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Economic Development and the Rise of the Creative Class

Research Paper – Putting Peterborough in Perspective

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Introduction:

This Research paper is the culmination of the findings regarding the creative class model of economic development related to the Peterborough area. The exploration of empirical research proves that Peterborough can become stronger economically by increasing the draw and retention of the creative class. For this area to maximize innovation, develop vibrant culture and to become economically sustainable, the recommendations within this paper must be implemented. Moreover the most important element for future development is the creation of an area niche, which would increase the symbolic representation of the area. We feel that elements of the Environmental School of strategic management support and mix well with ideas from Richard Florida's works. Throughout all stages of this project we wanted to keep an open mind trying to develop the most 'creative' recommendations as possible.

We feel that many of our recommendations are long term initiatives that will take time to develop. This paper has demonstrated that Peterborough is comparable to many other cities and must constantly be developing with the environment, or face the strong possibility of losing its competitive advantage. However, by embracing the creative class model, Peterborough could truly become a place where technology, talent and tolerance thrive. The following will describe in detail what comprises the creative class, the Environmental School of strategic management, the economic assets/liabilities of Peterborough, and our recommendations on both the three Ts and the theories of the Environmental School. As a group, we feel that Florida's research and ideas relating to the creative class will assist Peterborough in the creation of a sustainable economic future. Additionally, we believe that, with the implementation of these recommendations, Peterborough has the ability to become the benchmark creative community among small-sized regions in Ontario.

Contextual Background:

The Three T's of Economic Development:

According to Florida's theories regarding the creative class model of economic development, regional economic growth is driven by creative people who prefer to live and work in communities that are diverse, tolerant, and open to new ideas. Members of the creative class are attracted to areas that offer high-tech and diverse employment industries as well as communities that have an open and diverse culture base (Florida et al., 2010). If these elements can be realized, the area will be successful in: generating new combinations of ideas, achieving higher rates of innovation, job creation and high tech business formation and most importantly attracting a diverse group of people with various skill sets and ideas that will in turn spur future economic growth. Florida's theory of the **3T's** of economic growth, which will be discussed next, assumes that firms, which rely on skilled labour, will be willing to trade inefficiencies such as higher taxes to access highly skilled human capital (Florida et al 2010). It is therefore important that areas focus on building a community that is attractive to the creative class in achieving long-term economic growth.

Florida (2002) discusses what he calls the 3T's of Economic Growth as a measure of a community's ability to attract members of the creative class. The 3T's are Technology, Talent and Tolerance. According to Florida (2002) communities must achieve a substantial level of all three in order to be considered a creative community, thus realizing their full economic potential. The technology component of the Three T's is measured by the Technology Index which takes into account a region's innovativeness, as well as the size of their high-tech producing industries (Ontario, April 2009). Members of the creative class often work in careers that require them to think which are most often associated with high-tech jobs. It is therefore important to offer a large and diverse high-tech industry for the attraction of the creative class. The talent aspect of the Three T's is based on a Talent Index which takes into account the number of people in the population who have a post-secondary education or higher. This measure is important because it reflects the individual's ability to transfer their skills into valuable economic activities through occupations (Martin Prosperity Institute, 2009). To be successful in developing a creative economy, areas must be able to educate their population, attract new educated individuals while also working to retain them through meaningful career opportunities. The third and final T is Tolerance, measured by the Tolerance Index, which takes

into account regions openness and diversity. Areas that offer a cultural mosaic of people are more prone to idea exchange and creativity which is a vital component of innovation (Martin Prosperity Institute, 2009). This culture of openness is also a signal to outsiders that a community is a place where they can be successful, thus attracting members of the creative class to locate themselves there (Martin Prosperity Institute, 2009). Communities that wish to attract creative people must incorporate tolerance as a key component to economic growth.

Richard Florida's Three T's of Economic Development are essential to the attraction and retention of the creative class. If a substantial level of the Three T's can be achieved, the community will not only be successful in attracting creative class individuals but also achieving sustainable economic growth. Thus, incorporating the Three T's as part of a region's economic growth strategy is essential.

The Environmental School of Strategic Management:

To better understand the city of Peterborough's competitive advantage and how the three T's play a role an environmental scan will differentiate the city's strengths and weaknesses. Other schools in the strategic management field describe the environment as a factor, whereas, in the environmental school it is the main actor. The environment is fundamental to the success of a city planning and must be recognized and reacted upon. According to this school, bureaucracy can constrain the needed adaptation to the demands of the environment, and may result in missed opportunities. Without adaptation communities become similar in distinct ecological type niches and after time resources become scarce resulting in the least adaptable being forced out of the market (i.e., lack of talent and innovation). The following will explain the three theories from the Environmental School, the contingency view, the population ecology view, and the institutional theory. These theories will be referenced during the recommendation portion of the report, to help provide well rounded and educated ideas for the future of the Peterborough community.

Contingency View:

The Environmental School's most prevalent condition is the contingency view which explains that there is not one best way to operate but rather "it all depends" on the circumstances produced by the environment. Moreover, different situations give rise to different behaviours. The environmental forces that communities face are directly related to consumers, competitors, suppliers, and government regulation, etc. The demands that these forces place on cities produce norms and over time

communities become very similar. Furthermore, this model is divided into three segments which include: coercive; where cities conform through standards and regulation, mimetic; where communities imitate, and normative; where professional expertise provides strong influences. Under the contingency view we must remember that different situations require different strategies.

The Population Ecology View:

The second theory in the Environmental School states that the structure and characteristics of community are fixed after its formation. When strategies are implemented the area's planning becomes less adaptable to its environment making it rigid and unable to make truly strategic decisions. Innovation is crucial in a community's survival because it gives the community an advantage over the competition. The survival of a community depends on its ability to acquire an adequate supply of resources, otherwise communities that do not will be selected out. The population ecology view describes competition where the environment sets the criteria.

The Institutional Theory:

This theory incorporates the institutional pressures that communities face in the environment. Under this condition two levels of thought are incorporated the economic and symbolic resources that encompass areas. The economic resources include tangible elements such as land, facilities, and money, whereas the symbolic resources include the reputation, prestige, and past achievements of the community. These two elements feed off each other; for example if state-of-the-art facilities are built the symbolic reputation of the community will increase.

Environmental Scan; relating to the three Ts and Peterborough

The following will outline specific economic assets that Peterborough currently capitalizes on. For the future economic success and growth of the city it will be important to maintain and develop the current strengths. This will allow the area to become successful in attracting and retaining members of the creative class. If the city wishes to attract and retain this segment of the population, the potential of these economic assets must be fully recognized, maintained, and built upon. "In the creative economy,

brown and the ability to mass-produce goods is seen as less important to the human capability to generate new ideas, concepts, and products” (Ontario, April 2009). Peterborough must capitalize on their current assets to create a new future through the elements of the creative class. To focus this research, Peterborough’s creative class assets will be broken into three categories; Technology, Talent, and Tolerance. In addition, this section will also outline specific economic assets that the city of Peterborough currently does not capitalize on. If the city wishes to attract and retain this segment of the population, these economic assets must be observed as essential to the development of a creative community.

Talent:

Richard Florida’s research indicates that an important factor in attracting members of the creative class is the level of talent a city displays. Indicators such as the number post-secondary graduates, types of employers, and types of post-graduate opportunities, will show a city’s qualities under this segment. The following will explore the strengths and weaknesses of the tolerance section in more detail.

Strengths:

Competitive Ranking Amongst Ontario’s Census Metropolitan Areas

According to The Peterborough Social Planning Council document Ontario in the creative age, the three top performers among Ontario Regions on the Talent Index are, Guelph (26.7%), Kingston (23.3%) and, Peterborough (16.2%). Only the first two are above the Ontario average of 22.8%, with the rest falling below the Average” (Ontario, April 2009). This places Peterborough third in Ontario under the talent ranking. This is based on how many people in the population have post-secondary education or higher. Furthermore this is looking at the retention of educated workers that reside in the city after graduating.

Top Employer

According to the GPA EDC document (2008), the largest employer in Peterborough is the Peterborough Regional Health Center, (PHRC). As stated on the PRHC website the hospital is, “Servicing a population of more than 300,000 in four counties, PRHC staff of approximately 2,000, with 600 volunteers, and about 350 physicians” (PRHC, n.d.). This Health Centre is an important recourse for attracting and retaining people that would be considered under the talent ranking.

A High Tech Draw for Talent:

According to an article found in the Examiner, "Creative jobs are flowing. Operitel, one of Canada's fastest-growing technology firms, was downtown until it bought and renovated a vacant older industrial building in the Sophia Street neighbourhood in East City. Another growing software company, The Breken Group, took over a former mission for homeless men on Brock Street" (Examiner, n.d.). These growing companies demonstrate the fact that Peterborough is an economically viable area to start a company, and also that talent can thrive in new creative jobs within the city.

Talent Weakness:

Graduate School

According to Richard Florida (2002), members of the creative class, are most often well educated people who value the opportunity to continually advance themselves. Creative Class members often do this by attending graduate school later in their lives. Therefore, members of this class place a great deal of importance on locating in a city that is close to a high quality college or university that offers graduate school opportunities.

Post-Secondary in Peterborough

Peterborough offers two unique post-secondary institutions in Trent University and Sir Sandford Fleming College. Trent University is a liberal arts institution with a focus on undergraduate studies. However, the University also offers a wide variety of graduate school opportunities ranging from a Masters of Arts (Anthropology, Canadian Studies, Ingenious Studies, Sustainability Studies etc), Masters of Science (Environmental Sciences, Psychology, Material Sciences, etc), Ph.D (Canadian Studies, Cultural Studies, Environmental Studies, Indigenous Studies etc), and joint programs between Queens University and University of Ontario Institute of Technology (Trent University, 2010). Sir Sandford Fleming College also offers eighteen different post-graduate programs in the fields of Emergency Management, Event Management, Museum Management and Courtship, Sustainable Agriculture etc (Ontario Colleges 2011). Through Trent University and Sir Sandford Fleming College, there exists opportunities for individuals to attend graduate school. However, it is important to assess the variety of programs available in comparison to other small cities in Ontario to benchmark Peterborough.

Comparison to Peterborough's Closest Competitors for Post secondary

In Ontario, both Kingston and Guelph rank ahead of Peterborough in the talent ranking (Martin Prosperity Institute, 2009). Kingston has two post-secondary education facilities in Queen's University and St. Lawrence College. Queen's University (2011) has over 75 graduate programs in eight different fields including Health Sciences, Engineering, Business and Law while St. Lawrence College offers ten post-graduate programs such as Behavioural Sciences, Business Administration, Early Childhood education etc (Ontario Colleges, 2011). Guelph, like Peterborough and Kingston, Guelph offers two post-secondary institutions in the University of Guelph and Conestoga College. The University of Guelph offers over 90 graduate programs in programs such as Animal Sciences, Economics, Business Administration etc (University of Guelph, 2010) while Conestoga offers 38 post-graduate opportunities in programs such as Business Management, Event Management and Public Service (Ontario Colleges, 2011). While Peterborough's post-secondary institutions do offer some opportunities for post graduate education, both Kingston and Guelph offer many more programs than what is available in Peterborough. It is also important to note that creative class people seek out careers where they are paid to think. Therefore, in comparison to Peterborough's post-secondary institutions, both Kingston and Guelph offer more applicable graduate programs to assist creative class people in obtaining the jobs that they desire.

Diverse Employment Opportunities/Thick Labour Markets

It is important to members of the creative class to have the ability to change careers multiple times throughout their lives (Florida, 2002). Creative people are attracted to areas that provide them with diverse employment opportunities in a variety of industries (Florida, 2002). Florida (2002) notes that the average American changes jobs once every three years and Generation Y members change jobs once per year. Therefore, it is important that cities such as Peterborough offer a diverse employment market in order to attract and retain members of the creative class.

According to the GPA EDC (2008), over 50% of the labour market in Peterborough is in the areas of Sales and Services, Trades and Business Administration. Although the labour market in Peterborough does present other opportunities, it is highly concentrated in these areas leaving very little opportunity for members of the creative class to diversify their employment backgrounds throughout their working lives. Members of the creative class will be attracted to areas that offer a thicker labour market with more diverse opportunities in other industries. If Peterborough is to be successful in attracting members of the creative class, they must improve their efforts to attract

businesses in multiple industries. As previously noted, the current labour market of Peterborough is concentrated in three areas. Peterborough should aim to attract businesses that offer jobs in the areas of education, applied sciences, social sciences and arts culture. Having organizations that offer these employment opportunities will enable the city to attract and retain members of the creative class by offering them the ability to work in multiple industries throughout their lives.

Technology:

Creative class people most often seek jobs in the technology industry due to their interest in jobs that require them to think (Florida, 2002). These members of society will be attracted to areas that offer these types of employment opportunities (Florida, 2002). It is therefore important to the economic growth of a city to attract these types of employers to retain their creative citizens. The following will explore the strengths and weaknesses of this technology section in more detail.

Strengths:

Competitive Ranking Amongst Ontario's Census Metropolitan Areas

According to The Peterborough Social Planning Council document, Ontario in the creative age, Peterborough ranks high under the technology category. Throughout Canada “the top performers overall on Technology are; Sherbrook, Kelowna, and Peterborough” (Ontario, April 2009). This places Peterborough third in Canada and first in Ontario. This aspect gives the city an advantage and is considered to be Peterborough’s core strength because, “Technology is the driving force behind economic growth” (Ontario, April 2009). The method of ranking technology “is based on three separate measures which reflect regions innovativeness and the size of their high-tech producing industries” (Ontario, April 2009). This ranking is supported by the long standing history of the City to be a manufacturing hub, with many industry leaders.

Manufacturing/Tech Firms in Peterborough

According to the GPA EDC document (2008) Peterborough, historically has been a manufacturing hub. Over time, this has resulted in a well established industrial/manufacturing core. “Among the many successful Peterborough-based businesses serving local, national and international markets from Peterborough are; PepsiCo Foods (Quaker), General Electric, Fisher Cast Global, Siemens Milltronics, Minute Maid, and SGS Lakefield Research (About, n.d.)”. The previously mentioned companies are the largest and most well know in the city. However, within the past ten years more small businesses

and start-ups have begun to develop including notable companies such as, Safran Electronics Canada, The Breken Group and Operitel Corporation. These new companies will continue to help establish Peterborough as a technology leader.

Potential for Growth and New Ventures

According to the GAP EDC (2008), the potential for new ventures and start-ups is strong in this area. Surrounding the city is an abundance of land that is accessible for new start-ups. In the designated industrial parks 49 spots are in use with an additional 15 available (GPA EDC, 2008). This highlights the potential for new technology companies to locate to this area. The city also has an airport with a growing industrial park. This is an overlooked aspect of the city's potential however the airport and industrial park are making a good start to adding to the growth of technology in the area. The growth in this area will maintain the long-term development and rank of technology-based knowledge in the Peterborough community.

Post-Secondary Education

According to the GPA EDC fact sheet document, the post-secondary institutions (Trent/Fleming) are very strong assets to the Peterborough community. Trent University has over seven thousand students, with acclaimed programs in Environmental Resources and Canadian Studies. The university contributes \$190 million to the local economy annually (GPA EDC, n.d.). Producing world-class research, innovation and new technology are contributing factors to the development of the creative class. In part this has been accomplished by the world class research facilities in watershed and environmental studies departments. Sir Sandford Fleming is a community college based in Peterborough with satellite campuses in Lindsay, Halliburton, and Cobourg. Enrolment is 12,000 full time and part-time students. The college recently built a new wing focusing on technology (GPA EDC, n.d.). These two assets truly add to Peterborough's development and ranking, and are a driving force for Peterborough to become more of a creative community.

Innovation Cluster

The Greater Peterborough Innovation Cluster is a very important creative element to the community. The Innovation Cluster is a not-for-profit organization incorporated in 2004 (Greater Peterborough Innovation Cluster, 2009). As part of the Ontario Commercialization Network (OCN), the Innovation Cluster is one of twelve Regional Innovation Networks (RINs) in Ontario, ensuring that the programs and services of the Ontario Ministry of Research and Innovation are provided within the Peterborough

Region (Greater Peterborough Innovation Cluster, 2009). The Innovation Cluster, previously known as the Greater Peterborough Region DNA Cluster, was established through Trent University, Sir Sandford Fleming College, Ontario Ministry Natural Resources, and the GPA EDC (Greater Peterborough Innovation Cluster, 2009). The cluster received funding from Trent University, Sir Sandford Fleming College, Industry Canada, Ministry of Economic Development and Trade, and the City of Peterborough upon its establishment (Greater Peterborough Innovation Cluster, 2009). Currently, the Innovation Cluster has expanded its scope to include innovation across multiple disciplines. This initiative has the potential to truly put Peterborough on the creative-class map as the people that are involved in this program are the thinkers and innovators of society, and will be drawn in to capitalize on the opportunities available within the Innovation Cluster.

Technology Weakness:

High Tech Jobs

Although there are many companies in Peterborough that most often require a technology aspect to their organization such as General Electric, PepsiCo Foods and Siemens Milltronics, there are very few companies that are solely technology based. One of the only, and most successful companies in Peterborough, that is technology focused is Operitel Corporation who develops Learning Management Systems. It is primarily companies such as Operitel that members of the creative class seek out when comparing cities that they wish to live in. Although successful, Operitel is relatively small and does not offer a large number of employment opportunities to potential residents of Peterborough. Since Operitel is one of Peterborough's only technology based companies, it is apparent that the city provides little opportunities in the high-tech industry to creative class individuals. Therefore, it is important that the area work to either support the start-up of companies in this industry, or, attract previously existing companies in this industry to open operations within the city. Additionally, it is important that the post-secondary institutions within the area offer programs that are geared towards this type of employment.

Tolerance:

Richard Florida's research indicates that an important factor in attracting members of the Creative Class is the level of tolerance a area displays. Indicators such as the number of visible minorities, the number of bohemians, or even the way in which a city structures its downtown are all signs of a community that values diversity, openness and also a place where tolerance can thrive within the

community. The following will explore the strengths and weaknesses of the tolerance section in more detail.

Strengths:

Competitive Ranking Amongst Ontario's Census Metropolitan Areas

According to the Social Planning document Ontario in the Creative Age; Peterborough is ranked third on the tolerance ranking. This document explains that tolerant regions are open to different types of people with more open-minded culture. This type of environment is conducive to idea exchange and the creativity that is vital to the process of innovation. The importance is placed on openness to change and diverse perspectives. "Working together, when people are educated and open minded to different ideas, the best and most creative ideas tend to rise to the top. Regions able to harness the creative potential of their citizens attract the human, financial and physical capital necessary to commercialize products and services by forming new firms, and make existing ones more effective" (Ontario, April 2009). In this type of society people with many different backgrounds can intermingle to produce improved outcomes. This is an example of why Peterborough ranks third on the tolerance ranking.

Peterborough Comparative to Toronto and the future potential

According to a Peterborough Examiner article, the life style fitting for members of the creative class can be found within our community. "The heritage nature of Hunter and Charlotte streets has been used to great advantage, and they have vibrant atmospheres that compete well with better known streets in larger cities, such as Queen Street West in Toronto (Elliott, 2009)". The downtown core has many pubs, unique restaurants, and coffee houses, producing a distinctive Peterborough culture. This article then describes areas close to the downtown creative hub that creative minded people might like to live. "Look no further than Brock Street, in a section extending from Water Street to Aylmer Street. In one of the oldest areas in town, it is a walk-able neighbourhoods close to all cultural amenities. Heritage buildings dating mostly from the 1860s to the 1880s are being used in creative ways, if not by creative types (Elliott, 2009)". The article further states some of the fundamental elements that comprise a tolerant and creative society; Elliott's opinion is on the less noticeable but still relevant section of the downtown area. The following is his view on the area;

Start with the Pig's Ear Tavern, a long-running pub in an 1860s building, and you will find this a hub for students, artistic types, and others who come not only for the lower-priced drinks but also the very good music from local and out of town bands. Right next

door is the Morrow Building, a masterpiece in Second Empire architecture from the late 1870s, and a place that offers interesting and different first-floor businesses (including an excellent store selling vinyl records) and second and third storey apartments (Elliott, A).

This article highlights an area of town that holds potential to grow and become more attractive to people within the creative class. This will start a reaction; the buildings in the area will be renovated, and new business and artistic movements will start. The possibility of this type of development in this upper area of downtown is very similar to how the lower areas of downtown become what they are today. According to the examiner article, *Where Heritage Meets the Future*, “As more people began showing up downtown, retailers followed. Landlords invested, in a limited way, in second-floor and third-floor apartments over the ground-floor shops. The City, in a bold move, spent \$5 million on Millennium Place and its waterfront trail and millions more on infrastructure that convinced private investors to create the successful Hunter Street cafe and entertainment zone” (Examiner, n.d.). This highlights the role the city plays in evolving culture within a community, resulting in greater tolerance levels overtime.

The Current Planning Movement to Become a Creative/Tolerant Mecca

The City of Peterborough is continuing to play a strong role in developing the downtown further. The most appropriate example of this is the, “...two-year, \$9.7-million renovation and restoration of Market Hall. Workers will restore the south and east exterior of the building as well as renovate the Market Hall theatre. The project is scheduled to be complete by March 2011” (Examiner, n.d.). This highlights the City’s commitment to maintain and develop current assets creating a more attractive downtown core for newcomers.

The private sector is also playing a strong role in rejuvenating the city core, to help transform it into an economically viable and culturally strong area. “Operitel owner Michael Skinner has bought three downtown entertainment venues, with plans to spend \$1 million turning the vacant Vibe nightclub into a concert hall” (Examiner, n.d.). This transformation toward a clean and respectable establishment has truly changed the attractiveness of the downtown core and also the perception of Peterborough to the surrounding world. The Venue is the only multipurpose ‘trendy’ spot downtown. The type of events at this hall can range from concerts, art shows, gala dinners, to weeklong business conferences. This will also bring credible acts to town boosting the economy and strengthening culture and adding to the overall tolerance of the community.

Weakness:

Multiculturalism

Theories of attracting members of the Creative Class, as proposed Richard Florida, indicate that a community that displays high levels of multiculturalism are often more successful in attracting Creative Class members to live and work in their city since it is an indicator of a communities tolerance (Florida, 2002). While Peterborough ranks high in levels of integration and bohemian residents, the city ranks poorly in their cultural mosaic, the number of visible minorities and gays and lesbians within the city. As noted in Florida's research, these are all indicators of a area's tolerance level which, in many cases, acts as a magnet for creative capital. Therefore, if Peterborough wishes to attract members of the creative class, they must allocate resources to improving their standing on these factors.

Miscellaneous Strength:

The Creation of Jobs and the Appeal for Newcomers

The following was retrieved from the Peterborough Examiner. "The top priority is creating more jobs and the rest of the economic indicators, such as disposable income per capita and diversity of population, will follow. The DNA Cluster and Peterborough Airport expansion in particular will create a more technology-based economy, (Bower, n.d.)". This expansion, along with similar initiatives, will create the infrastructure to support the creative class. According to the article, "People considering moving to Peterborough like the fact this city has short commutes to work, short distances to libraries and a high ratio of teachers to school-age children (Bower, n.d.)". Peterborough does capitalize on the small-town feel, yet it has most everything a larger area would have.

Miscellaneous Weakness:

Connectivity

The report titled "Ontario's Small-Sized Regions' performance on the 3T's of Economic Development" by the Martin Prosperity Institute, highlights some important factors that are necessary to the development of a creative community in smaller regions of Ontario such as Peterborough. In this report, the author notes that an important factor in smaller areas developing of a community that is attractive for members of the creative class is connectivity to and from larger regions.

The report highlights that many smaller regions such as Peterborough are capable of attracting members of the creative class, however, these regions are often disconnected from larger regions and therefore, the flow of knowledge and creative capital between these regions in many instances is compromised. This lack of connectivity creates a situation where individuals must choose between where they want to live and where they want to work. While Peterborough may have many elements of a creative community, their lack of connectivity to larger regions may discourage both individuals and businesses from locating there. Therefore, as outlined in the report, it is mutually beneficial to both the larger and smaller regions to collaborate on a way for these regions to be connected in a manner that allows for creative capital to be highly mobile. The report suggests that infrastructure such as high-speed rail and broadband networks are economic assets that could make the choice of living in smaller regions such as Peterborough a more realistic option for members of the Creative Class.

Peterborough's location can be viewed as an economic asset if utilized properly. According to the GPA EDC, 60% of all Canadians and 40% of all Americans live within an 800KM radius of the city. The city is also reasonably accessible to large cities such as Toronto, Ottawa, Montreal, Quebec City, Rochester NY, New York City NY, Boston MA etc (GPA EDC, 2008). However, despite its location, Peterborough lacks accessibility to these large populations and regions. Although the infrastructure does exist to one day accommodate high-speed rail service, no such service currently exists. Peterborough's current transportation advantages include a four lane highway that connects the city and the 401 highway, and a small municipal airport (GPA EDC, 2008). The city is also located 140KM away from Toronto International Airport (GPA EDC, 2008). The key to a greater creative class is faster and more reliable transportation to other metropolitan areas.

Vibrant Social Networks

In a Business Week column, Richard Florida (2002) writes that the most important factor in where Generation Y members of society choose to live is access to vibrant social networks that allow for the means necessary to meet people and make friends. He notes that not only do these vibrant social networks allow for people to meet new friends and broaden their personal happiness, but it also allows them the ability to obtain jobs and advance their careers. Therefore, access to vibrant social networks act as an important factor in where members of the Creative Class choose to live. Areas such as Peterborough must be willing to invest in creating these social networks if they are to be successful in attracting members of the creative class.

Recommendations:

As a group, we feel that Florida's research and ideas relating to the creative class will assist the city of Peterborough in the creation of a sustainable economic future. Therefore we have developed a core set of recommendations that we feel will assist the city in the development of a creative economy. Our recommendations are based on an assessment of Peterborough's current economic assets and weaknesses in terms of the creative class, as well as the Environmental School of strategic management. Through the adaptation of these recommendations, we believe the city of Peterborough will become a community that is successful in attracting and retaining members of the creative class to live and work within the city. Additionally, we believe that, with the implementation of these recommendations, Peterborough has the ability to become the benchmark creative community among small sized regions in Ontario. Each recommendation is based on Florida's 3 T's of Economic Development.

Talent and Technology:

In developing a long-term economic strategy for Peterborough it is important to keep in mind Florida's Talent Index. The Talent Index measures the number of the number of people in a population with a bachelor's degree or above (Martin Prosperity Institute, 2009). As previously noted, Peterborough currently has some existing economic assets that the area can capitalize on in the attraction of talent. It is important to keep these assets in mind while also realizing where the city currently lags in terms of talent assets throughout the creation of a creative economic strategy. As with Florida's Talent Index, it is important to keep in mind his Technology Index. This measures employment in high-tech firms and innovation. As previously mentioned, research from the Martin Prosperity Institute (2009) indicates that Peterborough ranks first in Ontario among smaller regions. However, it is important to address how Peterborough can not only continue their high technology ranking but also extend it. The technology and talent T's of economic development are grouped together due to their strong correlation with one another.

Trent University and Fleming College:

While Peterborough does offer two unique post-secondary institutions, the opportunities for post-graduate education are few. Additionally, there are currently only a few graduate study opportunities

that are relevant to members of the creative class. Creative class people seek opportunities to continually advance their education and knowledge base. As a city that wishes to attract creative class individuals, it is important that Peterborough's post-secondary institutions offer a wide variety of post-graduate opportunities that are relevant programs to this demographic. Therefore, it is important that the city encourage the development of such programs and support their post-secondary institutions where needed.

Programs such as MBA's, Engineering, Law and Applied Science are all educational backgrounds that members of the creative class seek out. Additionally, given that the Trent and Fleming communities have distinct academic strengths compared to other post-secondary institutions such as Environmental and International Development studies at Trent, the institutions can capitalize on these strengths in an effort to create unique graduate programs. For example, Carleton University in Ottawa recently created the first Canadian MBA program with a focus on International Development. This is an excellent example of a university drawing on multiple strengths to create unique programs. Programs such as these require to be developed and marketed as a key strength for the city. Doing so will attract creative class people to live in the city since they will be able to continually seek educational opportunities throughout their lives. Taking into account the importance of these educational opportunities, the city should support their institutions in this development.

The city could also capitalize on their post-secondary institutions strengths by making the culture of the institutions a core aspect of the city. For example, the two institutions are recognized among the academic field for their "green" or "sustainable" approach in education. We feel the city could take advantage of this by making an effort to become a "Green Mecca" among smaller regions in Ontario. By drawing on the strengths of their institutions, the city could generate many ideas about how to take a more green approach in its development. By becoming a "Green Mecca" among other small regions in Ontario, Peterborough would develop a marketable niche that would be a draw for people to locate in the city.

Peterborough's post-secondary institutions could also change their approach to research in a manner that would improve the areas ability to foster innovation. Currently when research is done at Trent, the university owns 50% of the patent rights. Other universities such as Waterloo give full rights to patented technology that is developed within the University. As a result, there is a greater incentive for people to develop technology, talent is attracted to the university, and there is better marketing of the University as being a research intensive institution. This approach to research within the University is a significant issue since members of the creative class are attracted to areas that foster

innovation. However, without the incentive for people to develop new technology, innovation within Peterborough will suffer.

Diverse Labour Market:

To attract members of the creative class, Peterborough must offer a diverse labour market with employment opportunities in a various industries. As previously mentioned, Peterborough's current labour market is highly concentrated in a few areas. It is important that the city support these existing firms by continually attracting new talent to the area. A key idea behind Florida's research is that companies will locate where the skilled labour necessary to run the organization resides. Therefore, in an effort to support these existing organizations, the area must attract skilled labour to the city. While supporting the existing business in the city, Peterborough must also work to attract new organizations that offer meaningful work experiences for creative class people. As previously mentioned, creative class people seek employment opportunities that force them to think. Therefore, organizations such as high-tech firms are important to attract to the city. We see this as a long-term goal for the area; however, it is important and necessary to the city's future economic growth and the attraction of the creative class.

Fostering Innovation:

To build on Peterborough's current technology ranking in terms of innovation, it is important that we look at organizations that currently reside in the city that foster innovation. According to the Martin Prosperity Institutes (2009) report on Ontario's small regions, patents have grown in the city 33.4% during the years of 2000-2005 and there were 1.37 patents per 10,000 people during the year of 2005. We believe the Peterborough Innovation Cluster has played an important role in this current ranking. The City of Peterborough needs to continue to foster innovation through their support of the Innovation Cluster. The more resources the area can allocate to this group the more innovation will grow. Since technology is the driving force behind economic development (Florida, 2002) the city needs to continue and increase its support to the groups that have attributed to its high technology ranking.

Reinventing Peterborough's Downtown Core:

Members of the creative class, according to Florida (2002), are usually artistic types who seek an environment that is unique and rich with character. Additionally, Florida (2002) notes that the

downtown core of any city is the creative hub and is the primary draw for creative class types. Peterborough has a rich and attractive history that, if utilized properly, can become a draw for members of the creative class. Many buildings in the downtown area are very old and carry a great deal of character. Therefore, the city could capitalize on this by renovating some of the downtown buildings in a manner that highlights their character and allows them to be used for business purposes. While these renovations have taken place in some areas, there are many buildings in the downtown core that require updates. Additionally, in an effort to build on the downtown core, the city should consider building or updating artistic venues in one central location. The Canadian Canoe Museum located in Peterborough is an attractive asset that could draw people to the downtown area. Currently the museum is removed from the downtown core and therefore does not add to the existing artistic culture in the city. We feel if the museum were moved downtown it could act as a major draw to the downtown area. There exists some arts studios in the downtown area however, they are not located in one central area which makes them difficult to locate. What we suggest is an art district of the downtown core that is dedicated to highlighting the already existing artistic culture of Peterborough. This ‘art district’ would contain the Canoe Museum, the Peterborough Art Gallery and the micro arts studios that already exist. This would allow the for the artistic culture of the city to be highlighted while also providing a niche among other small regions in Ontario.

The farmers market in Peterborough could also be better utilized. For example, the farmers market in London Ontario acts as a key aspect of their downtown core. The London Farmers Market provides multiple vendors and restaurants offering locally grown products. The market also acts as a venue for large scale events such as the Eat Local Challenge and Garden Festival. The London Farmers Market is an excellent example of how a city can draw people to its downtown core while also supporting the local economy. The Peterborough Farmers market is currently removed from the downtown core and therefore is underutilized in terms of developing the downtown area.

Intergenerational Knowledge Transfer:

When discussing the talent within the city we feel it is important to highlight some significant demographics within Peterborough and their importance to the future economic development of the city. In Peterborough there is a great deal of younger and older generations. An important factor of economic development is Intergenerational Knowledge Transfer (Phillips, 2011). This requires that the older generations are passing along their knowledge to younger generations. This knowledge transfer encourages the development of ideas which promotes economic development. To promote sustainable

growth within the city, Peterborough needs to encourage and facilitate this knowledge transfer as necessary.

Tolerance:

As the Martin Prosperity Institute (2009) notes, the tolerance T of economic development is often overlooked, however, a city's ability to be a cultural mosaic that is open-minded is conducive to idea exchange and creativity. While Peterborough does have some assets that attribute to its tolerance level, the city ranks behind both Kingston and Guelph in this measure (Martin Prosperity Institute, 2009). Specifically the city ranks poorly in areas of visible minorities and cultural mosaic. Given that tolerance is an important aspect of attracting members of the creative class, the city must make an effort to become a tolerant city with people from multiple backgrounds.

New Canadians Centre of Peterborough:

The number of visible minorities in Peterborough ranks sixth out of seven of all small regions in Ontario. This is significant and reflect the city's inability to attract new immigrants. The New Canadians Centre of Peterborough's mandate is to support immigrants, refugees and other newcomers in an effort to ease the process of adjusting to life in Canada (New Canadians Centre, 2008). This social service within the city can assist Peterborough in the attraction and retention of immigrants. Furthermore, the successful integration of these newcomers will further develop the city's cultural mosaic, thus promoting idea generation and creativity. Peterborough needs to treat this center as a vital part of the community and fund the services as necessary. Currently the city contributes funds to the New Canadian's Centre, however, if the they are to better attract and retain these newcomers, the city should increase its funds and resources.

International Students:

The Trent International Program (TIP) brings many students from countries around the world every year to the university as well as the Peterborough community. If utilized properly, the TIP program can be a contributor in attracting and retaining newcomers. However, we feel the issue is that many international students come to the area but leave shortly after their time at Trent. What Peterborough and Trent University need to do is find employment opportunities for these international students following their graduation. As newcomers these people bring a diverse perspective which contributes

to idea sharing and creativity. Therefore, the retention of newcomers via the International Program is an opportunity for Peterborough to improve their cultural mosaic.

Ethnic Events:

What we have noticed in our assessment of Peterborough in terms of immigration is that the city does have some ethnicity but does little to highlight it. What we suggest is that the area develops some ethnic specific events that brings together people from multiple cultures. For example, Windsor Ontario, annually hosts an event called the Carrousel of the Nations. The Carrousel of the Nations is a weekend long festival that highlights world music, dance, art, food and culture (Carrousel of the Nations, 2011). This event not only attracts people to visit the area but also encourages a cultural mosaic. If Peterborough were to implement an ethnic event such as the Carrousel of the Nations it would attract people to visit the area, make newcomers feel welcome and well integrated, and promote a cultural mosaic within the area.

Additional Recommendations:

In addition to recommendations specific to the 3 T's of Economic Development as proposed by Florida, we would like to highlight some other recommendations that have to do with the connectivity of Peterborough to large urban areas and its availability of social networks. Although they are not specific to any one T of Economic Development, they are important issues to address if the city is to attract members of the creative class.

Railway:

Connectivity, according to the Martin Prosperity Institute (2009), is an important issue smaller regions must address if they are to attract members of the creative class. Creative class people enjoy the flexibility and ease of travelling from one area to another. This also makes the choice of where people want to live verses where they want to work easier. One suggestion the Martin Prosperity Institute (2009) makes is high-speed rail connecting smaller regions such as Peterborough to large urban areas such as Toronto and Ottawa. The existing infrastructure that connects Peterborough to Toronto by rail is outdated and cannot currently accommodate passenger rail. Furthermore, the current infrastructure cannot accommodate freight cars that would make shipping to and from Peterborough much easier for companies such as General Electric.

For rail service, we suggest a two step process. Firstly, the city should work towards updating the infrastructure in order to accommodate freight cars. This would allow for the large companies within the city to easily ship products to and from Peterborough. Once this infrastructure is updated, implementing passenger rail would be easier. What we suggest is that the area seek to extend Via Rail and/or Go Train services to Peterborough. Doing so will allow for a greater connectivity to and from larger regions. As a result, more creative class people will locate within the city and business may develop due to the ease of travel to and from Peterborough.

Municipal Wireless Network:

Another infrastructure that is suggested by the Martin Prosperity Institute (2009) is a Municipal Wireless Network. A Municipal Wireless Network is the idea of providing wireless internet access to an entire city. The implementation of infrastructure such as this connects the City of Peterborough to larger regions such as Ottawa and Toronto essentially making them smaller and more interconnected.

Currently, high-speed internet, in the Peterborough and surrounding area of Eastern Ontario, can be difficult to access. It is estimated that 25%, or 250,000, people living in this area have no access to high-speed internet (EORN, 2010). The current project of the Eastern Ontario Regional Network (EORN) will provide affordable high-speed internet access to 85% of people and businesses residing in this area (EORN, 2010). Implementing this project results in Peterborough becoming more connected with larger regions thus making business travel more efficient and the choice of living in a smaller region much easier.

It is important that the city keep in mind the importance of this project and fund it wherever necessary. This project has the ability to attract and retain creative people thus making providing a sustainable economic future for Peterborough.

The Environmental School of Strategic Management:

To provide stronger recommendations allowing Peterborough to develop into a creative economy, and for the city to become competitive against similar cities, the strengths and weaknesses of the three Ts will be related to the environmental school. As previously stated this school of strategic management describes the environment as the main actor, where the community leaders must be constantly adapting and changing. Without adaptation communities become similar in distinct ecological type niches and after time resources become scarce resulting in the least adaptable being forced out of the market (i.e., lack of talent and innovation). The following will relate the contingency

view, the population ecology view, and the institutional theory, to the strengths and weakness of Peterborough to help provide well rounded and educated ideas for the future development of this community.

Contingency View Related to Peterborough's Environment:

Peterborough must become more reactive to its environment because different situations give rise to different reactions. For the city to truly gain a competitive advantage and for the creative class to develop strict plans and bureaucracy must be eliminated because the best reaction to the environment depends on current events. The city overall must become distinct and different from other communities, a niche must be developed to draw in members of the creative class, when this occurs the technology aspect of the three Ts will also increase. When Peterborough becomes reactive to the environment this niche can develop.

The Population Ecology View Related to Peterborough's Environment:

The second theory in the Environmental School states that the structure and characteristics of a community are fixed after its formation. This is relevant for Peterborough's history, as the city has always been known to be a manufacturing hub. This would explain the high ranking for technology, however over time if the other two Ts do not increase Peterborough's strength of technology will decrease. When strategies such as supporting the manufacturing industry are implemented, while neglecting other important aspects, city planning becomes less adaptable to the environment. In the long run this will produce a rigid community structure where new ideas cannot thrive, making the planners unable to make truly strategic decisions. Peterborough must minimize the constraints of 'old leadership' and become progressive to better adapt to the changing environment. In the past Peterborough, has placed too much support on saving the manufacturing aspect of the city. The result of attempting to support this historic to Peterborough yet dying industry, has produced missed opportunities for diversification and the creation of an area- wide niche.

Innovation is crucial in a community's survival because it gives the community an advantage over the competition. This does not happen if only manufacturing is supported; the survival of a community depends on its ability to acquire an adequate supply of resources, otherwise communities that do not will be selected out. In this case the adequate supply of resources is people, in the form of talent. When talent and tolerance increase in Peterborough, technology and innovation will also increase. The population ecology view describes competition were the environment sets the

criteria. The planning of other cities adapted and diversified much earlier than Peterborough, this is why this area is behind in the development of the creative class.

The Institutional Theory Related to Peterborough's Environment:

This theory incorporates the institutional pressures that communities face in the environment. Under this condition two levels of thought are incorporated the economic and symbolic resources that encompass cities. The economic resources include tangible elements such as land, facilities, and money, whereas the symbolic resources include the reputation, prestige, and past achievements of the community. The two elements feed off each other; for example if the area builds state of the art facility such as the invocation cluster, the symbolic reputation of the community will increase. This Environmental School theory supports previous recommendations. To create a greater draw and willingness for creative class members to locate in Peterborough, this economic and symbolic representation must be developed.

Conclusion:

This research paper has incorporated the findings regarding the creative class model of economic development the assets/liabilities of Peterborough, and the Environmental School of strategic management. This has produced a well rounded paper with strong recommendations, for the future development of Peterborough. We feel that many of our recommendations are long term initiatives that will take time to develop. This paper has demonstrated that Peterborough is comparable to many other areas and must constantly be changing and developing with the environment, or face the strong possibility of losing its competitive advantage. However, by embracing the creative class model Peterborough could truly become a place where technology, talent and tolerance thrive. As a group, we feel that Florida's research and ideas relating to the creative class will assist Peterborough in the creation of a sustainable economic future. Moreover the most important element for future development is the creation of a city niche, which would increase the symbolic representation of the city. We believe that, with the implementation of these recommendations, Peterborough has the ability to become the benchmark, creative community among small-sized regions in Ontario.

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