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Media Clusters: Local Agglomeration in an Industry Developing Networked Virtual Clusters



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FOREWORD

This working paper explores the development and nature of media clusters. It is part of a coordinated project being undertaken by an international research team organized by the Media Management and Transformation Centre, Jönköping International Business School, Jönköping University, Sweden.

Media clusters promote and improve production of content by connecting producers through private and public partnerships and networks. In the past decades nations and regional development authorities and other funders have invested in the creation of media clusters to improve productive capabilities and spur economic development, whereas others have developed more spontaneously through formal and informal networks.

MMTC has organized its project to explore the effectiveness of such clusters in the media cluster and has incorporated researchers from economic geography and economics, public development and industrial policy, and entrepreneurship in the project. Researchers are analyzing the organization of clusters, comparing various types of clusters, investigating how intensity and density of cluster activity and participants affect outcomes, exploring public policies affecting clusters and their development, and determining how communication technologies are used to integrate, coordinate, and exchange work among cluster participants.

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ABSTRACT

This paper explores the nature and development of media clusters, reviewing the conceptual foundations of clusters and their appearance in media. It identifies three archetypical clusters—spontaneous, planned, and real estate driven—and shows that they are typically operated as managed, cooperative, or unmanaged organizations. A significant difference between traditional industrial clusters and media clusters is observed because of the differing requirements of non-physical production of the underlying media content. This difference, combined with digital production and improved communications systems, has allowed media firms to create networked virtual clusters in addition to more traditional agglomerations.

1. Introduction

In the past companies viewed other companies in their industry as adversaries to be kept at a distance and contact was to be avoided whenever possible. In that environment some companies withdrew to company towns, kept outsiders from their premises, and would not cooperate with competitors even when common interests were involved. At best they would engage each others as suppliers and subcontractors. Although intended to protect competitive advantages, this created a type of fortress mentality that hindered innovation, made responses to changing market conditions slower, and made it difficult to prepare personnel for skills required by new and emerging technologies and products.

Despite these uncooperative tendencies, geographically based clusters of competitors developed in industrial sectors because competitors located near requisite resources and locations where transportation and other necessary services were available. When trade and industry associations developed and took on roles such as providing professional training, supporting marketing through trade fairs and other activities, as well as representing industry interests, they helped promote cooperation among firms. During the 20th century, government authorities began recognizing benefits of working with industries to obtain public economic and employment benefits. Regional development authorities designed to nurture and develop local industries appeared and promoted new types of cooperation.

In recent decades increased understanding of the benefits of industry cooperation and industry-government-academic research center alliances have developed and this has been particularly important in developing non-industrial clusters in knowledge driven, high technology sectors such as biomedical and information technology (Kenny, 1986; Luger, 1991; Kenny, 2000; O'Mara, 2004). Early linkages of university and industry for innovation purposes began in the late 19th century, however it took another century before widespread cooperative research developed in which universities participated with an economic stake.

The deliberate creation of many clusters has been directly related to governmental science policies and to the creation of research parks to promoting university and industry cooperation and networks, as well as alliances among firms to pursue innovations in advanced science fields. Policy choices to promote and support cooperative research and development efforts have had significant impact on the outcomes of such clusters (Nelson, 1993; Lee, 1997; O'Mara, 2004). Some of the most successful efforts to create science parks joining public entities and private firms have occurred in the electronics, pharmaceuticals, and biotechnology industries.

Research has shown a wide variety of benefits of such cooperation. University and other publicly funded research have significant spillover and startup effects beneficial to universities, industries and local and national economies (Anselin, Vargas & Acs, 1997; Salter & Martin, 2001; Cohen, Nelsen, & Walsh, 2002; Geuna, Anselin, & Steinmueller, 2003). A consequence of research parks is that social networks diffuse expertise from academia to industry researchers and expertise spreads to new innovations sites in other locations (Kenney, 1986), thus multiplying the effects of investments.

Governmental enthusiasm for economic benefits and broader innovation advancements from science parks began to be transferred to media and cultural industries in the 1990s as advances in communication technology produced new distribution methods and media platforms. This was particularly true in locations where empty industrial buildings could be renovated and startup new media firms, as well as established firms, could be attracted to provide employment opportunities and concurrent contributions to local tax base. Authorities saw the creation of media clusters

from a cultural standpoint, recognizing that policy and technology changes created growing demands for content that could be partially supplied by increasing production of domestic content.

Thus public policies toward media clusters often promote them as a strategy for economic development that is designed to improve national and international competitiveness and innovativeness by creating exportable products and creating jobs. Policies may also be a strategy for cultural promotion designed to protect and promote national culture and identity through increased production of media products.

For the most part policies supporting media clusters tend to be urban rather than rural industrial development efforts. This occurs because information and communication technology and media personnel are urban oriented, because the technical infrastructures of media and ICT have better capabilities and capacity in urban areas, and because access to related research centers and educational institutions are better in urban areas than rural areas.

The development of clusters has economic, business, and social explanations. In the late 19th century Marshall argued economies are created by the agglomeration of skilled labor and companies creating similar products in a geographic area (1961). The proximity and interactions between firms ultimately help reduce transaction costs. A century later renewed interest in clusters led to the recognition of the importance of industrial districts to regional development (Becattini, 1989) and in creating competitive advantages that make the cluster and member firms more successful (Porter, 1998a and 1998b).

Because many of the benefits of clusters results from interactions of members, their organization and operations more recently have attracted interest from sociologists and organizational behavior scholars. Social network theory has been applied to clusters positing that interactions between individuals and firms create bonds and trust that promote internal and external organizational collaboration and business cooperation (Forsgren, 1992; Kilduff & Tsai, 2003; Wilson & Popp, 2003). These linkages can be observed and analyzed (Wasserman & Faust, 1994; Scott, 2000). Network theory is particularly significant because of the emergence of new organizational and business arrangements characterized by integrated business networks and competition at the local, national, and international levels that promote interdependence rather than independence of firms.

2. The Nature of Media Clusters

A cluster is traditionally conceived as concentration of industry firms in a locality at the provincial/regional level or at a lower level such as a city or a municipal district. Members of clusters interact for mutual advantage and benefit—although the degree of interaction among individual members may vary widely. Some members may also have significant interactions with players outside the cluster or in other locations. This location-based view developed out of the original physical proximity needs of industrial firms.

Media clusters are a specialized form of clusters designed to produce mediated *content*, such as motion pictures, television programs/videos, broadcasts, audio recordings, books, newspapers, magazines, games, photography and designs, websites, and mobile content. Media clusters may have significant relations with other industries and clusters such as cultural industries (music and theatrical performance; museums and heritage sites; festivals), sports and entertainment activities such as amusement parks, and information and communication technologies (computers, software, telecommunications), and hardware manufactures (television and radio receivers, set-top boxes, game consoles, DVD players, etc).

There are significant differences between media clusters and many other types of clusters because media firms primarily create non-physical goods and services. They do not obtain the same benefits that industries congregating near raw resources such as timber or iron ore may receive, that firms locating near producers of needed supplies such as steel manufacturers or electrical components seek, or that companies situated transportation hubs such as rail yards, river and ocean ports, or major motorway interchanges engender.

Media firms' benefits from clusters result from access to specialized services and labor and location within a creative environment. Most media firms—particularly those in film, television, video, web, and game production—are small and mid-sized enterprises and much of their work is project driven. Consequently, the firms' resource requirements fluctuate significantly on a project basis. Most media companies maintain limited workforces of regularly employed persons but then acquire specialized contract labor when projects require workforce expansion; they rent facilities such as audio-visual and recording studios and editing suites needed in individual productions; they typically lease specialized production equipment, costumes, and vehicles for specific projects, and they temporarily engage a variety of specialized services needed to support production.

These practices provide the companies with flexibility to expand and contract depending upon their production orders; however, this adaptability is accompanied by the necessity of readily available external resources on demand. As a result, firms serving production companies tend to locate nearby and to maintain contact with the other firms, even between productions.

Other media engaged in ongoing production also rely upon significant contract labor and services to supplement internal staff and functions. Television channels and radio stations acquire programming from independent producers. Book publishers rely on contract writers, editors, printers and binders, and distribution services. Magazine publishers engage independent writers, photographers, and printing and distribution firms. Newspapers obtain news and feature services from independent companies and individuals. These interactions require ongoing contact and coordination and often lead to service firms and individuals locating near those who require their services. Such interactions and processes historically produced self-generating media clusters: Book publishing in Leipzig, London, and New York; motion pictures in Hollywood, London, Babelsberg, and Bombay; and newspaper publishing on Fleet Street and in midtown New York.

Globalization of media industries began early in the 20th century and grew dramatically in the last quarter of the century as a result of economic, social, and technical developments. Simultaneously local production expanded and domestic and regional centers of content creation developed throughout the world. An important aspect of these developments was that common production technologies and practices were employed rather than unique products based on technologies proprietary to media firms. Consequently, production skills and practices employed in one location could also be employed by media in another location and content could be exported—within the boundaries permitted by demand, technology, and policy considerations.

Initially, the commonalities led to the movement of highly talented media production personnel among European and North American producers, particularly directors, cinematographers, and performers. The development of digital technologies and better global communication systems around the millennium meshed with non-physical production characteristics of contemporary media to allow physically diffused individuals to participate in various aspects of a single production. A film producer in Los Angeles could oversee on-location production in Brazil, special effects could be added by a firm in Sydney, editing could be done in London, and music could be added in Majorca. Typesetting for a book publisher in Berlin may be done in Bangalore and mastering of an audio recording made in a studio in Milan may be done in New York.

These production developments are based on global professional networks and run counter to explanations of the typical forces and factors promoting local agglomerations. Similar types of domestic networks are found in nations with several production locations. Media firms are thus creating parallel networks of virtual clusters, a form of globally diffused clusters that do not rely upon the traditional agglomeration and the economic benefits of location, transaction cost savings, and availability of local services and labor. These virtual clusters produce a higher dependence on social networks than locality-based clusters. Virtual clusters can function because of social networks among participants in diffused physical clusters and add opportunities to benefits produced by local clusters. Networked virtual clusters do not replace local media clusters, but allow some content producers to operate simultaneously in both.

Given the traditional definitions and elements of clusters found in economics, economic geography, and public administration, some may argue that the virtual nature of these networks precludes them from being clusters. Because of the peculiar nature of media production, however, they provide participants most of the same benefits and greater benefits than many receive in local physical agglomerations.

3. Types and Characteristics of Clusters

If one observes clusters closely, three primary types of clusters are identifiable: spontaneous clusters, planned clusters, and real estate-driven clusters.

Spontaneous clusters are driven by the needs of large companies within the clusters and the interests of entrepreneurs who found enterprises to serve larger members of the clusters. They are generated without a plan, developing organically, and evolving to serve the needs of members. They are not organized or directed by an administrative organization, but are guided by self interest and pragmatism.

Planned clusters are created and promoted by some authority, usually by a development agency or industry board, for the specific purpose of promoting industry development, employment, growth, and other economic policy interests. Public and/or private funds and efforts are specifically expended to obtain the benefits.

Real estate driven clusters are created primarily by private interests that acquire and development real estate and market it for particular uses. In the cases of media clusters, buildings in real estate driven clusters are typically constructed with the technical requirements of studios in mind and with extensive information and communication technology infrastructures.

Clusters can also be seen to differ in terms of their operational characteristics. Three broad patterns exist: managed cluster, cooperative clusters, and unmanaged clusters.

Managed clusters are overseen by professional managers who promote collaboration and exchange among members, represent the cluster to wider interests, sponsor seminars, conferences, and educational activities that support the cluster. The managerial staff is paid by an assessment on members of the cluster or by development authorities.

Cooperative clusters operate without a paid staff, but provide some collaborative activities drawing on resources within cluster members. In these cases there is often a board or association of cluster members. Because these are self-operating they are dependent upon the interest of members in joint activities and their willingness to invest resources.

Unmanaged clusters operated without paid or volunteer staff and without a structured organization that promotes collaborative activity.

Various media clusters are constructed based on the three archetypes and three operational characteristics. Hollywood, for example, is a spontaneous, unmanaged cluster, whereas Vancouver is a planned cluster operated in a cooperative manner with a variety of institutions and associations playing central roles. Dubai Media City is a managed, real estate-driven cluster designed primarily to attract existing firms to that location.

4. Variety, Challenges, and Development in Media Clusters

All clusters are thus not equal because they vary widely in intensity and density. Intensity relates to the strength of activity of the cluster itself. Some clusters are actually only listings of local companies in the fields whereas others are highly organized and managed clusters with regular activities, joint promotion and education, dedicated locations, and staffs; still others act more in a virtual, network form that may or may not limit intensity. Density involves the number of participants and the range of activities and services they represent. When more companies and persons are involved and accessible to other participants, the density of the cluster is higher.

Clusters create interdependence that can be conceptualized as traded interdependence in which direct transactions are made between firms for intermediate products and services or as untraded interdependence in which access to pools of labor, institutions such as universities and business associations, and training are available.

Clusters face a number of significant challenges. First, participation in clusters is voluntary and the degree of support and involvement among companies and organizations vary significantly. This occurs because the benefits of clusters are unequal to participants and significant coordination is necessary if it is to be more than a de facto cluster.

Media clusters are further challenged because they are spatially defined activities in an industry whose production is globalized by information and communication technologies but whose effect is to be local. Thus regional and national clusters' effects are limited if they are not integrated nationally and internationally. If global linkages are forged they provide opportunities for greater development and foreign income as has occurred due to Toronto's links to Hollywood making it a strong production site for U.S. TV and motion pictures. Similarly Australia and New Zealand have successfully marketed facilities, services, and locations to U.S. and European producers. Even Film City Trollhätten in Sweden has been successful in marketing to Danish and U.S. productions.

Established clusters sometimes have difficulties with innovation. When new products or services develop, media clusters tend to act in those fields based on earlier skills and knowledge. This can lead to developmental paths guided by activities of existing products and services, thus leaving clusters vulnerable to entry by disruptive innovators.

Contemporary changes in markets and business dynamics created by new technologies are affecting existing activities of media companies and providing new opportunities. These changes have led to the development of clusters in media and information and communication technologies that are based on new forms of organizing such as networks, alliances, and joint ventures. Such clusters are increasingly bringing together publishers, audio-visual producers, Internet and mobile media players.

Media industries are relatively new subjects of industrial development efforts, but they are receiving significant attention of regional and national development authorities worldwide. They are a form of specialized spatial clustering of companies used to help promote and improve production of content and related software and services by connecting producers through private and public partnerships and networks.

Media clusters that include specialized firms can spread costs for services across producers, making available specialized facilities and equipment—such as studios, cameras, recording equipment, lighting, costumes—to all producers at rates benefiting from the economies of scale

of joint usage. Clusters also ease access to personnel with specialized skills and knowledge, such as directors, composers, lighting technicians, stunt performers, sound editors, web and game designers etc.

Clusters are particularly important when new or developing industries, products, and services are involved because they help create a pool of skilled personnel that did not previously exist. This is often accomplished by cooperating with universities and technical schools to develop education and skills of young people for the field. Clusters also attend to the further development of the labor pool by improving dissemination of knowledge and skills among participants in the cluster. This takes place by facilitating social and cultural interaction and creating joint learning activities.

Media clusters take a variety of forms worldwide with some focusing on specific industries and other operating in broader media and communication fields. Some of the better known media clusters worldwide include the Australian/New Zealand Media Cluster(s), the Bollywood/Bangalore Media Clusters, Dubai Media City, Film City Trollhättan, Cologne Media Cluster, Leipzig Media Cluster, Los Angeles Media Cluster, Media Cluster London, Munich Film Cluster, Media Park at Hilversum, The Netherlands, and the Toronto Media Cluster.

Four major impetuses for the development of media clusters emerged in recent decades: 1) increasing contribution of media and related industries to national economies, 2) expansion of television program production to meet demand of rising number of broadcast and cable/satellite channels, 3) creation of new media through developments in information and communication technology (ICT); 4) acceptance by policymakers that ICT and new media are economic drivers of the information society.

Recognition of the economic role of media and related industries came in one of the key provisions of the European Commission's Television without Frontiers Directive. This act promoted the creation of an independent production sector to help develop a market for European content (European Commission, 1989). Indeed, media related activities contribute about 3.5 percent of the total value added and 2 percent of total employment in Europe (European Commission, 2003).

The need to expand production of audio-visual materials has been spurred by the tripling of channels available in Europe and by the European Commission's efforts to increase media production and reduce dependence on non-European content.

Developments in digital terrestrial television, online content provision, and mobile media have created additional demand, new markets, and more opportunities for the diffusion of media content.

Finally, policymakers at the European level and in developed nations worldwide have recognized information and communication technologies and content as one contemporary drivers of economic growth and have set out a variety of policies—such as those in the Lisbon Agenda—to encourage and support development of those industries. One of the means that many nations have employed is the development of media clusters.

The significant efforts placed by governmental agencies in the creation of media and media-related clusters would seem to contradict Michael Porter's view that "most clusters form independently of government action" (1998) and Cornford and Robins' observation that in terms of audiovisual production the "forces shaping the industry remain beyond the control and influence of local actors" (1992, p. 433). Significant attention and funding have been provided to

clusters from national and local governments. In other locations, where direct funding has been lower or absent, government agencies have nevertheless promoted the idea that a media cluster exists by focusing attention on existing firms in their geographic areas.

5. Identity and Effectiveness of Media Clusters: A Literature Review

The term “media cluster” is used loosely in practice and in literature. The characteristics of the participants in media clusters vary and these traits affect the scope and identity of clusters and their effectiveness. At the broadest level four distinct compositions are evident: audiovisual clusters, new media clusters, and creative industry clusters. Print media clusters involve publishing houses for newspapers, magazines, and books; Audiovisual clusters involve firms based in motion picture, film, and video production; new media clusters involve firms based in creation of software and hardware employing Internet, mobile communications, and other digital communications; and creative industry clusters involve the range of media and new media as well as performing and visual artists of various kinds.

Significant print media clusters exist in London and New York, important audio-visual clusters are found in cities such as Hollywood, Mumbai (Bombay), and Sydney, new media clusters in locations such as Silicon Valley and Dublin, and creative industry clusters in places such Berlin, London, Milan, and New York.

Differences can be identified within these broad categories because clusters focused on similar activities such as audiovisual production differ widely in the functional profiles and core competences (Kräke, 2002). Goldstein and O'Regan (2003) argue that film and television clusters actually take three forms: production precinct, cinema city, and media city. The production precinct is oriented toward studio and lot space, the cinema city includes both production and post production facilities and services, and the media city is much broader by including television production and post production, information and communication technology firms, and other media and entertainment producers.

Differences between clusters based on dissimilar media are also apparent. Bathelt and Boggs (2003) identified differences between the book publishing cluster that once was active in Leipzig and its current media city cluster based on TV/film production and digital media.

A tendency for media clustering in large metropolitan areas has been observed (Jacobs, 1969; Scott, 2001) because they provide access to broader cultural organizations and labor pools.

Hollywood has long been seen as the classic media cluster because of its highly developed agglomeration of motion picture producers, support service, and labor. In its initial form it was based on vertically integrated studios, but during the past half century it has progressively disintegrated and now relies on a flexible specialization production system involving both studios and independent producers, serviced by specialized contractors (Christopherson & Storper, 1986). Its size, complexity, and longevity make it the quintessential media cluster today.

Storper and Christopherson (1987) argue that “The vertical disintegration that lies behind flexible specialization creates powerful agglomeration tendencies at a regional level” (p. 115). In the case of U.S. motion pictures, specialist firms locate around Hollywood because by “locating in the center of the motion picture industry, they increase the opportunity to obtain contracts. The transactions (“deals”) associated with this process often require face-to-face contact.” (p. 112). In terms of geography, however, the industry is not merely located in Hollywood but spread throughout the Los Angeles County with a few production companies located in adjacent Ventura and Orange counties (Scott, 2002).

Although Hollywood is where specialist firms and employees are located, actual filming often takes place in other locations (Storper & Christopherson, 1987). These satellite locations are important in reducing costs of production and providing realistic locations for productions (Scott, 2002)

Vancouver, British Columbia, became an important offshore location for Hollywood television and film production in the 1990s. Its form is a hybrid industrial district satellite production center guided by state activities intended to develop a district in which large Hollywood firms work with small firms embedded in Vancouver (Coe, 2001). Efforts have been made to move the cluster beyond merely one supporting filming into one providing broader services, including post-production, and to develop it as a location for Canadian producers.

However, the development of regional media clusters does not automatically produce significant and lasting economic benefits. Turok (2003) argues that the economic impact of regional clusters is modest. Based on a study of film and television companies in Scotland, he argues that participants in the cluster there are dependent upon commissions from national broadcasters and producers with unequal market power and that the firms “do not tend to form stable trading relationships with other local enterprises, as in the industrial complex model. Localized networks and social interaction certainly exist, but they seem to revolve around friendships and acquaintances more than business or creative relationships” (p. 562-563).

For regional firms to be effective they must forge ongoing ties with major producers in other locations. In his study of Scottish video producers, Turok found that “it is important for indigenous firms to develop and maintain relationships with the London broadcasters and their main contractors not confine themselves to local collaboration” (2003: 562). The strength of relationships with global players is important in cultural industries, according to Vang and Chaminade (2007), who argue that the success of the Toronto film/TV cluster results from its ability to attract Hollywood productions to Toronto as a film location.

Personal relationships have always played central roles in creative industries and the networks of relationships are critical in the operations media clusters. Kaiser and Liecke (2007), for example, found that trust-based personal relationships were important to the stability of the Munich film cluster and were “very often built upon long-term acquaintances of individuals” (p. 398). Analyzing interfirm links in networks is one way of assessing the core competences and significance of players in clusters (Krätke, 2002).

The necessity of linking to wide global players was also found in a study of media firms operating in the London media cluster (Nachum & Keeble, 2003). Although situated in the primary location for domestic media, it emerged that firms need to balance both local and global relations to be successful. The need for relationships between localized sources of interaction and those residing at wider geographic areas, and to establish linkages at these different geographic scales in order for them to compete successfully, has been shown in a number of additional studies (Coe, 2001; Turok, 2003; Vang & Chaminade, 2007; Kaiser & Liecke, 2007)

Functional integration needs to be continual to produce significant results, Kaiser and Liecke argue in a study of the Munich feature film cluster. Despite a significant history of global interaction they found that the Munich cluster was “only marginally integrated into the global industry” (2007, p. 391) in the areas of production and distribution, but that it had a strong integration in terms of cinematic technologies— particularly camera and related equipment— and some integration through film financing funds.

The increase in television program production, necessary to support the increase in television and cable channels, has promoted the moving of some production from Hollywood to other media clusters (Scott, 2004). However, although this may help improve local production capabilities in the other clusters and create some competition, Hollywood will continue to dominate markets for entertainment products Scott concluded.

Forging global relationships, however, is not a guarantee of success for clusters, as Ward and O'Regan (2007) have shown in a study of the Gold Coast television production in Australia. Despite good contacts and contract work, major Hollywood producers are tending to keep high profile and high budget productions at home and outsourcing less desirable productions. They also found that the Gold Coast cluster is primarily serving production needs and not able creating much of its own value. "There has been little evidence, for the Gold Coast at least, that these locations have been able to generate intellectual property and story ideas, which would be essential elements in any 'competition'" with Hollywood, they concluded (p. 182).

Focusing on regional markets is apparently not enough to sustain firms in media clusters. Turok has shown that "to generate sustained growth...they need to gain more control over their creative products in order to secure more value from new and additional markets" (Turok, 2003: 562) and that regional firms cannot create regional growth through a endogenous activity.

Media clusters are typically created on a base of existing resources. Britton (2007) showed that the new media cluster in Toronto might have been novel, but was put together based on the skills and technology trajectories of the advertising, film, and computer industries that were already in place. This base made it possible for the cluster to spontaneously emerge without direct industrial assistance from governmental authorities. He found, however, that a particular limitation to the cluster was that "new media in Toronto does not have a coherent organizational voice" (p. 291), which may be a limiting factor to its ability to create and international brand.

Vang and Chaminade (2007) revealed the limitations to the dominant cluster models to explain the difficulties in developing indigenous cultural clusters. The inclusion of the global linkages is necessary to provide insight into the current development potentials and barriers.

Clusters are not permanent because their participants grow and wither and because the needs addressed by the clusters change over time. Development authorities then need to reconsider and rebundle local assets regularly to promote growth and that rebundling may involve clusters in new or formerly unimportant industries (Bathelt & Boggs, 2003). New clusters, however, may not be as dynamic or effective in promoting growth as previous clusters because of differences in their characteristics and differences in markets.

Firm size and production activities affect need to cluster. Britton and Legare (2005) found that new media enterprises tend to be very small firms, working on a project bases, with significant project-based labor needs. Through a study of new media firms in Toronto, they found that clustering facilitates access to skilled personnel as well as acquisition of additional projects and for such firms. Regional audiovisual development strategies in the UK began shifting in the 1980s away from promotion of small local firms toward attracting larger outside producers and from focusing on production to including broader functions such as finance and distribution because they provide more economic and employment stability (Cornfield & Robins, 1992).

Socioeconomic and demographic factors influence the effectiveness of media clusters because of their effects on the labor pool (Perrons, 2004) and affect learning and employment development (Perrons, 2004).

6. Summary

Considered as a whole, the literature on media clusters is relatively weak and for the most part is based on single case studies.

It is clear from the literature, however, that media clusters are being created across the globe and that all are striving for advantage. However, pragmatism leads us to conclude that all cannot produce equal competitive advantages and network strengths therefore they cannot be equally successful. Clearly comparative research needs to be undertaken to determine what factors promote greater success.

Self-generated media clusters tend to support the Marshallian model that agglomeration creates economic benefits and a skilled labor pool. However, existing research indicates that not only a local network, but broader national and international network effects are needed for success in media clusters. It would appear that physical agglomeration alone does not explain benefits in terms of costs and access to labor.

There is some indication that organization of clusters and facilitation of interactions within clusters improve network interactions, external marketing, and the overall effectiveness of a cluster.

Research shows that geographically separate clusters can serve central clusters, such as Hollywood or London, but the best ways for organizing and promoting such service are not clear. Studies have shown that firms in media clusters serve many functions beyond actual production of content, so the extent to which they can provide services and benefit from activities beyond the cluster need to be explored.

Finally, and perhaps most importantly, none of the research answers the most basic of all questions: Do firms in clusters have better performance than those outside of clusters and why? Does the type and organizational characteristic of media clusters influence performance? Does creating a media cluster create added economic benefits sought by development agencies that go beyond those created by individual firms? How many new firms are started inside and outside media clusters? How do mortality rates for those inside and outside differ? These are fertile areas for study.

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