

Animation in Miramichi: Creating the Future

Submitted to
Enterprise Miramichi

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Executive Summary

Enterprise Miramichi, along with its partners in the provincial and federal governments and local animation sector businesses commissioned this study to develop a long term strategy for the potential growth and development of the animation sector in Miramichi, New Brunswick. Mount Allison University's Rural and Small Town Programme (RSTP) carried out the study.

The animation sector in Miramichi currently consists of two key companies, Fatkat Animation Studios and the Child Safety Research and Innovation Council (CSRIC), and post-secondary education programmes in animation and gaming at NBCC Miramichi. The sector fits nicely with the regional, provincial, and Atlantic-wide economic development interests related to growing business success within knowledge-based industries and related export opportunities.

Three major research activities were completed for this project:

- **Document review:** The review included reports on economic development, tourism, downtown signage, community growth, transportation, and downtown revitalization in Miramichi; animation sector reports from New Brunswick, Quebec, Ontario and British Columbia as well as national reports; and secondary literature on cluster and creative community development.
- **Primary research:** Key informant interview guides were developed along with staff and student focus group guides and a staff survey. Twelve key informants were interviewed, seven animation employees participated in the staff focus groups, and 65 employees completed the animation employee survey.
- **Formulation of an action plan:** Information collected from secondary literature and reports along with findings from primary research were synthesized to develop the animation sector vision, SWOT analysis, and priority areas which led to the creation of a detailed action plan.

For the purposes of analysis and discussion, RSTP uses the term “animation sector” to include those companies and studios specifically engaged in animation for film, television, internet, video games, and educational and simulation games among other uses. We use the term “animation cluster” to refer to the broader entertainment, information and cultural industries which are interrelated, feeding off of each other in one integrated economic system. For the successful development of a cluster associated with the animation sector in Miramichi, there will need to be considerable growth in the number and type of related firms and businesses such as gaming, advertising, and computer supply stores. This will in turn create the critical mass required to facilitate the sharing of knowledge. The fostering of a research and development culture or ethic collectively among businesses and NBCC will be required.

Animation is first and foremost an artistic endeavour practiced by creative individuals. The “creative class” is attracted to communities with diversity, quality of place, high acceptance of differences, outdoor recreation and street level entertainment. Artists crave stimulation, not escape. They want many different things to do. Creative cities are unique and authentic communities with heritage buildings, and celebrated local culture and music. The creative class likes to be in areas that are becoming, evolving and changing. They also value downtown

locations because they associate creativity with the energy and intensity of life in a bustling area. Many of the features of creative cities are also those of high-technology growth cities. With increased creativity comes an increase in technology innovation. Communities which attract creative people are successful in general. If communities want to be home to the creative class they need to be open to creativity and diversity and develop a successful “people climate”.

The vision statement for the animation sector in Miramichi incorporates elements from existing strategic plans to ensure that it does not conflict with other community development efforts in Miramichi. The vision is:

A growing, vibrant and internationally recognized animation and gaming sector within a sustainable and diverse Miramichi economy.

The SWOT analysis consists of both real and perceived strengths and weaknesses within the community and external opportunities and threats for both the sector and the City. Strengths for the animation sector in Miramichi include community resources (affordable cost of living, friendly and safe community, clean and natural environment), business and sector resources (innovative studios at Fatkat and CSRIC, the Miramichi Prosperity Fund, available prime business space) and education and training resources (NBCC’s animation and gaming programmes, Centre of Excellence in Multimedia Learning Technology, qualified highly skilled animators). Weaknesses include community shortcomings (no public transportation, identity issues stemming from the amalgamation and a pulp mill town image, older population who do not readily accept change, youth out migration), business and sector shortcomings (lack of complementary businesses, lack of financing and marketing, speciality shops, entertainment options) and education and training shortcomings (new recruits lack adequate training, lack of critical mass of post-secondary institutions).

Despite the apparent shortcomings for the animation sector in Miramichi, there are many external opportunities to take advantage of including the fact that animation and gaming are booming sectors, the need for talent is exceeding supply at Fatkat, quality talent can be brought in from across Canada, knowledge industries offer sustainable economic diversification, and due to the internet business opportunities in India, Asia and across the world can be found. With all of the exciting opportunities, it is important to remember that there are also external threats which cannot be controlled by Miramichi. These include the lure of other cities and regions that offer more amenities for young animation employees. Spouses of animation employees may also have difficulty finding work in Miramichi. Impressive tax credits in other provinces may prohibit complementary businesses from establishing studios in Miramichi.

From the SWOT three main priority areas were clear:

- Community Development (transportation, beautification and revitalization, community cohesion and tolerance, keeping and attracting youth, healthcare and housing)
- Business and Sector Development (business support and financing, attracting new businesses and entertainment)
- Education and Training Development (business and supervisory training, entrepreneurship development, and education to meet industry needs)

A detailed action plan including objectives, tasks, timeline, resources, lead and partners was developed. The plan is divided into three sections: community development, business and sector development, and education and training development. The plan provides details about specific tasks to undertake for each item, whether the item is currently in development or ongoing, or to be completed in the short-, intermediate-, or long-term depending on its importance and where it fits in the strategic plan. In addition, the table lists resources required and the lead and project partners for each action item. Some of the key action items include:

- Offering a local bus system that would spur economic development
- Creating a City arts and culture officer to drive cultural development
- Re-instating the Miramichi Welcome Wagon to better integrate new residents, advertise shops and services, and decrease negative perceptions of the City
- Creating an animation task force to ensure continued communication between all stakeholders and advancement of the sector
- Developing competitive tax credits similar to other provinces
- Attracting complementary businesses that would become part of an animation cluster
- Attracting new shops, dining and entertainment venues that animators and the younger generation would frequent
- Implementing a marketing strategy for the City that showcases its unique qualities
- Building awareness of entrepreneurship programs and funding in high schools and NBCC
- Creating a mentorship program to decrease the learning curve of new animation graduates
- Creating a culture of research and development through supporting faculty research and industry partnerships at NBCC

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Abbreviations

BC	=	British Columbia
BIA	=	Business improvement area
BNB	=	Business New Brunswick
CSRIC	=	Child Safety Research and Innovation Centre
GSA	=	Gaming, simulation and animation
ICT	=	Information communication technology
NAICS	=	North American Industry Classification System
NBCC	=	New Brunswick Community College
RSTP	=	Rural and Small Town Programme
SME	=	Small and medium sized enterprises
SPSS	=	Statistical Package for the Social Sciences
SWOT	=	Strengths weaknesses opportunities and threats

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1. Introduction

Enterprise Miramichi, along with its partners in the provincial and federal governments and local animation sector businesses, commissioned a study to develop a long term strategy for the potential growth and development of the animation sector in Miramichi, New Brunswick (see Appendix A for the list of Steering Committee members). The purpose of this study was to understand the local and global context within which the sector finds itself, with a view to determining the elements which both contribute to and hold back potential business and labour force growth for the sector in Miramichi. Mount Allison University's Rural and Small Town Programme (RSTP) carried out the study.

The animation sector in Miramichi currently consists of post-secondary education programmes as well as two key companies. The New Brunswick Community College (NBCC) campus located in Miramichi began offering animation and gaming programmes 10 years ago. The campus is now a Centre of Excellence in Multimedia Learning Technology. Fatkat Animation Studios and the Child Safety Research and Innovation Centre (CSRIC) have emerged in the City in recent years. The sector fits nicely with the regional, provincial, and Atlantic-wide economic development interests related to growing business success within knowledge-based industries and related export opportunities.

This report includes a summary of the study methodology, an overview of the Miramichi region (including a brief review of past economic development strategies for the City) and an introduction to the Canadian animation sector as well as the sector in New Brunswick. The development of knowledge clusters and creative communities are explored. The report continues with the strategic vision for the animation sector in Miramichi, and an analysis of strengths, weaknesses, opportunities and threats (SWOT) affecting animation in the City. The report concludes with a discussion of strategic priority areas and corresponding action plans for the future success of animation in Miramichi.

2. Methodology

Three major activities were completed for this project: a document review; primary research; and creation of an action plan. Throughout the project close communication was maintained between RSTP and the Steering Committee in order for RSTP to obtain important feedback and for the committee to have crucial input into the development of the vision and action plan for the community.

2.1. Secondary Document Review

The document review included:

- **Sector related reports:** Reports on the animation and gaming sectors in New Brunswick (including information from NBCC Miramichi), British Columbia (BC), Ontario and Quebec, as well as national sector reports were analysed with a focus on identifying external opportunities and threats that may affect Miramichi’s developing animation sector.
- **Miramichi reports:** Economic development reports, tourism strategies, downtown signage strategies, transportation plans, downtown revitalization, and other strategic plans and reports which had been prepared in recent years for the city and the region were analysed with a focus on community strengths and weaknesses and recommended actions.
- **Secondary literature:** Information about the development of knowledge clusters and creative cities were reviewed with a focus on developing an understanding of the dynamics which underlie the potential development of an animation sector or cluster.

2.2. Primary Research

The primary research tools¹ were developed by incorporating information from secondary literature and reports. Specifically the tools were:

- Key informant interview guides
- Animation employee focus group guide
- NBCC student focus group guide
- Animation employee survey

All four tools were structured to address the following important questions for developing an animation sector:

- What are the selling features of the Miramichi region?
- What lifestyle issues exist or need to be examined?
- What demographic issues exist and how can they be addressed?
- What threats must the region be aware of?
- What businesses and services are needed?
- What community infrastructure advantages or shortcomings exist?

¹ RSTP adhered to Mount Allison University Research Ethics Board (REB) policies and procedures in the development and use of the four primary research tools. Most important among these is the notion of “informed consent” (interviewees and focus group participants were provided with a consent form informing them of their rights), and survey participants will be provided with information about their rights and what they are agreeing to by participating in the survey). These are necessary requirements of university-based research involving human subjects.

Twelve key informants were interviewed during the month of April 2007 (see Appendix B for the list of key informants). They included a cross section of government, economic development, municipal, education and industry representatives from New Brunswick, Manitoba and BC. The interviews lasted between 30 and 45 minutes. Key informants were provided with the interview questions ahead of time in order to think them over adequately. Eight of the interviews were conducted face-to-face, while four were conducted by telephone due to scheduling constraints. The interview guide (see Appendix C) included questions for all key informants about business, social, and cultural issues in Miramichi as well as about the future of animation in the City. The interview guide also contained sections particular to each category of key informant including colleges, animation companies, economic developers, government, and provincial sector groups. The project Steering Committee identified potential key informants.

Seven staff members from Fatkat participated in the hour and a half focus group on April 11th, 2007. See Appendix D for the staff focus group guide. The staff members represented a cross section of people who studied at different colleges and came to Miramichi from large cities and small towns across Canada as well as the United States.

While a two hour student focus group session was scheduled for April 11th, 2007, no NBCC students attended. The student focus group guide can be seen in Appendix D.

A brief one-page employee survey (see Appendix E) was distributed to all employees of Fatkat and CSRIC. Sixty-five employees from both studios completed the employee survey. The short survey was designed to identify, from their perspective, the strengths and weaknesses of the sector and the region, and their suggestions for nurturing and growing the sector. The survey consisted of closed questions requiring participants to choose from a list of answers, or rate on a one to five scale, a series of statements or elements related to the region and the sector. See Appendix F for summary tables from the employee survey.

2.3. Creation of an Action Plan

Information collected from the secondary literature and reports along with findings from primary research (key informant interviews, employee focus group and survey) were synthesized to develop the animation sector vision, SWOT analysis, and priority areas which lead to the creation of a detailed action plan. The Steering Committee played an active role in the development of the vision statement, strategic priorities, and action plans. The vision statement incorporates elements from existing strategic plans to ensure that it does not conflict with other community development efforts in Miramichi. The SWOT analysis consists of both real and perceived strengths and weaknesses within the community and external opportunities and threats for both the sector and the City. From the SWOT three main priority areas were clear: community development, business development and education and training development. A detailed action plan including objectives, tasks, timeline, resources, lead and partners was developed.

3. Overview of Miramichi

The City of Miramichi was created in 1995 from the amalgamation of five individual towns and villages and some former rural local service districts. The City is located along the banks of the Miramichi River on the northeast coast of New Brunswick. With a population of 18,129 (2006 Census), it is the largest city in the northern region of the province. It has a long economic history based on natural resources including logging and fishing. In recent years the City and the region have suffered economic setbacks, including the closure of the former Canadian Forces Base Chatham in the mid-1990s and the ongoing restructuring of the pulp and paper sector. More recently, the City and the Miramichi region as a whole have consciously worked to diversify the local economy to include, among other sectors, knowledge industries such as computer animation and gaming. Ten years ago NBCC Miramichi began offering programmes in animation and gaming in the hopes of creating a new industry for the City. Today there are two animation and gaming companies in the City who employ graduates from the programme as well as people from all over Canada, the United States and other countries.

The median age in the City is 40 (2001 Census). Eighty-eight percent of residents have English only as their mother tongue while 9% have French only. One percent of the population is Aboriginal and another 1% belongs to visible minorities. Miramichi is home to those of mainly Scottish, Irish and Acadian ancestry who belong to Catholic and Protestant religions. Average earnings in 2001 were \$25,334. The largest occupations in the labour force are those in sales and service, business administration, and trades (2001 Census).

A variety of strategic plans have been prepared for Miramichi in recent years on economic development, tourism, downtown signage, community growth, transportation, and downtown revitalization (ADI, 2007; Baker Consulting, 2005; City of Miramichi, 2006; Daniel K. Glenn Ltd., 1999; PK Consulting, 2007a,b; PK Consulting, 2005; SGE Acres Ltd., 2005a,b; SGE Group, 2002). The most common action plans involved economic development (including tourism and entrepreneurship), addressing community issues (beautification, revitalization, signage, heritage and cultural infrastructure), social issues (keeping and attracting youth and education levels) and increasing entertainment options (more museums and theatres).

In 2002 the Miramichi Economic Development Initiative argued that Miramichi was not on the radar of potential investors and that it was not a “new economy” leader. The report identified a number of challenges for the City such as a narrow range of retail stores, a general lack of acceptance of change and of “outsiders” and a below average quality of life. It provided strategic direction to the City over the short- to intermediate-term to increase the level of foreign investment. The report stated the most profitable sectors over a five-year period were in traditional sectors such as forestry and manufacturing. The least profitable sectors were in new economy activities such as computers and biotechnology. The report recommended targeting international markets for local products and that global companies should set up in Miramichi. It recommended, among other things, a single point of contact for economic development and an immigrant entrepreneurship action plan.

A few years later, in 2005, a plan was prepared to activate a forest and manufacturing cluster in the Miramichi region (PK Consulting, 2005). The study identified and mapped a forestry cluster,

a cluster development strategy, an action plan, and an organizational and management structure to ensure its implementation. The aim was to strengthen and grow the cluster as a private sector-based entity supported by governments and other institutions. The resulting strategy and action plan focused development and implementation efforts on five key priority issues:

- Primary resource availability and cost
- Human resources (especially the training of highly qualified personnel)
- Cost-competitiveness (including productivity, innovation, technology, transportation and sub-contracting)
- Markets and marketing of new and emerging products
- Capital availability for businesses and entrepreneurs in the region

In 2005 a plan was developed for downtown revitalization (SGE Acres, 2005b). In Miramichi there are two business improvement areas (BIAs) - one in Chatham (the Historic Water Street Business District) and one in Newcastle. The purpose of this study was to provide strategic direction and a process for the City and partners to implement action plans that support the investment and development of each downtown. This was to be achieved by diversifying the retail and service base, creating more local jobs, achieving a higher rate of tourism visitation and more spending, increasing the length of stay for tourists, extending the seasonal attractiveness and viability of existing and proposed tourism anchor projects, co-marketing, ensuring the City is not burdened by excessive costs, physical improvements, marketing, signage, image and identity, land use controls and regulation, and organizational capacity. The goal was to make both downtowns into heritage/cultural tourism destinations.

Also in 2005 a strategy for downtown signage, imaging and marketing was prepared (SGE Acres 2005a). It recommended updating the physical message and branding of the two downtown BIAs and specifically the Water Street and Ritchie Wharf areas. The report recommended a historical redesign, a tourism awareness programme, creating tourism packages, organizing festivals, and focusing in particular on the Toronto, Montreal and New England markets.

In 2005 the City of Miramichi Business Plan recommended commercializing the Miramichi Open River Museum, a network of 11 cultural, heritage and natural attractions stretching along 55 km of the Miramichi River within the City of Miramichi. The museum would strengthen the community's social, education and quality of life as well as increase property values. The plan was to target people 40 and older through water based recreation, heritage, culture and the construction of green spaces. The Business Plan built upon the 1999 Miramichi Riverfront Strategic Plan whose purpose was "to strengthen the bond between the people and the river and to foster a stronger sense of community as the newly amalgamated City of Miramichi."

In 2006 the City of Miramichi Strategic Plan was completed. It listed the roles for various committees and provided a mission statement for the City:

To provide services and encourage growth to ensure an outstanding quality of life for all of its citizens.

The plan also provided a vision for the City:

To be the most progressive, prosperous and healthiest community in Canada.

The plan provided three strategic priorities: effective and efficient use of resources, economic growth and sustainability, and consistency.

In 2007 transportation strategies in support of economic development were outlined (ADI Ltd., 2007). The study focused on “addressing the most critical infrastructure issues” identified as Route 108, the railway, highway surfaces, river dredging, air service, and inadequate highway signage for the hospitality industry. While the report focused on five different highway routes it did not address transportation issues within the City itself. The report stated, “Good transportation by itself is not a sufficient condition for economic development, it is clearly a necessary component of an overall strategy.” The report recommended that the region develop a comprehensive and strategic approach to economic development - grow its economic base; increase the level of foreign investment, focus on export markets, cluster strategies, strengthen the region’s service centre, diversify, develop education and human resources training, and research and development.

Also in 2007 a strategy was prepared on community growth (PK Consulting, 2007a). The result of a broad-based community consultation process, the strategy planned to advance the economic, social, environmental and cultural sustainability objectives of the community within the boundaries of Enterprise Miramichi. The report identified four economic sector priorities - forestry and forestry-based manufacturing, tourism, value-added manufacturing (metal fabrication & value-added wood products for export), and knowledge-based industries (animation and upscale customer contact centres).

A strategic plan for the Miramichi region was completed in 2007 for Enterprise Miramichi. It listed Enterprise Miramichi’s mission as:

Our mission is to provide leadership for economic growth and prosperity in the Miramichi region.

Likewise, the organization’s vision is:

A sustainable Miramichi economy achieved by a proud, friendly and growing community.

The report claimed that economic performance between 2003 and 2006 indicated the animation sector produced close to 70 net jobs. The first part of the strategy was to focus attention on three principle sectors: knowledge-based industries (animation and call centres); value-added manufacturing (metal fabrication and value-added wood); tourism (supporting the Miramichi Regional Tourism Association to play its lead role), other sector specific strategies such as bio-energy, exporting, clustering, entrepreneurship development, job readiness skills, providing leadership, etc. The overall goal was to stimulate the development of the economic base and to diversify it.

RSTP's current study is a result of Enterprise Miramichi's desire to develop the animation sector and diversify the Miramichi economy. By focusing on actions which may stimulate further growth in the animation sector, many of the collective recommendations from the above reports can also be achieved such as economic development through spin off businesses (related to animation) and the need for more retail and dining establishments (which animators would frequent), increase in cultural events through animation festivals, and downtown beautification and revitalization through focusing on the downtown areas and encouraging artists to move in. Resolving social issues such as keeping and attracting youth can also be achieved through increasing awareness about the world of animation, a sector that mainly attracts the 18 to 35 year old age group.

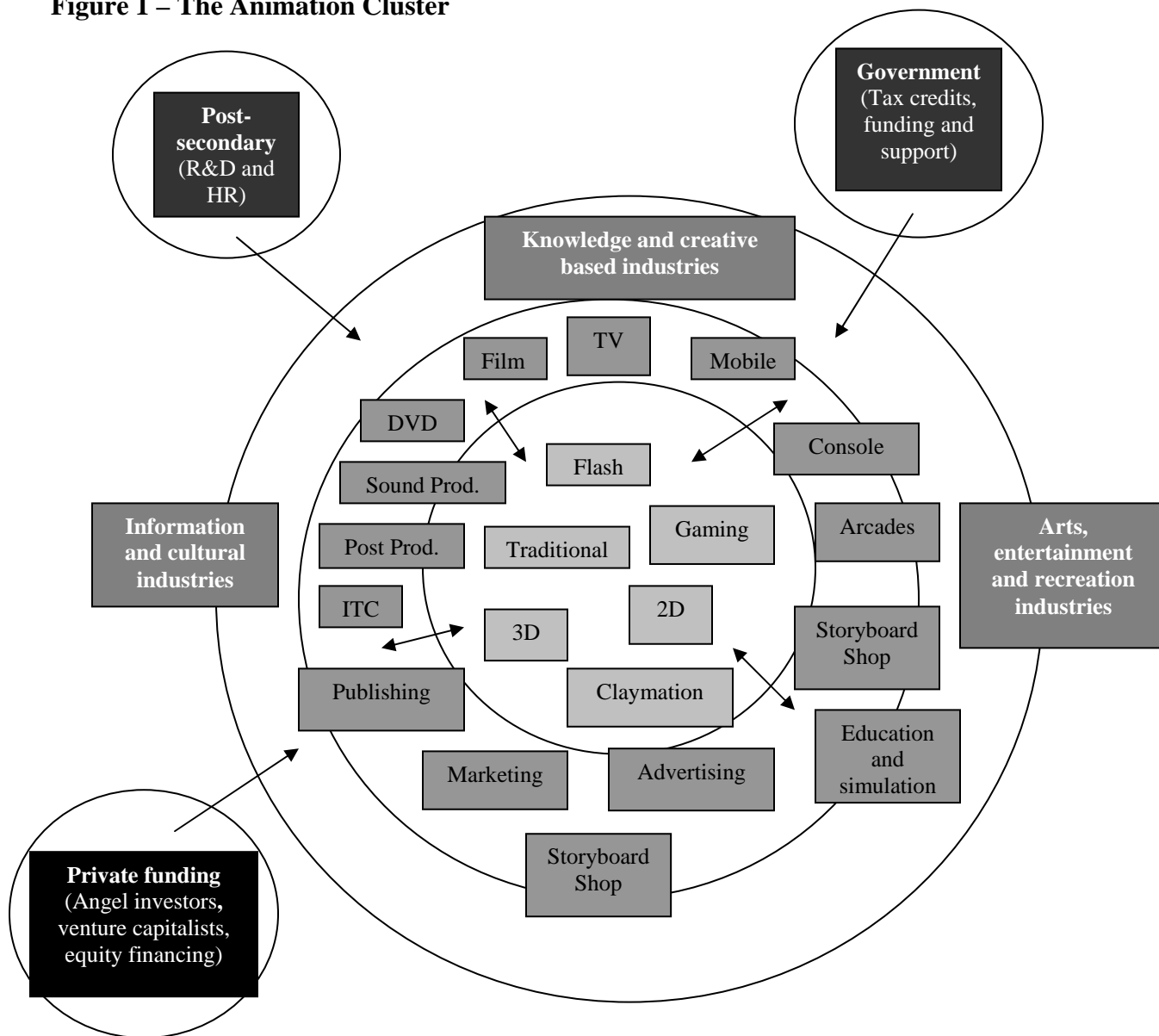
4. The Animation Sector

Animation (including computer, flash, 2D, 3D, claymation, traditional drawing and other mediums) is part of a wider set of knowledge- and creative-based economic activities. The North American Industry Classification System (NAICS) lists animation and related activities under "Information and Cultural Industries" (NAICS code 51) as well as Arts, Entertainment and Recreation Industries (NAICS code 71). Related sectors in these industries include motion pictures, post-production, broadcasting, internet publishing, telecommunications, internet service providers, film publishing, and amusement arcades. Additional sectors (not included in NAICS) that are related to the evolving animation sector include advertising, marketing, and simulation and educational gaming among others. Occupations engaged in animation, according to the National Occupation Classification (NOC) of Human Resources and Skills Development Canada (HRSDC), include animated cartoon technician, computer graphics technician, multimedia graphic design technician, advertising designer, cartoonist, commercial artist, cybergraphic designer, graphic artist, graphic designer, illustrator, layout designer, medical illustrator, etc.

Reports on the animation sector describe animation in a variety of ways as the definition continues to evolve with the technology. For example, the Government of Canada refers to a multimedia industry and includes animation and gaming as sectors. Ference Weicker and Company (2001) refer to an animation industry in BC, of which gaming is a sector. Investissement Québec (2007) places animation within the province's multimedia industry. The Government of Ontario refers to computer animation within its interactive media industry. Red Hot Learning Inc. (2004) refers to the gaming, simulation and animation (GSA) industry in New Brunswick.

For the purposes of our analysis and discussion, we use the term "animation sector" to include those companies and studios specifically engaged in animation for film, television, internet, video games, and educational and simulation games among other uses. We use the term "animation cluster" to refer to the broader entertainment, information and cultural industries which are interrelated, feeding off of each other in one integrated economic system (see Figure 1). The following sections describe the computer animation sector in Canada and in New Brunswick specifically.

Figure 1 – The Animation Cluster



4.1. Animation Across Canada

According to the Government of Canada (2004) there are more than 2,300 Canadian multimedia firms, with about 20,000 employees and at least \$3 billion in annual revenue. Small, dynamic companies make up the majority of firms in the sector. Canada dominates the special effects and animation software market with globally renowned companies.

Gaming is an important part of animation. New Media BC (2005, 4) describes gaming as: “...an industry that melds content with technology, culture with industry, and innovation with commercialization.” According to the Government of Canada (2004), “Gaming now accounts for

about one third of consumer software sales in North America. With an estimated total value of about \$15 billion per year, gaming now rivals Hollywood as a propulsive force in multimedia development. Canada is one of the world's major players in the gaming sector." Major clusters of activity in animation and gaming are in BC, Quebec and Ontario and specifically in Vancouver, Toronto and Montreal. In a survey by New Media BC (2005) 44% of the companies who responded were from BC, 24% from Ontario and 20% from Quebec. New Brunswick had 2% of respondents. Most companies were small and medium enterprises (SMEs) with 47% having five or fewer staff and 88% having less than 200 employees. The companies are vibrant and growing with 43% expected to see more than 10% growth over the next year and to hire more employees. The top three game markets for Canada are North America, Europe and China, but there are barriers to marketing internationally for many of the businesses surveyed such as market knowledge and business contacts.

Canada has an array of innovative programmes in animation, game design and programming at a variety of colleges, universities and educational institutions across the country. They provide state-of-the-art research and development opportunities. For example, Sheridan Institute of Technology and Advanced Learning in Ontario is the third-largest classical and computer animation school in the world. Hollywood studios such as George Lucas' Industrial Light & Magic, Pixar Animation Studios and The Walt Disney Company all regularly send talent scouts (and endowments) to the college. The Art Institute of Vancouver, with its centre for digital imaging and sound, is a multimillion-dollar facility that trains more than 1,300 students a year. Its graduates are employed both locally and worldwide. The National Animation and Design (NAD) Centre located at the Cégep de Jonquière in Jonquière, Quebec is a major training centre for new media including Canada's first gaming design programme in 1997 (Government of Canada, 2004).

Vancouver, Toronto and Montreal are home to film and animation clusters. Vancouver is home to Los Angeles-based producers. Toronto is the headquarters for Canadian media and Montreal is the base for domestic francophone programming. Clusters are also beginning in places like Winnipeg (in film, research and education), Edmonton and Calgary (in game-ware, content development and design, interactive advertising, and services).

The film and television industry (including animation) began in the 1980s in BC. Today Vancouver is the third largest production region in North America after Los Angeles and New York City. Cities with cultural industries often stimulate spin off industries in nearby regions. For example, the District of North Vancouver has conscientiously developed its own film industry. The municipality conducted a survey and found that 85% of residents were supportive of the industry (Warfield, 2006). Profits from the local film industry have supported cultural, social and environmental programmes including providing paint, financing promotional banners, and land preservation. These in turn have led to the opening of equipment rental stores, catering businesses, and tourist and hospitality services. North Vancouver has also actively engaged in self-promotion. It markets the community as a city but with natural amenities such as mountains, forests and the ocean.

Vancouver and North Vancouver have been successful in film, television and animation due in part to provincial government tax incentives and project financing (Vancouver Economic

Development, 2005). The province offers a 15% digital animation and visual effects production services tax credit. The credit applies to qualified BC labour expenditures on foreign domestic products. Project funding is offered by Heritage Canada, Telefilm Canada, the National Film Board and BC Film. In addition, the region is close (a two hour flight) to production decision-makers in Hollywood who are proactively attracted to the Vancouver region. The BC Film Commission (established by the Government of BC) was established to market the province internationally.

Ference Weicker and Company (2001) performed a survey of animation companies in BC to assess the economic impact of the animation sector in BC and to determine the potential for growth. The largest sector of the animation industry is the game animation sector (78% of revenues). Total revenues for the BC animation industry in 2000 were about \$462 million. From 1998 to 2001 the animation workforce in BC increased 82% (from 1,530 to 2,781 employees). However, almost two thirds of the companies reported recruitment difficulties (the most difficult positions to fill are storyboard artists, digital composers, and senior animators). The majority of respondents were in favour of creating an apprenticeship programme. The report concluded that there are a number of gaps in training programmes (lack of on the job training). A key recommendation is a need for greater “interface” between post-secondary schools and the industry.

Ontario and Quebec also offer tax incentives. Quebec’s multimedia industry offers the highest at 37.5% of labour costs (Investissement Québec, 2007). Companies producing multimedia titles in the province are eligible for the generous tax credits. In addition, operating expenses in Quebec are very competitive at 8.6% less than the United States average for the multimedia industry. A benefit of working in Montreal, specifically, is the critical mass of talent that exists in creative and artistic disciplines. In Ontario, the computer animation and special effects tax credit is 20% of eligible Ontario labour expenditures which includes activities in computer animation and special effects technology (Government of Ontario, 2006). The Ontario interactive media industry also “thrives on a unique blend of superb technical skills, creative brilliance and a very competitive and flexible workforce” (Queen’s Printer in Ontario, 2006).

According to Jones and Jones (2005), on a national scale, some of the strengths of the animation sector include top notch talent, co-production treaties with other countries, and a tax credit system that allows for financing of productions. Weaknesses include tax benefits that are complex (too many rules), talent and people leaving for the United States, the sector’s reliance on co-production treaties and tax credits, the cyclical nature of the industry, and current downsizing in animation. However, opportunities may be found in China and Korea who are developing their own animation sectors. There is also growth in India, Malaysia, and Taiwan. The power of high-speed internet allows animation products to be shared and sent all over the world. Canadian studios can partner with companies anywhere. However, India’s large pool of talent (English-speaking software developers), low production costs in developing markets, competition from United States graduates in the sector, and the rising value of the Canadian dollar may threaten the industry.

Jones and Jones (2005) recommend more advanced education and for Canadians to “blow their own horns” and promote their knowledge and successes. Federal and provincial governments

need to adjust tax policies to encourage production and keep jobs in Canada. New Media BC (2005) recommends building awareness around government programmes, mentoring, innovation, assistance getting products to market, help with international development, and training (industry workshops).

4.2. Animation and Gaming in New Brunswick

The animation and gaming sector in New Brunswick is relatively new compared to the hot spots of BC, Ontario and Quebec. Few studies have been done and information is changing constantly as more and more positions are opening up for animators and gamers within the province. According to HRSDC's Occupational Projection System, in 2006 there were:

- 152 graphics arts technicians employed in New Brunswick
 - 50% were employed in manufacturing
 - 24% were employed in information, culture and recreation
 - 18% were employed in professional, scientific & technical services

- 961 graphic designers and illustrating artists employed in New Brunswick
 - 62% were employed in professional, scientific & technical services
 - 19% were employed in information, culture and recreation
 - 6% were employed in trades

There may be as many as 363 new job openings for these types of employees between 2006 and 2015. In addition, the New Brunswick Wage Report for 2003 suggests that the hourly wages paid for these types of jobs averaged \$15.27, with the maximum being \$25.00.

Red Hot Learning Inc. conducted a study in 2004 on the capacity of New Brunswick's "gaming, simulation and animation (GSA) industry". It examined the capacity of the province's labour market, how well the related educational institutions meet the needs of the industry, and the economic impacts of enhancing the industry. The study found that there were 45 companies and educational institutes involved in GSA production. The sector employed 1500 people, 425 of which were directly in GSA. At that time there were few start-up companies (less than two years old); most were at least five years old. Most private and educational organizations were optimistic about growth. Most expected to maintain or increase their number of employees.

The same study also found that five of the most common vertical markets for GSA companies at that time were: entertainment, manufacturing, internet telecommunications, post-secondary academic institutions, and subcontracting from other firms. This broad range of potential markets – locally, regionally, nationally, and internationally – speaks well for the potential growth of the sector in Miramichi.

According to Red Hot Learning Inc. (2004) the strongest features of the GSA industry in New Brunswick are low production costs, a talented workforce, and a high quality of work. However, it also found that New Brunswick companies were lacking in marketing and branding, export development, and business, process, and training expertise. For example, more than 33% of

employers who responded to their survey said it takes more than six months to train new staff to desired levels. The study concluded that there is significant potential to grow the industry in New Brunswick, and recommended the following:

- Business growth and foreign direct investment opportunities
- Establish relationships with larger centres that are experiencing growth
- Assist local SMEs in business skills, management, services, marketing, etc.
- Close the training gap by establishing partnerships between companies and schools

5. Development of a Knowledge Cluster

There has been growing interest in public policy and local development circles in the concept of cluster development as a means to stimulate local and regional economies. A wide range of studies about potential opportunities for cluster development in specific sectors have been carried out in many locations. In other cases, “backcasting” to examine what led to the “natural evolution” of clusters has been conducted to describe the elements of success.

Cortright (2006, 3) defines a cluster as: “A cluster consists of firms and related economic actors and institutions that draw productive advantage from their mutual proximity and connections.” More specifically, a knowledge cluster has been defined as: “an innovative, interrelated group of firms that gain competitive advantages from side-to-side building and transmitting knowledge between local actors and institutions. A cluster can revolve around a certain industry, or it may involve technologies that cross industry boundaries” (HHIPA, 2004, 14).

Both of these definitions clearly suggest that a cluster is a broad and deep agglomeration of inter-related firms which are located in close proximity and which derive mutual benefits from that close proximity. One element that sets a cluster apart from a simple constellation of like firms and businesses is the **ongoing collective sharing of knowledge and technology, through both formal agreements and through the natural diffusion of information**. A report prepared for the Innovation & Technology Association of Prince Edward Island summarizes the knowledge transfer in this manner: “... both the formal transfer of innovations between firms and researchers at local institutes of higher learning, for example, via technology licensing, as well as more informal processes by which ideas are exchanged (e.g. in cafes, the hiring of graduates, the departure of experienced employees to launch their own firms)” (FAD Research Inc., 2005, 76).

For the successful development of a cluster associated with the animation sector in Miramichi, there will need to be considerable growth in the number and type of related firms. This will in turn create the critical mass required to facilitate the sharing of knowledge.

Cortright (2006) identified a number of key elements which constitute a cluster. He cites Porter’s work on clusters (1998), and suggests that they include the following:

- Linked industries and other entities, such as suppliers of specialized inputs, machinery services, and specialized infrastructure.

- Distribution channels and customers, manufacturers of complementary products, and companies related by skills, technologies, or common inputs.
- Related institutions such as research organizations, universities, standard-setting organizations, training entities, and others (Cortright, 2006, 3).

While these apply to clusters in a broad sense, we can think of the animation sector in Miramichi and quickly realize that there will need to be new business starts in a variety of complementary sectors, such as media arts, advertising, computer supply stores, and so on. It will also require the fostering of a “research and development” culture or ethic collectively among businesses and NBCC. The results of work in the United States confirm the critical importance of this last element:

Through knowledge transfer of new ideas to business, universities [colleges] play an important part in the development of knowledge clusters. Thanks to the learning effect, entrepreneurial success — and failure — offers valuable lessons for the region. Knowledge clusters are built on linkages among many types and many parties, including suppliers, workers, technical and scientific researchers, and customers. Entrepreneurs and venture capitalists need to find each other (HHIPA, 2004, 14).

To be a bit more explicit about what it might take for the animation sector to evolve into a cluster in Miramichi, we turn again to Cortright’s work (2006). Drawing on the initial work of Porter (The Competitive Advantage of Nations, 2000), Cortright identifies four main elements or conditions which are required (2006, 14):

- **Factor conditions:** a skilled labour force, specialized infrastructure, and educational institutions.
- **Demand conditions:** sophisticated and demanding local customers which force continuous innovation; firms cooperate with their customers to meet their needs, which in turn may lead to greater competitiveness in global markets (given the highly global nature of the animation sector, this condition may be somewhat less important in this context).
- **Related and supporting industries:** local suppliers and competitive, related industries are needed to create a broad base of support; this in turn also leads to innovation of the exchange of information and knowledge about processes and products.
- **Firm strategy, structure, and rivalry:** individual businesses upgrade and invest continuously to remain competitive; in cases where there is “local competition” or rivalry there will be enhanced motivation to be innovative; together, firm strategy and rivalry contribute to regional competitiveness.

For a small community or region to have all of these core elements in place is quite a challenge. Certainly many of these are present in Miramichi, including a skilled labour force, an education institution, and innovation and competitiveness among existing animation and gaming firms. However, there is no “local market”, there is a lack of firm competition and cooperation, and little in the way of local suppliers and related businesses.

Florida and Gates (2001) used a variety of statistical techniques to assess the relative “competitiveness” or the success factors among urban centres in the United States, as it related to the concentrations of knowledge and technology firms and employees. Their basic conclusion was that the cities with the most success were those with high degrees of social and cultural diversity:

... tolerance and diversity clearly matter to high-technology concentration and growth ... significant factors include high concentrations of foreign-born people and bohemians [artists and musicians, including writers, designers, musicians, actors and directors, painters and sculptors, photographers, and dancers]. When we use a composite measure of overall social, cultural, and ethnic diversity, the results are even stronger.... tolerance and low entry barriers to human capital helps to attract talent and that talent is in turn associated with high-technology industry and regional growth (2001, 6).

What does this mean in terms of potential actions for municipalities interested in growing and nurturing such activities? Essentially, Florida and Gates (2001) recommend that investments in quality of life and encouraging tolerance and diversity are paramount:

The basic message to city leaders and economic developers is clear. Talented people go to places that have thick labour markets, are open and tolerant, and offer a quality of life they desire. Places that attract people attract companies and generate new innovations, and this leads to a virtuous circle of economic growth. Cities must begin to combine their goal of providing a better business environment with strategies aimed at improving their diversity and tolerance (2001, 7).

Previous reports, plans, and studies for the Miramichi area suggest that these elements are somewhat weak in the region. Concerted, specific actions will be required to address this challenge.

More specifically, some of the potential actions identified by others who have worked in the field where backcasting has identified what works best include:

- Encourage mentoring from experienced entrepreneurs and assist the development of support networks.
- Promote entrepreneurial skills at all stages of the education system.
- Reduce the regulatory burden on small businesses.
- Improve access and delivery for government support programmes (HHIPA, 2004, 14).

Cortright (2006) links his suggestions for action in the policy field to what he calls “the seven micro-foundations of industry clustering”. His suggestions include:

- **Labour market:** provide better labour market information, supply or finance specialized training.
- **Supplier specialization:** offer brokering and recruiting assistance; support entrepreneurship; provide access to better / more financing and credit tools.
- **Knowledge-spillovers:** create opportunities for networking, support public sector research and development.
- **Entrepreneurship:** provide a broad range of support and assistance for start-ups (finance, counselling, etc).
- **Sector growth (path dependence and lock-in):** work to extend, refine, and recombine existing distinctive specializations so that there can be flexible labour mobility in the local area.
- **Cluster:** acknowledge and support cluster organization which in turn create more opportunities for networking, shared learning, development experiences.
- **Local demand:** strengthen local demand by providing quality information about local suppliers (2006, 48).

On a broader scale, Cortright (2006) also summarizes the work of Rosenfeld (1997) who describes a broader set of actions that local stakeholders must take if they wish to lay the foundations for cluster development and growth. Some of these include:

- Invest in social capital and social infrastructure (create a sense of community, a sense of place, and invest in relationships).
- Empower and listen to cluster leaders (acknowledge their value and give them opportunity to play leadership roles in the broader community).
- Recruit companies that fill gaps in cluster development (traditional seek and find, identify complementary businesses which help create the broad web of support that is needed).
- Support entrepreneurs (nurture those who step forward with creative business ideas which build on the emerging cluster elements).

The Irish experience in nurturing a country-wide development of knowledge industries provides many lessons. However, two areas, funding and skills development, are particularly relevant the Miramichi situation. The recommendations of ICT Ireland (2003) include:

Funding

- Government should extend the life of key financing supports, including those for business expansion and business start-up, as well as making them more accessible.
- There needs to be targeting of funding to early stage companies, as young start-ups have the most difficulty accessing finance.
- Establishment of a business angel network to link interested investors with the needs of the sector.

Skills

- There is a need to deliver information communication technology (ICT) sales and marketing education to increase the global competitiveness of the sector.

- Entrepreneurship programming needs to be more widespread, especially in engineering and ICT education, so that more people are exposed to the skills required to establish a new business.

Recent work examining the development of the knowledge sector in PEI also identified that the most important elements for action are those which are foundational in nature, and which will “... develop a culture of innovation and entrepreneurial outlook. Much of this needs to centre on education and a human resource development strategy” (FAD, 2005, 5).

It is not possible to “force” a cluster or sector into existence. Clusters are organic in nature and have a life of their own which evolves over time. Measuring a cluster is very difficult because there are no standard measurement tools for doing so. The NAICS classification of businesses does not align easily with definitions of specific clusters, for example. What is required is for interested stakeholders to make investments in those elements which may create the conditions for a cluster to evolve and grow. In the case of the animation sector in Miramichi, this means investing in quality of life, entrepreneurship, skills development, labour force development, and industry supports, which will in turn create an environment conducive to business attraction and endogenous business start-ups.

What do the features of a cluster suggest about the prospects for developing one in the Miramichi region focused on animation? Many action items, taken together and simultaneously, will be required, to address the myriad of challenges while building on current strengths and emerging opportunities. These include, but are not limited to:

- Investing in research and development, engaging in knowledge sharing.
- Finding and supporting vertical and horizontal business linkages and companies.
- Creating a strong sense of tolerance and supporting cultural and ethnic diversity.
- Continuing to support and nurture entrepreneurship.
- Investing in basic infrastructure to support quality of life and business needs.

6. Creating a Creative City

Animation is first and foremost an artistic endeavour practiced by creative individuals. To attract creative minds to Miramichi it is worthwhile to explore the concept of the creative city. Who are the creative class and what features do they look for in a creative city? Can small cities and rural regions be considered creative too? How can a community become creative and what are the benefits for community development? These questions are addressed in the following section.

6.1. The Creative Class

According to Richard Florida, author of “The Rise of Creative Class” (2002), the creative class “share a common ethos that values creative, individuality, difference and merit.” Members of the creative class may include painters, sculptors, actors, singers, inventors, cartoonists, computer animators, and any other creative individuals. The creative class is attracted to communities with

few entry barriers. They want to be able to fit in easily and be accepted quickly into social and economic activities. In the United States the creative class, according to Florida, makes up 30% of the workforce and regions with large proportions are also some of the most affluent and growing parts of the country.

6.2. Features of Creative Cities

According to Gertler and Vinodrai (2004), the top four creative cities (or “Bohemian cities”) in Canada are Vancouver, Victoria, Toronto and Montreal. Halifax and St. John’s also rate highly. Some of the least Bohemian are Sudbury and Windsor in Ontario and Saint John, New Brunswick. The cities with the largest concentrations of high-technology industries are Montreal, Toronto, Ottawa-Hull, and Vancouver. Examples of creative cities in the United States include San Francisco, Austin and Boston. Some of the least creative are Las Vegas, Pittsburgh and Miami. Regions that have not attracted creative people in the United States include the South and Midwest. According to Florida (2002), larger cities and regions have not attracted as many creative people as smaller cities. Cities with large proportions of their labour force employed in the service sector also do not tend to attract the creative class. Florida (2002) provides the example of Pittsburgh versus Austin. While Pittsburgh is larger and would have more to offer (sports teams, an airport, museums, cultural venues, affordable housing, etc.) Austin has a larger creative class. It has lots of young people, a great music scene and night life, cultural diversity and outdoor recreation. Florida argues that cities like Pittsburgh want to attract the creative class but continue to bring in new call centres, big box stores, malls and generic events, which are unattractive to creative people.

The creative class is instead attracted to places with diversity, quality of place, high acceptance of differences, outdoor recreation and street level entertainment. Artists want cafés, sidewalk musicians, local stores, small bistros. According to Florida (2002), they crave stimulation, not escape. They want many different things to do. Creative cities are unique and authentic communities with heritage buildings, and celebrated local culture and music. Chain stores and chain restaurants are not interesting, authentic or unique. They do not inspire creativity.

Furthermore, according to Bain (2003) common features of neighbourhoods that artists are drawn to include the availability of marginal, overlooked spaces, improvisational space, rundown areas, old factories and warehouses, and areas that do not reflect dominant social values. The creative class like to be in areas that are becoming, evolving and changing. They also value downtown locations because they associate creativity with the energy and intensity of life in a bustling area.

As discussed in section 5, many of the features of creative cities are also those of high-technology growth cities. With increased creativity comes an increase in technology development (McGranahan and Wojan, 2007). According to Florida and Gates (2003), characteristics of cities experiencing growth in the technology sectors are high concentrations of creative people, a large homosexual population, and high concentrations of foreign born residents. Technology cities tend to be more racially integrated and are socially, culturally and ethnically diverse.

The creative class usually flocks to smaller urban centres. However, according to McGranahan and Wojan (2007) there are features of rural communities that can be attractive to the creative class too. The authors argue that the rural quality of life may outweigh lower rural incomes. The rural landscape can foster creativity and the imagination. Rural areas should attract and retain talented young people and families too to maintain their talent base and economies.

6.3. How to Become a Creative City

According to Florida (2002) communities which attract creative people are successful in general. If communities want to be home to the creative class they need to be open to creativity and diversity. They need to spend money on projects that will benefit large numbers of residents such as developing trail systems instead of attracting a sport team. Furthermore, communities need to be open to immigration and develop a successful “people climate.” Many cities do not want to focus on attracting young people because they tend to be transient and they do not have a lot of money to spend. The focus is often on young families and retirees. However, the creative class is always youthful. They remain young at heart no matter their age and they infuse energy into community life. No matter their age they continue to be active, going to concerts, taking in art exhibits, and living active lifestyles (e.g. cycling, walking, etc.). In addition, they want their children to grow up in a tolerant, active, and diverse community. Investments in these elements are an absolute necessity.

6.4. How Art and Culture Foster Community Development

According to the Creative City Network (2005), art and culture foster community development because they can be economic engines, nurture renewal and revitalization, create identity and pride, build leadership skills, and improve quality of life and tolerance of diversity. For example, “cultural industries create job growth, turn ordinary cities into destination cities, create interconnections between arts and businesses, revitalize urban areas, attract skilled workers and create spin off businesses” (Creative City Network, 2005). The District of North Vancouver, as discussed earlier, is a good example of how consciously focusing on attracting a cultural industry has led to spin offs. The arts ensure a community’s habitat reflects the people who live there, creating identity and pride. Arts and culture industries help to create a new character in an old city, even cities with negative stereotypes. Arts and culture industries also invite cultural tourism opportunities because they offer something unique.

The arts can also bring about positive change and facilitate social cohesion. The arts can be a means of public dialogue and can raise awareness about important issues. Arts and culture can also build leadership and be an influential tool in community activism. Art and cultural industries add to quality of life. According to the Creative Cities Network (2005), “Culture, long overlooked as a tool for garnering quality of life, is now being recognized as a means to community building, encouraging outdoor activity, healthy lifestyles, life long learning, increasing accessibility to programmes for all levels of society and celebrating diversity and cultural differences.” Furthermore, multicultural festivals and events that celebrate diversity also

enhance quality of life through building awareness and fostering tolerance. Finally, the arts are a recognized tool to engage at risk youth and build self esteem in young people.

7. Vision for the Animation Sector in Miramichi

The vision for the animation sector in Miramichi is:

A growing, vibrant and internationally recognized animation and gaming sector within a sustainable and diverse Miramichi economy.

Imagine a unique, integrated cosmopolitan city with a small town welcoming feel, enhanced by revitalized historic neighbourhoods, monuments of local heroes, parks and a local bus service. Busy riverfront areas are lined with interesting shops, unique cafés and lively pubs featuring modern music. People of all ages are out and about, taking in a class, watching a show, wandering the shops, or waiting for the river taxi. This city, once a vibrant paper mill town is now a vibrant modern artistic and cultural hub, home to a cluster of knowledge-based industries. In fact, it is known as the animation and gaming capital of New Brunswick. This city is... the Miramichi of the future.

8. SWOT Analysis

The following SWOT analysis (See Tables 1 and 2) is based on findings from key informant interviews, staff survey, staff focus group and secondary literature. Strengths are community resources which can be built upon. Weaknesses are community shortcomings which must be addressed, resolved, or mitigated. Opportunities are external elements which the community or sector can take advantage of. Threats are external forces that may create problems for the community or sector and which must be taken into account when developing potential strategies and actions. The strengths, weaknesses, opportunities and threats include both realities and perceptions.

Top three selling features of Miramichi according to animation employees:

1. Outdoor recreation and the river
2. Friendly, safe, relaxed
3. Affordable housing

Strengths for the animation sector in Miramichi include community resources, business and sector resources and education and training resources (see Table 1). Miramichi is an affordable place to live that is friendly and safe, where the lifestyle is slower and the environment is clean. It is a good area for hiking, fishing and canoeing. The natural environment with the Miramichi River, ocean, and forests provide a perfect backdrop for an arts and culture niche. Between Fatkat and CSRIC, two highly innovative companies, more than 80 people are employed directly in animation and gaming. Fatkat offers salaried, full-time positions with health and other benefits, which is uncommon in animation due to the cyclical nature of the business. High speed internet covers 90 to 95% of the city allowing animators to conduct business all over the world.

NBCC Miramichi is home to New Brunswick's only college level animation and gaming programmes, which have been established for 10 years. The college is also a Centre of Excellence in Multimedia Learning Technology and attracts instructors from all over the world to teach the students and provide advice and direction on programming. The college produces more than 40 highly skilled and qualified animation and gaming graduates every year.

Weaknesses for the animation sector in Miramichi include community and sector issues (see Table 1). The population in Miramichi, like many communities in Atlantic Canada, is decreasing. It is isolated from larger centres like Moncton and Fredericton (and their airports) due to poor highway conditions and limited regional bus services. There is no local public transportation in the city and the costs of taxis can be expensive. The amalgamation of the former towns, villages, and rural areas more than 10 years ago continues to present integration challenges for the municipality and for community organizations. There are perceived rivalries between the old towns of Chatham and Newcastle.

Top four areas of dissatisfaction according to animation employees:

1. Nightlife and music scene
2. Art and culture scene
3. Transportation
4. Social opportunities to meet people their own age

There is no single, focused downtown core. Perceptions about Miramichi as “an old, meat and potatoes, pulp mill town” remain entrenched. There is the perception that residents do not readily accept change or diversity. Miramichi is thought of as a retirement city (with the average age of residents being 40) and has been marketed that way, particularly since the closure of CFB Chatham. There is a prominence of older people and the younger generation often do not want to stay in the City, as they feel there is nothing for them to do. Younger people are not well represented on City Council. There is a lack of doctors, after-hours clinics and affordably priced apartments in the downtown areas. Other social problems, similar to many cities, also exist.

Animation studios lack skilled employees, as well as training for them. Studios also lack financing and effective marketing. There is a lack of female employees in this male-dominated business. Lack of female employees and lack of a female oriented business in Miramichi may mean that young male employees will leave the city to find a spouse. Miramichi lacks the range and types of stores and dining establishments that animators would frequent such as speciality restaurants, art and music supply stores, cafés, comic book shops, and computer shops. There is a general lack of entertainment options including live modern music, live theatre, art galleries, night courses and other social activities. Miramichi also lacks complementary businesses to animation such as marketing and advertising agencies, internet telecommunications consultants, post production studios, and more. The lack of a critical mass of post-secondary education institutions in Miramichi, which are critical to supporting a research and development culture (which in turn stimulates the sector) is a major weakness, for which there may be little action possible. There is also a perceived lack of communication between stakeholders in the sector. All players need to be aware of what others are doing or have achieved and how they could work together cooperatively to further the sector.

Table 1 – Strengths and Weaknesses of Animation in Miramichi

Strengths (community resources)	Weaknesses (community shortcomings)
<p>1. Community Resources</p> <ul style="list-style-type: none"> ▪ Affordable cost of living (accommodations, food, etc.) ▪ Miramichi is a friendly, safe place to live ▪ Lifestyle is slower paced ▪ No traffic jams ▪ New hospital ▪ Clean air, clean environment ▪ Good area for hiking, fishing, canoeing ▪ Beauty of the landscape inspires creative minds ▪ Natural environment is a good backdrop for an art and culture niche ▪ Since amalgamation in 1995 \$104 million has been spent on new construction in the City <p>2. Business / Sector Resources</p> <ul style="list-style-type: none"> ▪ Fatkat has been in Miramichi for five years; currently employs about 80 people in flash animation ▪ Fatkat offers salaried, full time positions with health and other benefits ▪ Fatkat hosts field trips for students ▪ Fatkat has received government support especially for expansions ▪ CSRIC employs two people in educational gaming ▪ High speed internet covers 90-95% of the City allowing animators to conduct business all over the world ▪ Fatkat and CSRIC both have international connections and clients ▪ Fatkat and CSRIC are highly innovative ▪ Miramichi Prosperity Fund offers funding for new businesses ▪ There is prime business and retail space available in Miramichi ▪ Team Miramichi helps with business plans and local implementation <p>3. Education and Training Resources</p> <ul style="list-style-type: none"> ▪ NBCC’s animation and gaming programmes have been established for 10 years ▪ NBCC is a Centre of Excellence in Multimedia Learning Technology ▪ NBCC has a partnership with Department of National Defence where graduates work for one year at entry level salary to develop products for them ▪ NBCC brings in international animators to help guide students and inform the development of the programme so that it remains modern and in touch 	<p>1. Community Shortcomings</p> <ul style="list-style-type: none"> ▪ Population is decreasing; Miramichi has a population of 18,129 (2006 Census), down from 18,508 in 2001 and 19,241 in 1996 ▪ City is isolated from larger centres like Moncton as well as from the international airport ▪ Loss of scheduled flights at local airport ▪ Highway infrastructure in poor shape ▪ No public transportation; taxis are expensive ▪ Amalgamation has not led to a single identity or shared sense of community yet; there are perceived identity problems and rivalries between Newcastle and Chatham; there are three downtown areas instead of one ▪ Miramichi does not celebrate its heritage and culture as one of the oldest settlements in Canada ▪ Perceived lack of trees, parks, and restored heritage buildings ▪ Perceived as being a pulp mill town / dirty town / “meat and potatoes” / lacking tolerance of diversity ▪ Perception that there may be social problems (similar to those found in other cities) ▪ Perception that residents do not readily adapt to or accept change ▪ Immigration is not on anyone’s agenda, lack of cultural diversity ▪ Lack of creative, cultural and social activities, night courses, general interest courses at NBCC, art galleries, museums, live theatre, live music (other than folk or country) ▪ Perception of too much focus on retirees; the prominence of older people is not being offset by a younger generation ▪ Youth and young adults do not want to stay in Miramichi; there is not enough for them to do ▪ Younger residents are not well represented on City Council ▪ Lack of icons (clock tower, monuments, statues of famous Miramichers, etc.) that could inspire youth and create pride in the community ▪ A perceived lack of doctors ▪ Lack of after hours clinics ▪ Lack of mid-range priced houses ▪ Lack of newer one or two bedroom apartments in or near the downtown areas <p>2. Business / Sector Shortcomings</p> <ul style="list-style-type: none"> ▪ Lack of female employees; animation is a naturally male-dominated sector ▪ Current studios need skilled employees, training for

Strengths (community resources)	Weaknesses (community shortcomings)
<p>with the industry</p> <ul style="list-style-type: none"> ▪ Qualified, highly skilled animation and gaming graduates right in Miramichi ▪ Fatkat employees teach at NBCC 	<p>their employees, and welcoming activities for new employees</p> <ul style="list-style-type: none"> ▪ Studios also need financing and assistance with marketing ▪ Lack of speciality dining, clothing stores, art and music supply stores, comic shops, cafés, computer shops ▪ Limited entertainment venues ▪ Lack of complementary businesses such as tech consultants, ICT consultants, marketing and ad agencies, post production studios, etc. ▪ Animation tax credits are not competitive with those offered in other provinces ▪ There is a perceived lack of communication and cooperation between stakeholders in the sector <p>3. Education and Training Shortcomings</p> <ul style="list-style-type: none"> ▪ Lack of supervisory experience and interpersonal skills as animators move up to supervisory positions relatively quickly ▪ New recruits lack adequate training (it can take six months of in-house training to reach a satisfactory level) ▪ Lack of critical mass of post -secondary education institutions

Despite the apparent shortcomings for the animation sector in Miramichi, there are many external **opportunities** to take advantage of including the fact that animation and gaming are booming sectors (see Table 2). Knowledge sectors, such as animation, are anticipated to continue to be highly successful into the future. Thus, they offer an effective way to diversity the local economy in a sustainable manner. Significant growth in animation is expected across Canada. The need for talent is exceeding supply for Fatkat. In the near future the studio will be attracting roughly 70 new employees to Miramichi made up of quality talent from all over Canada. This influx of new people to Miramichi provides opportunities to open new businesses and offer new services such as shops and dining, entertainment options (live music, buskers, pubs, radio stations, etc.), sound production houses, 3D animation studios, or a female oriented industry to complement male dominated animation. Furthermore, there are generally low production costs in New Brunswick and up and coming places like China, Korea, India and Malaysia may look to partner. With the availability of high speed internet, companies in Miramichi can take advantages of opportunities around the world.

With all of the exciting opportunities, it is important to remember that there are also external **threats** which are not controlled by Miramichi or its animation sector. These include the lure of other cities and regions, business and sector issues, and education and training issues (see Table 2). While animation is booming across Canada, it may be a threat if animation companies open in nearby cities such as Moncton or Fredericton. Young, highly mobile employees may decide they want to leave Miramichi to work elsewhere in a city with more night life, an active music

scene, more stores, etc. The Moncton Technology Planning Group recently released a report called Accelerating Technology Based Economic Growth and Entrepreneurship in Greater Moncton (IC² Institute, 2007). The focus is on developing a broad, deep, and intense technology-based economy in Greater Moncton. It is expected that new animation businesses will emerge from actions taken to build this sector of the economy. The report's strategies and actions focus on building a research and development culture and infrastructure, and addressing the education and entrepreneurship challenges that currently create limiting factors. Addressing those will in turn lead to leveraging and accessing more funds for the technology sector in Moncton.

Fatkat has been unique in offering salaried full-time positions with benefits, but other companies in Canada and the United States are catching on. Furthermore, other provinces such as BC, Ontario and Quebec offer impressive tax credits on local animation labour which New Brunswick currently does not. This may limit the start-up of additional businesses in Miramichi which would help to establish an animation cluster. Furthermore, low production costs in developing countries like India may take work away from local companies in Miramichi. If another animation and gaming training programme opened up in another region of New Brunswick, especially in Moncton or Fredericton, the focus on Miramichi as a potential animation hub may diminish. In order to combat these possible threats an action plan has been developed to help grow and nurture Miramichi's budding animation sector.

Table 2 – Opportunities and Threats for Animation in Miramichi

Opportunities (external chances to enhance the community)	Threats (external forces that may cause problems within the community)
<p>1. Animation and Gaming are Booming Sectors</p> <ul style="list-style-type: none"> ▪ The need for talent is exceeding supply at Fatkat; in the near future Fatkat will be attracting roughly 70 new employees to Miramichi from all over Canada ▪ Knowledge industries (including animation and gaming) are the future; they provide an opportunity for the local economy to diversify ▪ Significant growth in animation and gaming is expected in Canada (e.g. the female gamer market, mobile and handheld markets, etc.) ▪ There is quality talent among animators from across the country ▪ Canadian co-production treaties with countries such as Britain, China, France and Germany ▪ Canada has a proven record in creating quality content <p>2. Business / Sector Development</p> <ul style="list-style-type: none"> ▪ Continue to encourage new (external to Miramichi) complementary businesses (gaming companies, 3D animation, post production houses, sound production houses, and computer hardware); larger companies may be looking to open satellite studios and stores 	<p>1. The Lure of Other Cities and Regions</p> <ul style="list-style-type: none"> ▪ Youth continuing to be attracted to other cities ▪ The possibility that Fatkat may be enticed to leave Miramichi for another location under the right market conditions ▪ Animation is booming across Canada and the world; young, mobile animators currently employed in Miramichi could easily move to another city ▪ Spouses of potential employees may have difficulty finding jobs in Miramichi ▪ Opening of animation studios in Moncton and Fredericton (they have more amenities) ▪ Other provinces such as Quebec, Ontario and BC offer competitive tax credits to animation studios ▪ The loss of some of the best Canadian animators to the United States <p>2. Business / Sector Issues</p> <ul style="list-style-type: none"> ▪ Complementary companies not wanting to locate in Miramichi ▪ Complementary companies not doing well after establishing here ▪ Competitiveness has been weakened by the increasing strength of the Canadian dollar

Opportunities (external chances to enhance the community)	Threats (external forces that may cause problems within the community)
<ul style="list-style-type: none"> ▪ Encourage new shops and dining establishments to open in Miramichi (clothing, art, music, comics, cafés, etc.) ▪ There are generally low production costs in the gaming, simulation and animation industry in New Brunswick and quality of work is high ▪ Animation can be shared and sent all over the world. Canadian companies can partner with companies anywhere such as those starting up in Asia and India <p>3. Entertainment Options</p> <ul style="list-style-type: none"> ▪ Artists and musicians, especially up and coming ones, are always looking for new venues to perform at and showcase their work. If they know that Miramichi is an open and supportive city, they may want to perform in the City ▪ Developers looking for opportunities may be interested in developing places along the river front similar to Ritchie Wharf 	<ul style="list-style-type: none"> ▪ Generous tax credits in other provinces ▪ Many potential foreign film producers decide not to work in Canada due to the complex tax credit system ▪ The animation sector's reliance on co-production treaties and tax credits may create problems if such incentives disappear ▪ New Brunswick gaming, simulation and animation companies generally lack foreign marketing, branding, and export development skills ▪ Low production costs in developing markets in India (which has a large pool of English-speaking software developers) and other countries ▪ Cyclical nature of animation and gaming means that during less busy times people may leave the sector for other opportunities ▪ Other companies across Canada are beginning to offer full-time salaried positions with benefits <p>3. Education and Training Issues</p> <ul style="list-style-type: none"> ▪ The (remote) possibility that NBCC's animation and gaming programmes move to another campus or if another animation programme or school opened up elsewhere in New Brunswick ▪ US graduates compete with Canadian graduates for employment in Canada and globally

9. Priorities for Action

The following strategic areas² were selected as a result of the SWOT analysis. They address community development, business and sector development and education and training development issues outlined in the above SWOT. They were also commonly mentioned by respondents, focus group participants and key informants, and are crucially important to the further development of an animation sector in Miramichi.

Community Development

- Local and regional transportation
- City beautification and revitalization
- Community cohesion and acceptance of diversity
- Keep and attract youth
- Healthcare
- Housing

² The priority areas have not been placed in any particular order as RSTP feels that all are equally important to undertake to ensure the growth of a sustainable animation sector in Miramichi. Action items related to these priority areas have been categorized by short-, intermediate- or long term- time lines in the action plan.

Business / Sector Development

- Business support and financing
- Attract new business
- Attract entertainment

Education and Training Development

- Business and supervisory training
- Entrepreneurship development
- Education to meet industry needs

10. Action Plan

The following action plan³, inline with the priority areas and the SWOT, is divided into three sections: community development, business and sector development, and education and training development (see Table 3). The table provides details about specific tasks to undertake for each item, whether the item is currently in development or ongoing, or to be completed in the short-, intermediate-, or long-term depending on its importance and where it fits in the strategic plan. In addition, the table lists resources required and the lead and project partners for each action item.

10.1. Community Development

There are six action areas within community development: local and regional transportation, city beautification and revitalization, community cohesion and acceptance of diversity, keeping and attracting youth, healthcare, and housing.

Some of the short term actions RSTP recommends are to offer a local bus / transit service in the City that connects residents and visitors to important shopping and service areas such as shopping in Douglstown, the hospital, Acadian Lines, the VIA train station, churches, recreation venues, etc. Options to explore could be bio-diesel buses, a fleet of small vans or traditional buses run privately or publicly. The City is spread out and taxis are expensive. While a public bus service may not pay for itself, the economic development that it could spur all over the City may indirectly outweigh any operating costs.

Another short-term action is to continue to beautify and revitalize the downtown areas. More trees can be planted along streets to create an inviting urban forest along with public gardens and park benches. Historic and rundown buildings can continue to be restored and revitalized along with areas along the waterfront. Revitalizing and beautifying a community creates pride and energy in its residents, attracts newcomers and increases tourism.

³ While the action plan includes resources required for each action item, it does not include specific costs for any action item as this would require specific and additional costing / feasibility studies.

To assist newcomers to feel welcome and to get to know all that Miramichi has to offer, RSTP suggests that the City, Chamber of Commerce and BIAs reinstate the Miramichi Welcome Wagon services. The Welcome Wagon could also proactively attract people to return to their home town by sending packages of information and coupons to recent graduates and others thinking of returning.

Holding arts and culture festivals that highlight animation as well as cultural diversity within the City will increase awareness about the animation sector, the kinds of people who work in it and what they do. Increasing awareness about cultural diversity within the City will help to increase understanding and tolerance of differences.

Top four things to do to keep animators in Miramichi according to animation employees:

1. Improve nightlife and entertainment
2. Provide public transportation
3. Increase social cohesion and tolerance
4. Build live music venues

Another short term action plan is for all stakeholders in the animation sector to encourage younger adults to run for City Council. Diversity in age and gender on elected Council can contribute to new ideas and thinking about the future potential for the City. Young adults need encouragement and support to become actively involved in civic life. They should be invited to sit in on council meetings to understand what takes place.

Intermediate activities toward community development include lobbying Acadian Lines to offer more frequent bus services between Miramichi and Moncton and Fredericton, as well as improve highway infrastructure along routes 8 and 11.

The creation of an arts and culture officer for the City would help to increase awareness and acceptance of diversity as well as focus on celebrating local history and culture. Current City employees could perhaps take on this responsibility if a new position cannot be created. The arts and culture officer could also be the driving force behind opening more arts and culture venues in the City such as museums and art galleries.

More doctors should be brought to the City by the Miramichi Regional Health Authority. Animation employees who replied to our survey listed too few doctors and after-hours clinics.

New apartment buildings are in development and it was identified in the employee survey that one to two bedroom units are desired in or close to downtown Newcastle.

10.2. Business / Sector Development

The immediate sector development action item to complete is the creation of an Animation Task Force made up of stakeholders in the animation sector including people from the steering committee for this study (see Appendix A) as well as staff members from Fatkat, CSRIC and any new companies, instructors and students from the animation and gaming programmes at NBCC, the Chamber of Commerce, BIAs, and the newly formed Miramichi Regional Multicultural Association.

A short-term activity is to implement a marketing strategy for the animation sector and the City that incorporates the unique qualities of Miramichi that especially sets it apart from Moncton. Moncton may have more post-secondary institutions, nightlife and a younger population, but Miramichi should be proud of its Centre of Excellence in Multimedia Learning Technology at NBCC, the dynamic Fatkat and its flash animation creations as well as the important educational work of CSRIC and its gaming technology. The friendly, relaxed, rural lifestyle and majestic natural backdrop of the forest and river should be emphasized as well. The marketing strategy should be flexible and grow with the sector and City. As more and more businesses are attracted to Miramichi, marketing can increase and spread to further markets.

The City and Enterprise Miramichi should continue to actively attract from outside (and support from within the existing population and entrepreneurial base) complementary businesses to support the sector. These include gaming, 3D animation, post production, sound production, simulation, advertising, and marketing firms among others. The existence of these companies would help to foster an animation cluster in Miramichi.

Equally important to attract and/or support from within are businesses that animators and the younger generation would frequent such as comic book shops, clothing stores, art and music supply stores, ethnic restaurants, unique pubs and cafés.

Finally, Business New Brunswick should actively consider offering animation and gaming tax credits on New Brunswick labour that are competitive with other provinces, which means anywhere from 15% (as in BC) to 37.5% (as in Quebec).

Top four businesses that are needed according to animation employees:

1. Art/music supply stores
2. Restaurants
3. Bars and pubs
4. Comic book shops

10.3. Education and Training Development

Education and training development action items are categorized as being mainly short term (see Table 3). Supervisory and management training is needed for senior animators. Existing business counselling programs and services may need to be redesigned to support this need.

Awareness of entrepreneurship programs and availability of business start-up funds needs to be offered regularly in local high schools and at NBCC by Team Miramichi.

A mentorship/apprenticeship/internship programme should be developed to reduce the six month learning curve that recent grads face during their first job. Fatkat, CSRIC, NBCC and Business New Brunswick could partner to offer an integrated programme. Furthermore, evening classes related to sector needs could be offered in creative writing, song writing, etc.

Furthermore, NBCC should take the lead on developing a culture of research and development in the region. This may involve finding funding opportunities, supporting faculty and staff in grant

writing, providing additional research equipment, and so on. It also means reaching out to the business community and building an inventory of research capacity and interests which may in turn foster research and development more widely in Miramichi.

Table 3 – Action Plan for the Growth and Development of Animation in Miramichi

Action Item	Tasks	Timeline	Resources Required	Lead (& Partners)
Community Development				
Local and regional transportation				
Offer a local bus system that connects to shopping, the industrial park, Acadian Lines bus stop, hospital, and other vital resources	Options to explore: Bio diesel, small vans, public or privately run, and river taxis as well	Short-term	Feasibility study, funding	City (Enterprise Miramichi)
Have more frequent busses to Moncton and Fredericton to decrease the perception of isolation	Work with Acadian Lines to arrange better schedules, service	Intermediate-term	Time and funding	City (Enterprise Miramichi)
Improve highway infrastructure	Repave and/or widen hwy 8 to Fredericton and hwy 11 to Moncton	Intermediate-term	Funding	City (Provincial and federal governments)
City beautification and revitalization				
Redesign the City with artsy modern quarter (Newcastle), education/heritage/tourism quarter (Chatham), industrial quarter, and one downtown shopping and business quarter (Douglastown). A redesign with cohesion in mind would assist the amalgamation, create pride instead of competition and improve the overall image and identity of the City. This redesign is related to other design strategies described in Daniel K. Glenn (1999), SGE Acres (2005a,b) and Baker Consulting (2005).	Examine a redesign of the entire City with the aim of community cohesion	Long-term	Funding	City (Chamber of Commerce and Planning Commission)
Beautify the downtowns	Plant trees, gardens, place benches, picnic tables, etc.	Short-term	Funding	City Public Works Department
Erect monuments that highlight Miramichi's heritage and statues of famous Miramichers	Research the history of famous Miramichi residents and events	Intermediate-term	Historical research, funding	City or special interest groups (Enterprise Miramichi)
Restore more historic buildings with respect to heritage	Identify potential buildings, work with developers, offer incentives, construction/restoration	Ongoing	Funding	City and/or developers (Enterprise Miramichi)

Action Item	Tasks	Timeline	Resources Required	Lead (& Partners)
Restore areas along the riverfront (more spots like Ritchie Wharf), offer boat tours, etc.	Select ideas from Riverfront Strategy Report (1999)	Ongoing	Funding	City (Enterprise Miramichi)
Offer grants and incentives for restorations and beautification	Create programmes	Ongoing	Funding	City, province, BIAs
Community cohesion and acceptance of diversity				
Create an art/culture officer to increase awareness and acceptance of diversity and to help celebrate local history and culture	Create a new position or give the portfolio to a current recreation employee	Intermediate- or long-term	Human resources and funding	City
Open museums and art galleries	Encourage community groups to develop attractions	Intermediate-term	Funding, artefacts, stories, etc.	City (Miramichi Open Museum)
Organize and attract arts festivals	Options to consider: Art, film, animation (invite animation entries and showcase local talent), gaming (such as Animaritime), street dances, etc.	Ongoing	Funding and creativity	City tourism department (appropriate sector people such as Fatkat and NBCC)
Organize cultural festivals to increase awareness and understanding of diversity	Organize a festival, get entire community involved, showcase the City's small ethnic communities	Short-term	Funding and creativity	Miramichi Regional Multicultural Association, Fatkat, and/or NBCC
Profile animators on the local radio station and in the local paper so that residents can meet them and learn more about them	Write newspaper articles, have animators talk on the radio	Ongoing	Animators, radio time, and space in newspaper	Enterprise Miramichi and Fatkat
Show animation products locally and at the NB Film Festival, to increase awareness profile of local production and businesses	Talk to local businesses and venues where video and cartoons could be shown, do a drive in	In development	Space	City Director of Recreation and Fatkat

Action Item	Tasks	Timeline	Resources Required	Lead (& Partners)
Re-instate the Miramichi Welcome Wagon for new residents to the area. The Welcome Wagon could also send packages about the City to potential repatriates and recent graduates from Miramichi. This may assist population growth.	Create a list of shops and services, post on website and list in a brochure. Create a database of newcomers. Track the locations of students who leave to attend post-secondary schools.	Short-term	Funding from local business sponsors	City, Chamber of Commerce and BIAs
Keep and attract youth				
Run summer camps for youth	Organize camps in nature, art, film, animation, theatre, etc.	Ongoing	Funding	NBCC
Offer other activities for youth	Downtown skateboard park, pool programme, etc.	In development	Funding and space	City and appropriate community groups
Encourage young adults to run for City Council	Talk with young people (and animators in particular) to encourage and support their involvement. Have interested youth attend meetings to understand what is involved.	Short-term	Time	All stakeholders
Offer small field trips, tours and open houses at local animation studios	Invite schools to tour the studios (alternatively, take the show on the road and visit schools)	Ongoing	Time	Fatkat, CSRIC
Healthcare				
Investigate and address social problems	Increase police presence at night in downtowns, drug awareness programmes in schools, assistance for young mothers, etc.	Intermediate-term	Studies to explore the extent of the issues. Funding	City

Action Item	Tasks	Timeline	Resources Required	Lead (& Partners)
Attract more family doctors	Attract new doctors, lobby the government	Intermediate-term	Time	Miramichi Regional Health Authority
Attract more after hours / walk-in clinics open later	Attract new doctors, lobby the government	Intermediate-term	Time	Miramichi Regional Health Authority
Housing				
Build new one to two bedroom apartment units in or near the downtowns (or renovate heritage buildings and downtown commercial loft space)	Work with local housing developers, examine the possibility of taking advantage of incentives to turn old buildings into apartment units such as the Rental Conversion Programme or the Affordable Housing Programme offered by the Government of New Brunswick	In development	Feasibility study, City Council and Planning Commission approval, review housing by-laws, regulations and zoning	Private developers, City, Province
Business / Sector Development				
Business support and financing				
Create an animation sector task force	Ensure continued communication through regular meetings, increase awareness, create buy-in, present to key community groups, work on obtaining tax credits, and other important issues for the sector	First action	Meeting space	All stakeholders (including animation employees)
Implement an animation marketing strategy for the City that incorporates unique qualities and achievements such as NBCC as a Centre of Excellence in Multimedia Learning Technology	Newspaper and television ads, website, brochures, etc.	Short-term	Funding	City
Create easier access to credit lines	Provide increased support to new businesses who are trying to access credit	Short-term	Time, human resources	BNB

Action Item	Tasks	Timeline	Resources Required	Lead (& Partners)
Develop competitive tax credits	Present to the Government of New Brunswick a case for why it must offer animation tax credits similar to other provinces (15 to 38% on local animation and gaming labour)	Short-term	Time, human resources	BNB, Fatkat, Enterprise Miramichi
Attract new business				
Attract and support from within, complementary businesses such as gaming, 3D animation, post production, sound production, simulation and educational games, traditional animation, claymation, computer hardware, advertising and marketing firms, etc. to create an animation cluster	Hold a business opportunities expo., place list of businesses that are needed in the local paper (and on City's and Enterprise Miramichi's websites) along with an article on how to start a business and who to talk to for advice and funding	Ongoing	Time, funding	City's economic development officer and Enterprise Miramichi
Attract and support from within, businesses that animators would frequent such as comic book shops, clothing stores, art supply stores, music stores, etc.	Hold a business opportunities expo., place list of businesses that are needed in the local paper (and on City's and Enterprise Miramichi's websites) along with an article on how to start a business and who to talk to for advice and funding	Ongoing	Time, funding	City's economic development officer and Enterprise Miramichi

Action Item	Tasks	Timeline	Resources Required	Lead (& Partners)
Attract Entertainment				
Attract and support from within, ethnic restaurants, cafés, pubs with music (other than folk or country)	Hold a business opportunities expo. , place list of businesses that are needed in the local paper (and on City's and Enterprise Miramichi's websites) along with an article on how to start a business and who to talk to for advice and funding	Ongoing	Time, funding	City's economic development officer and Enterprise Miramichi
Education and Training Development				
Business and supervisory training				
Offer supervisory and management training for senior animators	Employ an instructor or create a self study programme	Short-term	Time, funding, human resources	Fatkat, CSRIC, Enterprise Miramichi
Entrepreneurship development				
Build awareness about entrepreneurship and funding in schools and NBCC	Presentations and/or courses in schools and NBCC. Market and build awareness of government programmes	Short-term	Funding and human resources	Team Miramichi
Education to meet industry needs				
Create a mentorship / apprenticeship / internship programme to decrease the six month learning curve that current recent grads face during their first job	Offer one programme jointly by industry and government that helps recent grads access on the job training or become self employed	Short-term	Funding, time and space	Fatkat, CSRIC, NBCC, BNB
Offer evening classes related to animation sector needs	Offer classes in creative writing, voiceover, song writing, etc.	Intermediate	Funding, instructors, time and space	NBCC, Fatkat

Action Item	Tasks	Timeline	Resources Required	Lead (& Partners)
Foster a culture of research and development in Miramichi.	Explore and create research and development opportunities at NBCC, create a research and development board, apply for funding, partner with local companies, other colleges, the National Research Council, and the Industrial Research Assistance Program	Intermediate-term	Funding	NBCC

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Appendix C – Key Informant Interview Guide

Determination of the Elements that will Allow the Animation Industry to Grow and Prosper in the Miramichi Region

Key Informant Interview

Date: _____

Interviewer: _____

Interviewee code: _____

The Rural and Small Town Programme at Mount Allison University is studying the opportunities and barriers for the potential to grow the animation sector in Miramichi. We use the term “animation sector” to include various industries and activities such as animation and gaming businesses, educational and training institutes (colleges, universities, professional development activities), business services (accountants, lawyers, etc.), supplier services (computers, broadband, software developers, etc.), as well as activities and businesses to support the quality of life of those working in the media arts (running trails, cafés, art galleries, pubs, etc.). Mature industry sectors include not only a large number of individual businesses but also important research, development, and innovation activities.

You have been selected for an interview because of your knowledge about Miramichi, or because you have knowledge about the animation sector and its related activities in other parts of Canada. The goal of this interview is to gather information about the strengths, weaknesses, opportunities and threats for the animation industry in Miramichi. The interview will last about 45 minutes. It is voluntary and confidential. You will not be identified by name. Thank you for your time!

PART 1 - GENERAL QUESTIONS (FOR ALL TO ANSWER)

1. Please describe your position and your organization’s role within the animation and gaming sector?

Are you familiar with the Miramichi region? If no, skip to Part 3.

PART 2 –QUESTIONS ABOUT MIRAMICHI (FOR LOCAL PEOPLE TO ANSWER)

Business Issues

1. Do you believe that Miramichi is a good place for an animation sector to develop? (Probes: Why or why not?)
2. What is needed in Miramichi to attract new animation businesses and employees, and help retain existing ones (attractions, services, infrastructure, supportive businesses, etc.)?

(Probes: What goods and services are needed that cannot be purchased locally? Who should be responsible for encouraging these? How could it be done?)

3. What strategies could be developed to encourage youth in the Miramichi area to think about starting their own businesses in the animation and related sectors in Miramichi?

Social and Cultural Issues

4. What sort of social and cultural services and infrastructure are missing in Miramichi that animation sector employees might favour? (Probes: What would entice people, what would deter people?)
5. Are there any demographics issues (of the industry and of the community) that need to be addressed (such as a lack of female employees)? If so, how should they be addressed?
6. How accepting is Miramichi of diversity (cultural, religious, sexual, etc.)? (Probes: What are people's attitudes toward different kinds of people and "alternative activities"? Toward artists?)

About the Future of Animation and Gaming in Miramichi

7. Are there any current and future threats to the animation sector in Miramichi?
8. What part should the province of New Brunswick play in the development of the animation sector in Miramichi? (What new policies or programmes should be developed?)
9. What is the most critical factor for the success of the animation sector in Miramichi?
10. What are the specific features of the Miramichi region that can be marketed or "sold" to individuals, entrepreneurs and companies that would convince them to start new businesses in the animation sector here?

PART 3 – QUESTIONS SPECIFIC TO STAKEHOLDERS

For NBCC

About the students:

1. What is the demographic make up of the students (gender, age, ethnicity, etc.)?
2. Where do most of the current students in animation and gaming come from?
3. What is your primary method for attracting new students?
4. Where do most of the recent / current graduates from the animation and gaming programmes go? Do you track this?
5. Does the timing of graduates exiting your programme coincide with industry needs?
6. What is the potential for NBCC to increase the number of spaces and graduates each year to meet industry needs? What are the limitations?

About the school:

7. Does NBCC do anything to help graduates stay in the Miramichi area? (Internships, coop programmes, sharing of information about business assistance programmes, guest lectures / presentations from the local community, partnerships, etc.)?
8. How closely do you work with local employers to ensure that what is taught is current and relevant to employers' needs? Would you like to create new partnerships related to animation? If yes, what kinds and with who (teaching opportunities for local companies, public schools, in other markets, etc.)?

9. Are there any courses that you feel are missing from the programmes (bilingual courses, non-traditional)? (Probes: If yes, what are they? Is there anything else you'd like to see improved in the programmes or the school?)

For Animation Employers and Senior Staff

About your business:

1. What are your business needs (marketing, financing, growth management, human resources, training, capital, better internet connections, computer services, etc.)?
2. Are you connected to or part of a provincial industry association or council? If so, how is this helpful? What else could it do for you?
3. What connections do you see between your company and the larger Miramichi area? (What impacts is your business making in the community (e.g. buying local products, etc.)?)

About your staff:

4. Do you feel that your new recruits have adequate training? (Probes: Do you do any in-house training? If so, how long does it usually take to get a new employee to the level you need them at? Are NBCC graduates at an appropriate level for the opportunities?)
5. What positions are the hardest to fill? Why?
6. What is your best source of skilled workers? (Probes: Where do your employees come from? Where have they studied?)
7. How can the animation community make the transition to Miramichi a pleasant one for new employees coming from away? (Probe: How does your company welcome a new employee from outside the region?)
8. What do you offer to your employees to retain them and to attract new ones?

About your future:

9. What challenges are there to growing your business?
10. What advice would you give to an entrepreneur wanting to start-up another animation company in the region? (Probe: Is there room for competition?)

For Community Economic Developers

1. Is the Miramichi a viable region for the animation sector? (Probe: Do the quality of life, culture and services provide opportunity or drawbacks for the sector?)
2. Are there programmes to help local entrepreneurs get started in animation and/or gaming?
3. Are there programmes to attract new immigrants (or returnees) to the Miramichi? If yes, please describe them and how effective you think they are.
4. Should Miramichi focus on attracting new companies or growing existing businesses? (Probe: How good are the opportunities for starting up new animation studios in Miramichi?)
5. Is there potential for large animation companies to establish small studios in Miramichi? (Probe: What can be done to identify and assisting them to do so?)
6. How can you help build important connections between the local animation sector and the national and international animation industries? (Probes: Do you know of any untapped external partners and business opportunities? Do they exist and how do animation companies in Miramichi connect to them?)

For Government

1. Is there a business case for the animation sector in Miramichi? (Probe: What needs to be demonstrated by the sector or individual businesses for the sector to be viable?)
2. Are there government programmes to help local entrepreneurs get started either in animation or supportive businesses (including restaurants, IT support, art galleries, etc)?
3. Do you know of any untapped external partners and business opportunities? (Probe: Do they exist and how do animation companies in Miramichi connect to them?)
4. What do you think the role of the government should be in enhancing the animation sector in Miramichi? In the province?

For Other Provinces and Sector Councils

1. How did the animation sector in your province develop?
2. What were the challenges and how were they over come? What was the biggest challenge?
3. What opportunities did you take advantage of?
4. What was surprising along the way?
5. Did you use a cluster approach and if so, how helpful was it in developing the sector?
6. How beneficial is it to promote an industry like animation where employees could work via the web from anywhere in the world?
7. What advice do you have for New Brunswick and for the rural Miramichi region specifically as they work to develop an animation sector?

For Other Colleges with Animation Programmes

1. Where do most of the students in animation come from?
2. Where do most of your graduates from the animation programme go?
3. Do you do anything to help graduate stay in the local area (e.g. internships, coop programmes, etc.)?
4. Are you engaged in any private and/or municipal sector partnerships? If yes, please explain.
5. How closely do you work with local employers to ensure that what is taught is current and relevant to employers' needs?
6. What advice do you have for NBCC in developing their animation programme?
7. What advice do you have for the rural Miramichi region in developing its animation sector? (What strategies have been beneficial for you? What has not worked?)

Appendix D – Focus Group Guide

Miramichi Animation Project NBCC Student Discussion Guide

Verbal preamble to introduce the project and concept at the start of the session:

The Rural and Small Town Programme at Mount Allison University is studying the opportunities and barriers for the potential to grow the animation sector in Miramichi. We use the term “animation sector” to include various industries and activities such as animation and gaming businesses, educational and training institutes (colleges, universities, professional development activities), business services (accountants, lawyers, etc.), supplier services (computers, broadband, software developers, etc.), as well as activities and businesses to support the quality of life of those working in the media arts (running trails, cafés, art galleries, pubs, etc.). Mature industry sectors include not only a large number of individual businesses but also important research, development, and innovation activities.

Discussion questions:

1. As a young person who will potentially be employed in the animation sector once you graduate, what is it about Miramichi that will encourage you to seek employment here?

Questions to think about:

- Will you be looking for employment here? Why or why not?
- What do you like to do in your spare time? Is there a ‘creative culture’ on campus or in the community (bands, artists, improv etc.)? If so, how can they be supported? If not, why not?
- Are there adequate lifestyle choices available to young professionals here - e.g. appropriate and affordable housing; transportation; cultural activities; recreational activities etc.? If not, what needs to be added or enhanced?
- What needs to be done to make Miramichi more attractive so that young people will see it as a good place to settle?
- What is the greatest advantage to living here?

2. What kinds of professional development exist in the animation sector that you can take advantage of once you are employed?

Questions to think about:

- What kinds of professional development or training do you feel you would need?
- Who would cover the cost?
- How would the training be delivered - locally in a classroom setting; online; travel elsewhere etc?

3. Have you thought about starting your own small animation company?

Questions to think about:

- What do you think you would need to start your company?
- Would a course about starting a small business in the new media at NBCC be helpful?

- Are you aware of any community or government resources that could help you if you wanted to start your business (Enterprise Miramichi etc.)
 - Is there a market for what you think you might do in the animation sector?
4. Are there enough animation-related businesses locally to meet your current needs as students (IT companies, software etc.)? If not, what types of companies should be encouraged to start up?
- Questions to think about:
- Who should be responsible for encouraging the set-up of these companies?
 - How should these businesses be approached?
 - What kinds of businesses should be set up locally for support of the animation sector as a whole?
5. Assume for a moment that you have been asked to recruit people you know to come to the Miramichi to live and work. What are the specific features of the Miramichi region that can be marketed or “sold” to individuals, entrepreneurs and companies that would convince them to start new businesses - or take a job - in the animation sector here?

Miramichi Animation Project Fatkat/CSRIC Discussion Guide

Verbal preamble to introduce the project and concept at the start of the session:

The Rural and Small Town Programme at Mount Allison University is studying the opportunities and barriers for the potential to grow the animation sector in Miramichi. We use the term “animation sector” to include various industries and activities such as animation and gaming businesses, educational and training institutes (colleges, universities, professional development activities), business services (accountants, lawyers, etc.), supplier services (computers, broadband, software developers, etc.), as well as activities and businesses to support the quality of life of those working in the media arts (running trails, cafés, art galleries, pubs, etc.). Mature industry sectors include not only a large number of individual businesses but also important research, development, and innovation activities.

Discussion questions:

1. As a young person employed in the animation sector, do you feel Miramichi has enough to offer you/your lifestyle to encourage you to remain here?

Questions to think about:

- What do you like to do in your spare time? Is there a ‘creative culture’ in the community (bands, artists, improv etc.) or on campus? If so, how can this ‘culture’ be supported? If not, why not?
- Are there adequate lifestyle choices available to young professionals here - e.g. appropriate and affordable housing; transportation; cultural activities; recreational activities etc.? If not, what needs to be added or enhanced?
- Do you see your current employment as a stepping stone, leading to another job in a larger community? If so, why? What would draw you away? What would it take to keep you here?
- What is the greatest advantage to living here?

2. What needs to be done in Miramichi to encourage young people to think about starting their own businesses in the animation and related sectors?

Questions to think about:

- Is there adequate support from already existing businesses?
- Is there enough business in the sector to warrant start-up of new companies? If not, what would it take to establish that base?
- Are community organizations (Chamber of Commerce, Enterprise Miramichi etc.) accessible and willing to help/provide information and resources? What could community organizations do to encourage new business start-up? Who else should be involved in promoting new start-ups in the sector?

3. What kinds of animation-related businesses are needed to help nurture the sector (IT companies, software development etc.)?

Questions to think about:

- Who should be responsible for encouraging the set-up of these companies?
 - How should these businesses be approached?
4. What opportunities exist for connecting existing businesses and students with others outside the region or outside the province to create synergy?
- Questions to think about:
- What kind of marketing needs to be done to encourage partnerships?
 - What kinds of partnerships could be developed?
 - Who should be responsible for making the connections between local businesses/students and those outside the area?
5. Assume for a moment that you have been asked to recruit people you know to come to the Miramichi to live and work. What are the specific features of the Miramichi region that can be marketed or “sold” to individuals, entrepreneurs and companies that would convince them to start new businesses - or take a job - in the animation sector here?

Appendix E – Employee Survey

Animation Industry Growth in the Miramichi Region Rural and Small Town Programme, Mount Allison University **Employee Survey**

Enterprise Miramichi and its partners have an interest in supporting the growth and development of the animation sector here in the Miramichi region. You are invited to participate by completing this very brief survey. The SUBMISSION DEADLINE is April 11th, 2007.

All information will be kept strictly confidential and anonymous. We cannot guarantee that your participation will be kept secret from your employer; however, the surveys do not include any names or identifying marks. The results of this study will be presented as a group and no individual participants will be identified through the results. Your participation is completely voluntary. You may choose to participate or not. You may choose to answer some or all of the questions without penalty. If you have any questions about this study, please contact David Bruce at 364-2395 or dwbruce@mta.ca. This research has been reviewed and approved by the Mount Allison University Research Ethics Board. If you have any questions or concerns about this study, you may contact Dr. Louise Wasylkiw, Chair of the Mount Allison University Research Ethics Board, by phone (364-2465) or by e-mail at lwasykiw@mta.ca.

1. What year did you start working for your current employer? _____

2. Did you grow up in the Miramichi region or did you move here to take this job?
 - I grew up here, stayed in the region, and am now employed here
 - I grew up here, moved away, and then came back to take this job
 - I grew up elsewhere, moved here to go to the NBCC, and am now employed here
 - I grew up elsewhere and moved here to take this job
 - Other: _____

3. If you moved from somewhere else to the Miramichi (including moved back to the Miramichi if you moved away initially), which of the following best describes where you moved from:
 - A rural / small town area elsewhere in New Brunswick
 - A rural / small town area elsewhere in Canada or USA
 - An urban centre in New Brunswick (Fredericton, Moncton, Saint John)
 - A small city elsewhere in Canada or USA (population less than 500,000)
 - A “big city” elsewhere in Canada or USA (population more than 500,000)
 - Other: _____

4. Please your satisfaction with the following items in the Miramichi region

	1	Very	2	3	4	5	Very
	dissatisfied						satisfied
Affordable housing choices	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Entertainment	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Choice of eating establishments	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Night life / music scene	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Access to arts and culture activities / venues	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transportation options	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Outdoor recreation options	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Social opportunities to meet other people in my age group / with my interests	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Respect for diversity	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5. How would you rate your overall satisfaction with living in the Miramichi region?

Very dissatisfied				Very satisfied
1	2	3	4	5

6. Please rate the overall quality of life in the Miramichi region.

Very poor				Very good
1	2	3	4	5

7. How likely are you to remain living and working in the Miramichi region three years from now?

Very unlikely				Very likely
1	2	3	4	5

Comment / explain:

8. What is the single most important thing that “the community” can do to make it more likely that you will stay in this community?

9. What specific types of businesses would you be willing to spend your money at if they were in operation in the Miramichi region:

10. Are you a graduate of the NBCC Miramichi Campus animation/gaming programmes?

- Yes
- No

If no, what school / programme did you graduate from?

11. If yes, do you feel you have been adequately prepared / trained for your current employment?

Not well prepared		Very well prepared		
1	2	3	4	5

Comment/explain:

12. What is your age group?

- 18-24 years
- 25-44 years
- 45 years and over

13. Which of the following best describes your family / household situation?

- Single person, living alone or with other single persons
- Married or common law, without children
- Married or common law, with one or more children
- Other: _____

14. What are the specific features of the Miramichi region that can be marketed or "sold" to individuals, entrepreneurs and companies that would convince them to either take a job here or start new businesses in the animation sector here?

15. If you have any other comments about the community or the animation sector in this community, please provide your comments in the space below:

Thank you!

Please submit your survey in a sealed envelope by April 11th.

Appendix F – Employee Survey Results

1. What year did you start working for your current employer?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2003	3	4.6	4.7	4.7
	2004	2	3.1	3.1	7.8
	2005	7	10.8	10.9	18.8
	2006	33	50.8	51.6	70.3
	2007	19	29.2	29.7	100.0
	Total	64	98.5	100.0	
Missing	Missing	1	1.5		
Total		65	100.0		

2. Did you grow up in the Miramichi region or did you move here to take this job?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Grew up here, stayed, now employed	6	9.2	9.2	9.2
	Grew up here, moved, came back to work	7	10.8	10.8	20.0
	Grew up elsewhere, moved here to go to NBCC, now employed here	12	18.5	18.5	38.5
	Grew up elsewhere, moved here to take job	38	58.5	58.5	96.9
	Different situation	2	3.1	3.1	100.0
Total		65	100.0	100.0	

3. If you moved from somewhere else to the Miramichi (including moved back to the Miramichi if you moved away initially) which of the following best describes where you moved from?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rural/small town in NB	4	6.2	6.3	6.3
	Rural/small town elsewhere in Canada or US	3	4.6	4.7	10.9
	Urban centre in NB	12	18.5	18.8	29.7
	Small city elsewhere in Canada or US	16	24.6	25.0	54.7
	Big city elsewhere in Canada or US	22	33.8	34.4	89.1
	Other situation	1	1.5	1.6	90.6
	Not applicable	6	9.2	9.4	100.0
	Total	64	98.5	100.0	
Missing	Missing	1	1.5		
Total		65	100.0		

4. Please list your satisfaction with the following items in the Miramichi region.

Affordable housing choices

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	5	7.7	7.8	7.8
	Dissatisfied	6	9.2	9.4	17.2
	Neutral	12	18.5	18.8	35.9
	Satisfied	24	36.9	37.5	73.4
	Very satisfied	17	26.2	26.6	100.0
	Total	64	98.5	100.0	
Missing	Missing	1	1.5		
Total		65	100.0		

Entertainment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	22	33.8	34.4	34.4
	Dissatisfied	27	41.5	42.2	76.6
	Neutral	11	16.9	17.2	93.8
	Satisfied	2	3.1	3.1	96.9
	Very satisfied	2	3.1	3.1	100.0
	Total	64	98.5	100.0	
Missing	Missing	1	1.5		
Total		65	100.0		

Choice of eating establishments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	17	26.2	26.6	26.6
	Dissatisfied	25	38.5	39.1	65.6
	Neutral	18	27.7	28.1	93.8
	Satisfied	3	4.6	4.7	98.4
	Very satisfied	1	1.5	1.6	100.0
	Total	64	98.5	100.0	
Missing	Missing	1	1.5		
Total		65	100.0		

Night life/music scene

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	35	53.8	55.6	55.6
	Dissatisfied	16	24.6	25.4	81.0
	Neutral	9	13.8	14.3	95.2
	Satisfied	2	3.1	3.2	98.4
	Very satisfied	1	1.5	1.6	100.0
	Total	63	96.9	100.0	
Missing	Missing	2	3.1		
Total		65	100.0		

Access to arts & culture activities/venues

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	35	53.8	53.8	53.8
	Dissatisfied	15	23.1	23.1	76.9
	Neutral	12	18.5	18.5	95.4
	Satisfied	2	3.1	3.1	98.5
	Very satisfied	1	1.5	1.5	100.0
	Total	65	100.0	100.0	

Transportation options

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	32	49.2	49.2	49.2
	Dissatisfied	17	26.2	26.2	75.4
	Neutral	14	21.5	21.5	96.9
	Satisfied	1	1.5	1.5	98.5
	Very satisfied	1	1.5	1.5	100.0
	Total	65	100.0	100.0	

Outdoor recreation options

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	9	13.8	14.1	14.1
	Dissatisfied	9	13.8	14.1	28.1
	Neutral	26	40.0	40.6	68.8
	Satisfied	18	27.7	28.1	96.9
	Very satisfied	2	3.1	3.1	100.0
	Total	64	98.5	100.0	
Missing	Missing	1	1.5		
Total		65	100.0		

Social opportunities to meet other people in my age group/with my interests

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	24	36.9	36.9	36.9
	Dissatisfied	19	29.2	29.2	66.2
	Neutral	18	27.7	27.7	93.8
	Satisfied	4	6.2	6.2	100.0
	Total	65	100.0	100.0	

Respect for diversity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	18	27.7	28.1	28.1
	Dissatisfied	14	21.5	21.9	50.0
	Neutral	22	33.8	34.4	84.4
	Satisfied	9	13.8	14.1	98.4
	Very satisfied	1	1.5	1.6	100.0
	Total	64	98.5	100.0	
Missing	Missing	1	1.5		
Total		65	100.0		

5. How would you rate your overall satisfaction with living in the Miramichi region?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very dissatisfied	7	10.8	10.8	10.8
	Dissatisfied	13	20.0	20.0	30.8
	Neutral	24	36.9	36.9	67.7
	Satisfied	18	27.7	27.7	95.4
	Very satisfied	3	4.6	4.6	100.0
	Total	65	100.0	100.0	

6. Please rate the overall quality of life in the Miramichi region.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very poor	6	9.2	9.2	9.2
	Poor	16	24.6	24.6	33.8
	Neutral	18	27.7	27.7	61.5
	Good	22	33.8	33.8	95.4
	Very good	3	4.6	4.6	100.0
	Total	65	100.0	100.0	

7. How likely are you to remain living and working in the Miramichi region three years from now?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very unlikely	12	18.5	18.5	18.5
	Unlikely	8	12.3	12.3	30.8
	Neutral	9	13.8	13.8	44.6
	Likely	15	23.1	23.1	67.7
	Very likely	21	32.3	32.3	100.0
	Total	65	100.0	100.0	

8. What is the single most important thing that “the community” can do to make it more likely that you will stay in this community?

Restaurants

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	9.2	11.1	11.1
	No	48	73.8	88.9	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

Nightlife/entertainment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	27.7	33.3	33.3
	No	36	55.4	66.7	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

Shopping

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	9.2	11.1	11.1
	No	48	73.8	88.9	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

Work on social cohesion, tolerance, diversity, community values

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	15.4	18.5	18.5
	No	44	67.7	81.5	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

More for children/families

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	4.6	5.6	5.6
	No	51	78.5	94.4	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

Better/affordable housing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	6.2	7.4	7.4
	No	50	76.9	92.6	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

Local public transportation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	13.8	16.7	16.7
	No	45	69.2	83.3	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

Live bands/alternative music venues

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	15.4	18.2	18.2
	No	45	69.2	81.8	100.0
	Total	55	84.6	100.0	
Missing	Missing	10	15.4		
Total		65	100.0		

Public transportation to Moncton/Fredericton

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	16.9	20.4	20.4
	No	43	66.2	79.6	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

Doctors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	9.2	11.1	11.1
	No	48	73.8	88.9	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	12.3	14.8	14.8
	No	46	70.8	85.2	100.0
	Total	54	83.1	100.0	
Missing	Missing	11	16.9		
Total		65	100.0		

9. What specific types of businesses would you be willing to spend your money at if they were in operation in the Miramichi region?

Comic shops

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	26.2	28.3	28.3
	No	43	66.2	71.7	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Fast food restaurants

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	7.7	8.3	8.3
	No	55	84.6	91.7	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

High end/nice/ethnic restaurants

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	35.4	38.3	38.3
	No	37	56.9	61.7	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Alternative music scene/nightlife/lounge/bars

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	21	32.3	35.0	35.0
	No	39	60.0	65.0	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Art/music supply stores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	29	44.6	48.3	48.3
	No	31	47.7	51.7	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Bookstore

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	21.5	23.3	23.3
	No	46	70.8	76.7	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Café

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	12.3	13.3	13.3
	No	52	80.0	86.7	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Movie theatres

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	13.8	14.5	14.5
	No	53	81.5	85.5	100.0
	Total	62	95.4	100.0	
Missing	Missing	3	4.6		
Total		65	100.0		

Art galleries/museums

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	6.2	6.5	6.5
	No	58	89.2	93.5	100.0
	Total	62	95.4	100.0	
Missing	Missing	3	4.6		
Total		65	100.0		

Local/long distance public transportation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	9.2	9.7	9.7
	No	56	86.2	90.3	100.0
	Total	62	95.4	100.0	
Missing	Missing	3	4.6		
Total		65	100.0		

Doctors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	9.2	9.7	9.7
	No	56	86.2	90.3	100.0
	Total	62	95.4	100.0	
Missing	Missing	3	4.6		
Total		65	100.0		

Healthy living/restaurant/food stores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	10.8	11.7	11.7
	No	53	81.5	88.3	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Recreation activities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	18.5	20.0	20.0
	No	48	73.8	80.0	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Toy stores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	10.8	11.7	11.7
	No	53	81.5	88.3	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Quality clothing stores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	15.4	16.7	16.7
	No	50	76.9	83.3	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Other retail

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	15.4	16.7	16.7
	No	50	76.9	83.3	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Electronics/technology/gaming stores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	20.0	21.7	21.7
	No	47	72.3	78.3	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	12.3	13.3	13.3
	No	52	80.0	86.7	100.0
	Total	60	92.3	100.0	
Missing	Missing	5	7.7		
Total		65	100.0		

10. Are you a graduate of the NBCC Miramichi campus animation/gaming programmes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	21	32.3	32.3	32.3
	No	44	67.7	67.7	100.0
	Total	65	100.0	100.0	

11. If yes, do you feel you have been adequately prepared/trained for your current employment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat prepared	4	19.0	19.0	19.0
	Neutral	6	28.6	28.6	47.6
	Prepared	7	33.3	33.3	81.0
	Very well prepared	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

12. What is your age group?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 24	24	36.9	36.9	36.9
	25 - 44	39	60.0	60.0	96.9
	45 and over	2	3.1	3.1	100.0
	Total	65	100.0	100.0	

13. Which of the following best describes your family/household situation?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single, living alone or with other singles	37	56.9	56.9	56.9
	Married/common law, without children	12	18.5	18.5	75.4
	Married/common law, with one or more children	10	15.4	15.4	90.8
	Different family/household situation	6	9.2	9.2	100.0
	Total	65	100.0	100.0	

14. What are the specific features of the Miramichi region that can be marketed or “sold” to individuals, entrepreneurs and companies that would convince them to either take a job here or start new businesses in the animation sector here?

Affordable housing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	18.5	25.5	25.5
	No	35	53.8	74.5	100.0
	Total	47	72.3	100.0	
Missing	Missing	18	27.7		
Total		65	100.0		

Friendly, safe, relaxed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	29.2	40.4	40.4
	No	28	43.1	59.6	100.0
	Total	47	72.3	100.0	
Missing	Missing	18	27.7		
Total		65	100.0		

Fatkat itself

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	7.7	10.6	10.6
	No	42	64.6	89.4	100.0
	Total	47	72.3	100.0	
Missing	Missing	18	27.7		
Total		65	100.0		

NBCC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	3.1	4.3	4.3
	No	45	69.2	95.7	100.0
	Total	47	72.3	100.0	
Missing	Missing	18	27.7		
Total		65	100.0		

Outdoor recreation, scenery, the river

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	40.0	55.3	55.3
	No	21	32.3	44.7	100.0
	Total	47	72.3	100.0	
Missing	Missing	18	27.7		
Total		65	100.0		

Cheap/available labour

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	4.6	6.4	6.4
	No	44	67.7	93.6	100.0
	Total	47	72.3	100.0	
Missing	Missing	18	27.7		
Total		65	100.0		

Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	18.5	25.5	25.5
	No	35	53.8	74.5	100.0
	Total	47	72.3	100.0	
Missing	Missing	18	27.7		
Total		65	100.0		