Silicon Roundabout:
An agglomeration economy in East London

By
Jon Fransson
# Table of Contents

Introduction ................................................................................................................................. 4  
Aim of the paper ............................................................................................................................. 6  
Literature review ........................................................................................................................... 6  
  Industrial districts ......................................................................................................................... 7  
  Industrial clusters ......................................................................................................................... 11  
  Innovation systems ....................................................................................................................... 14  
Method ......................................................................................................................................... 17  
  Case Study .................................................................................................................................. 17  
  Sources ...................................................................................................................................... 18  
Silicon Roundabout, the development ......................................................................................... 20  
Tech City, the reinforcement & transformation .......................................................................... 27  
A conclusive discussion ............................................................................................................... 33  
  Organic growth without any key moment .................................................................................. 33  
  From cheap rents to social climate ............................................................................................. 34  
  Along comes the transformation ................................................................................................. 35  
Sources: ...................................................................................................................................... 38  
Figures: ....................................................................................................................................... 41
Introduction

Cities are in competitions with each other, and cities always need to strengthen their competitiveness for having the most attractive environment to attract investments to be able to keep developing. Universities, business parks and incubators are a part of the chase for a creative and innovative environment. This naturally raises the interest from policy-makers. The connection between the city and the global market is of an important matter (Lundquist & Olander 2007:8). During the last decade clusters have been more used concept in regional development amongst economists and politicians. Marshall wrote in his book Principle of Economics (1920) how specialization and agglomeration of a certain sector has a positive impact on economic growth on the local level. Because of the belief of causal-correlation between innovation and economic growth a great interest in cluster theory has emerged with it.

With a countless number of studies on the innovative agglomeration Silicon Valley in California and Route 128 in Boston I’ve decided to do my study in a rather new similar European phenomenon, Silicon Roundabout, an agglomeration economy in London which hasn’t had that much attention yet. During the last decade a spatial agglomeration of digital firms has been settled down in the area of East London. The development has occurred without the public sector intervening in an organic way very hands-off from the public sector. It has been developing under the radar of policy-makers in London for some time, it is not until 2010 the area of East London has been recognized as an economic growing area within the digital industry where the firms have a niche of new media technology. Now there is a great interest from the policy-makers to make sure the agglomeration in East London is developing in a catalyst way, being as competitive as possible to the ones you can find in the US and the rest of the world.

Policy-makers and planners all over the world have looked at the agglomeration in Silicon Valley and observed the fast growing region for a long time and got fascinated from it. Every government and city now wants to have their Silicon Valley, according to the UK government Silicon Roundabout is London’s opportunity. The UK Prime Minister made a speech in 2010 to strengthen the industry in London to be one of the most competitive clusters in the technology industry, the ‘digital capital of Europe’. He named it
Tech City, and with it the organisation Tech City Investment Organisation was created. All the sudden the organically developed agglomeration of very small SMEs in East London gets a public partner to support them and to collaborate with. But what are their priorities? And how will the character of the agglomeration get affected? What I’m trying to study in this paper is how the economic agglomeration in Silicon Roundabout can be understood and how can it be characterized before and after the governmental interest in the agglomeration. My study will focus on the public and private organisations and institutions, the entrepreneurs, and the social climate in the area.
Aim of the paper

The aim of the paper is to study the agglomeration Silicon Roundabout in the area of East London, and how this phenomenon can be understood. I will also study the transformation of the area, from an organic agglomeration of smaller businesses to a matter for the UK government. In the end of the paper I discuss how the agglomeration might get affected by the governmental intervening with the ambition to organize the agglomeration.

A) How can the emergence of the agglomeration of digital firms in Silicon Roundabout be understood?

B) How will the economic agglomeration of small businesses in Silicon Roundabout be transformed as a result of the government’s intervention?

Literature review

The competitive advantages in a global economy lie in the local context. Knowledge, relationships, motivation are things that distant competitors can’t rival with (Porter 1998:78). Amin (2002) argue that the local embeddedness matters, a production in a certain context has an influence on how innovative and productive a company becomes. The sharing of knowledge and mature learning from each other sets a framework for companies on how competitive they can be (Sheppard & Bames 2003:153). One should know that this might not only be on a matter of export, but also how open products and services might be for new markets to penetrate. It’s not only the internal resources that are important for a company but also the external. The internal resources overlap the external resources to create the competitiveness of a company. Thus you can expect that by establish your production closer to the region with specific unique conditions, created by the context, you will be influenced by the externalities in it. Different factors vary in importance for companies, for some the regional production context and advanced network of communication, for others more simple factors for
production is the case for settling down in a region (Lundquist 1996:17).

My task is to study Silicon Roundabout from three different agglomeration concepts. In this part of the paper I will present an overview for them and their different departures for spatial agglomeration. The concepts presented are Marshall’s (1980) *industrial district*, Porter’s (1990) *cluster theory*, and Lundvall’s (1992) *innovation system*. As many of the theories have several different elements presented to understand their specific concept of spatial agglomerations I’ve selectively picked one or two elements each to study for Silicon Roundabout.

**Industrial districts**

The concept industrial districts comes from the economist Alfred Marshall’s discovery in his study of the cutlery industry in Sheffield and various wool textile agglomerations in West Yorkshire, small industrial areas which seemed to compete and rival with the large-scale industries. The concentration of small enterprises in the same sector, the local society and system highlights an industrial district. His observations were presented in his book *The Principle of Economies* (1919). Marshall’s concept was later on rediscovered in the 1980s during the decline in the manufacturing belts by Piore & Sabel (1984). Their observations were mainly discovered in New York City’s Jew quarter’s ethnical ties and their garment industry and Third Italy’s small family businesses. Two regions which seemed to be more resilient to the economic shock that took place at the time. Political and religious views played the central role for cohesion and networking between firms to enhance the production (Piore & Sabel 1984:266). It was mainly observed in small-firms in the traditional industries such as the textile, shoe, and furniture business (Saxenian 2000:4). While many manufacturing belts faced a decline in their business these agglomerations of SMEs kept their competitiveness and continued to have economic growth (Henning et al. 2010:20-21). Even so, industrial districts in big cities were not a new phenomenon. Example of some older industrial district is the weapon industry in Birmingham during the end of the eighteenth century until the twentieth century; East London has had industrial districts before in the case of footwear industry. It evolved in the
eighteenth and nineteenth century, which I will talk about later as an empiric evidence for industrial districts. More famous industrial districts evolving today are the film industry in Hollywood and financial district in Central London. There are similarities to what I study in Silicon Roundabout and the industrial districts mentioned above, but every industrial district has its own specific and unique characteristics. However you address the issue the idea is that firms create a network linking each other together and thereby become inter-related. That is essential for the performance of the whole system and the individual firm itself (Malmberg & Maskell 1996:31).

Amin (2002) argued for two ways of organizing production in an industrial district. First we have the pyramid-like with a large company at the top of the hierarchy and smaller firms supporting direct or indirect. It characterizes the industry typified by the car- and aerospace industry. The other type of industrial district is where an agglomeration of small and medium size businesses produce by cooperating and have networks linking each other without any hierarchic ladder, the kind of industry that were dominant during Marshall’s time (Sheppard & Bames 2003:149). Piore & Sabel’s (1984) describes the second one in a similar way. With its flexible specializations the production system contains small independent companies with strong connections to each other and the regional context. With its small and craftsman’s like production the specialization becomes intensive and flexible. The fast development of these industrial districts is explained by SMEs adaption capability is faster and this makes it easier to find new ways for cohesion and producing. The small firms in the agglomeration can constantly accumulate know-how and much faster than larger companies. The companies in the region thereby become more innovative (Lundquist 1996:32). Becattini’s (1990) summarize an industrial district with following:

[…] industrial district as a socio-territorial entity which is characterized by the active presence of both a community of people and a population of firms in one naturally and historically bounded area. In the district, unlike in other environments, such as manufacturing towns, community and firms tend to merge (Becattini 1990:38).
There are three factors observed by Marshall why firms tend to cluster together and form agglomeration economies.

1. Concentration of firms in an industry in the same place allows a pooled market of labor with specialized skill
2. Information flows locally more easily than over longer distances which allows for technical spillovers
3. Industrial centers allows trade of goods between firms more cost efficient

I’m going to look at the first two factors in my study of Silicon Roundabout because of the relevance to the industry. Trade of physical goods is not as prominent within the digital industries as within the manufacturing industry that Marshall identified the phenomenon in.

The first factor is by a geographical concentration of firms within the same industry a pooled market of labor emerges. The agglomeration of companies gives a large pool of labor and specialized talent to the region. Naturally workers go to places where they can find jobs and employers look for places where they can find talented workforce. The high density of people with the same skilled trade from a neighborhood is a valuable asset for companies to take advantage of. Job search for people and recruitment for firms becomes more efficient and thereby attracts both firms and people to the agglomeration (Krugman 1993:36). The option to focusing education and training programs to the prominent local industries are both easier and can be provided to a lower cost (Scott 2000:19).

Second factor for spatial agglomeration is that within the economic space there is an intense exchange of know-how, business information, technology etc. so not only physical inputs and outputs. The exchange is happening in traded form with purchases and sales but also without the actors taking any note from it though tacit-knowledge spillovers. There is no restriction to the internal scales of operations; the agglomeration of related firms provides benefits to the individual firm (Kenney 2000:197-198). Amin (2002) describes the atmosphere that has evolved in industrial districts like a:

- life ethic based, self-help, entrepreneurship, and a sense of local belonging; a regular of bottom-up innovation
generated industrial atmosphere; a culture of emulation resulting from the mobility of labor between firms; and an area reputation that attract consumers and trades in a given niche market (Sheppard & Bames 2003:153).

This is going on in all diverse institutional environments. Marshall means that the social milieu of the cluster has a certain atmosphere, culture, norms, and practices revolving around it, a collective institutional and social foundation of economic life (Sheppard & Bames 2003:153). Like Marshall himself described it; “the mysteries of the trade become no mysteries, but are as it were in the air” (Marshall 1890:271). There are two kinds of institutions, formal, and informal. The formal institutions are the legislations, such as political rules. It can be the tax system, education system, labor market, regulations, cooperative laws, and so forth. The informal institutions on the other hand come with the daily interaction with people in the region. It can be within the family, business activity, or other external relations. The government has impact on the informal institutions even if they just handle the formal once. The structure of the governing defines the codes of conduct, norms, behaviors, and conventions which all is a part of the informal institutions. The institutional framework can be created or simply evolve over time but rely heavily on history. Thus, the competitiveness from the milieu is not given simply by nature but is created politically and socially by circumstance (Scott 2000:18). The geographical proximity increases the possibility for exchange of tacit knowledge, but it’s no guarantee. You need to build trust between firms in order for it to happen and that’s how the local belonging, religion and political bonds come in (Sheppard & Bames 2003:153). However, firms in industrial districts are also in competition with each other and need to protect their ideas and other valuable assets in the company. Thereby trust becomes an important factor for the industrial district to flourish. As the connectivity in the region becomes stronger social solidarity and cooperation increase. The engagement in local community becomes more frequent and lead to spatial agglomeration. The reduction of transactions costs attracts a wider division of labor. This leads to an even more pronounce external economy. Assets of the milieu now have mutual trust, tacit knowledge, learning effects, specialized vocabularies, and performing-boosting governance structures to enhance the production in the region. However, there is always counter forces
that interfere and threaten the return effects mentioned above. Scott points at examples of counter forces can be associated with pollution, high land prices etc. This can disrupt the dynamic of the economic agglomeration (Scott 2000:19).

**Industrial clusters**

Porter (1990) revived the concept with a holistic framework with the book *The Competitive Advantage of Nations* with what he calls *cluster*. His theory is more focused at competitiveness than the industrial district theory (Steiner 1998:3). An industrial district is embodying a homogeneous system where values and a sense of belonging are an important factor for close collaboration which is not prominent in the cluster theory. A factor like rivalry between firms is added to the cluster concept instead where firms in the agglomeration pushes each other to become more innovative. This is needed to be able to compete with the other competitors in the industry for the best product. Porter argues that the main source for industries competitiveness comes from the home nation (Porter 1990:69). This means that Porter’s theory is from the perspective of the domestic area, but the cluster concept has been taken over by many economic geographers in the study of spatial agglomerations. The definition of a cluster can be different but they all have elements in common. Porter (1998) definition of cluster as:

> [...] geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition. They include, for example, suppliers of specialized inputs such as components, machinery, and services, and providers of specialized infrastructure (Porter 1998:78).

What are the elements Porter highlights and why do certain industries become more competitive than others? Four factors are identified in Porter (1990:71):

1) Factor conditions: The factor for the production, such as skilled labor or infrastructural are necessary to compete in a given industry.
2) Demand conditions: Home buyers pressure local firms to innovate faster and achieve more sophisticated competitive advantages compared to foreign rivals.

3) Related and supporting industries: The presence or absence of supplier industries and related industries that is internationally competitive.

4) Firm strategy, structure, and rivalry: The conditions for new companies to be created, organized, and managed, and the nature of rivalry.

Where the context is the most supporting one for the specific industry you can expect the most rapid accumulation of specialized assets and skills (Porter 1990:71).

Porter often refers to the ‘diamond’ (see figure 1.) as what determine the advantages. It can be seen as a system linking the elements together. Though, two other factors are also needed to complete the theory, the factors of governing and chance. Chance events are something that is impossible to control for firms as well as governments. It occurs discontinuously which can reform an industry drastically e.g. such as new inventions, new technologies, or a breakthrough. The government’s role in the concept is with
policy-making authority can influence each of the determinants. Investments in education or extra money to specific R&D can change factor conditions and influence the whole system (Porter 1990:73).

The main element in Porter’s cluster concept that I will focus on in the study will be the factor for related and supporting industries. It’s the broad determinant of nation’s advantages. The presence of related firms and supplies in the industries gives them potential partners to collaborate with. They produce inputs or offers services efficiently, faster, and sometimes also more cost-efficiently. The most important benefit from the home-based suppliers is the process of innovation and upgrading. A competitive advantage creates from close working relationships between suppliers and industries. The mutual sharing of R&D and joint venture’s between actors in such networks strengthen the competitiveness. Information, new ideas, and insights travel quickly between firms. New ways of working and new opportunities occur to take advantages of. Thus, geographical proximity is still important for the relations and efficiency. The local embeddedness enhances all the benefits in the network, but to reach a close connected network firms need to work hard. The local embeddedness also plays its role when it comes to the proximity to local technical personnel and cultural similarities which makes the information to move more open and free. It also reduces the transaction costs for companies if they are located closer to each other within the domestic area than if they operate on a global scale (Porter 1990:101-103).

By having other related industries connected to an industry the competitive advantage gets stronger. The related industries can collaborate, coordinate and share activities with each other and develop a better value chain for the products. The sharing of activities can occur in any step of the value chain, in the development, manufacturing, marketing and so forth. Things to expect are an increase of information flow and technical spillovers between the industries. The likelihood for new opportunities to occur within the sectors increases as well as sources for new entrants for new approaches and competing. The proximity and cultural similarities makes the exchange easier for the firms within the domestic than the global area. The successes of one industry can
spillover to the related industries. E.g. the demand for American computers abroad creates a demand for the application that runs on the computers. Thus the software industry in America will also benefit from the success of the hardware industry. The same goes for other related service industries within the coordinated network, firms within the network are not afraid of recommending one another because they are used to deal with each other. By recommending firms within the network they will also benefit from it themselves because the increases of demand will spill over to the other sectors (Porter 1990:105-107).

Innovation systems

Innovation system’s difference to achieve regional development from the two other concepts are the elements of create learning processes and a strong belief in organizing the network by including organisations and institutions to support and coordinate the system e.g. the public sector, universities, VC organisations etc. Universities plays a huge role in the system with its Innovation systems started with Freeman’s study of Japans industry in 1987 and their competitiveness from after the World War II (Archibugi et al. 1998:5). In his study he identified a number of elements in national system of innovation which lead to economic growth. Freeman found that it is a network of institutions in both the public and private sector and their activities and interaction initiate, import and diffuse the technologies (Fagerberg et al. 2006:183). Two other major studies of this approach are done by Lundvall (1992) and Nelson (1993). Lundvall’s approach to innovation system is a more theoretical one with basis in the neo-classical tradition of economy. Nelson on the other hand relies heavily on empirical case studies. Though they both agree upon that the innovation system decides and influences the factors for innovation in regions. The arguments between these two authors different perspective of system of innovation is what elements are the most important for the approach (Fageberg et al. 2006:183)

The focus of innovation systems is learning and knowledge accumulation for companies within the specific industry. Knowledge is seen as the most important resource while learning is the most important process. The collaboration and collective
learning in the region promotes competitiveness and innovation. Thus it’s about the capacity to learn for people and organisations in a network between public and private sector. The learning economies are mostly applicable in post-Fordism industries like the ICT and computer industry, industries that have a more flexible production methods contra the traditional production line. The deciding factor for competitiveness is innovation and it is seen as the outcome of an interactive learning process (Benner 2005:47-48). The main actors in the system are the organisations and institutions. It can be universities, venture capital organisations, public agencies etc. The role of these actors is to promote the circular of knowledge to flow within the system that leads to more innovations. The activities presented by Edquist that you can expect have an important role in a system of innovation perspective are:

1. R&D (creating new knowledge).
2. Competence building (provide talent to the R&D activities)
4. Creating and adapting already existing organisations needed for development of new innovations. For example enhancing entrepreneurship, creating new organisations in research and policy agencies.
5. Network between all actors and potential actors. Interactive learning, knowledge flows.
6. Creating and changing institutions (laws, taxation, environment and safety regulations, R&D investments).
7. Incubators for nursing new firms (providing facilities, administrative support)
8. Financing of activities that might lead to innovation.
9. Supporting consultancy services (legal advice, technology transfer, and commercial information).

One should know that the number before the activity in the list above is not based on how important the activity is, Edquist just start with the factor of knowledge as input to the process of innovation and follows up with demand activities (Fageberg et al. 2006:190-191). Depending on the context of a region you might need to put some more focus at a specific activity. There is no ‘one size fits all’.

Thus, the concept innovation system was initially developed by the economist Freeman and Lundvall, but the concept was later captured
by economic geographers and they focused their interest on spatial limited system of innovation. From an economic geographer’s perspective you can see the concept of system of innovation in two different ways, the national system of innovation (NSI) and the regional system of innovation (RIS). I will use the regional system of innovation in my study since the region I’m looking at is geographically small. The regional system of innovation sees the strong culture of the region. Within the system the infrastructure, formed by the institutions, supports innovation within the production structure of the region (Asheim & Gertler 2006:11). The innovations are thereby produced at a regional level with networks between actors such as innovators, local clusters and enhanced effects created by the research institutions. The assumption is that innovation is created by the specialized suppliers in a region and thereby regional contained. The tacit-knowledge, face-to-face interaction, and the trust that exists between the firms in the region are vital for innovation. Asheim & Gertler (2006) calls it the “local codes” which needs to be understood to be able to take part of the interaction and collective learning and get the benefits it brings with it (Asheim & Gertler 2006:4).

There are two types of regional system of innovation I will consider for my study. The territorially embedded regional innovation system and regionally networked innovation system. The territorially embedded regional innovation system is a system where the firms get their benefits from localized learning processes and from the geographical and cultural proximity. It also gets competitiveness for being a network of SMEs who works together in a vertical way. The interaction with the organisations in this system is not that active and important. It has a lot of similarities industrial district. (Asheim & Gertler 2006:12). The regionally networked innovation system also gets its benefits from the interaction and mutual learning from the local context, but policy plays a big part of this collaboration. This makes the system get a more planned character because it gets some intentional strengthening by the policy infrastructure. The policies support the cluster in an intentional way and the authors means that this is the ideal type of regional innovation system (Asheim & Gertler 2006:12-13).

Cooke (2003) introduces the “venture capital driven” system related to innovation system, which is known as the entrepreneurial
regional innovation system. Cooke’s way of looking upon where dynamism comes from is the local entrepreneurs, venture capital, incubators, scientists, or the market demand. Innovation in this system primarily comes from analytic knowledge based support. Because of the systems flexibility it doesn’t run the same risk of ending up in a lock-in effect as the others, but some argues that it is not as stable as the other systems because of the lack of being manageable and thereby is questioned about its long term economic sustainability (Asheim & Gertler 2006:17-18).

An implicit proposition in my study of Silicon Roundabout is that that the local context has an impact on the competitiveness of an agglomeration simply place matters. The theoretical framework used in my paper decide what elements my case study will focus on (such as; connectivity, R&D, organisations, institutions etc.). Thus, the theoretical framework is to help me to reflect on the research question and get an understanding upon the phenomenon of Silicon Roundabout.

Method

Case Study

In my study of Silicon Roundabout I try to get an understanding of why the agglomeration of firms in the digital industry has emerged and could be understood. I also try to bring up a discussion about what the governmental intervention does to the character of the agglomeration. My focus on one defined agglomeration means that I have to choose a case study approach. It is a method recommended when studying phenomenon with high complexity and gives the investigators a holistic and meaningful characteristics of real-life events. With its qualitative way of studying the society you can get a more detailed way of explaining the complexity of it. Case studies are often explanatory or descriptive. Regardless of what kind of case study it is, it’s crucial that the investigation is exercised with great care when designing it to be able to overcome the critique to it (Yin 2003:1-2). It is a common method to use in the fields of planning, regional development and human geography and has been a more common method to use the last couple of decades as social scientists have had an increased interest of seeking underlying explanations of
issues (Cloak 2005:150). A case study should be an appropriate method to use as I’m trying to identify elements from my literature review to get an understanding of the phenomenon (Gerring 2004:342). The case study will be an inductive and qualitative study based on empirical inquiry to make it possible to build an understanding of the given research area. Yin (2003) recommends it for research questions that start with “how” and “why”, which my questions does, and if the investigator doesn’t have any or little control over the events or when focus is on real-time context (Yin 2003:7).

Though, Yin (2003) says that many social scientists still believe that case study as a method especially useful for explanatory studies, like this study is. The method lacks the possibility for scientific generalization since it’s not possible to do that with only one case (Yin 2003:10).

**Sources**

The study will contain secondary data which means data that is collected by someone else. The data should be as relevant as possible for the area with a logic link to my proposition. The purpose of the data should be connected to an element in my theoretical perspectives. My main object is to identify characteristics of the agglomeration and compare these with the present theories in order to get a deeper understanding of the agglomeration. In my empirical analysis I’m using reports done by academics as well as private firms, but also governmental reports and newspaper articles. Newspaper articles and governmental reports are frequently used as Silicon Roundabout is still quite a new phenomenon and there hasn’t been much research and academic studies done on it yet. All the sources used are open sources and accessible for everyone. Articles in journals and newspaper have been important for me in my study. Since the government is trying to support the development of the area with the creation of Tech City some reports of the area are used in the paper to build an understanding of the supporting organisations and institutions and their role in the agglomeration.

As I’m putting attention to the government’s effort to transform the area I need their view on the agglomeration. The governmental reports mostly give me the perspective of the public sector and the organisations but may also give knowledge about the history of
Silicon Roundabout. These reports mostly contain visions and a forward-looking policy perspective and they do not always pay much attention to the emergency and development of the agglomeration. I see the governmental reports as one of the stronger sources in my thesis as this describes how the government tries to make use of Silicon Roundabout in order to strengthen its competitiveness. Though, Cloke et al. (2005) points out that despite the legal powers and resources the government has the data is not always as reliable as frequently assumed when it comes to reports from that instance. They are involved in the game and play an active part in it. They have objectives and goals as any other organisation in the society (Cloke et al. 2005:42). I tried to be as objective as possible to this aspect while collecting it.

It has been difficult to undertake interviews in the matter of Silicon Roundabout because of the geographical distance to the research area. Thereby I will use information gathered from articles in newspapers because of the limitations to do the interviews myself. I primarily use articles from newspapers such as Financial Times, Wired, The Atlantic City, The Economist etc. This will give me the view from the perspective of the entrepreneurs. But it also means the interviews are already transcribed when I read the data collected from them. I see this as one of the weaker points in my study as the formulations of the questions are made by others and for another purpose than mine.
Silicon Roundabout, the development

Silicon Roundabout is located in the city of London, one of the world’s richest and most expensive cities, more precise in the district of East London. Silicon Roundabout is an agglomeration of firms in the digital industry with a focus on new media technology which has rapidly developed over the last decade. The area contains many young and small businesses in the media, music and design business connected to technology and computers and it revolves around the Old Street roundabout, an area with a hundreds of year old industrial history.

The capital city London has changed industry many times. A large scale materials-intensive manufacturing industry has been flourished during the twentieth century near the core of central London. The industry has effectively been eliminated from the city environment later on to leave room for the new more knowledge-intensive industries. The old labor-intensive industry forces to move outside the city to the suburb and other peripheral areas to keep producing in that context. Scott (1988) means that with new industries that are
more knowledge-intensive settle down in the region cities can continue to develop and be innovative. This does not just lead to agglomerations of specific sectors; it also leads to a multitude of dense industrial districts within the urban area. Particular economic spaces emerge with agglomerations of sector specific activities; it can be any kind of activity, office and service business as well as manufacturing business (Scott 1988:63). Some examples of industrial tradition in East London are related to the dock industry, iron industry and other labor-intensive manufacturing industries. East London early became an area where the ‘cockneys’, manufacturing people of London, settled down in (Powell, 1973:52).

The clustering of the footwear industry that flourished the second half of the nineteenth century in East London is one example of an old industrial district in East London. From the beginning it was just a stage of “country workman” production to a development of a highly disintegrated industry. The footwear industry changed from craft like, integrated forms of production to fragmentized flexible specializations. The labor-force got specialized and created units of production supporting each other. The fragmentation and evolving of labor-units with specialized skills continued to the end of the nineteenth century. This led to a reconstruction of the industry in a few specialized centers of production. They were drawn to certain districts where they could find their industry’s main labor force and clustered in small industrial districts (Scott 1988:68). At the end of the nineteenth century the division of labor had developed small workshops, specialized in many different branches. The industrial district of East London’s footwear industry was created. Organized production chains by closely created networks between the workshops and sweatshops made the production system very productive in a vertical process (Scott 1988:70).

As mentioned in the literature review an obvious element in Marshall’s industrial districts is the specialized pool of labor which emerges with an agglomeration in a specific sector, something that characterize the industrial district of the footwear industry. This is also identified in Silicon Roundabout. You can observe a concentration of talent and entrepreneurs within the digital industry which makes it easier to recruit, find jobs and invest (Bradshaw 2011). This pool of labor would not be possible to create by a
company solely but by firms agglomerating in dense areas. A solely company have just a small impact on the ‘sector climate’ (Henning et al. 2010:19-20). It is mainly small and medium size businesses in the area with connecting links to each other in an economical diverse urban environment (Nathan et al. 2012:15), something that’s very common amongst industrial districts according to Malmberg & Maskell (1996). 59 percent of the startups in East London are media and design companies. 55 percent of those companies are self-financed small businesses with one to three employees (McKinsey&Company 2011:10).

To go back to the footwear industry, later on machines took over the production as well as new production methods were implemented. This drove the industry out of London where the cheap unskilled and semiskilled female labor could be found. Though, you could still find productions in East London but it was specialized lines of production where the ‘master system’ still could operate efficiently. The shoes were of high quality and needed knowledge-intensive methods if they were to find in East London’s production chains. Thus, the footwear industry in East London moved out from the city and a new industry got located in the area and started developing (Scott 1988:70).

The historical legacy of the manufacturing industry is something that reflects much of the architecture of the area. At the same time it’s hard to see that there has been manufacturing going on except for this since the neighborhood gives the vibe of new and modern industries today. The decline in the 1980s manufacturing industry made the printing industry to settle in East London. That industry then evolved to the graphic-design business and later on during the 1990s became the epicentre of the dot-com boom (Silver 2011). From the middle 1990s till 2010 the agglomeration of companies in the digital industries has been growing without any of the policy-makers taking note of it. The Cities Institute (2011) argues that it has from then developed a reputation for being famous for a neighborhood with creative business services in the sector (Nathan et al. 2012:33). But still the industrial brick-buildings from traditional industry are there but transformed and revitalized to something new, like an office space or a nightclub. In the Boston Globe you could read:
With overhead power lines strung between large metal towers, polluted waterways, old scrap yards, abandoned factories, piles of used cars, and heaps of discarded refrigerators, east London once looked like a dystopic wasteland. It seemed hopelessly blighted and permanently scarred by industrialization… (Springer 2012).

The atmosphere in the area of Silicon Roundabout makes it very attractive for young, creative, and career focused people to visit and live in. The atmosphere around Old Street is a neighbourhood with a lot of creativity, which supports a lot of informal meetings between workers in a creative milieu. The soft-infrastructure East London offers gives possibility for cheap spaces to locate an office or find housing. You can find bars, coffee shops, restaurants and galleries with free Wi-Fi which makes it possible to work from them. This promotes those informal meetings between people. Thus a transformation of the area has taken place from a neighbourhood with traditional industry to a hip and cool place (Bradshaw 2008, Nathan 2011:199). This creates the quality of life and the melting pot of social life in Silicon Roundabout. This has nothing to do with the industry in the area but still becomes an important part of it (Silver 2011). The fact that the atmosphere, creativity, and quality of life in the spatial agglomeration are an important element for the dynamism of the area draws the attention to Marshall’s quote “the mysteries of the trade become no mysteries, but are as it were in the air”. The reputation of a digital cluster with creativity and innovative climate creates attraction for consumers within the industry. Amin (2002) put it in its context as a local belonging where innovations are generated by bottom-up processes. As the development have occurred in a sort of organic way and bottom-up without supporting organisations points at the agglomeration has similarities with industrial districts (Nathan et al. 2012:49).

One of the first companies to move in to the area was Moo.com who prints and sells business cards, a company that has relations back to the printing industry evolving during the 1980s. The story for Moo.com was that they needed more space for their business. The agent recommended some places around Old Street but none of the places satisfied them. But when the agent kept recommend office space outside East London that was way more expensive they
took an office space at Old Street anyway. They even took a bigger office space than what they needed just above a pub. The reason for this was to try to rent the rest of the space to other companies. To share a big office space was cheaper than to have one alone. One of the first businesses to move in with Moo.com in March 2008 was Dopplr who worked on a social network app to help you with your travel plans, now is sold to Nokia. Even more firms settled in the building and it worked as a small office complex for SMEs (Cowan 2013). They worked and supported each other’s businesses by recommending one another and created a small network amongst entrepreneur friends. They could collaborate with the more ‘traditional industries’ like music, advertising, fashion (Krotoski 2011). In 2008 some of the local entrepreneurs came up with a name for the agglomeration. They accidently named it Silicon Roundabout, based on the famous US case Silicon Valley in California. That’s what inspired them even if it obviously has nothing to do with semiconductor and hardware industry that was going on in Silicon Valley. In fact it was the CTO for Dopplr Matt Biddulph who made a ‘tweet’ from his Twitter account “Silicon Roundabout: the ever-growing community of fun start-ups in London's Old Street area.” That ‘tweet’ caught the real attention to the agglomeration (Cowan 2013). The journalist Tim Bradshaw wanted a map of it which Biddulph provided. Bradshaw then started to blog about it at Financial Times. At the map you could find 15 start-ups housed in the area around the roundabout of Old Street. This caught the attention by the local newspaper that made an article about it. After that more companies wanted to be a part of it. Biddulph received several e-mails from local entrepreneurs who wanted their company at the map and the whole thing escalated and thereby the spatial agglomeration in the industry was identified (Biddulph 2012). But it’s unclear how many firms acting in the community. There are several numbers stated to how many there are in different studies and reports (Nathan 2012:18-19, Brown 2010, McKinsey&Company 2011). You can tell there are no clear boarders to what is and what’s not a part of Silicon Roundabout. The only thing you know about it is that the roundabout at Old Street itself is in the center of it and much of the firms are located around in this area of East London.
Nathan & Lee (2011) argue that a global and diverse city milieu like London with all its diverse industries helps firms to become more innovative. The economical diverse London nurse start-ups by offering diverse and talented labor force, supplies and finance. There is a wider choice of business opportunities for investors to look into because of the competition for the investments between firms and this raise the quality (Nathan 2011:199). Porter (1998) says that a vital part for becoming more competitive and innovative is to evolve linked arrays between industries that are internationally competitive. The city milieu offers a lot of potential partners to collaborate with. Matt Webb works as chief executive at Berg, a consultancy firm in the area who focuses on technology and design. He state that it is better business in the area because it is easier to get in contact with clients. The answer to your problems are always somewhere in the community of firms which can provide support and consult you (Bradshaw 2011). This element is similar to what Porter (1990) describes as supporting industries that can produce and offer inputs like services more efficiently. The local embeddedness in Silicon Roundabout enhances the agglomeration and the sharing of activities increase the likelihood information flow and technical spillovers between sectors. Opportunities might occur to take advantage of with business activities like this. Another example is in an interview with Financial Times Robin Klein, investor in Moo.com, say that the firms in Silicon Roundabout seem to work with each other in an informal way within the economic space (Financial Times 2011). The informal meetings and workflow increases the chances for serendipity between sectors. It also differs a lot from the footwear’s industrial district as the production chains was very organized within that system. Though, the case of the footwear industry is more than hundred years old and the ways of working are now much different than at that time.

The vertical connections between SMEs and the development of the talent in Silicon Roundabout makes you think in the way of innovation system concept. Nathan (2011) argues for the majority of the digital businesses get their benefits from the different matching, sharing and learning economies (Nathan 2011:199). If learning is a factor for the dynamic of the area then you can make connections to the innovation system approach. Asheim & Gertler (2006) points at the localized learning process are an important element in such
systems. The benefits come from the proximity of the geography and culture. Also the digital industries in Silicon Roundabout don’t get their feed from local universities unlike many other digital hubs. Brown (2010) argues for the reason that it’s the local culture and the workers are self-educated or benefits from the mutual support between firms. Cooke’s concept of ‘venture capital driven’ systems points at this element. The local entrepreneurs and demand between firms create learning effects and the firms keep being innovative.

But why have the firms located themselves in the area? Nathan (2012) Sampled 32 random companies in the industry to look at what was their reason. The older companies’ reasons were often by accident. They had social bonds with the area e.g. they lived there or nearby. The case that someone in their social network offered them cheap or even free space was also a reason.

East London is a bit more flexible and it isn’t Soho price … The West End is pretty stuffy, full of tourists and five times the price. (Bradshaw 2011)

We didn’t know the area very well actually. An agent that we had talked to, who by chance knew about this co-working space, said you should check this out, maybe you’ll like it. First of all, this place was half as expensive as any serviced office. And secondly, there was an article in the Economist… and we saw that … and said, ‘well, there’s a lot going on’. It wasn’t strategic or anything. (Nathan 2012:72)

This is also what’s discovered as a reason for Moo.com and Dopplr previously in the paper. You can see a different pattern when it comes to the younger companies. They often had a different reason than accident to why they located their business in Silicon Roundabout. The majority of the people in the industry are males in their twenties and thirties which you need an environment that can attracts them. As we know from before, East London is seen as a “cool and hip” place with lots of restaurants, bars, cafes etc. and creates lots of informal meetings where likeminded persons meet each other. This environment helps companies to keep their staff, inspire new products, and it’s a source for ideas and collaboration (Nathan 2012:72). They complement each other and make it easier to
get the job done. Like Jacobs (1970) say, the city breeds new ideas with spillovers effects traveling with the localized knowledge and thereby enables innovation, especially within knowledge-intensive industries like the digital industry in East London (Nathan 2011:199). The environment in East London as an economical diverse place where SMEs are vertical integrated within similar industries that support each other, reminds of Porter’s element of related and supporting industries. Mutual sharing of R&D and joint venture between firms spread ideas, information, and a better understanding of each other. Working methods improves and becomes more efficient, trust is built between the actors. But trust also comes from relations from the time entrepreneurs spent at universities together. Many have known each other for a long time stretching back to university days (Nathan et al. 2012:66). But that trust that exists between firms makes it no problem recommending one another and creates a win-win situation for the firms in the community. The reason for start-ups to settle in dense agglomerations in the area of Silicon Roundabout is local factors like affordable rents, but also the local ecosystem where connections are easily made and an attraction form the city environment. Some also argued for the marketing they get for being in the area as Silicon Roundabout are more mentioned and creates an attraction from consumers (Nathan et al. 2012:72).

Tech City, the reinforcement & transformation

In November 2010 the Prime Minister of UK David Cameron made a speech about how they wanted Silicon Roundabout agglomeration in East London to be more competitive. He wanted it to develop into one of world’s great technology centers. What he relied on was the famous cluster in Silicon Valley in California. This means that the agglomeration in Silicon Roundabout goes into a new epoch. Cameron and the UK government created a very ambitious agenda; he wanted to create a ‘British’ Silicon Valley in Inner East London. He dubbed the cluster ‘Tech City’ and it was supposed to stretch from Old Street Roundabout to the Olympic Park at Stratford (Nathan et al. 2012:29). Thus, up till 2010 the clustering of firms in the economical space around Old Street roundabout have developed in a “bottom up” process where firms have found ways to produce by linking their network of production. As result of Cameron’s
It is important to know that even if TCIO is a governmental initiative but not a policy-making organisation. TCIO is supposed to be just another part in the network, an organisation supporting businesses to reach new markets and to make sure the businesses in the agglomeration keep growing. TCIO can’t handle problems like infrastructure or entrepreneurial visa etc., which are problems for developing companies further in the area. These problems are still a matter for the UK government to handle (Tech City Investment Organisation 2013). But as the organisation is set up by the government and communicates with each other the organisation functions like a link between the businesses and the policy-makers and thereby the government becomes a part of the network in the agglomeration. Similarities to the innovation system concept described by Lundvall are described here. The most important actors in an innovation system are the supporting institutions and organisations and obviously TCIO belong to the public agencies Lundvall talks about. They provide support by hosting events for creating networks between potential actors, attracting them to the region. Through roundtable discussions and seminars between TCIO, entrepreneurs and policy-makers the organisation act like glue,
linking the need of the firms in the area to a formal institutional framework. Trying to make it more beneficial for entrepreneurs by assisting with better laws involving entrepreneurial visa, tax breaks, founding etc. (Tech City Investment Organisation 2013). One initiative to this is the Seed Enterprise Investment Scheme implemented in the UK. It is designed to boost the economic growth and promoting more start-ups by great tax efficiency. It also encourages investments in small and early stage of businesses (Seed Enterprise Investment Scheme 2011). Thus, TCIO collaborate with the government to change laws, taxation etc. a more attractive and dynamic environment for entrepreneurs. This increases the intentional competitiveness of the agglomeration and is typical example for an innovation system. Asheim & Gertler (2006) even go as far to say that the innovation systems which work in this way are the ideal kind. This clearly gives that planned character of a system that Asheim & Gertler described in the regionally networked innovation system. But if we are supposed to introduce the government we also need to look at Porter’s cluster concept. Government is one of the elements in the concept and handles the R&D expenditures and education investments etc. But it doesn’t have the same prominent role in his cluster concept as in innovation system. Other organisations that cooperate with TCIO and UKTI is Tech London Advocates (TLA) which is a private sector advocacy created by 150 technology company leaders and influences. They’ve come together to support each other to be more competitive in the environment around Silicon Roundabout. It is set up by the former vice president of Skype and the group will mostly have CEOs and CTOs for technology businesses with international experience and VC organisation. The main thing is the creation of networking and social capital in the region. TLA primarily aims to support bigger businesses, hedge funds and international investors (Solo 2013). That makes TLA an interesting actor in the system. TLA is an initiative taken from the entrepreneurs in the region and has nothing to do with the TCIO except that they work with them, putting demands and pressure to get a more suitable environment for the entrepreneurs in the region.

Because there has been a demand from the industry that London simply doesn’t produce enough labor force for the community to develop as rapid as some companies want another target for the
TCIO is to develop talent for the companies in the area. Even if there is a larger pool of labor as I pointed at before in the text a large demand for more talent exists from the entrepreneurs in the region. It is not clear how this will be done in their ‘target report’ more than by hosting events and working with local monitoring organisations to focus their programs to meet the community’s needs and demand (Tech City Investment Organisation 2013). Facebook, Intel, BlackBerry, and Cisco have launched an initiative to inspire young people to study in the fields of engineering, math, science, and technology. Along with TCIO they came together with the program because of the demand from the entrepreneurs. They showcased the latest technology and innovations at an event hosted by the TCIO, all to inspire young people to choose the career path in these fields. The program contains workshops, training courses in how to create new social applications and 11-14-year-olds handle the basic mobile technology (Solon 2011). Innovation systems big heart lays within the role the universities plays. Their role is to produce talent and promote learning processes which is included in the TCIOs priorities. There are two big universities in London cooperating with TCIO, University College London and Imperial College London.

Branding Tech City is an important matter for TCIO. With an entrepreneurialism approach showing off talking about the success stories and by hosting events in the region to raise the media profile, actively try to attract overseas investors and business angels to be a part of the Tech City agglomeration. With events such as UK/US Venture Summit and Super Angel Summit, and meetings with face-to-face interaction help introducing and engaging them to deal flows in Tech City companies (Tech City Investment Organisation 2013). Silicon Valley Bank is a bank focusing on entrepreneur. They opened up an office in Tech City with a focus to target the tech and VC sector in London (Wall 2012). Phil Cox is head of UK’s Silicon Valley Bank and said in an interview with BBC:

"We've already lent hundreds of millions in the UK but we're looking to increase this to billions very quickly." (Wall 2012)

Silicon Valley Bank is another actor who might be an asset to the start-up scene in Silicon Roundabout. It could be seen as a private organisation in the system as they collaborate with both the public sector (TCIO) and entrepreneurs in the region. And the hope from
TCIO is that it should boost the entrepreneurship and nurse new firms to the region. In the TCIO ‘priorities report’ TCIO state that they will engaging with large global corporations and promote them to invest in Tech City. This is done in a strategically way with certain goals to achieve. The focus for Tech City thereby is to attract sector specific companies such as smart cities, fintech, and digital media (Tech City Investment Organisation 2013). Some empirical evidence for it is that many big corporations have recently opened up R&D departments and business campuses etc. in the area. Google’s campus is just a couple of minutes’ walk from the Old Street roundabout. The campus is for building new relations and providing and environment where you can develop your business. It offers office space for entrepreneurs to develop in an environment with lots of other developers. The office complex is housing over a hundred start-ups. This environment is supposed to create a lot of informal meetings between entrepreneurs in the community promoting collaboration and mutual learning. Google Campus also offers mentoring for helping them networking, grow and an opportunity to compete for investments (Google Campus London 2012). Thereby Google can be seen as an institution in the innovation system offering facilities for start-ups with their Google Campus promoting learning and networking try to increase the serendipity for new profitable innovations and businesses to exploit. Google’s office complex can be treated as a huge incubator supporting with various things like consultancy services through mentoring, three of the things that have an important role for the innovation system presented in the literature review. Other big corporations invested in the area are Facebook, Cisco, and Intel among many others. Facebook opened up a permanent development garage, Intel created research connections with University College London and Imperial College London, and Cisco have invested in a five-year program worth $500 million for developing an innovation park in the Olympic Park area offering consultancy and services to SMEs (Silver 2011). Facebook’s and Intel’s reasons for moving to the agglomeration seem to be that the talent in the region is attractive for them. By opening R&D departments’ points at the learning element in the innovation system, you hope to be a part of the localized learning from the talent and universities. But you can also think of the pool of labor in the region as a resource as Marshall points at with the specialized talent.
In the TCIO ‘priorities report’ they state that they will engaging with large global corporations and promote them to invest in Tech City. This is done in a strategically way with certain goals to achieve. The focus for Tech City thereby is to attract sector specific companies such as smart cities, fintech, and digital media (Tech City Investment Organisation 2013). Some empirical evidence for it is that many big corporations have recently opened up R&D departments and business campuses etc. in the area. Google’s campus is just a couple of minutes’ walk from the Old Street roundabout. The campus is for building new relations and providing and environment where you can develop your business. It offers office space for entrepreneurs to develop in an environment with lots of other developers. The office complex is housing over a hundred start-ups. This environment is supposed to create a lot of informal meetings between entrepreneurs in the community promoting collaboration and mutual learning. Google Campus also offers mentoring for helping them networking, grow and an opportunity to compete for investments (Google Campus London 2012). Thereby Google can be seen as an institution in the innovation system offering facilities for start-ups with their Google Campus promoting learning and networking try to increase the serendipity for new profitable innovations and businesses to exploit. To me Google’s office complex looks much like a huge incubator supporting with various things like consultancy services through mentoring, three of the things that have an important role for the innovation system presented in the literature review. Other big corporations invested in the area are Facebook, Cisco, and Intel among many others. Facebook opened up a permanent development garage, Intel created research connections with University College London and Imperial College London, and Cisco have invested in a five-year program worth $500 million for developing an innovation park in the Olympic Park area offering consultancy and services to SMEs (Silver 2011). Facebook’s and Intel’s reasons for moving to the agglomeration seem to be that the talent in the region is attractive for them. By opening R&D departments’ points at the learning element in the innovation system, you hope to be a part of the localized learning from the talent and universities. But you can also think of
the pool of labor in the region as a resource as Marshall points at with the specialized talent.

A conclusive discussion

**Organic growth without any key moment**
First of all the analysis shows that the complexity of the phenomenon can’t be understood from simply one theory. All three concepts from the literature review are identified but some more prominent than others, and it is difficult to backtrack and see what started the agglomeration in Silicon Roundabout. There is no key moment identified for it but the big hype happened with ‘tweet’ and the map drawn by Matt Biddulph in 2008 with the 15 start-ups in Silicon Roundabout. This discovery of the agglomeration truly focused the attention to it. The agglomeration got its name and a lot of publicity from newspapers. At this time Silicon Roundabout was just a network of companies in a very small geographical area around Old Street roundabout working in an informal way. The analysis shows that the agglomeration of firms in Silicon Roundabout has developed in an organic way. The cluster formation has grown without any support from the government or other public organisations since the agglomeration wasn’t recognized by the government until 2010. Silicon Roundabout has nothing to do with the hardware industry which the Silicon Valley agglomeration got its name from, on the other hand the printing industry who settled down in the area and later on the graphic and design industry is more relevant to connect to today’s industry. Companies such as Moo.com printing business cards and various design studios, social-media and social network firms are housed in the region and they have been influenced by the creative industries from the 1980s and 1990s. The new digital industry seems to have an easy way of giving entrants to new markets e.g. design and fashion houses working with app developers etc. I would argue that the diverse milieu London offers makes the agglomeration to develop and keep its dynamism. The various industries in the area has developed by supporting one another and used each other’s services to create new ways of working and new ideas for business. It is said that the support and knowledge is always within your reach, if your company needs to
outsource its business there is always someone who can consult you. There are opportunities to use external resources to develop and grow, just like Matt Webb CEO for Berg said about better business in the area and easier to get in contact with the right persons. This part of the analysis points at the cluster concept Porter introduce with related and supporting industries and the competition for the investment which makes the quality on the products become better. But at the same time a pool of labor is identified in the area, even if it is said that a demand for more comes from the firms in the agglomeration, and thereby becomes one of the elements I bring up from the industrial districts. And is it really supporting industries and not the same? It is hard to define what belongs to the digital industry and what doesn’t. It might as well be the same now that the internet era can combine two different industries from before to one and the same in today’s society. And we cannot forget the innovation system from the agglomeration as it is mentioned that the areas talent is self-educated and the learning comes from tacit-knowledge and the localized learning processes in the region. When I talk about innovation system in Silicon Roundabout I talk about the same kind of system as Cooke (2003) talk about, the entrepreneurial regional innovation system where the entrepreneurs, local demand, and VC creates the dynamic in the region. Thus, none of the systems can be ruled out from the development process of Silicon Roundabout, but the analysis shows that the industrial district’s element is the most prominent concept identified in this era which will be even clearer in when it comes to the social climate of the region in the next part.

**From cheap rents to social climate**

As mentioned before, London is one of the most expensive cities in the world to be located in, but global cities like London always have their cheaper districts. East London is one of these cheaper areas relatively close to the city center. As it was from the beginning important for entrepreneurs to have access to cheap office space Old Street become an attractive space. Some entrepreneurs even said it was a historical accident and not a strategic move by the company. For Matt Biddulph, CTO for Dopplr, sharing office space was a smart solution for cheaper rents in the area, something they did with Moo.com and their office complex. This opened up for spillovers,
mutual learning and sharing of knowledge between firms, elements that characterize the whole cluster in Silicon Roundabout, much like the footwear industry during the eighteenth and nineteenth century. One should have in mind that the footwear industry had its glory days several hundred years ago and differs from the agglomeration today, but it had similar elements as they improved the value chain with. Today’s agglomeration doesn’t have the same organized network and production chains as the footwear industry. You find your partner when going to the coffee machine, events, or down to the pub. Thus, the firms got attracted by the cheap rent and the infrastructure slowly evolved into other supporting matters, like Henning et al. (2010) says that the solely company just have a small impact on the climate. Many companies in the same dense space can change an areas institutions and milieu. The lifestyle in the city district seems to be of big importance for the agglomeration to be developed. Marshall described one of the production advantages as ‘something is in the air’. Silicon Roundabout has a complex infrastructure in the area with bars, cafés and clubs, something which has evolved for many decades. Events and parties are being hosted by the community and create a platform where informal meetings can take place and business information can be shared and opportunities for networking. This lead to other things than cheap office space got important. Entrepreneurs stats that the cultural life in the area helped them to attract talent and people with career ambitions and also help companies to keep the talent in the region. It became a community where the social climate and atmosphere in the region supports the firms, not only to keep their staff but it also creates spillovers between firms. The workers gets, as Amin (2002) says, sense of local belonging and share ideas with each other to create new business opportunities in a bottom-up process where the firms seem to merge together in the production.

**Along comes the transformation**

The character of the agglomeration economy in East London is an ongoing developing process. With the interest from the government this hasn’t stopped. The character of firms in the area has gone from very small SMEs collaborating in an unorganized and informal way to big corporation like Google, Facebook, Intel, and Twitter to be active in the same economic space. Not only the firms have switched
character but also the way you can understand the agglomeration. These giant corporations works with the public organisation TCIO which collaborates with the government. TCIO have played a huge role for the development process in East London’s digital industry. By attracting big companies and VC angels, created supporting policies, branding the area, and focusing education programmes to benefit the digital industries in East London the context have changed. The involvement of the universities has made the agglomeration look like an innovation system. Now there are universities, public and private organisations and entrepreneurs collaborate in an organized way. The UK government is clearly trying to manage the development and create conditions for success for the area. They try to steer the development towards the Olympic Park in Stratford which is quite far away compared to the city’s more central parts (see figure 2.) as one example to the managing. The system get a planned character compared to before the governmental intervention. The reason for this might be the entrepreneurial region innovation system, which characterized Silicon Roundabout in some ways before with its organic development. Asheim & Gertler (2006) says that the entrepreneurial region innovation system lacks the potential of being manageable and people questioned its long term economic sustainability. The UK government’s acting can be interpreted as they wants the more planned and manageable regionally networked innovation system for Tech City which Asheim & Gertler instead calls the ‘ideal system’ and keep the growth and dynamic of the agglomeration. The intervention can also be interpreted as the government of the UK wants to create a flagship. Why else would a government intervene in a dynamic and organically growing region if they don’t want to piggyback on the success which Silicon Roundabout has created on its own?

If this is the right way to approach the agglomeration in East London is impossible to say for now and can only be studied in the future. But what we can expect is that the digital industry that characterizes Silicon Roundabout will be pushed out as the industry will enter the phase of stagnation and decline. This is what happened to the other industries in the region, the footwear industry, iron industry and dock industry. At this moment the firms can benefit from the skilled labor force and the exchange of technology and business
information that is in the area. When the demand switches from knowledge-intensive to labor-intensive the industry will be pushed out from the city and replaced by something new.
Sources:


Financial Times (2011) Silicon Roundabout – Hype or Reality?, Collected: 2013-03-26
https://www.youtube.com/watch?v=eHWm31ji7EQ


Ljungbergs, Klippan


**Figures:**

Figure 1. Porter, M. (1990) *The Competitive Advantage of Nations*. MCMILLAN PRESS LTD. London. (p. 72)