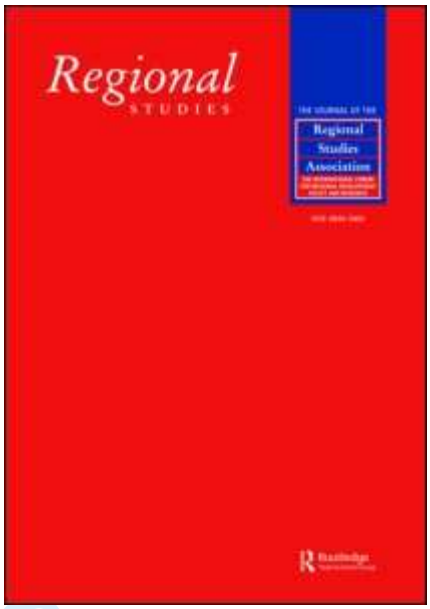
Distant neighbours: the new geography of animated film production in Europe

Cole, Alexander



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

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 institutional strategies to help firms generate relational proximity and create a more supportive ecology are discussed.

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

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.[1] 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. I argue 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 feed-back 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, ambiguity of productive outcomes, and urgency in production schedules, arguing that these make spatial proximity 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 my investigation

of the animation industry, particularly its European variant, I have 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 we understand 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 critically examine 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

studies 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 up by new organizing strategies. In addition, to learn about the industry I have also relied heavily on a vibrant secondary literature, particularly the insightful articles and interviews that are available in *Animation World Magazin*e and other publications written by and for the world of independent animators, and have attended several 'masters courses' such as the Cartoon Feature and Cartoon Future that aim to educate and inform people in the field, as well as conferences such as the Siggraph (in Los Angeles) and ones more narrowly focused on European animation, particularly the Cartoon Forum. These courses and conferences have provided an occasion for innumerable informal conversations, which mostly reinforced but occasionally gave me reason to question the information gained from interviewees. Finally, Tim Westcott of *Screen Digest* has done the most comprehensive surveys of European animation and I have relied heavily on his research.

The paper begins with a literature review that sets out what I believe 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. In the conclusion I 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.

The geography of cultural production

This study seeks to add to a bourgeoning 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[2]-- 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 presented by Michael Storper and Susan Christopherson (CHRISTOPHERSON AND STORPER 1986; STORPER AND CHRISTOPHERSON 1987; STORPER 1989). Their work, which was part of a broader research program on the geographical implications of flexible specialization, focused on how, from the 1950's onward, the vertically 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 re-affirmed these findings. In numerous case studies and more general theoretical reflections, SCOTT (1997; 1999; 2000) shows how the spatial processes identified by Christopherson and Storper are common to a number of 'cultural industries'. Grabher's work on the London advertising industry suggests that much the same is true for creative industries more generally (GRABHER 2002a; 2002b). 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 & 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 complimentary 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 consciously search for it. Borrowing a key idea from the literature on situated learning (LAVE & 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 & ROBBINS (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 & 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* strong local processes of imitation, adaptation, learning and by strong connections to non-regional knowledge sources. NACHUM & KEEBLE (2002) have used the Soho (London) media cluster to argue "Why Being Local Just Isn't Enough." BATHELT, MALMBURG & MASKELL (2004) 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 & 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, access to specialized skills, and knowledge spillovers that are not localized.

It would seem that this outcome is particularly likely for less-favoured regional economies for the simple region that exogenous resources are likely to be of higher quality than anything that the region can generate endogenously. Coe's work on the Vancouver film industry has described just such a situation (COE 2000; 2001). Vancouver's film and TV 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 promotion schemes, 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, my claim 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 & RENDANCE'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[3]. 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.

Europe's animation industry: rapid growth and structural weakness.

Although European animation has undergone tremendous growth during the last fifteen 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 which 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 from 1926 to 1977, in seven years from 1997 to 2003, 81 features were released.[4] In terms of numbers of films produced, Europe now exceeds both the United States and Japan.

Insert Table 1 here.

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. 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* or *Shrek*, 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*[5], which was distributed by DreamWorks, Europe's animated films have not been released in the United States.[6]

Insert tables 2 and 3 around here.

Again, only *Chicken Run*, which is something of an anomaly with its big studio backing, has attained the top 10 internationally in terms of box office releases. This alliance, between European creative talent (working in Europe)[7] 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. The other film to break into the American market was the art-house release, "Les Triplets of Belleville".

Insert Table 4 around here.

European share of its *own* animation box-office since 1999 has fluctuated from just 3.6 percent in 2002 (a year when *Finding Nemo* and *Shrek* combined to dominate the box-office) to a high of 19.4 percent 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 percent of box office receipts and 70 percent of television fictions in Europe come from U.S. 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 U.S 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 manoeuvring of firms attempting to their productions from an over-crowded TV-animation market.

The accumulation of resources and competences in other markets is particularly important for my account because it helps explain the dispersed geography of the European animation industry. Through the 1980's, 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, 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 industry.

Beginning in the late 1980's, 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. So, instead of investing in European productions, distributors tended to buy cheap, established programs from American 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 has been the Cartoon Media program'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 signalled 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 and the Sorceress,* 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 filmmakers, 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.

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 & 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.[8] Drawing on notions from time-geography developed by THRIFT (1977) and PRED (1981), NORCLIFFE & RENDANCE (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 at 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. 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, BATHELT & MALMBERG (2004), 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."[9] 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 and 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 that 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 (AMIN & COHENDET 1999; SAXENIAN & SHU 2001; COE & BRUNELL 2003). 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 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.

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, ruffled feathers smoothed over, and feasible solutions easily 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.[10] 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 that the producers are aiming for. 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 meticulously prepare a pre-production package 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.

Specifications are embodied in the animation in a number of boundary objects (STAR & GRIESEMER 1989), documents and artifacts 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 artifacts 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. Co-ordination 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. What has changed with new computing and communications technologies also is that these technologies make it possible to circulate the artifacts 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 data-base 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.[11] Thus the greater ease of circulating artifacts, particularly those artifacts that play a central role in defining and coordinating the tasks of different labourers compliments and extends the well known features of communication technologies such as email and video conferencing in allowing people to communicate across time and space.[12]

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 air-travel. 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 outsource. While outsourcing began in the 1950's 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.

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.[13] 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 and talent 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 (see ATKINSON 1984 and KALLEBERG 2001 for a discussion of these concepts). 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 animation firm, 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 makes 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.

Discussion and Conclusion:

In contrast to a large literature that has sought to explain the tendency of cultural industries to cluster in tight agglomerations, this article 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 agglomeration has 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 to either leave the industry or find employment elsewhere.

In elaborating a theory of geographical industrialization, STORPER & 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."[14] Europe's film 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. This 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.[15] 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 article, 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 my 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 U.S. that have budgets up to ten times their size. To the extent that larger budgets translate into better quality, audiences will prefer to see U.S. productions, except when the 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-productions 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 these studios may not always be part of a larger agglomeration. To take the later 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 either occur through the development of European majors, or through the assimilation of Europe's elite animation studios into the orbit of the Hollywood majors. The current five- film agreement between Aardman, the production studio for the films "Chicken Run" and "Wallace and Gromit in the Curse of the Were-Rabbit" and the American distributor, DreamWorks (recently bought by Paramount) is an example of the latter. With larger budgets we are 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 productions 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 U.S. 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.

Bibliography:

Amin, A. and P. Cohendet (1999). "Learning and adaptation in decentralised business networks." Environment and Planning D: Society and Space **17**: 87-104.

Amin, A. and N. Thrift (1992). "Neo-Marshallian nodes in global networks." International Journal of Urban and Regional Research **16**: 571-587.

Aoyama, Y. and H. Izushi (2002). "Hardware gimmick or cultural innovation? Technological, cultural, and socia foundations of the Japanese Video Game Industry." Research Policy **32**(3): 423-444.

Askoy, A. and K. Robins (1992). "Hollywood for the 21st century: global competition for critical mass in image markets." Cambridge Journal of Economics **16**: 1-22.

Atkinson, J. (1984). "Manpower Strategies for Flexible Organizations." Personnel Management **16**: 28-31.

Baker, E., J. Gierland, et al. (1999). "Media Production: Towards Creative Collaboration Using Communications Networks." Computer Supported Cooperative Work **8**: 303-332.

Bathelt, H., A. Malmberg, et al. (2004). "Clusters and Knowledge: local buzz, global pipelines and the process of knowledge creation." Progress in Human Geography **28**: 31-56.

Boschma, R. A. (2005). "Proximity and Innovation: A Critical Assessment." Regional Studies **39**(1): 61-74.

Caves, R. E. (2000). Creative industries. Contracts between art and commerce. Cambridge, Mass, Harvard University Press.

Christopherson, S. (2003). "Project Work in Context: Regulatory Change and the New Geography of Media." Environment and Planning A: Society and Space **34**(11): 2003-2015.

Christopherson, S. and M. Storper (1986). "The city as studio; the world as back lot: the impact of vertical disintegration on the location of the motion picture industry." Environment and Planning D: Society and Space **4**: 305-20.

Coe, N. (2000). "The View from out West: embeddedness, inter-personal relations and the development of an indigenous film industry in Vancouver." Geoforum **31**: 391-407.

Coe, N. (2001). "A Hybrid Agglomeration? The Development of a Satellite-Marshallian Industrial District in Vancouver's Film Industry." Urban Studies **38**(10): 1753-1775.

Coe, N. and T. Brunell (2003). "'Spatializing' knowledge communities: towards a conceptutalization of transnational innovation networks." Global Networks **3**(4): 437-456.

Crafton, D. (1993). Before Mickey: The Animated Film 1898-1928. Cambridge, Mass

London, England, The MIT Press.

Dale, M. (1997). The Movie Game. London, Cassell.

Faulkner, R. R. (1983). Music on Demand: Composers and Careers in the Hollywood Film Industry. New Brunswick, New Jersey, Transaction Books.

Grabher, G. (1993). The weakness of strong ties. The lock-in of regional development in the Ruhr area. The Embedded Firm. On the socioeconomics of industrial networks. G. Grabher. London and New York, Routledge.

Grabher, G. (2002A). "Cool Projects, Boring Institutions: Temporary Collaboration in Social Context." Regional Studies **36**(3): 205-214.

Grabher, G. (2002B). "Feeble sector, robust practice: project organizing in the new media." Environment and Planning A: Theme Issue **34**(11): 1911-1926.

Hesmodnhalgh, D. (2002). The Cultural Industries. London, Sage Publishers.

Kalleberg, A. L. (2001). "Organizing Flexibility: The Flexible Firm in a New Century." British Journal of Industrial Relations **39**(4): 479-504.

Kenyon, H. (2001). A Look at Europe's Cartoon Forum with John Bullivant. Animation World Magazine.

Kratke, S. (2003). "Global Media Cities in a World-wide Urban Network." European Planning Studies **11**(6): 605-628.

Kristensen, P.H. (1994). "Strategies in Volatile World." Economy and Society. **23** (3): 305-334.

Langlois, R. (2002). "Modularity in technology and organization." Journal of Economic Behavior and Organization **49**: 19-37.

Lave, J. and E. Wenger (1991). Situated Learning: Legitimate Peripheral Participation. Cambridge, Cambridge University Press

Lent, J. A. (2001). Overseas animation production in Asia. Animation in Asia and the Pacific. J. A. Lent. London, John Libbey Publishing.

Lorenzen, M. and L. Frederiksen (2005). "The management of projects and product experimentation: examples from the music industry." European Management Review **2**: 198-211.

Marcus, C. (2005). Future of Creative Industries: Implications for Research Policy, European Commission.

Marshall, A. (1890). Principles of Economics. Toronto, MacMillan and Company Limited.

Maskell, P., H. Bathelt, et al. (2004). "Temporary Clusters and Knowledge Creation: The Effects of International Trade Fairs, Conventions and Other Professional Gatherings." SPACES **2004**(04).

Mathews, J. (2002). Dragon Multinational. New York, Oxford University Press.

Moins, P. (2003). Panorama of European Animated Feature Film. Animated World Magazine.

Nachum, L. and D. Keeble (2002). "Why Being Local Just Isn't Enough." Business Strategy Review **13**(1): 37-42.

Norcliffe, G. and O. Rendace (2003). "New geographies of comic book production in North America: the new artisan, distancing, and the periodic social economy." Economic Geography **79**(3): 241.

Phelps, N. A. (2004). "Clusters, Dispersion and the Spaces in Between: For an Economic Geography of the Banal." Urban Studies **41**(5/6): 971-989.

Pred, A., Ed. (1981). Space and Time in Geography: Essays dedicated to Throsten Hagerstrand. Lund, Sweden, CWK Gleerup.

Sabel, C. and J. Zeitlin (2004). "Neither Modularity nor Relational Contracting: Inter-Firm Collaboratin in the New Economy. A Critique of Langlois and Lamoreaux, Raff, and Temin." Enterprise and Society **5**(3).

Saxenian, A. and J.-Y. Hsu (2001). "The Silicon Valley-Hsinchu Connection: technical communities and industrial upgrading." Industrial and Corporate Change **10**(4): 893-920.

Scott, A. J. (1997). "The cultural economy of cities." International Journal of Urban and Regional Research **21**: 323-39.

Scott, A. J. (1999). "The cultural economy: geography and the creative field." Media, Culture and Society **21**: 807-817.

Scott, A. J. (2000). The cultural economy of cities -essays on the geography of image-producing industries. London, Sage Publications Ltd.

Scott, A. J. (2002). "A New Map of Hollywood: The Production and Distribution of American Motion Pictures." Regional Studies **36**(9): 957-975.

Shachtman, N. (2004). The Secret Life of Off-Duty Characters. The New York Times. New York.

Sito, T. (2004). Will There Still Be an Animation Business When I Graduate? Animation World Magazine.

Star, S. L. and J. R. Griesemer (1989). "Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39." Social Studies of Science **9**(3): 387-420.

Storper, M. (1989). "The transition to flexible specialisation in the US Film Industry: External economies, the division of labour and the crossing of industrial divides." Cambridge Journal of Economics **13**(2): 273-305.

Storper, M. and Christopherson, S. (1987). "Flexible specialisation and regional industrial agglomerations." Annals of the Association of American Geographers **77**: 104-17.

Storper, M. and R. Walker (1989). The Capitalist Imperative. Oxford, UK and Cambridge, USA, Blackwell.

Sturgeon, T. J. (2002). "Modular production networks: a new American model of industrial organization." Industrial and Corporate Change **11**(3): 451-496.

Thrift, N. (1977). "Time and theory in human geography." Progress in Human Geography **1**: 65-101.

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. Wharton-SMU Research Center of Singapore Management University, Singapore Management University.

Torre, A. and A. Rallet (2005). "Proximity and Localization." Regional Studies 39(1): 47-60.

Wescott, T. (2002). European Feature Animation. Brussels, Cartoon.

Wescott, T. (2004). Presentation at Cartoon Master 2004. Munich, German. October 21st, 2004.

Winder, C. and Z. Dowlatabadi (2001). Producing Animation. Amsterdam, Focal Press.

Table 1
New Animated Feature Film Releases in Europe

	1999	2000	2001	2002	2003
European	9	17	12	10	14
US	10	6	7	13	9
Japanese	4	2	4	5	3
other	0	0	0	1	1
total	23	25	23	29	27

source: Screen Digest

Table 2
TOP 10 ANIMATED FILMS IN EUROPE

		year of release in Europe	admissions in Europe	admissions USA
Finding Nemo	USA	2003	37.934	56.337
Tarzan	USA	1999	31.285	33.643
Toy Story 2	USA	2001	25.555	47.840
Shrek	USA	2001	24.296	49.660
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
Dinosour	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

Table 3
TOP 10 EUROPEAN ANIMATED FILMS 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 Gabianella e il Gatto	IT	1998	1.873	0
Kirikou et la Sorciere	FR/BE/LU	1998	1.828	0
Pettson & Findus-- katten och gubbens ar	DE/SE	1999	1.685	0
Kapt'n Blaubar	DE	1999	1.430	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

Table 4

Market Shares of animated film admissions in Europe (1999-2003)

	1999	2000	2001	2002	2003
European	10,1	19,4	13,9	3,6	9
US	89,7	64	73,1	93,9	87,7
Japanese	0,3	16,6	12,9	2,5	3,3

source: Screen Digest

ENDNOTES

[1] (NORCLIFFE & RENDANCE 2003 and COE 2000, 2001) are notable exceptions.

[2] 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 emphasises the role of creativity in the productive process), 'entertainment industries' (see HESMONDALGH 2002), or 'content industries' (a definition that points towards the markets that they compete on). 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 2005).

[3] Both (TSCHANG 2005) and (AYOMA & IZUSHI 2002) elaborate the thesis that the national cultural milieu is the most important locational factor for the creators of culture.

[4] Facts and figures are taken from "European Feature Animation", a report written for Cartoon Media by Tim Wescott (2002), Tim Wescott's presentation at the 2004 Cartoon Feature in Munich, Germany, and an excellent article in Animation World Magazine by Philippe Moins (2003).

[5] Since the survey was done, Aardman has also released the hugely popular "Wallace and Gromit Movie" while London-based Vanguard Animation produced "Valiant" for relsease by Disney.

[6] Recently a couple of European features have broken into the U.S. market, albeit with very small-scale releases.

[7] It should be noted that there is a lot of European talent working in the U.S. What is different about Chicken Run is that it was made in Europe (Bristol, England) by a European company (Aardman).

[8] (BOGGS 2005) 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.

[9] John Bullivant, cited in Animated World Magazine (KENYON 2001).

[10] 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. (WINDER & DOWLATABADI 2003) also offer an excellent description of the production process.

[11] See (Shachtman 2004) for an account of how the Toronto based animation company DKP is using high-powered mirrored servers and databases.

[12] 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)

[13] FAULKNER's (1982) work on Hollywood studio composers is the classic reference on the accumulation of reputation in free-lance markets.

[14] Ibid., p 71

[15] In *Dragon Multinationals*, MATHEWS (2003) explores how multinationals from semi-peripheral countries such as the Taiwanese computer giant Acer have used such a strategy to quickly build up their competitive position in global markets.