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Is the 'Creative Class' Necessarily Urban? Putting the Creativity Thesis in the Context of Non-urbanised Regions in Industrialised Nations

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Introduction

In this article, we raise the notion of creativity in the context of non-urbanised regions in industrialised nations. We consider some of the basic assumptions put forward by Richard Florida in the context of the process of globalisation, which unarguably is having a profound effect on peripheral and or non-urbanised regions in old industrialised nations. We argue that there are limits to the creativity thesis when put in the context of countries such as Sweden. In short what we argue is that in a world where urbanization is proceeding faster than ever (2008 is the year when half of world's population became urban dwellers), where traffic congestion is growing, where environmental problems like smog and water pollution are significant in many of our dynamic regions and where housing prices are rocketing, opportunities may emerge for creative combinations of talented people and non- or less-urbanized regions to develop their competitiveness. What we assert is that there is variety of lifestyle-related activities outside large urbanised centres which may attract talented people (in the sense of Florida) who want to combine their professional and private lifestyles – and this creates opportunities.

Although our intention is not to downplay the fact that peripheral regions face immense challenges (i.e. that they may neither become advanced enough nor cheap enough to stay competitive), we see no *a priori* reason to neglect the opportunities provided; sparsely populated regions with good environmental conditions and comparatively low cost levels, within reach of urban areas and with good public communications as well as public institutions are becoming scarce in the global economy. We can imagine a variety of scenarios that conform to this vision: for some people this may take the form of the more intensive use of that very Swedish habit of having two homes (also common in countries such as Canada, Finland and Norway to name but a few), for others a more intensive use of ICT may partly compensate for geographical distances to the cities. And all this may well be shaped in the form of life project cycles. Therefore, for some people at least, and for some qualified activities, some regions and towns in the old industrialised countries may stay competitive and develop creativity – industrial as well as artistic - as they once managed to develop excellence and competitiveness in the past. It may even be argued – although we admittedly have no empirical data yet – that such a combination of lifestyle and production will become a competitive advantage in the not to distant future.

Globalisation – Winners and Losers?

The process of globalisation is challenging our traditional understanding of the conditions for regional development and the mechanisms that contribute to localized competitiveness in an emerging 'slippery' world as argued a decade ago by Markusen (1996). These challenges are particularly pressing in the peripheral and rural regions of industrialised nations; rural communities and regions that may have witnessed a prosperous past but which recently have undergone a period of industrial decline. The industrial base of exploiting natural resources, which once made them core regions, has long since been downplayed as an important source of economic growth (e.g. Sachs and Warner, 1995). In addition, although these peripheral and often rural regions may still have qualified (skilled) labour many of them lack advanced human capital formation – recognised as the kernel of today's industrial competitiveness.

At the same time, the process of globalisation poses several paradoxes; *first*, it blurs distinctions between regions by shifting the frontiers of where economic activities can be located; local peripheries in the global level's (traditional) centre regions compete with advanced regions in the periphery (as we traditionally understand it) of the global system. *Secondly*, it challenges scale-based perceptions of regions, cities and towns. Relatively large cities in the northern hemisphere e.g. Helsinki, Oslo, Stockholm, Glasgow, Calgary, become minuscule when contrasted with mega cities such as Peking, Shanghai, Bombay, Sao Paolo, Cairo, Bangkok, Tokyo etc. This phenomenon presents still more challenges when non-urbanised regions and towns of 100 000 inhabitants or less are analysed. And *thirdly*, it sheds new light on the issue of proximity; new technologies – although the novelty of this phenomenon should not be exaggerated - have made it possible to innovate, to outsource production units and to manage customer relationships in remote areas as well as overseas. But these technologies also allow new forms of geographically footloose cultural and social networking to develop (Castells, 1996/2000).

At first glance it may be argued that people in the peripheral and rural regions of the advanced industrialised countries are strong candidates to be the losers in the current phase of globalisation undone by rise of "Tiger economies", whether Asian or located elsewhere. Using Sweden as an illustration, it could be assumed that its peripheral and rural regions lack the mechanisms to offset the liabilities of their locations; on the one hand they are located too far from the dynamic knowledge intensive and university rich regions in Sweden and on the other they retain too high a cost structure as compared to the dynamic areas of Tallinn, of Bucharest, of Bangalore and of Xian to compete on the segments in the "middle" or even the "low end" of distributed knowledge intensive services and production. There is thus a strong case for non-urban regions in industrialised countries to be squeezed in the structural change taking place in the current globalisation process.

The recent focus on *creativity*, a notion that has become very popular since the new millennium in the regional and national development discourse, adds to the pessimistic forecasts for these regions many of which shined much more brightly in industrial dynamics terms some decades ago. If Michael E. Porter was the sage of competitive advantage by devising the concept of clusters and their dynamics at the beginning of the 1990s, Richard Florida has given potency to the old notion that creativity is the precursor of competition and in – locating creativity to large urban areas - also become "the cool-cities guru" of the new millennium (see Peck, 2005 for an overview).

The point of departure of Florida's creative class thesis is that the current global economic integration we are witnessing makes obsolete the conventional wisdom that differences between nations, regions and cities depend on classical comparative advantages. Competitiveness – and here, we are close to the Porter (1990; 1998) position - is a social and cultural construction. Florida focuses on creativity, which according to him differs and develops differently between cities that are assumed to be its *loci*. For example, in the "Rise of the creative class: And How It's Transforming Work, Leisure, Community and Everyday Life" (2002c) he argues that in the era of globalisation US cities with diversified economic activities and diversified human capital formation have experienced the *advent* of a creative class while others have witnessed the *erosion* of creativity. The creative class uses

technology as a channel to produce/sell products, penetrate markets and communicate (Florida, 200b). The members of the creative class are assumed to be attracted to *milieus* that provide them with amenities that nurture their creativity and conform to the phases in their life projects (Florida, 2004). Their mobility is thus conditional and influenced by the erosion of the demarcation lines between work and leisure. The creative class, according to Florida, constitutes a significant part of the population of cities that are characterised by diversity and tolerance in terms of ethnic, cultural, religious and sexual orientation (Florida, 2002c).

In short, the creativity thesis put forward by Florida (2002a; 2002b; 2002c; 2004 and 2005) could be summarised as follows:

- Competitiveness depends on success in recruiting talent – and this is true more than ever in the knowledge based economy
- There is a new and intensive global competition on talent – due to globalization as well as to the rise of new Tiger economies
- The highest probability to get into contact with these talented workers is in highly urbanised regions
- Talented people have strong expectations based on lifestyles, which have a significant impact on their willingness to follow job opportunities; they optimize their whole life project; closeness to the opera may be as important as career options. Consequently, firms have to follow their staff to the triple T –regions (Technology, Talent and Tolerance), if they want the best ones, rather than the other way around.
- Triple T regions may develop a certain self-propelling dynamic incorporating a lifestyle oriented economy (galleries, theatres and meeting points) highly integrated with the lifestyles of the creative class.

Thus - following the above- it could be concluded that regions and cities that cater to the needs of the creative class win while those that do not face a melancholy demise. Overall, to policy makers in industrialised nations the notion of creativity as an instrument of development is appealing since it is not necessarily footed in certain regions, nations or industries. In addition – superficially at least – it opens the way for creativity enhancing policies primarily in areas in decline. Is this analysis reasonably plausible and is the process unidirectional, or is there a potential variety as regards the development paths towards the knowledge-based economy? Will non-urbanised regions in the old industrialized countries die while larger urbanised ones prosper? Is the role and behaviour of the creative class a general or universal phenomenon independent of time and location or is this a process related to specific historical or geographic conditions or relevant for certain life cycles of industries or technologies? And more importantly what do we mean by ‘creativity’ and ‘the creative class’?

Creativity- a Contested Concept?

The characterisation of Florida´s creative class is loosely based on occupations (engineers, architects, scientists, economists etc) (Florida, 2002c, 2004). It also contains “bohemian” individuals who pursue lifestyles that add to the variety of elements in the creative class concept (Florida, 2002a). In the end, however, it might be the case that the creative class is both wider than the set of citizens that have a Bachelor’s or Master’s degree (many bohemians do not) and more narrow: teachers, social workers and pilots are e.g. not included in the creative class (see e.g. Markusen, 2006 for a critical review of this). However, close to a study by Janik and Toulmin (1973) on the creativity of Wittgenstein’s Vienna (although not referring to it) Florida (2002a) has examined how the geography of bohemians corresponded to the geography of diversity (immigrants, gays), talent (defined as those with at least a Bachelor’s degree) and high-tech industry location. This conclusion has been questioned by other scholars, however (cf. e.g. Markusen, 2006 & Wojan *et al*, 2007).

In a wider sense, creativity as a concept is not only solely based on the level of education attained by individuals. It concerns idea generation (cf, Franken, 1994; Stenberg and Lubart, 1999; Clark and

James, 1999; Boden, 2004). It is, as defined by Robert E. Franken, (1994, p396) "the tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others" or as Boden (2004, p1) puts it "the ability to come up with ideas or artefacts that are *new, surprising and valuable.* "Ideas" here include concepts, poems, musical, compositions, scientific theories, cookery recipes, choreography, jokes- and so on. "Artefacts" include paintings, sculptures, steam engines, vacuum cleaners, pottery, origami, penny whistles- and many other things you can name."

From the above approaches, it is clear that the notion of creativity relates to the generation and appropriation of novel ideas by individuals (Franken, 1994; Stenberg and Lubart, 1999; Boden, 2004). Hence, it is not characterised by the level of education of the individual but by a process of spontaneity in its inception and sustainable outcomes although Clark and James (1999) assert that it can also be oriented endeavour and as such depends on previous knowledge. Even at this stage, Rehn and De Cock (2007) argue that the literature on creativity focuses on how it evolves without paying much attention to the potentials. Creativity may be limited to certain areas of knowledge as well as spill over between such areas. It is, however, far from easy to show that creativity within certain aspects of the arts has any relation to creativity within e.g. high-tech industries (cf. Markusen, 2006 and Wojan *et al*, 2007).

Limiting our perspectives to only Florida's approach might lead to a failure to consider the importance of context/community related tacit knowledge and the social capital that underlies much of the generation and dissemination of creative ideas that is relevant for industrial transformation. Industrial creativity does not happen in solitude but instead takes place through interplays with the result of cumulative learned actions and existing industrial practices and technical solutions developed among people that do not necessarily have academic degrees. Knowledge creation and diffusion often takes place through vast formal and informal networks that interact and provide ancillary inputs which contribute to nurturing existing capabilities and the fostering of new ideas. This entrepreneurial creativity was formulated already a century ago by Marshall in the famous line "(...) If one man starts a new idea, it is taken up by others and combined with suggestions of their own; and thus it becomes the source of further new ideas" (Marshall 1890/1920, p.271). If this kind of – maybe traditional or old fashioned – creativity is loosing its importance then phenomena related to such a historical transformation should be included in the analysis, not simply neglected. From the context of regional development, creativity should be put in the social context where it is induced, generated and diffused. As such the term involves the capacity of actors to individually or collectively breed ideas (novel or not) which eventually promote competitiveness in the environment or context where they are introduced.

Creativity as a concept – not least as formulated by Boden (2004; see above) - has a clear connection with innovativeness. Readers familiar with innovation theory may recall the Schumpeterian definition (1934/1968) of innovation as *creative combinations*. Already for Schumpeter (1943) it was clear that the "new" could be a surprising combination of something "old". And he used the term *creative destruction* to capture the renewal capabilities of capitalistic societies (Schumpeter 1943). Inspired by Schumpeter, students of industrial and technological transformation have since then viewed creativity as an important pillar of the mechanisms that contribute to renewal (e.g. Dosi *et al.*, 2000, Nelson, 1994).

There is also, following Boden (2004) an obvious connection between creativity and the worlds of design and engineering. This has, among others already been formulated by Simon (1962, 1996) who relates these activities to the "sciences of the artificial". What engineers (and designers) do is creating – through design processes - artificial worlds which are largely based on existing knowledge which is reorganized and synthesized into new forms.

Putting aside, the conceptual discussion on the notion of creativity and limiting ourselves to spatial development, Florida's perspective relates to the abilities of *technology*, *talent and tolerance* in creating the conditions for development. This is vital and worth analysing. While Florida's "tolerance"

might not have been on the agenda half a century ago when the economic thought governing regional differences was coined, technological diffusion making industrial production redundant and the erosion of talent in the form of brain drain were two issues that were even then seen as crucial in regional economic transformations (Myrdal, 1957, Hirschman 1958, Hansen 1966/1972, Lausén 1969, Clark and Whiteman 1983). Also discussed by Gunnar Törnqvist (1983) and Andersson (1981) the core theme of this literature was that an innovative environment facilitates knowledge transmission, competence development, regional learning and as such provides synergies to innovate product, processes and methods that could be commercialised. Evidently, Florida's suggestion of the magnet effect of cities discussed in "The rise of the creative class: And How it's Transforming Work, Leisure, Community and Everyday Life" and the repulsive effects discussed in "The flight of the creative class: The New Global Competition for Talent" although devised from the US context, could be applicable to regions and as such match Myrdal's spread and backlash repercussions on peripheral regions. Thus the rise of the creative class in relatively urbanised regions is matched by the fall of the creative class in peripheral regions since in absence of employment opportunities young people in particular tend to migrate to urban regions in search of better living conditions as stipulated by Myrdal (1957).

At the same time, we are aware that Florida's creativity notion centres on an age-old question of the mechanisms which promote and foster knowledge formation. Students of economic geography have for decades discussed whether it is regional *specialisation* or *diversity* that nurtures knowledge creation and diffusion. The specialisation argument takes its point of departure from the contributions of Marshall (1920), Arrow (1962) and Romer (1986). Known as the MAR perspective, the underlying premise is that economic growth depends on the extent of knowledge utilisation and technological progress. Scholars using this perspective model the micro-economic environment from a knowledge accumulation perspective and argue that firm competitiveness, productivity and innovative capabilities depend on the extent of knowledge transfer within organisations and knowledge spillover to other actors (e.g. Romer, 1986; Feldman and Audtretsch, 1999). It is important here to note that the MAR supposition also captures the importance of location, as it reveals the economies associated with R&D and as such explores the geographic dimension of economic development by looking at mechanisms that lie outside the borders of the particular firm, including knowledge spillovers between actors.

The philosophical ground for the MAR perspective was provided by Marshall (1890/1920) who described externalities - referred to as agglomeration economies - and revealed the importance of the territory in facilitating learning and knowledge spillovers. Pioneering both urbanisation economies and localisation economies, he described the advantages that emerge when people and economic activities locate in close proximity.

The MAR argument emphasises the importance of specialisation as a mechanism of development; the concentration of economic activities apart from economies of scale and knowledge spillovers induces and nurtures the emergence of a specialised labour market that attracts both employees and employers: the logic governing this is simple; on the one hand, a person seeking employment is inclined to move to a place where he can get a job in his field of competence and, on the other hand, employers are inclined to locate where it is easy to recruit specialised talent. Furthermore, as Marshall (1890/1920) postulated, the concentration of business activities creates external economies through vertical relationships, such as outsourcing in the value chain, and vertical cooperation for the firms that produce the same kind of goods. Concentration also facilitates knowledge spillovers between actors through learning (Asheim, 1996, Malmberg 1998). Its is important to note that the rich literature on the specialisation argument underpinned by Marshall which emerged in what has become popularly known as the Third Italy (Cossention, *et al.,* 1996; Brusco, 1986; Becattini, 1992; Dei Ottati 1994) did not have higher education as a point of departure which appears to be the key message in the creativity thesis *a la* Florida.

In addition, the Marshallian dynamics of learning, knowledge formation and inter-firm dynamics, were also at the centre stage of the "cluster" concept which Porter (1990; 1998) devised when he argued that it is the interplay between geography, institutional linkages and inputs from formal and informal organisations that forms the basis for the competitive advantage of nations/regions.

Recognising the importance of interdependencies between firms in terms of relationships and knowledge building in developing production competencies Porter's thesis encompassed a variety of conditions (e.g., factor and demand based conditions, rivalries, government/chance) and the fact that firms do not live in isolation, but are dependent on other firms and organisations for various kinds of resources that enhance productivity, innovation and new business formations. The cluster literature also recognises the importance of technology in helping the pace of cluster development although it takes some time to discover and diffuse it. For example, the role of technology has been cited as one of the factors that contributed to the growth of the well-known cluster of Silicon Valley. The discovery and subsequent diffusion of the semiconductor and the computer processor certainly played a leading role in the evolution of Silicon Valley (Saxenian 1994).

The creativity thesis put forward by Florida as an element of development, on the other hand - manifested in the three Ts that make up Florida's thesis - **T**echnology, **T**olerance and **T**alent - relate strongly to Jane Jacob's (1969) study in which she argued that cities have magnetic abilities to attract people and industries that perform diverse operations i.e. the opposite of the MAR thesis. But it also has a family resemblance not only with the previously mentioned study by Janik and Toulmin (1973) but with a Swedish study entitled *K-samhällets Framtid* (Andersson and Strömquist 1988) in which it is argued that the four Ks; **K**unskap (Knowledge), **K**onst (Art), **K**reativitet (Creativity) and **K**ommunikationer (Communication) are the cornerstones of the knowledge society. Andersson and Strömquist (1988) argued the future growth of that society was based on developing webs, the hubs of which are found in the rapidly growing K-regions with strong similarities to Florida's T-regions.

Jacobs (1969) argues that urbanised environments provide the nexus of economic development. In *The Economy of Cities*, Jacobs (1969, p1*)* poses the question "why some cities grow and why others decay". In contrast to the suggestions of the MAR arguments, such as knowledge spillovers due to specialisation, Jacobs argues that the varieties in skills emanating from the creative urban context are the decisive elements. The Jacobs' diversity supposition gained approval following several studies contrasting it with the MAR perspective; For instance, Glaeser *et al*., (1992) compared the MAR and Jacobs hypothesis by using data from 170 cities in the United States and found it consistent with the Jacobs position that it is the variety that cities offer and not the specialisation of labour/industry that explained knowledge spillovers. Feldman and Audtretsch (1999) also tested the diversity versus specialisation thesis by asking the question "does the specific type of economic activity undertaken within any particular region matter?" and found that industrial diversity is conductive to knowledge spillovers. Desrochers (2001) adopting a Schumpeterian perspective also found support for Jacobs' externalities concerning the creative combinations of existing unrelated things promotes human creativity and innovations in regions. From a policy perspective Desrochers (2001) cautioned against policy strategies to promote the emergence of regional specialisations.

In the Swedish context, several studies placing the creativity thesis in a Swedish context have emerged; for instance; Andersson *et al*., (2005) confirmed Jacobs' hypothesis with regard to commercial patenting in Sweden (1994-2001). According to this study, the propensity to engage in commercial patenting activities was larger in urbanised regions that have diversified economic activities. Also Melander and Florida (2007) used a path analyses and measured traditional variables of human capital formation (wages, education level etc), technology and talent and found that the three relatively urbanised cities of Stockholm, Gothenburg and Malmö accounted for 50 percent of the Swedish creative class. Stockholm scored highest with 30 percent, followed by Gothenburg 11.6 percent and Malmö 6 percent.

Tinagli *et al.,* (2007) defining the creative class as the "the share of workforce engaged in conceptual and creative types of occupation, like managers, scientists, architects, engineers, artists, entrepreneurs, and many others" argue that overall there is a north-south divide in Sweden. While urbanised counties of Stockholm, Gothenburg and Malmö account for 60 percent of the Swedish creative class by scoring high in the tolerance (64 percent of the immigrant population are domiciled here although the concept of immigrants from a Swedish context is ambiguous), bohemian and high technology indexes, while peripheral regions score poorly. Paradoxically, this study found that on Talent it is not Stockholm,

Gothenburg or Malmö that takes the lead position. Instead, Uppsala County scores highest by virtue of being home to the highest share of researchers in the total population.

Ejermo (2005) in examining Jacobs' hypothesis by measuring Swedish patenting activities in 81 functional regions - defined as local labour markets - found no support for the diversity thesis**.** While the relatively urbanised cities of Stockholm, Gothenburg and Malmö ranked higher in the population index, *per capita* patenting is stronger in smaller cities. Ejermo (2005) argues that Västerås ranked as the 11th most populous city and Ludvika - a small peripheral town - ranked higher than the urbanised cities. This is obviously because of the presence of ABB there.

The Urban and the Rural in a Symbiotic Mould?

As indicated previously, the creativity thesis displays a general problem with regard to its applicability to sparsely populated industrialised nations. Countries such as Canada, Scotland, Australia and the Nordic countries are relatively large nations with few cities and a rural-urban divide which is difficult to capture. If we take Sweden as an example, it is a relatively large European country with a land area of nearly 450 000 square kilometres and a population of nine million giving 20 people per square kilometre. Forests and mountains cover 75 percent of this area while another 18 percent is covered by water while only 10 percent is cultivated. Less than five percent of the area is residential. Thus it is elusive to clearly capture the borderlines of what is urban and what is rural. There are only three "cities" with a population exceeding 200 000 followed by 8 "large towns" with a population in the range of 100 000 - 200 000. The rest of the nation is made up of small towns and villages. In a global context, as mentioned in the introduction, not even the capital (Stockholm, whose borders might be the subject of discussions) could qualify as a largely urbanised city.

In the European context only Stockholm, Gothenburg and Malmö have sizable populations that could be termed as city dwellers. Although we cannot deny the fact that there evidently is an urbanisation process even in Sweden – people attracted to big cities- there are still a large number of Swedes who live in villages and small communities with less than 25000 inhabitants. Even if one considers the fact that the Stockholm region accounts for nearly one fifth of the Swedish population, hardly a half of these live in the immediate vicinity of the city centre. The green revolution of the 1970s encouraged many city dwellers to move from the city to less urbanized areas, and may have contributed to the migration patterns from rural areas in the 1990s (Borgagård and Håkansson 1997). According to demographers the post-millennium trend is that families with children and the elderly have a high propensity to migrate to less urbanised areas (Johansson 2002; Pettersson, 1999). In particular, this trend was visible in rural areas that are close to towns and rural communities endowed with historical and cultural heritage (Pettersson, 1999). There are several reasons for the newly found fortunes of rural communities including access to nature, high housing and living costs in the city centre, and more attractive social /cultural conditions for children, and these factors are unlikely to have changed much since the 1990s (Johansson, 2002; Petterson, 1999).

This raises the question of what constitutes the borderline between urban/rural, city/village etc. Already termed by Alonso (1968) an "ill defined disease" in the 1960s or "misconceived" (Hall 1974) in the 1970s, scale-based and relative perspectives assume that urbanised environments attracted human capital from rural areas without considering the hazards of living in them including housing prices, rents etc. As argued by Tacoli (1998) a decade ago, globalisation challenges the dichotomy of urban/rural. Indicators such as population size and economic activities (e.g. the notion that agricultural activities are rural and manufacturing urban) are no longer true since borderlines - administrative as well as economic – are blurred. However, non-urbanised environments e.g. rural regions often suffer from institutional deficiencies. They may nonetheless have the centrifugal ability to attract entrepreneurial activities that benefit from specialised labour which Phelps *et al* (2001) call "borrowed size" advantages. The reasons, from a historical perspective, for rural migration have always been life cycle dependent and as such vary with age (e.g. Sandefur and Scott, 1981; Sandell, 1977; Morrison and Wheeler, 1976). For instance, younger people – and young women more than young men - are often attracted to urban regions for the purposes of study, work etc. Middle aged and retired people –

but also young creative families with small children - are attracted to rural communities for economic as well as non-economic reasons including "a search for well being and quality of life" a process that had been observed decades ago (Hesse 1980). Often, in Sweden at least, there is a movement "back" to regions where the migrants once lived or have their roots.

In fact, many industrialised countries in the world – and not the least northern European countries like Norway, Finland and Sweden – have strong cultural bonds that are to a great extent based on non-urbanized lifestyles. For instance, much of the Swedish industrialization process occurred in relatively small towns which combined natural resources with industrial creativity and absorption of new – and foreign - technology. The development of new technologies as well as the advanced absorption, learning and application of foreign technologies in the Swedish steel industry during the 18th and 19th century was to a large extent a rural or works-village (*bruks*) phenomenon (cf. Berg & Bruland, 1998). And Sweden is far from unique in having a significant part of its original industrial creativity in sparsely populated rural areas. Significant parts also of artistic creativity among Nordic painters and authors have historically been located to the rural areas; most well known are probably the Danish *Skagen* painters during the later part of the 19th century.

Today the bulk of Sweden's internationally competitive industry remains based – or has important plants and R&D units – in places which in a global perspective can be classified as small towns: Scania (Södertälje), ABB (Västerås & Ludvika), SSAB (Borlänge, Oxelösund & Luleå), SAAB Aerospace (Linköping), Volvo CE (Eskilstuna), Haldex (Garphyttan, Landskrona), Sandvik (Sandviken) and Outokuompo (Avesta) to mention only a few. And, as captured by Ejermo (2005), *per capita* patenting is among the highest in these areas due to the presence of these global firms.

Swedish non-urbanised small cities thus provide a good illustration of industrial creativity and specialisation that is historically conditioned. Just to select two cases from this context; *Sandvik* - a global engineering company with sales offices and production facilities in 60 countries still has its headquarters in Sandviken where 160 years ago, its founding father, Göran Fredrik Göransson succeeded in becoming the first entrepreneur to embrace the Bessemer method for steel production on an industrial scale (Nisser, 1999; Petterson, 1983). Likewise, *Avesta* - a relatively small town on the banks of the Dala-river - is still home to a stainless steel plant including R&D related to that industry, a plant that currently invests heavily in expansion as well as quality upgrading. *Avesta* has a long history of industrial creativity; in the 14th century a farmer's forge serviced the region (Petterson 1983). In the 17th century, it became the seat for refining copper including making crown copper coins, in the 19th century the plant started manufacturing pig iron and forged carbon steel and the 20th century embraced the dawn of innovations including the development of stainless steel. Although within a narrow field world class engineering is still performed there.

The fact that Swedes have a strong connection to non-urbanised regions is also revealed by the fact a majority (52-57%) of Swedes have access to a second house (normally located in rural areas) and 21% own their second home privately (Statistics Sweden, 2008). Academics and people with higher positions in firms, cultural institutions and public service – arguably members of the creative class – have still more access to second homes than the average. The rural drift – of which the second home may be viewed as an additional proxy - is thus far from limited to non-academics, or non-creative people (which are not necessarily the same). There is of course a large variety of these non-urban visions or projects, some of which are related to "hunting in the morning and writing poetry in the evening" a la Marx or Thoreau, and others to the vision of sustainability or, on the contrary, to struggle against nature. Nevertheless relatively sparsely populated (parts of) countries like Sweden, Norway, Finland etc., are not necessarily remnants of the past inhabited by non-talented losers only, but also include people who may be classified as members of the creative class in the terminology of Florida. This seems to be in line with the findings of Mcgranahan and Wojan (2007) on the importance of natural amenities in enhancing the quality of life in rural settings. It seems that part of this ambiguity between urban and rural areas for the "creative class" is not only to increase the variety in their life projects including "green" experiences hard to find in crowded city centres but that the non-urban contexts at least under certain conditions can contribute to creative processes.

ICT Ability to Transform Non-urbanised Regions

When it comes to the third **T** of Florida's creativity thesis i.e. **T**echnology, there is no doubt that technological change has the ability to facilitate in regions outside large cities in industrialised nations the overcoming of obstacles such as competence generation. In particular, ICT offers a plethora of opportunities to industry since it enables them to design their business activities and thereby improve production and process methods. In particular, the Internet has become the enabler of a new dynamic business environment and has facilitated the emergence of new business opportunities, and the dawn of a new marketplace for products and services as argued by Caincross (1997) a decade ago. The importance of ICT proliferation as a mechanism of development is evident in non-urbanised regions such as Hälsingland in Sweden which is situated more than 200 km north of the Swedish capital. This region, characterised by small villages, was once a core region that contributed to the dynamics of Swedish industrialisation. It is one of the regions that saw the dawn of industrialisation. Although it was probably here that modern Sweden was born (Lindberg, 2003), this region like many others in Sweden and elsewhere in industrialised nations has witnessed both the virtuous and vicious forces of industrial transformation.

In recent years Hälsingland and many peripheral regions- mainly rural and in the north of Sweden have witnessed economic hardships resulting in migration, unemployment etc. At the same time, the municipality of Ljusdal has benefited from ICT proliferation. While the number of people working in traditional industries has been declining it has witnessed the emergence of service firms that use ICT to cater to customers in Scandinavia. Although these firms are labelled often pejoratively as "call centres" a closer look at their activities reveals that the majority are information brokers that deal in gathering, storing, processing, and selling information to many other business customers who pay a subscription fee to gain access to the online database. It seems that such companies and thus by extension Ljusdal have found a *niche* in providing a wide variety of organizational solutions, industrial competence requirements, territorial models and industrial and commercial activities (Nuur, 2005; Nuur and Laestadius ,2007). Globally millions of people are probably engaged in activities such as those of the information brokers although we are convinced that far from all of them are labelled so. For the companies in Ljusdal for instance, the *cliché* that geography is history could be true, especially with the ability of digital technology to provide organisations with the capacity to respond to customer needs regardless of location.

A mirror image of the recent development of ICT is that people, who want to spend a larger part of their lives outside urban congestions, have more opportunities to do so now without loosing contact with creative environments than ever before. In short: the mechanisms so widely discussed in the globalization literature on the networking opportunities created by ICT development are relevant also for remote areas in core countries (cf. Castells, 1996/2000). Statistics show that 18 percent of Swedish employees/ academics answer that they spend at least 30 percent of their working time at home. Some of these people obviously spend – at least part of their time - outside the "cafe latte areas". So, our question is whether the remote regions in Sweden and elsewhere do after all have a chance to qualify as 'competitive' in the new global economy?

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