level of the workplace and the cluster.

Based on the distinction between domain knowledge and contextual knowledge, the paper suggests that the importance of proximity and distance in each kind of knowledge may combine in different ways. These combinations are illustrated using a two-by-two matrix in which each kind of knowledge may be either localized or non-localized. In classic theories of the cluster from MARSHALL (1920) forward to the ‘localized learning’ and ‘learning regions’ of the 1990s, localization was seen as advantageous for accessing both kinds of knowledge. The ‘global knowledge communities’ literature of the 1990s suggested that relational proximity is more important than geographic proximity in the circulation of knowledge (AMIN and COHENDET 2004). The emphasis was largely on the ability of people who share similar domain knowledge to overcome issues of context and learn from each other. Later, open systems ideas of clustered acknowledge that a cluster might consist of localized networks of collaboration and shared context combined with longer-distance networks in which ideas and information about a particular domain of knowledge can circulate (BATHELT, MALMBERG, et al. 2004). The matrix also suggests a somewhat under-studied situation in which there is little need for local collaboration for knowledge creation and yet the locality serves to contextually anchor a lively ‘conversation’ in which knowledge and ideas are exchanged.

## **5.2 DISCUSSION**

Regarding the core questions addressed in this dissertation, the evidence provided by the case study of European animation proved ambiguous regarding the sufficiency of temporary proximity as a substitute for clustering because the European model had both successes and shortcomings. Furthermore, it is not possible to determine whether the project ecology created by *Cartoon* and European animation was just as effective

in promoting competitive producers as it might have been had the industry in fact been clustered geographically. The case provided much evidence of knowledge circulation and learning effects among the producers studied, but economically, the industry was not an unambiguous success. Association within a European network was clearly beneficial and perhaps even essential to many producers. However, the co-production practices at the core of the European model of film production clearly had shortcomings in regards to the production of animated films competitive in world markets. These shortcomings can not only be ascribed to an inefficient selection process when it came to financing films but also, at least partially, to the practice of dividing productions between studios in different locations which added to coordination costs and may have detrimentally affected creativity.

The lack of ‘permanent spatial proximity’ created drawbacks not primarily because of missing opportunities for learning by observation, imitation or inter-firm interaction, as MASKELL, BATHELT, et al. (2006) suggest, but because co-location is useful and efficient in the production process. The use of multiple, spatially dispersed studios proved less efficient than locating production at a single site and bringing workers together where they can interact closely. The ready availability of skilled labor to be used on an as-need basis would be another advantage to clustering. These dilemmas are well described by SCOTT's (1986) theories of spatial transaction costs which appear especially pertinent for cultural or creative industries where work is often organized around projects (STORPER 1989, LORENZEN and FREDERIKSEN 2005). These theories suggest that clustering may still be relevant in animation in that it allows for the pooling of labor markets and hence much greater flexibility to match skilled workers to particular projects.

Furthermore, as elaborated in the concluding section of Chapter Two, some of the competitive shortcomings of the European animation industry had little to do with its spatial organization. Instead they may have to do with the lack of financing for large, budget ‘blockbuster’ films and the decision to compete in a lower budget market segment for which market demand is generally weak. However, as some European studios have sought to make higher-budget productions, they have also moved

production into a single location, suggesting the desirability of proximity when budgets allow it and when the financial risk associated with projects increases.

The ambiguous evidence of the case examined in Chapter Two suggests a more differentiated interpretation of the question of how proximity would be useful is needed. Chapter Three specifically addresses the issue of knowledge sharing within the European animation industry and treats the industry as a ‘knowledge community’. The evidence in the chapter shows that local conventions and institutional environments – including linguistic differences, differences in taste and sensibility, and differences in film financing as well as the kinds of programming demanded by broadcasters—all hampered collaboration and knowledge-sharing among European animators and made animation largely a national affair. However, through the initiative and institutional stewardship of Cartoon, the industry found ways to overcome these differences so that both knowledge sharing and collaboration between animation professionals in different countries is now quite normal.

The evidence gives support to recent work by BATHELT and SCHULTZ (2010) regarding the importance of periodic meetings and market places as particularly important for tapping into ‘non-local buzz’ as well as the finding by POWER and JANSSON (2008) that communities are often created around ‘cyclical clusters’ in which the participants meet each other repeatedly on a regular basis. However, the analysis also points out the important role played Cartoon, the association that has organized these meetings, in providing institutionalized consistency to the process. Institutional actors like Cartoon have not generally received sufficient attention in this literature.

The analysis in Chapter Three also illustrates the processes of bottom-up institution building within the network organized by Cartoon. It indicates that the information garnered through buzz is particularly important in understanding the ‘contextual knowledge’ needed to effectively engage in collective activity. By immersing themselves in this rich source of contextual knowledge, professionals in the animation

industry enact a 'European animation world' enabling them to more effectively communicate and collaborate with each other.

In this regard, Chapter Three further contributes to the emerging literature on trans-national knowledge communities, illustrating empirically how buzz and knowledge-circulation may be organized in a spatially extended community (COE and BUNELL 2003). In some accounts – and this is the impression that AMIN and COHENDET (2004) give in their seminal work on the topic – the problems of mobilizing knowledge across local geographies seems unproblematic. Other accounts, such as GERTLER (1995) and LAM (1997), take a more pessimistic view regarding the possibilities of trans-national knowledge-sharing and collaboration. The evidence presented in Chapter Three instead reinforces the more pragmatic view evident in GERTLER's (2008) more recent writings, which depict the contextual nature of knowledge as potentially problematic but surmountable provided the proper circumstances and motivation (FAULCONBRIDGE 2007, 2010). The existence of trans-local knowledge communities does not seem inevitable, like a law or regularity of the market, but it can be achieved when the right institutional actors realize the desirability of doing so.

These findings are relevant for industrial policy beyond the animation industry. Regional policies have often focused on thickening relationships within the geographic cluster, assuming that this will lead to more robust endogenous innovation dynamics. Instead, current evidence suggests that in a European context, the promotion of pan-European networks of practice to further competitiveness through scale, novel combinations, variety, and learning may be an alternative and possibly more efficient mechanism than the national support of local clusters.

The ambiguous results of the case led me to make an attempt at refining received theory, which was undertaken in Chapter Four. That chapter suggests that behind the word 'learning,' geographers have really been talking about two different phenomena that might happen at different spatial scales. Most often, the discussion has focused on market knowledge and knowledge about the economic and social operating

environment. This is the case when MALMBERG and MASKELL (2002), suggest that firms in a locality are likely to ‘learn’ about a rival’s innovations and have sufficient knowledge about the conditions under which that rival is operating that they can more easily imitate and extend that innovation in new directions. I call this *contextual* knowledge. Based on my analysis of the Cartoon case and a reading of the extant literature, I suggest that this kind of knowledge may not be spatially sticky and can circulate trans-locally given the right institutional conditions. However, knowledge production also requires having the right skills and knowhow, what I call *base* knowledge. Assembling this knowledge in teams or projects appears to be easier in a cluster, particularly when a wide range of specialized skills or knowledge are needed and when variation from project to project makes it difficult for firms to hire labor into the firm on a permanent basis.

Using the framework developed in Chapter Four, I ask about the extent to which proximity in the locations in which animation can be produced is confined by either domain or contextual knowledge. In terms of contextual knowledge, my research suggests that Cartoon along with other trends, such as the circular migration of European animators to the United States and other countries and the increasing degree to which buzz is available in the internet, have meant that the institutional barriers to producing animation in different localities have fallen. Some studios – McGuff, the French producer of the *Despicable Me* franchise and Aardman, the English creator of *Wallace and Grommit* have found success by adding a particular local flavor to large, Hollywood-style animation. Hollywood style films have also been produced in Madrid (*Planet 51*).

The main locational barriers to producing animation seem to be finding a distribution deal and assembling the appropriate level of talent for the budget. One reason why animation may be amenable to spatial dispersion is that the variety of creative inputs required from project to project changes less for an animation studio than it does in popular music or live-action film industries. Successful studios are able to keep teams of workers together from film to film, reducing their dependence on thick local labor markets. The very successful studios, such as Pixar and BlueSky are also able to

recruit the best talent from around the world based on their global reputation. This helps explain why neither is connected to an animation cluster.

However, the case for many of the small and medium-sized studios that formed the object of my case study and form the main constituency of Cartoon, is different. More labor market flexibility would have been beneficial for these small firms given the fluctuations in demand and the difficulties they face in smoothing these internally, through, for example, managing multiple overlapping projects. While, as described in Chapter Two, these studios did find labor through European networks and often engaged in subcontracting with other studios around Europe, the high transaction costs that these long-distance work arrangements imposed suggest that they might have benefited from a greater degree of clustering.

One final contribution of this dissertation is to demonstrate yet again that the role of location (or clustering) cannot be determined solely by studying firms in clusters. It underlines the need for methodologically more adequate empirical research on the role of location for the performance of regions, individual firms and entrepreneurs – as well as for the people employed by them and the societies in which they live. An understanding of these issues cannot be obtained through armchair theorizing of ‘stylized facts’ regarding seemingly successful regions and clusters. The only way to get at this process is through longitudinal analyses of cohorts of firms in selected industries regardless of their location. Only by letting location vary can you determine its effects. Only through the empirical study of geographically dispersed industries in addition to clustered industries and firms in other kinds of locations will it be possible to develop a general understanding of the role of geographic location for innovation, firm performance and regional economic growth. Conversely, of course, the present study – which focuses on an industry selected precisely because it does not seem to geographically cluster – is similarly limited in the range of generalizations that it permits.

### 5.3 LIMITATIONS

There are several limitations to the research carried out in this dissertation that need to be acknowledged.

First, the case studies of European animation and Cartoon that form the empirical basis for this dissertation focus on the relationships beyond the cluster – mostly at the scale of European co-productions—and how these relationships supported those inside individual firms or projects. Hence, the empirical work is open to the accusation that it has not properly accounted for local learning dynamics. The research was not well designed to capture the role played by localities. It needs therefore to be acknowledged that one could write a study of European animation with greater emphasis on local-scale relationships. In many of the cases examined, such as studios in Denmark, Ireland or Slovenia, it seemed impossible to explain success in the industry without reference to European networks that had largely been facilitated by *Cartoon*. While Denmark offers financial support to film producers and hosts one of Europe's top animation schools, for many projects local resources were simply insufficient and co-production seemed a natural way to attain scale. In Ireland and Slovenia, little local industry exists, so cluster effects are virtually non-existent. However, had I focused my study on animation in London or Paris, I might have found a much larger local industry and perhaps detected important local cluster effects. This is an issue that can be addressed by future research using a comparative analysis of producers in different types of localities (large and small), comparing their performance and tracing the local and non-local ties in their networks. The design of the research presented in this dissertation does not permit a comprehensive assessment of localized learning in the European animation industry; only the assessment that many of the kinds of learning that might be found in clusters also occur through non-local relationships mediated by *Cartoon*.

Second, there are limitations related to the case study method and the reliability of the data employed. These limitations were carefully reported in the empirical papers as well as in the methods section. However, the lack of reliable performance indicators

and a general inability to find indicators of knowledge spillovers or other performance metrics reduce the confidence with which I can interpret my findings. A key issue, as discussed in Chapter Three and elaborated in Appendix One, is the important role of subsidies of different kinds in funding media production in Europe, which complicates the problem of measuring performance. Cartoon has touted the large number of films and the many hours of animation for television that have been funded through the Cartoon Forum and Cartoon Movie as indicators of its relevance and success. But a certain amount of skepticism seems warranted. From a different perspective, some of this production could be interpreted as more the result of effective subsidy chasing by producers than of success based on innovation and highly developed craft skills. A plausible hypothesis could be formed that firms and producers linked to *Cartoon* were more likely to be playing ‘the subsidy game’ (DALE 1997) and less likely to produce either truly innovative or commercially popular media content than producers not associated with *Cartoon*’s activities. More research would be needed to explicitly link participation or non-participation in *Cartoon* sponsored events to direct performance indicators such as box office receipts.

Finally, in the Appendix on Methodological Issues (Appendix One) I dispute the common view that case studies are only useful for ‘exploratory research’ and suggest that deviant cases may actually be useful for testing hypothesis (FLYVBJERG 2006). Case studies, I argue, may be particularly useful for theory testing when they are ‘black swans’ (and can be used to veto or disprove a widely universal claim (such as, “all swans are white”). In choosing the case of European animation, I initially believed that it could be a black swan, disproving the general hypothesis that creative or cultural industries need to cluster. While it does provide important insights regarding the evolution of creative industries, due to ambiguities in the case -- especially the economic performance of the European animation industry – it does not unequivocally rule out the competing theory that I originally set out to contest. The case provides interesting evidence but is not strong enough on its own to disprove the accepted wisdom regarding the general usefulness of clustering in creative industries.



I now believe it to be a useful exploration of how ‘non-clustered’ creative industries may function effectively, but more research needs to be done.

## 5.4 FUTURE RESEARCH

The research presented in this dissertation suggests several lines of inquiry that could be pursued in the future.

While the research in this dissertation focused on geography, it did so from within a specific conversation regarding the competitive value of knowledge and the ability of individuals and firms to access valuable ‘tacit’ knowledge from within or beyond industry clusters. Other factors affecting the economic geography of European animation were considered, particularly in Chapter Two, the article *Distant Neighbors*, which detailed attempts at upgrading European films to make them more globally competitive. However, this issue could be treated more thoroughly using a Global Value Chains (HUMPHREY and SCHMITZ 2002, GEREFFI, HUMPHREY, et al. 2005) or Global Value Network (HENDERSON, DICKEN, et al. 2002, COE, HESS, et al. 2004) perspective. These theoretical perspectives seek to integrate attention to local dynamics and capability building with an understanding that localities are often inserted into global and hierarchically structured divisions of labor. The animation industry, which is characterized by both integration into the productive pipelines of the major media conglomerates and resorts widely to outsourcing repetitive, labor-intensive tasks to low-cost labor markets, seems fertile ground for analysis in this kind of framework (TSCHANG and GOLDSTEIN 2010, YOON and MALECKI 2010). In future work, I would like to address the upgrading strategies available to European animation more explicitly using these frameworks.

In this regard it would also be worthwhile exploring the generality of the spatial processes examined beyond the institutional context of European animation. While it was not the focus of my study, considerable evidence suggests that clustering effects may not be important among top producers in the United States either. There is a concentration of animation production around Hollywood and Burbank, California.

However, many of the most important animation companies in the US – Pixar, BlueSky, and PDI, for example – are not located in industry clusters. These companies each combine the ‘in-house’ development of projects with long-distance networks through which labor is recruited and through which both technical, creative, and craft knowledge are accessed (TSCHANG and VANG 2008). These cases suggest that ‘proximity matters’ at the scale of the workgroup and the firm but may be less relevant in terms of networks extending beyond the immediate organization. Workers are recruited from around the US and even around the world. Talent from both the creative and technical side of the business regularly circulates at important industry events that draw people from around the world. Case studies of these elite, high-end studios could provide evidence on the hypothesis that clustering no longer plays an important role in animation and that relevant knowledge is firm and industry but not place specific.

Regarding the spatial scales at which animation is organized in Europe, it is interesting to ask whether the participation in European networks by animation professionals and firms complements participation in local networks or acts as a functional substitute for them. To pursue this research it would be useful to divide producers according to the quantity and quality of localized resources available. This could be done by studying producers in two kinds of localities: those from places where there is a significant local agglomeration and where local cluster effects might be important, such as Paris, London or Milan and those where there are no or only few other local firms and the possibilities of ‘localized learning’ are limited or non-existent. The two groups could then be compared in terms of the kind of networking that they engage in, the likelihood of engaging in international co-productions or other forms of cooperation, the economic performance of their productions and whether career paths are strongly confined to a given locality or include work in geographically far-flung studios. A large data set on career histories, for example, is now largely available through the professional networking portal, LinkedIn; the degree to which careers are built in a single location or built through circulation among far-flung studios should be readily discernible from this data.

Finally, it would be useful to incorporate the framework illustrated in the two-by-two matrix at the end of Chapter Four into future studies of creative industries and of geographical explorations of knowledge communities more generally. The matrix suggests that clustering should be treated as an exogenous variable, not as an endogenous consequence of how knowledge communities are efficiently organized. This tweaking of theoretical assumptions opens up the possibility of comparatively studying the formation of knowledge communities both within and beyond clusters, without assuming *a priori*, that they are different or that the kinds of knowledge and relationships that characterize them differ. The case studies presented in this dissertation are a first attempt at applying this framework. More, of course, can be done.

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## **APPENDIX A**

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### **ON METHODOLOGICAL ISSUES AND THE METHODS USED IN THIS DISSERTATION**



## **A.1 ON CASE STUDIES RESEARCH**

The empirical basis of this dissertation is an in-depth case study of the European animation industry and of the organization that has been central in the development of that industry, Cartoon. The case study is a research method that focuses on understanding the dynamics of a single setting (EISENHARDT 1989). Its deployment is based on the belief that the complex, dynamic, and context-dependent nature of processes such as economic development can best be grasped through the in-depth examination of specific examples (YIN 1994). Case studies have played a central role in both economic geography and organizational studies over the last several decades, perhaps especially in furthering our understanding of agglomeration and clustering. BRENNER and MÜHLIG (2007) conducted a meta-study of published articles between 1988 until 2004, which accounts for 183 papers studying 159 different clusters. More generally, the broad use of the case study methodology can be understood as part of a broader renaissance of qualitative methodologies in economic geography during the 1980's (CRANG 2002), when a number of important qualitative studies were published. Recently, evolutionary approaches to economic geography have also highlighted the importance of case studies to capture the dynamics of cluster development. As BOSCHMA and FRENKEN (2006) acknowledged, since NELSON and WINTER's (1982) seminal contribution, evolutionary approaches have widely used case studies as a way of 'appreciative' theorizing. This way of 'inductive' theory building has proved capable of overcoming the limitations of other more 'deductive' approaches, such as formal modeling (BOSCHMA and FRENKEN, 2006, p. 286).

Despite its apparent usefulness, however, case-study research has been criticized for providing knowledge that is unreliable, "unscientific" or at best "pre-scientific" (for a summary of such arguments, see FLYVBJERG (2006), who strongly rebuffs these criticisms). Others contend that the methodology might be useful for developing theory, but does not in itself provide reliable, "theory-tested" knowledge. At the heart of these concerns are both the internal and external validity of case-study research.

With respect to internal validity case studies are perceived to lack rigor and controls, allowing too large a scope for the researcher's own biases. Questions of external validity focus on the relationship between the case and the class of phenomena that it is supposed to represent, shedding doubts on the researcher's ability to make valid generalizations.

Below I justify my focus on the particular case of European animation and elaborate on the methods used for studying the case.

## **A.2 EXTERNAL VALIDITY AND CASE SELECTION**

One of the key questions concerning case study research is the extent to which findings from a single or small number of cases can be generalized to a whole class of similar cases (YIN 1994). Behind this question is the assumption that the goal of science is to discover and test theoretical regularities, and the suspicion that the case method deals only with singular events that cannot be validly generalized. This canonical negative view of the case study method holds up randomized experiments and large-sample studies as the proper methods to control bias in order to discover what is true for an average or representative member of the class of objects being studied (PATTON 2002). According to YIN (1994), cases can be classified in exploratory, explanatory or descriptive studies. During the very earlier stage of my empirical inquiry I realized that the case of European animation could be extremely useful for exploratory purposes, as it deviates from prevailing expectations of how a creative industry should be geographically organized. Its study allowed me to explore such questions as whether “agglomeration can be explained entirely by reference to the inherent logic of organization and coordination in these industries?” (COLE 2008). This question set up a contrast with the way that the dominant, neo-Marshallian paradigm explains the geography and organization of creative industries. The neo-Marshallian paradigm suggested that cultural industries are found in clusters and that clustering provides an important source of competitive advantage to firms and entrepreneurs in these industries (CHRISTOPHERSON and STORPER 1986,

STORPER and CHRISTOPHERSON 1987, SCOTT 1997, LORENZEN and FREDERIKSEN 2005).

Very little had been written at the time I began this research about non-localized industries, a notable exception being NORCLIFFE and RENDACE's (2003) article, "New geographies of comic book production in North America: the new artisan, distancing, and the periodic social economy". COE's (2000, 2001) studies of the Vancouver film industry had also drawn attention to non-local relationships as a key contribution to the region's growth. A case study of European Animation featured many of the same issues as these earlier writings, but promised in addition to potentially increase our understanding of the extent and depth to which actors were enmeshed in non-local relationships.

EISENHARDT (1989, p. 537) argues that researchers seeking to build theory can legitimately use case studies if they choose cases that are likely to yield new information with which to evaluate a theory or which may have potential for developing new theory. This is called theoretical or purposeful sampling (PATTON 2002). The selection and analysis of a deviant case can be seen as an example of theoretical sampling (FLYVBJERG 2006). The intention in researching a deviant case is that it is a particularly good way to interrogate the different aspects of the theory, as explaining the deviance requires when one look for new facts or new theory, and hence simulates a process of refining and developing theory. This kind of dialogue between the particulars of a case and general theory helps to drive the research process forward.

In the research process, it seemed important to disentangle information that was peculiar to the European animation sector from facts common to technological and organizational conditions in the animation industry globally. To achieve this, I conducted a dozen interviews with professionals in the United States and undertook research on the industry worldwide using secondary data sources. To properly deal with these questions would require comparative analyses of multiple case studies. Fully developing alternative cases at the level of Cartoon was impossible given the

time and financial resources at hand. Nevertheless, combining insights from my interviews with the extensive secondary literature on the industry provided considerable insights into the similarities and differences between animated filmmaking in European and the United States. This was particularly so with the use of outsourcing or multi-studio production, the reasons why both well-established firms and single-film projects are found in animation, and the different business models that are used for low budget ‘independent’ productions and high-budget blockbusters. When the dynamics and complexity of the phenomena analyzed required it, I used “embedded cases” as sub-unit of analysis. As YIN (1994) acknowledges, the flexibility of embedded cases is -if used prudently- extremely useful for providing concrete data at different levels of analysis. For example, in Chapter Two (“Distant Neighbors”), I used the case of A-Film to illustrate the diverse geographical scale of operations of a European company. The use of this case study allowed me to understand at the level of concrete production as well as the level of the individual firm the implications of the European Animation model.

Of course, case study research requires openness to disconfirmation and preparedness to accept and pursue unanticipated findings. What appears to be a deviant case at the outset may turn out to conform to existing theory. More likely – and this is the great strength of the case study as a method of dealing with complex, dynamic phenomena—the case will provide data that neither completely confirm nor contradict existing theory, but instead provide grounds for re-evaluating parts of accepted theory and give a deeper appreciation of the contextual factors at play. The results come in the form of an integrated narrative that alerts the researcher and the reader to the range and effects of real-world factors at play, often pointing to variables that have not previously been given their due. As FLYVBJERG (2006) has noted, this ability to understand and interpret context is the basis of all expert knowledge (DREYFUS, et al. 1987).

In the conclusion to each of the empirical articles, Chapters Two and Three, and the overall conclusion of the dissertation, Chapter Five, I discuss the issue of the extent to which conclusions drawn from this case can be generalized, what some of those

generalizations might be, and of the caveats imposed by the methodological limitations.

### **A.3 DATA COLLECTION AND INTERNAL VALIDITY**

The qualitative data used in the case came from multiple sources:

1. Secondary sources from the industry press including published interviews with producers and directors of films and accounts of trends in the industry.

Particularly useful were articles from Animation World Network (AWN), which archives all of its articles on line ([www.awn.com](http://www.awn.com)).

2. Field notes on proceedings of events organized by Cartoon supplemented by extensive program notes, available from the Cartoon website (<http://www.cartoon-media.eu/>).
3. Thirty-six semi-structured interviews with animation professionals and people involved with the animation industry both within Europe and in the United States.
4. Direct observations of the proceedings at four different events sponsored by Cartoon for animation professionals from across Europe.

The triangulation made possible by multiple data collection methods provides for a stronger substantiation of the empirical inquiry (EISENHARDT 1989). Quantitative data was not used directly in my analysis, which focuses on micro-level dynamics. However, some descriptive statistics are presented in this dissertation, mostly as a way of describing the approximate size and location of European animation firms. In census and other national statistics, animation is not generally distinguished from the rest of the audio-visual sector. As a result, statistics specific to the animation sector data are difficult to come by and generally not trustworthy.

Organizational practices within in the industry present another obstacle to measuring the size or distribution of firms. The Animation Internet Database ([www.aidb.com](http://www.aidb.com)) was a source for calculating the number of animation firms in different European countries and cities. However, the database is incomplete and provides no information on the number of employees working in the sector, for example, or the size of firms, both key measure of size in an industry where firms grow and shrink with every project. Nonetheless, it has been used elsewhere to estimate the size and distribution of the global animation industry (YOON 2008). In the next subsections I deal in detail with the two more important methodologies used in this thesis: semi-structured interviews and direct observation.

### **A.3.1 Interviews**

My initial goals when I started the interview process were fairly modest: to gain an understanding of the European Animation industry and in particular an understanding of the role of proximity in organizing productive activities, factor markets and knowledge flows. Interviewees were often located through a snowball technique. From the various sources listed above, I picked key players to interview first. At the end of each interview, I asked for suggestions of other people to talk to who might be able to help me with my research. I also directly contacted several informants, particularly when participation in a forum or a previously published interview indicated that they might offer an interesting perspective on the industry.

Corporate interviews create specific problems for the economic geographer (SCHOENBERGER 1991). Whereas in other kinds of interview research the interviewer risks exerting excessive control over the respondent, corporate interview, on the contrary, is susceptible to problems of control because the respondents are often individuals accustomed to exerting authority. These conditions could make it difficult to engage the respondents in the parts of the interactive dialogue that could challenge the legitimacy of their role. To overcome this possible limitation and capture the “multiple realities” (BAXTER and EYLES 1997, p. 512) likely to appear in a whole industrial sector, the interviewees came from a broad range of roles across

the industry and were chosen on the understanding that people in different roles were likely to have different experiences and divergent accounts of working within the European animation ecology. For example, I expected that film producers, who are mostly involved with the business and financing of films, would be less aware of the frictions caused by multi-site productions than directors, who are deeply concerned with the artistic integrity and the execution of their artistic vision. The initial set of interviews included several film producers, directors, studio heads, and assistant directors who were in charge of the day-to-day coordination of production between studios. Consultants with a broad experience of working with different studios around Europe were interviewed. In addition, both heads of Cartoon, the European animation association that lies at the center of the case study, were interviewed. Because the subjects of my interviews were located in different countries, many interviews were conducted by Skype or telephone and recorded. Following the interview, I would then write out my impressions of what I had learned before returning to transcribe the interviews. The act of transcription often brought forward details that I had missed when writing down my initial impressions.

Interviews started with factual questions aiming to establish areas of expertise and to create a baseline for later discussion. For example, I would often start the interview by asking the subject to describe their career and current role in the industry. This information was used both as data – how are careers formed? Are these careers mostly lived out in a single location or are animation professionals mobile? — and as a way of establishing the likely sphere of expertise of the person I was speaking with. This was followed by specific questions regarding the geographical aspects of the production process. If I was talking to a producer, this usually meant understanding how they went about finding funding and distribution for their projects or how they found the talent they needed to execute their ideas. In contrast, interviews with persons engaged in production typically focused on the process of working with studios in other countries, the typical issues that would arise, and how these were managed. Several interviewees demonstrated a broad knowledge of the history of their industry. Since this knowledge consisted of ‘interpretations’ as well as facts, it was always held in parenthesis until corroborating accounts could be found.

### **A.3.2 Participant Observation**

In the process of study, it became clear that Cartoon, an international non-profit association that seeks to promote European animation played an important role in the industry's dynamics. My initial research indicated that Cartoon was a main driving force behind the large extent to which firms and entrepreneurs in the European animation industry are embedded in non-local relationships. In consequence, a significant part of my research came to focus specifically on Cartoon and its work. The results of this investigation are presented as a case of its own in Chapter Three, "Negotiating Conventions And Creating Community: The Case Of Cartoon And European Animation".

My investigation of Cartoon started with minimal theoretical pre-suppositions. I knew that Cartoon had played an important role in creating "organizational proximity" and enabling a spatially extended knowledge community to emerge between the various participants in the European animation industry. However, I did not have any theory that could elucidate the workings of this kind of organization. Organizations like Cartoon seem ubiquitous in the real world, yet no literature that I knew of described the various things these organizations do, how they do them, and what the consequences are. While I was working on the research, an entire literature on "temporary proximity" emerged, that proved useful for interpreting my results (MASKELL, BATHELT, et al. 2006, BATHELT and SCHULDT 2010, SCHULDT and BATHELT 2011). In the same vein, I paid attention to the recent organizational sociology literature devoted to the study of "Field Configuring Events" like congresses or trade fairs (GARUD 2008, LAMPEL and MEYER 2008).

These informal gathering provided the opportunity to talk with dozens of participants about their work, their understandings of the industry they work in, and their goals at the meetings. As LAMPEL and MEYER (2008) have noted, "In tractable settings bounded by time and space, they allow researchers to directly observe the sensemaking and sensegiving processes that fuel field formation and transformation. This can be done through real-time collection of primary data (GARUD 2008)



historical analysis of archival data (OLIVER and MONTGOMERY 2008), or by combining both forms of data (GLYNN 2008, LAMPEL and MEYER 2008, MCINERNEY 2008).”

The research for Chapter Two and particularly Chapter Five relied both on such participant observations of sensemaking and sensegiving and on the use of archival data. In Economic Geography, participant observation has gained considerable momentum in the last two decades, as the “relational turn” of the discipline has searched new means for overcoming the undersocialized nature of past approaches (BOGGS and RANTISI 2003). At first sight this seems appropriate because, as (YEUNG 2002, p. 33) noted, “to learn about the network is to be a part of the network”. However, the process of participant observation involves important challenges for the researcher. CRANG (2002, p. 655) for example, has warned about the reflexivities which can appear between the researcher and a group that were themselves making an “ethnographic representation” of a “fictive community”. Indeed, as the research progressed, I became concerned with the repetition of certain somewhat stereotyped, “conventional” ways of talking about certain issues. While it was clear to me that many of my informants were thoughtful people and spoke from personal experience, it also became clear that they were part of a fairly small network that often shared stories with each other. Was it possible that when interviews strayed from their direct experience, they merely recounted their versions of a ‘community mythology’? There is good social science research to demonstrate that this is exactly what is to be expected (D'ANDRADE 1984).

To deal with this important issue, I searched for specific evidence disconfirming my initial account. As YIN (2003, p. 25) has noted, one strong test against bias in qualitative inquiry is the “degree to which [the researcher is] open to contrary findings.” In particular, where many of my initial informants had suggested that the spatially extended ecology functioned well, I looked for evidence that non-clustered nature of relationships in the industry was a cause of frictions, inefficiencies or even total dysfunction. Since this later position contradicted what seemed to be a strong set of collective beliefs held by the community, developing a contrarian view required

that I build trust within the community. Here my participation in meetings gave me the chance meet with informants who held such contrarian views. Once I understood these views better, I was better able to challenge later accounts with alternative interpretations, thereby creating dialogues that helped reveal a more nuanced picture of the extent to which efforts to create a non-clustered ecology had been successful.

Perhaps the part of this thesis where these concerns are more evident are Section 7 (“The Animation Village: An Imagined Community”) and Section 8 (“The Dark Side of Cartoon: Rent-Seeking through Co-Production”) of the paper entitled “Negotiating Conventions and Creating Community”. In Section 7 I tried to account for the degree of “ethnographic representation” (CRANG 2002) present in the accounts of the members of the European Animation Industry. There, the use of the concept of “imagined community” coined by Benedict ANDERSON (1983), reflects the reflexive cohesion I found in many informants’ descriptions; this cohesion is also evident in the term “village”, used by some members of the community in reference to its relatively small size and somewhat quirky nature.

I devoted the whole Section 8 to bring the dissenting voices to the debate. As the literature on Field Configuring Events notes, discontents also attend temporary gatherings (GARUD 2008). I found some informants who casted doubt on the efficiency of the European Animation Industry. Critics pointed to the poor record of European animated feature films at the box office when compared to American production. At a more operational level, some individuals signaled the high costs of coordination imposed by the European co-production model. Concerns about the lack of cultural and creative identity of films co-produced by several countries (the so-called ‘Europuddings’) and about the fact that most European films are highly dependent on public subsidies were also raised.

Ultimately, my study of the European Animation industry is an ‘instrumental’ case. In STAKE’s (1995) classification, an ‘intrinsic’ case is undertaken to gain a deeper understanding of the case, whereas an ‘instrumental’ case is used to provide insight into a more general issue. This research belongs to the latter category. My main

intention is not to reveal strong normative implication about European public subsidies to animation, to mention one of the ‘intrinsic’ controversies of the case. Instead, I tried to shed some light to several questions related to contemporary debates on Economic Geography. Acknowledging the concerns condensed above allowed me to evaluate my claims about this subject and, hereafter, to improve their validity.

#### **A.4. ISSUES OF GEOGRAPHIC SCALE**

Since issues of geography are at the center of this dissertation, one important source of bias to be concerned with is the scale at which the inquiry is conducted. One issue with many studies of clustering is that they focus on the local, excluding other spatial scales. This was originally acceptable as a means of drawing attention to the local, which had been largely ignored during a period of classic ‘Fordism’ when large, oligopolistic firms ruled the economy. However, since then, a plethora of local case studies has focused on local relationships as the main independent variable explaining regional development; the local scale has become a sort of dominant geographical paradigm in cluster studies. It was precisely the fact that European animation industry seemed to deviate from this pattern that originally caught my attention, as important phenomena usually associated with localization seemed to arise instead at different geographical scales in the case of European animation.

Of course, the full recognition of the specific properties of this case was not automatic. I started my research inquiry with the Danish animation industry, which appeared to have some intriguing properties: although Danish firms certainly were attempting to build local resources, very soon I was aware that co-producing with other European firms was at the core of their activities. The pervasive practice of European co-producing was my first hint to the broader spatial scale of practices such as a disintegrated production system, which were traditionally associated with geographical localization in the canonical accounts of the clustering of cultural industries in the seminal research on the Hollywood film industry by Storper and Christopherson (CHRISTOPHERSON and STORPER 1986, STORPER and CHRISTOPHERSON 1987, CHRISTOPHERSON and STORPER 1989). These

local-European dynamics pointed to some interesting issues regarding the ‘multi-scalar’ approach in economic geography (SMITH 1992, KELLY 1997, COE 2000, SCOTT 2004, CHAPAIN, CLIFTON, et al. 2013). This approach recognizes that the scaling of socioeconomic phenomena operate simultaneously on numerous levels, such as the urban, regional, national, supranational and global. Moreover, these ‘nested scales’ (SWYNGEDOUW 1997) are not “simply rigid, pre-set categories, but instead are socially constructed” (COE 2000). In the European Animation Industry case, multi-scalar phenomena are at the very core of the geography of the industry. Inter-organizational practices, such as coproduction, work-sharing and sub-contracting among producers of different European countries, have been widely adopted in the industry in order to spread out development costs, and to allow studios to grow without putting their core financial and human resources at risk. But the European scale of co-production does not mean that national phenomena are absent in industry activities. Critically, national characteristics, such as cultural nationalism, the protection of national language, or teaching local culture to children, are main justifications for public support schemes that constitute crucial sources of funding for European firms. Although usually located at national level, there are cases – such as some of the Spanish Autonomous Communities – where linguistic markets and funding institutions are regional. In addition to the local character of much financing, there are still significant national differences in production practices, such as workflow divisions, and cultural issues, such as what kind of humor is appropriate for a 5-year old, which make co-production in the European Animation Industry a truly multi-scalar phenomenon.

Furthermore, the different scales interact. The study of the most important Danish animation firm, A-Film, convinced me that firms often operated by embedding themselves at different geographical scales; local embeddedness could give a firm access to resources that could then be leveraged by collaborating with European partners. The A-Film case was developed as a short case embedded in the larger case in Chapter Two because of its explanatory power in unfolding the dynamics I was interested in capturing there.

So, it needs to be acknowledged that one could write a study of European animation that gives greater emphasis to local-scale relationships. In many of the cases I examined, such as studios in Denmark and Ireland, it seemed impossible to explain success in the industry without reference to European networks that had largely been facilitated by Cartoon. However, it seems to fair to acknowledge that had I focused my study on animation in London or Paris, I might have found a much larger local industry and hence more local action. All the same, both in London and Paris, coproducing with firms and studios from other European countries is also widely practiced, as I would later learn.

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## **APPENDIX B**

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### **AN EMPIRICAL INTRODUCTION TO THE EUROPEAN ANIMATION SECTOR**

**Abstract:** This chapter provides empirical background material regarding the animation industry and European animation industry that are intended to be useful in situating and understanding the case studies presented in Chapters Two and Three.

## **B.1 A BRIEF DEFINITION OF ANIMATION**

In the popular imagination, animation is often thought of as a particular genre of filmed entertainment, namely children's cartoons. However, it is better thought of as a set of production processes that are used to create various kinds of audio-visual content: feature films, shorts, and television serials, but also commercials, promotional and educational shorts, music videos, computer games, internet sites and special-effects for live action, filmed entertainment. The common defining quality of animation is the creation of a series of still images that are combined in a sequence to create an illusion of movement. Traditional 2D, or celluloid -animation (cel), 3D and computer generated (CG) animation are the most widely used techniques; however, along with these, stop-motion animation using models (such as Timothy Burton's '*Nightmare Before Christmas*' and Aardman's '*Wallace and Grommit*' movies), cut-out animation (such as '*South Park*'), and a host of other techniques are used. The large-scale use of computers in the animation production process has expanded the range of tools that animators may use. As is the case with other creative industries, older techniques offering particular aesthetic possibilities may go in and out of fashion but never completely disappear.

Seen from the point-of-view of its products, the animation industry is a sub-sector of the audio-visual industries. The various AV industries – particularly television and cinema-- provide the institutional context within which animation products are financed, marketed, and distributed. However, the specific production techniques and market conditions mean that animation has long involved its own set of players whose competencies are somewhat distinct from the rest of the audio-visual sector. Animation can also be usefully studied through the lens provided by a growing

discourse on ‘creative industries’ (CAVES 2000, SCOTT 1997, MARCUS 2005).

This approach highlights the importance of uncertainty and creativity in the productive process and on the process of discovering the right organizational structures for managing creative processes.

For most of the latter half of the 20th century, it was fairly easy to delimit the animation sector. Animation firms worked on animated feature films, cartoons for children’s television, and to a lesser extent produced footage for advertisements, corporate and educational films and later videos. Technological change, the spread of new, computerized production techniques and new platforms for distribution have increasingly blurred industry lines. As a result, there is considerable exchange of technical, creative and managerial talent between animation, digital effects, computer games, web-design and even more technical fields such as engineering and architectural visualization. This cross-sectorial movement is one reason why most animation is found in or around major cities. Quite simply, professionals whose careers span different sectors are likely to find more employment opportunities in thriving metropolitan labor markets.

As we move further into the Internet age, the lines bounding the sector continue to blur further. New distribution technologies – particularly related to the Internet and mobile technologies – open spaces for new kinds of products. The institutional arrangements to create these products – how they will be financed, marketed, distributed and produced – and what this will mean for older media and the institutions that support it are still unclear.

## **B.2 THE PRODUCTION PROCESS AND VALUE CHAIN**

Animation can be quite simple, but at its most developed it involves a division of labor comprised of hundreds of specialized tasks (WINDER and DOWLATABADI 2001). Vastly simplifying the process, it is generally represented in four stages: conception and financing, pre-production, production, and post-production.

*Pre-production* includes the writing of a script; story-boarding, when the script is turned into a ‘cartoon’ visually representing the story; the creation of conceptual artwork to provide a distinctive visual style; the development of characters; and finally, the creation of the ‘Bible,’ which is the industry nomenclature for the book, now more often a database, containing the characters, key-poses, and typical backgrounds to be used in the production.

*Production* involves the painstaking process of animating the film or television program frame-by-frame. With the average 30-frames a second, a 90-minute film requires that 150,000 frames of animation. As a result, a hierarchical division of labor was developed early on in the history of the craft whereby top animators draw ‘key frames’ with less-skilled animators filling in the ‘in-between’ frames, cleaning up the animation, and adding color. In 3D Computer Generated Imaging (CGI), the production process is somewhat different, involving the close coordination between character ‘modelers’, riggers, who provide the controls that give a character movement, and the animators who actually create the scene. With increasing technological capabilities, the production process has become ever more complicated involving new divisions of labor and new creative potentials.

*Post-production* involves the final assembly of the thousands of individual images into a product. Special effects are added in post-production. In lower-cost animation, voice-over and sound are also edited onto the animation, while in higher-quality animation the voices are often recorded in pre-production.

Of course, once a project is completed, it must also be marketed and distributed, in order to exploit ancillary revenues from commercial tie-ins and intellectual property rights. However, the focus in this dissertation is on the production process and the companies that produce animation products.

In general, the animation industry has organized value chains according to two distinct models (see TSCHANG and GOLDSTEIN (2004)). Starting in the 1960s when Hanna Barbera first began looking for a way to animation for television using

limited production budgets, animation for television has been outsourced overseas (SCOTT 1984). The largest animation service industries are in Asia – Korea, the Philippines, China and India although some animation service work is also carried out in Eastern Europe (SITO 2006).

When animation is outsourced, the animation project is developed, scripted, story-boarded and characters are developed in pre-production in the home-country studio before being carefully packaged along with instructions and shipped off to a service company overseas where the labor-intensive work of actually producing animated footage occurs. The footage is then returned to the home studio for final assembly and touching up in post-production. Because of the long and difficult lead times involved, outsourced projects have allowed less time for artistically valuable adaptation once the script and story-board are locked in place. Although the product is generally inferior, this has never been deemed a major concern for the under-nine year old crowd that is the main intended consumer.

High-end feature films, on the other hand, have followed a different model in which production is kept ‘in house.’ Physical proximity within a workshop allows for much greater control over the work, but also for creative synergies to develop between the different groups working on the film. There is often an overlap between pre-production and production in which scripts are adjusted and already produced animation jettisoned if the producers feel that a better film will result (TSCHANG and GOLDSTEIN 2004). This latter production model, of course, is vastly expensive, with production budgets routinely running over \$100 million. However, the overwhelming box-office success of high-end animated films over the last two decades has meant that the greater production expense may be more than compensated for with higher revenues.

### **B.3 THE GLOBAL MAJORS**

The organizational landscape of the global animation industry is occupied by a wide variety of diverse firms, ranging from global ‘Majors’, which finance, produce and

exploit the rights to properties costing hundreds of millions of dollars to small, artisanal studios consisting of a handful of artists using personal computers.

In the United States, the growth of cable and satellite television and the vertical integration of the major studio groups starting in the 1990s has transformed the industry. Three groups now dominate animation for children's television: the Disney Channel, Cartoon Network (owned by Time Warner) and Nickelodeon (owned by Viacom). Each of the groups runs its own cable channels and each also sells blocks of animation to other broadcasters. The three together account for around three-quarters of the \$850 million spent on children's television programs in 2010, according to IHS Screen Digest (reported in WESTCOTT (2010)). Of course not all of this material is animation and not all animation owned by these companies is produced in the United States. Screen Digest estimates that \$376 million worth of animation for television was produced in the United States in 2008. Much of this is produced by the in-house studios of the three major groups, which are located in and around Burbank, California. Some of the programming, however, is purchased from independent production houses in the U.S., Canada, and Europe.

In addition, WESTCOTT (2010) estimates that another \$776 million was spent on movie production in the U.S. in 2008. American-style blockbuster animation is popular around the world and in most years takes up to 80 percent of the box-office in many European countries. The major U.S studios producing movie animation include Disney and Pixar (which while previously independent, was bought by Disney in 2008), DreamWorks, BlueSky (previously independent but now owned by Fox), and Illumination Studio (which contracts with Paris-based McGuff for the '*Despicable Me*' franchise). Although technological barriers to entry into the animation industry have been reduced over the last ten years owing to the availability and reduced costs of its core technologies – namely hardware and software-- it remains extremely costly to finance top-quality animation. Only a handful of studios – either owned outright by major studios (Pixar and BlueSky) or working with close studio tie-ups (DreamWorks and McGuff) have had a sustained presence in this space. Interestingly, three of the top producers of animated film --

Pixar, BlueSky and PDi (now part of DreamWorks) – are outside of the Hollywood cluster, while McGuff is based in Paris.

In contrast, no major broadcaster in Europe owns any significant in-house animation production capability. The animation sector is therefore the preserve of independent studios that depend heavily on commissions from broadcasters along with the occasional feature film or commercial project.

## **B.4 THE ANIMATION SECTOR IN EUROPE**

It is difficult to know the exact size of the European animation industry.

Unfortunately, animation is not generally distinguished from the rest of the audio-visual sector in census and other national statistics. As a result, statistics such as the total number of workers in the Animation sector are difficult to come by and generally not trustworthy.<sup>18</sup> Because sector boundaries are somewhat blurred, organizational practices within the industry present another obstacle to measuring the size or distribution of firms. Table 1 presents the number of animation firms in different European countries and cities, based on data from the Animation Internet Database (aidb.com), a source used in other academic writing on animation to estimate the size and distribution of the global animation industry (YOON 2008).<sup>19</sup>

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<sup>18</sup> One number, obtained by me from an important industry insider in 2008, was that 15,000 animation professionals currently work in the EU member states. However, I was never able to verify how this number was produced or even how the profession was defined.

<sup>19</sup> The database is published by Animation World Network, an industry website based in Los Angeles, as a catalogue of service-providers in the animation sector around the world. As such, its reliability is somewhat limited and crosschecking listings in the database in a sample of countries against the knowledge of industry insiders revealed that less than half the listings in the catalogue were current and accurate. One problem with the catalogue is that it relies on self-reporting. In an industry where firm mortality is high, this means that listing is likely to radically overstate the number of firms. A second problem is that firms are often formed and listed as a means of attracting business, even when virtually no resources have actually been invested in the firm and no actual production work completed. In many cases, these firms are little more than business cards for independent producers who have yet to attract any business. So, the number of firms listed might have little relationship to the number of people actually employed in the industry at any one time. Finally, being based in Los Angeles and written in English, not all firms seem to be aware of or interested in listing themselves. Despite these reservations, the numbers and locations of firms in Table One do form a rough empirical picture of the animation industry in Europe that conforms with the picture drawn by industry insiders.



From this table, a couple of stylized facts stand out. First, the bigger and wealthier countries in Europe tend to have the largest animation sectors, although Germany does not lead in this regard. Rather France (327 firms), which has long subsidized production and required local content and the United Kingdom (427 firms) have the largest animation industries when measured by number of firms, with Germany (268 firms), Italy (192 firms) and Spain (178 firms) following. Denmark (63 firms) and Belgium (104 firms) are also surprisingly well stocked with animation production facilities, showing the benefits of national funding schemes and education programs that have helped build the industry in these countries. Second, the table affirms the strongly urban nature of the European animation industry, with most firms agglomerating in and around the largest urban center in each national territory. Only in Italy, Spain and Germany does the second largest animation city come anywhere close in size to the largest agglomeration. Each of these cases is easily explained by the urban structure of the countries involved. In Italy, Milan and Rome share the spoils as the home to private and state television respectively. Barcelona's slight dominance over Madrid reflects its status as the regional capital of Catalonia and the major commercial competitor to the Spanish capital. In Germany, the relative size of the animation sector in Berlin, Hamburg, and Munich reflects on the decentralized media industry that has been created in the different German Landers.

**Table 1: # of Animation Production Firms by Country**

<b>Country</b>	<b># Of Production Companies</b>	<b>% Located in Primary City</b>
United Kingdom	427	39
France	304	36
Germany	148	19
Italy	131	21
Spain	122	30
Netherlands	54	31
Belgium	42	29
Ireland	41	63
Sweden	35	57
Denmark	30	80
Poland	26	46
Russian Federation	25	40
Austria	21	57
Finland	19	79
Portugal	19	42
Bulgaria	16	100
Hungary	16	88
Romania	16	75
Greece	14	57
Norway	13	54
Croatia	12	92
Czech Republic	12	92
Ukraine	11	73
Lithuania	8	63
Luxembourg	8	50
Macedonia	8	100
Serbia and Montenegro	8	100
Estonia	6	83
Slovenia	6	33

Source: compiled from data on AIDB.COM, September 30, 2011

### **B.4.1 Animation For Television**

In the first instance, the growth of the European animation can be seen in the large increases in production for television that have occurred since 1988. Television series, mostly half-hour shows aimed at children's audiences, provide the bread-and-butter for the industry, each enabling long-term employment for dozens or even hundreds of workers. In 1988, only 80 hours of television were produced in Europe; by 2003, that figure had jumped to over 1200 hours. No comprehensive figures exist for Europe since that time however, a 2009 study by Screen Digest (WESTCOTT 2009) does show France to be the World's 3<sup>rd</sup> leading producer of televised animation behind Canada and the United States, with a production of 259 hours of animated programming in 2008, followed by the U.K. (around 190 hours), Italy (just over 100 hours), and Spain (just under 100 hours).

The rise in production after the late-1980's occurred in response to the expanding demand created by the emergence of private television stations in Europe followed by the large expansion in the number of channels with the adoption of cable and later digital broadcasting. This expansion has led to a large demand for programming, but also a fragmentation of advertising dollars as each channel captures a smaller fraction of the over-all viewership. Under such circumstances, animation, which is relatively expensive to produce, has suffered, as programmers have tended to fill available hours with cheaper products, such as reality TV shows. This tendency has been accentuated by the recent recession and the attendant fall in advertising revenues, conditions that have made it very difficult for producers of animated television series.

However, this increased production also owed much to specific policies and programs pushed by Cartoon, the European industry association that is the focus of the case study presented in Chapter Five. The institutional solution promoted by Cartoon and now widely adopted in Europe has been to encourage co-productions among producers in order to spread the development costs of such program between broadcasters from different countries. Since 1988, over 450 programs with a total budget of more than 1.5 billion Euros have found co-production partners at the

Cartoon Forum, the co-production event sponsored by Cartoon every September. Such co-productions were first encouraged through the vehicle of “industry groupings” which brought together three or four studios in different European countries to work on and finance projects together. The creation of industry groups and of a Forum for co-production were the first and most effective actions taken by Cartoon (In Chapters Two and Three I explore in detail the role Cartoon has had in enabling and structuring this market.)

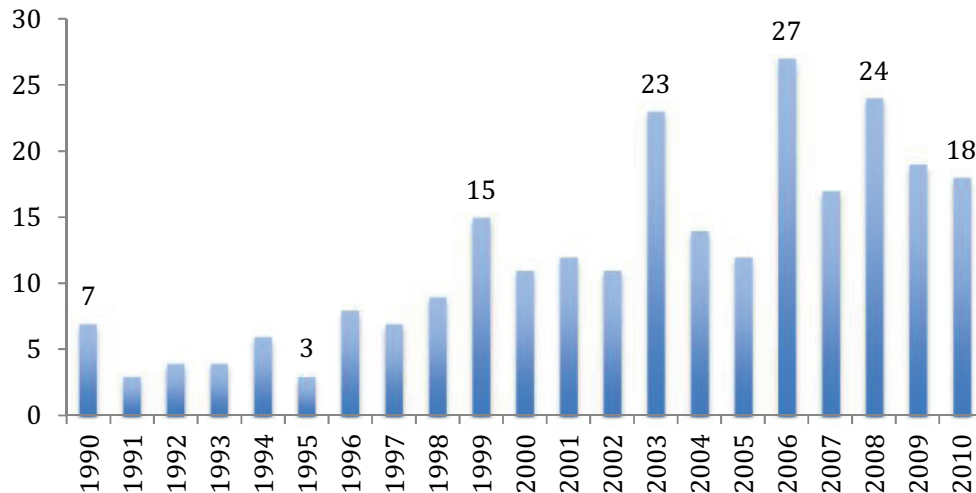
In the United States, the development of specialized theme channels capable of attracting large audiences and selling programming across multiple outlets, has allowed animation to prosper. The commercial power of Nickelodeon, the Cartoon Network, and Disney channels has allowed these channels to invest in higher-quality technologies as they can then amortize that investment across multiple markets. At an early stage, the spread of themed channels to Europe provided a vehicle for successful American programs to enter the European market; however, over time, the themed channels have also become investors in European made programming and have even imported some European content back to audiences in the United States and other countries. In this regard, their role is not dissimilar to that played by the major studios in film production and distribution.

#### **B.4.2 Feature Animation**

By the late 1990s, European animators were increasingly trying their hand at feature film production. Figure 1 shows the sharp increase in animated feature film production, which peaked at 28 films in 2006, before dropping off somewhat in recent years. The rise in feature film production was prompted by many factors. The creation of DreamWorks, for example, ended the monopoly that Disney had held over this sector; while the relative success of a few local films – mostly notably the French production, *Kirikou* in 1998—made producers believe that low-budget, targeted films could be a commercial success. However, the prestige associated with making a feature film should not be underestimated. This prestige, of course, flatters the vanity of the artist, but also has a very practical, rational role in attracting resources to

individuals and studios in an industry based largely on reputation.

**Figure 1: # of European Feature Film Productions (1990-2010)**



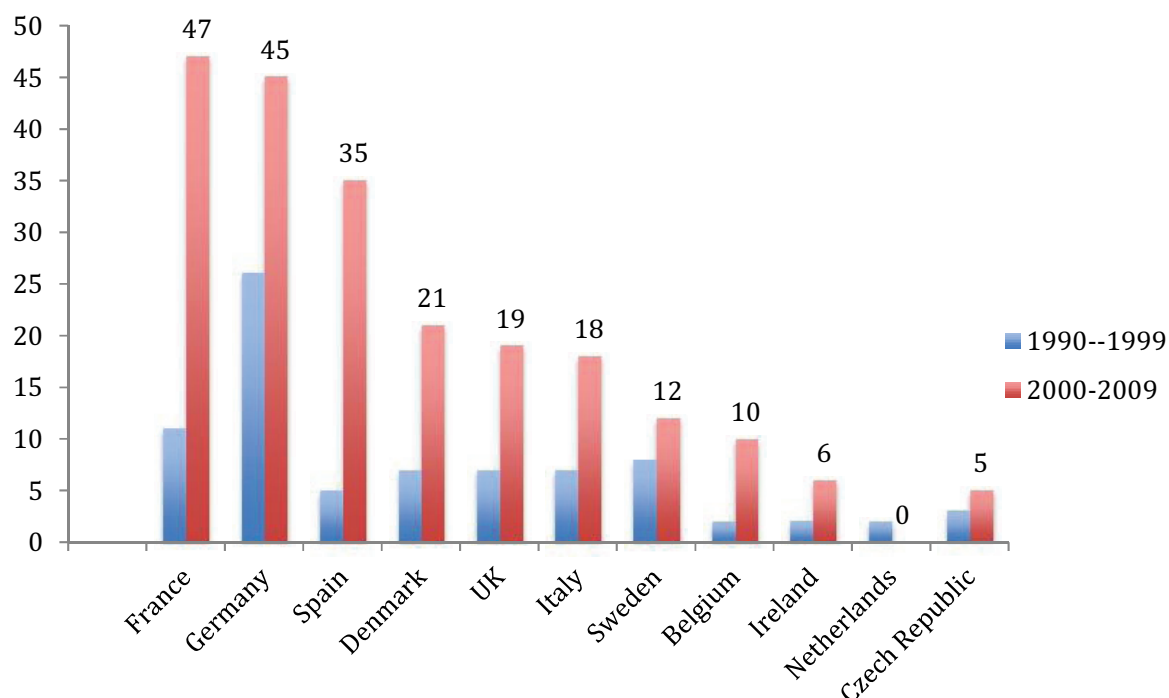
Source: [www.animationeurope.com](http://www.animationeurope.com) (accessed September 30, 2011)

The coproduction formula developed in television, in which several studios in countries work together on a single production, was widely adopted in financing and making these films. Just over half the animated films produced between 2000 and 2010 were international co-productions.

As with television animation, France was the leading producer (and by far the leading consumer) of animated feature films, taking part in the production of 47 films between 2000 and 2009, with Germany (45), and Spain (35) close behind. Denmark, which helped produce 21 films, is surprisingly well represented as well (see Figure 2 for details).

Here Cartoon has played a leading role as well. Since its creation in 1998, Cartoon Movie has been a key event where producers can go to look for financing and co-production partners while their project is still at an early stage.

**Figure 2: # of European Feature Film Productions (1990-2010)**



However, it is important when looking at the numbers to realize that, with a very few exceptions, these films cannot be compared to high-budget, feature, animation family films produced by Pixar, DreamWorks and other major American studios. High-quality animated family films have been one of Hollywood's most successful products in recent years, sometimes grossing over \$1 billion at global box offices and spinning off entire commercial empires of advertising tie-ins, toys, and subsidiary entertainment. In contrast, the average European product is a low-budget affair, usually aimed at a niche-market – mostly small children, but increasingly teenagers or young adults as well – and has generally been distributed in only a hand-full of markets. While Cartoon has often expressed the aspiration of creating a “European” animation industry, most European films earn more than half of their revenues in a single country (on average 75 percent were earned in a single market) and these films have tended to travel poorly within Europe.

A look at *Table 2* shows the position of these films at European box offices. Of the 179 films released by European producers from 2000 to 2010, only 41 sold more than

1 million admissions and only 65 broke the modest figure of 500,000 admissions. Of these, by far the best performers were co-productions with American studios – films like *Despicable Me* (2009), *Chicken Run* (2002), and *Wallace and Grommit: Curse of the Ware Rabbit* (2005). These successes show the talent and ability of European animators to produce blockbuster films, but each involved a collaboration of European talent and productive organization with American finance and marketing know-how. *Planet 51*, produced by Ilion studios in Spain was largely self-financed, but was very consciously produced for success in American markets, using American scriptwriters and celebrity voice-talents, and eventually finding an American distribution partner. These films showcase European talent in animation and provide an interesting model for other studios to aspire to. However, they are not representative of the typical European co-production.

The bulk of European films have enjoyed nothing like their success. A few ‘art-house’ films – such as *The Triplets of Bellevue* (*Bellevue Rendevue*), *Persepolis*, and *Waltz with Bashir* – have broken through and had some international success. Some larger budget projects made for the traditional children’s market, such as *Arthur*, have also done well. And there have been a number of ‘local’ successes – films that have done well in a single domestic market. Germany, for example, with 80 million wealthy consumers, has produced a number of films that have sold well in domestic markets without really traveling. Most films have simply hoped to earn back their production budget; and most have not achieved this goal.

Table 2: Total Admission for the top 50 European Animated Films (2000-2010)

Title	Total Admissions	Top Country	% in One Country	Admission in U.S.
Chicken Run, 2000 (US/UK)	16,267,144	GB	42	19,424,466
Moi, moche et méchant (Despicable Me), 2010 (France/US)	15,399,746	GB	22	31,838,187
Wallace and Gromit: The Curse of the Were-rabbit, 2005 (UK/US)	13,977,428	GB	49	8,747,043
Flushed Away, 2006 (UK/US)	8,713,193	GB	22	9,750,174
Arthur et les Minimoys (Arthur), 2006 (France)	8,710,888	FR	47	2,199,529
Planet 51, 2009 (Spain/UK/US)	5,508,711	ES	34	5,628,865
Valiant, 2004 (UK/US)	4,758,321	GB	38	3,038,706
The Corpse Bride, 2005 (UK/US)	4,724,666	FR	28	8,324,354
Arthur et la Vengeance de Maltazard (Arthur and the Great Adventure), 2009 (France)	4,603,079	FR	73	
Asterix et les Vikings (Asterix and the Vikings), 2006 (Denmark, France)	3,633,972	FR	38	
Les Aventures de Samy (A Turtle's Tale: Sammy's Adventures), 2010 (Belgium/US)	3,610,045	FR	36	
Der Kleine Eisbär (The Little Polar Bear), 2001 (Germany)	3,483,045	DE	79	
Arthur et la Guerre des deux Mondes (Arthur and the War of Two Worlds), 2001 (France)	3,322,868	FR	92	
Lissi und der Wilde Kaiser, 2007 (Germany)	3,112,550	DE	73	
The Tale of Despereaux, 2008 (UK, US)	2,981,035	ES	17	7,001,841
Niko – Lentäjän poika (Niko – The Way to the Stars), 2008 (Denmark/Finland/Germany)	2,775,793	FR	27	
Pollux – Le Manège Enchanté (Sprung! The Magic Roundabout), 2005 (France/UK)	2,596,770	GB	49	1,157,090
Hjælp, jeg er en fisk (Help! I'm a Fish), 2000 (Denmark/Germany/Ireland)	2,484,268	DE	30	
Hui Buh – Das Schlossgespenst (Hui Buh: The Castle Ghost), 2006 (Germany)	2,348,574	DE	86	
Persepolis, 2007 (France)	2,337,733	FR	56	591,321
Kirikou et les Bêtes sauvages (Kirikou and the wild beasts), 2005 (France)	2,299,473	FR	84	
Winx il film – Il Segreto del Regno Perduto (The Winx movie – Secret of the Lost Kingdom), 2007 (Italy)	2,214,733	IT	38	
Peterson och Findus – kattenauten (Peterson and Findus 2), 2000 (Germany)	2,201,942	DE	83	
Der Kleine Eisbär 2: Die Geheimnisvolle Insel (The Little Polar Bear 2), 2005 (Germany)	2,080,578	DE	68	
Konferenz der Tiere (Animals United), 2010 (Germany)	1,947,578	DE	72	
Azur et Asmar (Azur & Asmar: The Princes' Quest), 2006 (Belgium/US)	1,919,032	FR	82	
Lauras Stern (Laura's Star), 2004 (Bulgaria/Germany)	1,873,297	DE	72	
Fly me to the Moon, 2006 (Belgium/US)	1,839,905	PL	34	1,951,423
Urmel aus dem Eis, 2006 (Germany/Switzerland)	1,532,927	DE	44	
Felix il Coniglietto Giramondo/Felix – Ein Hase Auf Weltreise, 2005 (Germany/Italy)	1,525,112	DE	79	
Happily N'ever After, 2007 (Canada/Germany/UK)	1,471,277	ES	23	2,265,900
Les Triplettes de Belleville (Belleville Rendez-vous), 2003 (France)	1,467,483	FR	59	1,133,622
La Prophétie des Grenouilles (Raining Cats and Frogs), 2003 (France)	1,283,941	FR	81	
Den grimme ælling og mid (Ugly Ducking and Me), 2006 (Denmark/France/Ireland)	1,220,648	FR	29	
Werner – Gekotz wird spatter, 2003 (Germany)	1,196,674	DE	88	
Chasseurs de Dragons (Dragon Hunters), 2008 (France/Germany)	1,131,408	FR	51	
Prinzessin Lillifee, 2009 (Germany)	1,085,159	DR	83	
Peterson och Findus: Tomtemaskinen (Peterson and Findus 3), 2005 (Germany/Sweden)	1,062,165	DE	43	
Peterson och Findus – glömligheter (Peterson & Findus 4 Forget-Abilities), 2009 (Denmark/Germany/Sweden)	1,062,165	DE	43	
Waltz with Bashir, 2008 (France/Germany/Israel)	1,050,699	FR	44	253,457
Urmel voll in Fahrt (Impy's Wonderland), 2008 (Germany)	1,044,392	DE	40	
El Bosque Animado (The Living Forest), 2001 (Spain)	968,530	ES	52	
Perez: El Ratoncito de los Sueños (Perez the Tooth Mouse), 2006 (Argentina/Spain)	963,216	ES	72	
Pérez, El Ratoncito De Tus Sueños 2 (Perez the Hairy Tooth Fairy 2), 2008 (Argentina/Spain)	963,216	ES	72	
Igor, 2008 (France/US)	910,415	GB	81	2,708,527
Disco Ormene (Sunshine Barry & the Disco Worms), 2008 (Denmark)	898,306	PL	68	
Jester Till/Till Eulenspiegel, 2003 (Belgium/Germany/UK)	872,465	DE	86	
Die Drei Räuber (The Three Robbers), 2007 (Germany)	823,271	FR	65	
Thomas and the Magic Railroad, 2000 (UK/US)	821,683	GB	73	2,892,969

Data compiled from Lumiere Database of the European-Visual Observatory  
<http://lumiere.obs.coe.int> accessed September 30, 2011.



The main issue separating European animation from successful American films is the much smaller budgets spent for European productions. High-end animated films in the U.S spend over \$100 million on production and a similar amount on marketing. The average budget of European co-productions sits around 5-8 million Euros (Cartoon estimates that 156 films have been financed after presentation at Cartoon Movie with a total budget of 1.2 Billion Euros, or 7.7 million per film). A handful of films have exceeded this budget, creeping up to the 15 or 20 million Euro range. But it has proven difficult to break-even in European markets with budgets of this size. In fact, a recent trend has been to use *smaller* budgets – in the 2 to 3 million Euro range-- to make carefully focused films with a clear artistic identity. While these smaller films cannot compete in terms of animation quality, or celebrity voice talent, they seek to create a distinctive look and feel that differentiates them from large-budget, ‘Hollywood’ productions. In all cases, European productions have been handicapped by the almost total absence of marketing budgets.

## **B.5 GOVERNMENT SUPPORT AND SUBSIDIES**

The problems faced by European feature animation are characteristic of the entire European film-industry. Although there is high variability in earning, – to the point where a common industry mantra is that ‘nobody knows’ what audiences will like – a film’s success is largely correlated to its budget (DE VANY 2004). Historically, the large American market has meant that producers were able to sink more money into their films, buying higher-quality inputs and creating more elaborate productions (BAKKER 2005). This has particularly been the case in animation, where Disney was able to create a style of high-quality, ‘life-like’ animation that was difficult to imitate on a lower budget. Faced with the choice of a top Disney film or a much simpler local product, audiences have almost always preferred the high-quality import (BRYMAN 1997). The development of a global distribution apparatus by the Hollywood majors has only exacerbated this situation; until recently, American production companies had a virtual monopoly when it came to providing the high-budget, blockbuster animation these majors excelled at marketing. In general, they were either produced in house (as with Disney) or by highly capitalized independent producers. Higher budgets effectively create a structural barrier between the kinds of productions that

Hollywood majors can fund and those that can be made in the rest of the World.

The European film and television industries, typically, have responded with a number of public support schemes for the media, and most animation produced in Europe for both film and television relies to some extent on the existence of these schemes.

Traditionally, the justification for these schemes has been found in cultural nationalism or the protection of the national language. Without public support, it is likely that few films would be produced in a language like Danish, which is only spoken by 5 million people. Similarly, the argument can be made that animation is a vehicle for teaching local culture to children and thus local production is worthy of public support. In recent decades, economic development arguments have increasingly been mobilized to justify state support with proponents arguing that subsidies will help build up local industry and attract ‘good’ jobs. When support schemes are motivated by industrial development considerations, the local character of the production becomes irrelevant as a funding criterion. In fact, subsidies, tax breaks and other support schemes have often been used to lure Hollywood studios that have little interest in ‘local products’ to move part of their production to Europe (MORAWITZ, et al. 2007).

The most advanced support system for film and television was developed in France starting in the 1980s, which accounts for the fact that France produces the bulk of animation produced in Europe. The French scheme rests on three pillars. The first is set-asides, requiring local-broadcasters to purchase 10 to 15 percent of their shows from local, independent productions. The second is a 5 percent tax on broadcaster revenues that is rechanneled directly into the industry in the form of subsidies for producers. The third are a series of tax-credits that are offered for certain kinds of production work. Since 1981, these three interventions have helped France build up Europe’s largest animation sector and become an important player globally. They have also been imitated or adapted in various forms by different countries and regions around Europe. In Germany, for example, the states organize support schemes – which accounts for the existence of significant animation industries in Hamburg, Berlin, and Munich. These schemes include gap financing and other forms of soft-money assistance as well as direct subsidies for labor done in Germany. So, for

example, a producer who agrees to spend €1.8 million producing animation in Hamburg may be eligible to receive €1 million Euros from the state towards the development of her project.

The use of subsidies has been an issue of considerable debate. There are those who believe that the same statist policies that Europe has devised to remedy this situation give the industry a culturally elitist and anti-popular orientation that damages its chances of ever developing a commercially viable industry. Critics of Europe's statist policy initiatives such as DALE (1997) and PUTNAM (2000) have argued that far from creating a more competitive industry, European policies have created a series of local subsidies for cinema industry that have made film production into a non-productive rent-seeking activity. According to this argument, since gaining these rents often requires the producer to please a small, self-serving cultural elite, such assistance has actually had the effect of stunting the emergence of a popular European cinema. Seen from the perspective of these critics, the fact that Europeans are making more animated films, but that these films fail at the box-office, is not a cause for hope but a symptom that animators have discovered how to play the 'subsidy game'.

Regardless, the importance of public financing and indirect support, such as broadcaster quotas, directly explains the geographic distribution of animation production around Europe. While many European co-productions involve interesting, creative collaborations, they are almost inevitably motivated by a search for territorially specific funding sources. Producers in France find co-producers in Belgium or Luxemburg to make up part of their budget. Danish producers look for Irish, German, or Norwegian partners. And so on. The result has been an extraordinary internationalization of the animation industry in Europe and a very heavy reliance on multi-studio, multi-location productions.

It is against this background of expanding production, but limited success in breaking into the upper-echelons of animation markets, that the cases presented in Chapters Two and Three of this dissertation should be evaluated.

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