Abstract: Cities are acknowledged to play an important role in general in the social and economic development of a nation. Many scholars have come to believe that efficient and productive cities are essential for national economic growth and strong urban economies. However, this important insight about the vital role that cities play in economic growth and development has not been uniformly translated into effective policies at the urban level in Canada. A number of cities, including Toronto, have responded to this new dimension of competition by devising an economic policy of promoting the development of economic clusters, which are seen as “the building blocks of the regional economy.” The literature indicates that firms in the cluster are significantly more innovative than firms that are not, and that cities with clusters have higher levels of economic performance. This new level of innovation leads to more economic growth. Cities can achieve this new economic growth with clusters through the development of a cluster-based innovation policy. However, there are a number of impediments to developing such a policy and one of the most important is that cities lack financial resources. In order to develop such a policy, a multi-level governance approach to policymaking is required where policies are aligned and coordinated and revenues shared.

Sommaire: Les villes sont reconnus pour jouer un rôle important en général dans le développement économique et social d'une nation. De nombreux chercheurs sont venus à croire que les villes efficaces et productives sont essentielles à la croissance économique nationale et fortes économies urbaines. Cependant, cette importante aperçu sur le rôle vital que jouent les villes dans la croissance économique et le développement n'a pas été uniformément traduit en politiques efficaces au niveau urbain au Canada. Un certain nombre de villes, dont Toronto, ont réagi à cette nouvelle dimension de la concurrence en concevant une politique économique de promouvoir le développement de grappes économiques, qui sont considérés comme "les blocs de construction de l'économie régionale." La littérature indique que les entreprises de la grappe sont beaucoup plus innovante que les entreprises qui ne sont pas, et que les villes avec des clusters des niveaux plus élevés de performance économique. Ce nouveau niveau d'innovation conduit à plus de croissance économique. Les villes peuvent obtenir cette nouvelle croissance économique avec des groupes à travers le développement d'une politique de l'innovation fondée sur les grappes. Cependant, il ya un certain nombre d'obstacles à l'élaboration d'une telle politique et l'un des plus important est que les villes manquent de ressources financières. Afin de développer une telle politique, une approche de
Introduction

Cities are acknowledged to play an important role in general in the social and economic development of a nation. Many scholars have come to believe that efficient and productive cities are essential for national economic growth and strong urban economies (Bradford, 2004; Johnson, 2008; Glaeser, 2011). However, this important insight about the vital role that cities play in economic growth and development has not been uniformly translated into effective policies at the urban level in Canada.

A number of cities, including Toronto, have responded to this new dimension of competition by devising an economic policy of promoting the development of economic clusters, which are seen as “the building blocks of the regional economy” (Toronto Board of Trade, 2014; Tremblay, 2006). According to Michael Porter, clusters are a vehicle for policies and investments that strengthen multiple related firms and institutions simultaneously (Porter, 2014:26).

In order to develop these specific clusters the City of Toronto formulated a strategy in 2000 of approaching cluster development in targeted sectors. In 2000, the City’s Economic Development Strategy outlined the need for Toronto to “develop the clusters in which it is specialized relative to other regions, and whose outputs, including services, are destined for export.” Export oriented growth, it was argued, “brings new wealth into a region and generates demand in other sectors” (Rosen, 2007:1). This thinking was reaffirmed again in 2008 with the emergence of the City’s new economic development strategy.
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strategy which advised the city to “maintain and grow employment and investment in key established economic clusters,” ranging from aerospace and automotive to financial services and other manufacturing industries,” just to name a few (Agenda for Prosperity, 2008:26).

Toronto embraced this strategy because Toronto is the business and financial capital of Canada and it is the country’s most important economic engine. The Region’s economy produces $286 billion in goods and services annually, and approximately half of this, $143 billion, comes directly from the City. Toronto generates almost 10 per cent of total Canadian GDP. The City’s economy relies on innovation to create some of this wealth, and clusters are a recognized way to help develop innovative economies. Therefore if the City is to continue to be the engine of economic development for the country, an economic strategy and policy based on clusters is seen to be essential because the literature indicates that firms in the cluster are significantly more innovative than firms that are not, and cities with clusters have higher levels of economic performance.(City of Toronto, http://investtoronto.ca/Business-Toronto/Business-Environment; Toronto Star, November 30, 2014:6; City of Toronto, 2000).

Many scholars have come to believe that efficient and productive cities are essential for national economic growth and strong urban economies.
However, there are a number of impediments to developing and executing such a strategy. Some of the most important are that cities lack the legislative capacity, the required programs, and the financial resources to develop a cluster-based innovation policy on their own. Therefore if the City is to develop such a policy, the involvement of other levels of government is required; such an approach necessitates that the City’s policies are aligned and coordinated with the other levels of government and that revenues are shared (Van Winden, 2008:201).

The purpose of this article is to examine the relationship between local government economic development policy and multilevel governance and investigate whether the multilevel governance approach can be implemented effectively in a number of key sectors. The article suggests there are factors contributing to a lack of development of these collaborative institutions. The major research question that this paper seeks to answer is: What inhibits the formation of multilevel collaborative governance institutions in these sectors and what implications does this have for urban economic development policy for the City of Toronto, and by extension, other cities across Canada. The case study evidence suggests that these institutions are forming in other cities and contributing to their success. So why is Toronto different?

The structure of this paper is as follows: the paper is divided into five sections. The first section establishes the context of the problem and states the research question that is investigated; section two examines the literature on clusters; section three states the two main arguments that will be used to examine Toronto’s aerospace and fashion cluster case studies, describes the cluster strategy and case study selection process; and discusses the
Cluster-Based Economic Development:  
A Literature Review

Michael Porter defines a cluster as a “geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities” (Porter, 1998:199). In specific terms these include interconnected companies, suppliers, service providers, manufacturers of related products, along with governments and other institutions such as universities, vocational training institutions, national laboratories and trade associations (Wolfe and Lucas, 2005:6).

The concept of clusters and cluster development is well established in the academic literature. This literature highlights the importance of networks of interrelated firms as key factors in the ability of these firms to produce innovative new products (the iPhone in Silicon Valley) or processes for global markets, while also gaining competitive advantage (Boschma and Lambooy, 1999; Cooke, 2005; Morgan, 2004). What is not as well represented in the academic literature is the role played by local government in a multi-level governance setting in developing a cluster-based innovation policy (Galvin, 2012).

One literature stream argues that innovation and growth are driven by local competition and “sophisticated demand factors” consisting of factor inputs such as
human and capital resources, demand conditions like demanding local customers, context for firm rivalry that needs rules that encourage investment, and relating and supporting industries that allow for access to locally based suppliers and firms (Porter, 2001:xiii; 17). It further argues that industrial agglomeration, or clustering, creates a competitive environment where firms feel compelled to innovate and are given the tools to do it (Porter, 1998; Wolfe, 2009:180). The make-up of a cluster will be industry specific, and critical pieces of the puzzle include a thick labour market, anchor companies, and an effective research infrastructure (Wolfe, 2012:8). It is important to do this because firms and inventors that are located in the cluster “are significantly more innovative than firms that are not” (Katz and Bradley, 2013:22).

A number of questions arise from this literature stream and they revolve around the issue of how local conditions enhance or hinder the developmental path of individual clusters. One of the most important questions is to what extent do external institutional supports, such as government policy, and associational supports, such as leadership, underpin the vitality of the local cluster (Wolfe, 2009:180)?

The concept of cluster policies includes measures undertaken by various actors. Cluster-based innovation policies can be defined as cluster policies that are pursued by public actors involving governments, industry associations, universities and colleges, and financial capital “for the purpose of increasing socio-economic benefits through the creation or further development of clusters” (Andersson et al, 2004:53)

A second important body of literature involves the literature on local government. This literature stream stipulates that the study of local government in Canada has in many
ways operated in the backwaters of Canadian political analysis. As Sancton observed in the early 1980s, it has neither been “informed by the general literature on Canadian politics nor added to it” (Sancton, 1983:310). An alternative approach that is more relevant for this study focuses on the concept of urban governance which is defined as “the collective capacity to set and achieve public policy goals” in urban areas (Graham et al, 1998:35). This model of urban governance consists of three parts: municipal (and regional) governments, special purpose bodies, and the voluntary sector. The most familiar part of this tripartite model of urban governance is the municipal government that is composed of a mayor and a city council that “presides over an administrative structure with responsibilities for a range of local functions” (Graham et al, 1998:36).

A related field of literature that also deserves a brief mention is that of urban politics and policy; however, very little of this material deals with the original contribution to the topic that is being considered in this article, namely local government economic development policy. For example, Andrew, Graham, and Phillips Urban Affairs Back on the Policy Agenda (McGill-Queen’s, 2002) provides an analytical overview of “where we were, where we are, and where we might go with a policy agenda for Canada’s city-regions” (Andrew et al, 2002:4). The second edition of Fowler and Siegel’s Urban Policy Issues (Oxford, 2002) provides an introductory survey of the range of policy fields for which local governments are responsible. Martin Horak and Robert Young’s Sites of Governance (McGill-Queen’s, 2012) examines multilevel governance and policy making in Canada’s big cities, including Toronto (Horak, 2012:228). Savitch and Kantor’s Cities in the International Marketplace (Princeton, 2002) looks at the political responses of ten
cities in North America and Western Europe as they deal with the forces of global restructuring during the past thirty years and concludes that government and policy matters, and cities do have choices when it comes to city building. Bradford and Bramwell’s *Governing Urban Economies* (University of Toronto Press, 2014) is “the first detailed scholarly examination of relations among governmental and community-based actors in Canadian city-regions” as they tackle complex economic and social challenges.

While all of these books make a valuable contribution to the scholarly literature on urban politics and policy, it is striking that they fail to address the issue of urban economic development policy. This examination of the role of cluster development policy in Toronto attempts to fill this gap in the literature by providing one of the first in-depth case studies of the role that municipalities can play in economic development and the limitations that entails. To be sure Toronto does suffer from serious limitations: there is the problem of the lack of financial resources, shifting leadership, and the difficulty of making multilevel governance work. Moreover, municipal leadership tends to focus more on other issues such as taxes and property development as their essential role in promoting economic development.

My contribution also builds on the work done in the series of 26 cluster studies undertaken by the Innovation Systems Research Network (ISRN) in the early 2000s. The objective of that study was to identify “the presence of significant concentrations of firms in the local economy and understand the process by which these regional-industrial concentrations of economic activity” were managing to make the transition to a knowledge-intensive form of production (Wolfe and Gertler, 2004). And even though the
ISRN cluster studies were comparative in studying clusters in Canada, they did not focus on the municipal level of government but only on federal and provincial policies (Wolfe, 2009). The research undertaken here attempts to fill this gap in the literature because few political scientists in Canada have investigated the role of municipal government as an agent for economic development policy.

Since so few political scientists are engaged in this research, a lacunae needs to be filled. Therefore three factors have been selected: leadership, local government finance, and multilevel governance programs and activities to investigate how important these were in the development of cluster strategies as an economic development policy tool at the municipal level.

The literature on multi-level governance indicates that the multi-level governance concept contains both vertical and horizontal dimensions. The term ‘multi-level’ refers to the increased interdependence of governments that are operating at different territorial levels; while the term ‘governance’ refers to the growing interdependence between governments and non-governmental actors at various territorial levels (Bache and Flinders, 2004:3; Doberstein, 2013:584).

There are different visions of Multi-level Governance. Hooghe and Marks have labeled these different visions Type I and Type II multi-level governance. Type I conceives of the dispersion of authority to a limited number of non-overlapping jurisdictions, and the intellectual foundation for Type I multi-level governance is federalism (Bache and Flinders, 2004:17; Marks, 1992). Type II consists of a complex,
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**Main Arguments**

Two main arguments are advanced and examined. The *first argument* is that cluster-based innovation policy at the local government level is likely to have only limited efficacy and impacts upon the specific sectors examined unless there are explicit sources of multi-level governance financial support and strong multi-level governance coordination.

The *second argument* is that cluster-based innovation policy at the local government level will never become a reality unless the sectors in question provide effective leadership over a long period of time to develop such a policy through the collaboration and partnership of key stakeholders.

**Methodology**

A qualitative research methodology is employed, built around the analysis of both the aerospace and fashion case studies using both documentary sources and confidential interviews where participants answered questions through the lens of three key factors that came out of the literature review and forming of the arguments. The first technique consists of a systematic exploration of existing documentation from the City of Toronto on their sectors. Federal and provincial documents are also used in the aerospace case study analysis. The second complementary technique employed consists of semi-structured confidential interviews. The interviews are used for a detailed investigation of participant views of cluster-based innovation policy, and policy processes, by using the
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three factors of leadership, local government finance, and multi-level government programs and activities as a lens through which to view such matters. A total of thirty-two interviews were conducted.

The Leadership factor is important to understand given the fact that the nature of leadership is diverse in different political, institutional and organizational settings (Jones, 2007; Selznick, 1984; Wildavsky, 2004; Schneider and Teske, 1992). Moreover, the structure and the operations of municipal government are different from that of the federal and provincial government. Thus thinking about the leadership factor leads to the following important question: Who exercises leadership roles within municipal political institutions with respect to innovation policy and the formation of a cluster strategy? Does the Mayor exercise this leadership role alone, or do individual bureaucrats have an important role to play here as well? What role do actors outside of government play?

The Local Government Finance factor needs to be examined because the city has limited financial resources for economic development policy, and these resources are restricted to a collection of the property tax, along with some grants, from the other levels of government. The challenge for the City is to maximize the federal and provincial resources being directed to the City of Toronto. The key question that needs to be investigated regarding this factor is: How has the City tried to deploy its resources for cluster-based innovation policy?

Multi-level governance programs and activities is the final factor that needs to be investigated. Since Confederation, cities have been denied any real constitutional status; as such, they were made into creatures of the provinces. The City of Toronto Act, signed
into law in 2006, was supposed to free the City from the yoke of provincial control. But the shallow impact of the Act has been partly a function of what taxing powers the City did not receive, namely, the ability to impose income and sales taxes (Toronto Star, Sunday, March 2, 2014).

Even though Canada is a federal system of government, this does not mean that all jurisdictional divides are watertight. When it comes to matters of urban cluster-based innovation policy, both the federal and provincial government have an important role to play through the programs and money that the City can access. The key question that has to be investigated is: What are the major federal and provincial innovation programs that the City can draw upon to implement its cluster-based innovation policy?

**Cluster Strategy and Case Study Selection**

There now exists a large body of empirical case study literature on cluster creation, and the general consensus of opinion is that clusters emerge organically or by inadvertent ends (Porter, 2014). Governments can support these clusters once they are present.

Michael Porter maintains that clusters are created in a number of ways and that cluster growth can only be achieved by building upon existing resources. Clusters cannot be created from scratch. The assets that are key to cluster development are firm based and the development of a lead anchor firm is of critical importance (Porter, 2001).

The Canadian academic literature has little to say regarding the nature of threshold investments by local, sub-national, and national governments because the data is too difficult to obtain. In order to obtain threshold investment data for both the aerospace and
fashion sectors, one would have to calculate all aerospace and fashion expenditures and this is too complex a task to undertake.

*Case Study Selection*

The City of Toronto was chosen to examine these sectors because it has the second largest aerospace and fashion sectors after the city of Montreal (Interviews). Furthermore, the City of Toronto prioritized resources for these two sectors, and that is also why they were selected. The aerospace and fashion sector case studies are used to examine our arguments. The technique used to examine the case studies represents a particular variant of the comparative method, what Skocpol (1984) calls “a comparative case study” and Tilly (1984) refers to as “individualizing comparisons.” The purpose of the comparison is to explain the “peculiarities of individual cases” rather than drawing broad generalizations (Myles, 1989:7). My case study isolates unique and particular features in broader comparative context.

**Toronto’s Aerospace Sector**

Toronto represents one quarter of Canada’s aerospace employment. One firm De Havilland Canada (DHC), which is now part of the Bombardier Group, dominates Toronto’s regional innovation system in aerospace. DHC was originally created in 1928 as a subsidiary of British de Havilland, and the company started assembling small planes used for aerial surveillance and fighting forest fires. In 1946, DHC started designing new aircraft including the highly successful DHC-2 Beaver and DHC-3 Otter. In 1974, the Canadian government purchased DHC from its British parent Hawker Siddeley, and in
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1975 the firm launched its DHC-7 Dash airliner, and in 1983 it added the Dash-8, a turboprop regional aircraft. In 1986, Boeing bought DHC and sold it to Bombardier group in Montreal. By 2002 DHC employed over 5,420 people and it was one of the largest employers in the metropolitan Toronto area. In the late 1990s, DHC started producing parts and final assembly of the Global Express, a large business jet designed by Bombardier.

Since DHC needs to control costs, the company sources from suppliers around the world on the basis of cost, quality, and timely delivery irrespective of their location. Therefore the DHC supply chain is not closely linked to other Toronto firms. That being said, DHC has served as an anchor firm, and its presence in Toronto has created a labour pool in the region which has attracted or spun off hundreds of firms that have thrived on this supply of skilled labour (Niosi and Zhegu, 2005:15). Approximately 80 per cent of the Ontario aerospace sector’s 350 companies that provide over 20,000 jobs and generate over $6 billion in annual sales are located in the Toronto region. The sector is a leader in several key niche markets including engines, landing gear, and environmental systems, to name only a few. (Jones, 2012:11; City of Toronto, 2013:3).

**The Toronto Fashion Sector**

The Toronto Fashion Sector was chosen for study because it represents a design sector that some think will be the type of cluster that will generate wealth for the City of Toronto in the future (Leslie and Brail, 2008; Scott, 2010). A traditional manufacturing sector in the past, today this sector is facing incredible competitive pressure while also experiencing rapid technological change.
The fashion sector in Ontario needs to be placed within the context of the overall Canadian scene. The Canadian fashion sector is the 19th largest manufacturing sector in Canada. The total number of employees in the garment industry decreased from a high of 86,954 workers in 1998, to just 40,908 workers by 2007 (http://www.ic.gc.ca/cis-sic.nsf/IDE/cis-sic315empe.html). The clothing industry accounts for 3.3 per cent of all manufacturing employment in this country, and it makes a direct contribution to GDP that is equal to 1.4 per cent (Industry Canada, 2008:2).

While it is true that Canada has a number of large apparel manufacturing firms, the reality is that small firms predominate throughout this industry. Approximately, three-quarters of these firms have less than 50 employees. These firms account for one-third of all industry shipments, and apparel is manufactured in all of the provinces and territories (Canadian Apparel Federation, 2003:8; Apparel Connection, 2013).

Today, however, the Toronto fashion sector employees almost 50,000 people in Toronto, and more than half of them are employed in manufacturing. There are over 550 apparel manufacturers in Toronto whose wholesale shipments total $1.4 billion annually, or 16 per cent of the $9 billion Canadian market. Toronto also has over 4,600 fashion retail stores that generate $2.6 billion in annual sales (Apparel Connection, 2013:1).

While some see the fashion sector as combining the best elements of the learning economy, creativity and innovation, the latest facts indicate that despite good retail sales performance and a growing market, Canadian apparel suppliers are not benefiting and are in fact losing ground. Therefore a deeper analysis of this sector is required in order to see
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if it can compete in the global economy (City of Toronto, 2013:2; Apparel Connection, 2013:1).

Toronto’s Cluster Strategy

Toronto’s cluster strategy was developed solely within the local government of the City of Toronto. Toronto has no equivalent of the Communaute metropolitaine de Montreal (CMM) that developed an economic strategy for all of its municipalities. The chief policy document that the City of Toronto produced concerning economic development and clusters was the *Toronto Economic Development Strategy* that was released in July 2000 under Mayor Mel Lastman.

In this document, the City argued that global forces are shaping cities, and as a result of these new forces, cities have emerged as the building blocks of the global economy. Business has responded to these new global forces and companies are reorganizing themselves into industry clusters. Therefore the City should adopt a cluster strategy as part of its overall economic development plan so that it can better assist business and help local business thrive in the global economy (Toronto Economic Development Strategy, 2000:21-27).

The City’s proactive cluster policy was further touted in its second major economic development policy document known as the *Agenda for Prosperity* that was released in January 2008. In this document the City called for further cluster development and expansion by investing not only in aerospace, automotive, and manufacturing industries but also in design, screen-based arts industries, as well as a host of business, financial, and professional services (Agenda for Prosperity, 2008:26). While the manufacturing
sectors described above are all still viable as traded sectors, there is also a growing recognition throughout the world that for cities to flourish they need to draw on a set of creative clusters so that they can fully develop their creative potential (Rosen, 2007:11-12).

**Analysis**

*Leadership*

The analysis in Table 1 below shows that for both the aerospace cluster and the fashion cluster the leadership factor indicates that City Council, the City bureaucracy, and the mayor played essentially a similar leadership role when it came to developing and formulating economic development strategies.

In 1998, City Councillor Brian Ashton put forward a motion to create the Economic Development Steering Committee; and it was City Council that played the primary leadership role in driving this Economic Development Steering Committee to produce the Toronto Economic Development Strategy released in 2000 (Interviews).

However, the municipal bureaucracy also assumed a leadership role when it developed the specific plans for this new Economic Development Strategy. When such occasions arose, City Council worked together with members of the bureaucracy who possessed both the leadership ability and the expertise to develop the details of the strategy.

With the creation of the *Agenda for Prosperity* a different kind of leadership was on display. In June 2006, Mayor David Miller established the Mayor’s Economic Competitiveness Advisory Committee. He drove the entire process making sure that the
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*Agenda for Prosperity* was completed on schedule. Once this document was published, it re-affirmed the City’s commitment to a cluster development approach.

<p>| Table 1 Summary Comparison of Toronto Aerospace and Fashion Cluster Case Studies |</p>
<table>
<thead>
<tr>
<th>Framework Variables</th>
<th>Aerospace Cluster</th>
<th>Fashion Cluster</th>
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<table>
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<tr>
<th>Leadership</th>
<th>-Lead role in developing <em>Toronto Economic Development Strategy</em></th>
<th>-Lead role in developing <em>Agenda for Prosperity</em></th>
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</thead>
<tbody>
<tr>
<td>Toronto City Council</td>
<td>-Lead role in formulating strategy for new economic strategy</td>
<td>-Lead role in formulating strategy for new economic strategy</td>
</tr>
<tr>
<td>Mayor</td>
<td>-Political leadership critical to City innovation policy success</td>
<td>-Political leadership important to City innovation policy success</td>
</tr>
<tr>
<td>City Bureaucracy</td>
<td>-Business leadership important to cluster-based innovation policy</td>
<td>-Blended political and business leadership needed for cluster-based innovation policy</td>
</tr>
<tr>
<td>Political</td>
<td></td>
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<tr>
<td>Business</td>
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<tr>
<td>Civic</td>
<td>-no civic leadership</td>
<td>-no civic leadership</td>
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</tbody>
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<table>
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<tr>
<th>Local Gov. Finance</th>
<th>-City operating budget</th>
<th>-$8.2 Billion</th>
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<tbody>
<tr>
<td>-City economic development budget</td>
<td>-$9,489,000</td>
<td>-$9,489,000</td>
</tr>
<tr>
<td>-City cluster policy development spending</td>
<td>-$15,000 per year</td>
<td>-$30,000 per year</td>
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<tr>
<th>Multi-Level Governance Programs and Activities</th>
<th>-3 Direct Programs</th>
<th>-3 Direct Programs</th>
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<tr>
<td>-Federal</td>
<td>-4 Indirect Programs</td>
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<tr>
<td>-Provincial</td>
<td>-2 Direct Programs</td>
<td>-No Direct Programs</td>
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<tr>
<td></td>
<td></td>
<td>-No Indirect Programs</td>
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Source: Created by the author from available data

After the City started dealing with specific economic sectors, it also demonstrated a leadership role in the creation of *Flight Path* (City of Toronto, 2005). This document was developed as an outgrowth of individual specific cluster development initiatives on the part of the Aerospace Action Partnership (AAP). Even though the AAP was a multi-stakeholder group it was controlled and run by City Council.
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While Table 1 provides ample evidence that some leadership was coming from City Council, the bureaucracy, and the mayor when it came to the development of the City’s economic and cluster-based innovation policy agenda, the aerospace and fashion interviewee views provide another important comparative perspective on the source of leadership.

When the aerospace cluster interviewees were asked how important leadership was for the development of a cluster-based innovation policy, interviewees suggested that political leadership is critical to the success of a cluster-based innovation policy within the city for two reasons. First, one has to develop engagement and ties with local government; and then one needs to drive that engagement up to the level of the federal and provincial government, as well as outwards to business, universities and community colleges.

Second, the majority of the aerospace cluster interviewees stressed how critical it was to have the political leadership and support of all three levels of government in the development of cluster-based innovation policy. Without this support, the interviewees thought that the cluster as a networked and partner-based system would not exist.

Most of the aerospace interviewees did not think that the cluster-based innovation policy developed by the City of Toronto had any major impact on cluster development during the period being examined. This is not necessarily a failure of policy, but rather it may well be a failure of political leadership on the part of the Aerospace Action Partnership (AAP). This lack of political leadership on the part of the AAP resulted in the failure to develop an innovation-based cluster policy (Interviews).
The Aerospace Action Partnership (AAP) was established in January 2004. From its creation, the AAP was chaired by Councillor Maria Augimeri. The key objective of the AAP was to promote the growth of the aerospace cluster, in Ontario, even though the AAP was run by the City of Toronto. In order to promote the growth of the aerospace cluster, five AAP Task Forces were created and out of these Task Forces five integrated strategic initiatives were developed. The main highlights of the strategy were the following: (1) Strengthen existing Ontario aerospace industry clusters; (2) Focus on product and process technology development and commercialization related to existing industry clusters; and (3) Fully leverage the resources of Ontario’s colleges, universities, and secondary schools (Flight Path, 2005:5).

In the beginning, the AAP started out wanting to form a cluster-based innovation policy, but as time progressed, the thinking by the AAP on this issue changed (Interviews). The thinking changed because there comes a time when a group that starts out with such diverse interests needs to develop a focus and a sense of closure. Closure often involves picking some one thing to do. For the AAP, saving the “C” series of jobs at de Havilland Aircraft became that one thing. (Both Montreal and Toronto competed for the awarding of the C series tendered contract. Toronto’s bid was better and de Havilland was given the contract.) (Interviews). In the end, however, this decision is what caused the Toronto cluster-based innovation policy’s eventual demise because the leadership of the cluster failed to bring together the interested stakeholders within the cluster—the academics, the various levels of government, the industry associations, and the unions—to develop a cluster-based innovation policy (Interviews).
In order to rectify this situation, the AAP should focus on the mechanisms for creating the cluster by bringing together the interested stakeholders within the cluster, and have them focus on a cluster policy that develops the technology drive which fuels the competitiveness of the industry. It is critically important to do this because the deterioration of this industry starts the day one stops investing in research (Interviews). A good place to start developing such a policy is through the technology replacement program that both Boeing and Airbus are undertaking. This represents a $500 billion dollar opportunity for the global aerospace industry. On a very small scale winning one per cent of this program for Canadian firms could lead to us developing $5 billion dollars worth of new technology (Interviews).

The fact that the cluster failed in its task is problematic because this is how clusters are supposed to work: they bring together all of the stakeholders so that collaboration takes place and issues are resolved. Michael Porter provides us with a compelling portrait of the way in which clusters work and how they affect competition. The location of a firm within a cluster increases its productivity by providing it with “lower-cost access to specialized inputs, including components, machinery, and business services, thus allowing it to circumvent obtaining the inputs from a further away location.” The cluster itself can act as a magnet drawing the skilled labour to it (Wolfe, 2002:259). This is how the cluster differs from similar sectors in other regions.

But even though municipal political leadership is critical to the success of establishing a cluster-based innovation policy, what happens at the level of business leadership is equally important. As the interviewees indicated it is absolutely critical that far greater
leadership is forthcoming from business than has typically been the case. But this is not an easy thing to achieve, given the scale and the varied economic conditions of these firms, or their history and attitude, over time, towards working or not working with the government or other cluster participants.

The interviewees also clearly indicated that whether one is speaking of business or political leadership, it is sustained leadership over time that is critical as opposed to leadership only at one point in time.

As the interviewees in this study have clearly indicated, the leadership of the cluster has failed to bring together the interested stakeholders within the cluster, the academics, the various levels of government, the industry associations, and the unions, to develop a cluster-based innovation policy.

Questions concerning leadership also took into account the problem of civic leadership. Civic leadership involves a well-connected person, who may come from the business world, but who acts as a catalyst for a much broader vision of social cohesion and inclusivity for his or her community.

The majority of interviewees thought that civic leadership was lacking within the aerospace sector, but they agreed that civic leadership was necessary and that it should be developed. The problem, however, is that there is a shortage of leadership everywhere, political, business and civic, and that is part of the leadership challenge overall (Interviews).
The interviewee’s responses on the leadership question for the fashion cluster provide us with some major differences in their approach to the topic. While acknowledging the importance of political leadership for the development of cluster-based innovation policy, the people interviewed for the fashion cluster placed a much greater emphasis on what happens at the level of business leadership than the aerospace interviewees did. Fashion cluster leaders were in fact divided in their thoughts over which source of leadership is most important: political leadership or business leadership.

The questions that were posed to the fashion sector interviewees also took into account the problem of civic leadership. The analysis shows us that the majority of the fashion cluster interviewees thought that civic leadership was lacking and that it should be developed. However, the interviewees also thought that the people who are in a position to lead the development of a fashion cluster-based innovation policy have not linked it to broader social networks such as Civic Action, nor have they defined issues that arise in fashion in terms of broader policy issues.

While these two examples are important they do not show enough variation, so we need to look at an example of a successful case that uses our factors for comparison sake. Communitech in Kitchener/Waterloo was established in 1997 in order to facilitate the networking relations between high technology companies (Wolfe, 2013:20). There are three reasons for Communitech’s success. First, it had dynamic leadership since 2001. Second, it has received a steady base of funding from core provincial government programs. Third, when a new Communitech Hub was built in downtown Kitchener, fifty
per cent of the money to build it came from the federal and provincial government
(Interview). So successful networked organizations do exist.

*Local Government Finance*

The City of Toronto faces a major problem in that it suffers from a serious lack of financial resources. This is exacerbated by its heavy reliance on property taxes as the major source of revenue. Critics who argue that all the City needs to do to raise more revenue is to raise the property tax rate are mistaken. The property tax is what economists refer to as an inelastic tax, meaning it does not grow with the economy in the way income tax does, so raising the rate will not bring in enough revenue (Slack, 2006).

For the years 1998 to 2006, the increases in the economic development budget relative to the increases in the City’s aggregate budget were relatively small. Between 2006 and 2008, the amount of money allocated for economic development was increased from $225,000 to $1,637,000; this represented an increase of $1,412,000 over a two-year period (City of Toronto, 2008). Yet, as Table 2 indicates, even though more money was put into economic development for these years, the City still saw a 273 per cent greater increase in its aggregate budget as compared to its economic development budget. Nevertheless as Table 2 indicates, more resources were being put into economic development, in general, prior to the release of the Mayor’s formal report.
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Table 2 Comparison of Budget and Economic Development Expenditures

<table>
<thead>
<tr>
<th>YEAR</th>
<th>INCREASE IN CITY OF TORONTO AGGREGATE BUDGET (000’s)</th>
<th>INCREASE IN ECONOMIC. DEV. BUDGET (000’s)</th>
<th>PERCENTAGE CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998 TO 2004</td>
<td>$1 Billion</td>
<td>$351,000</td>
<td>351%</td>
</tr>
<tr>
<td>2004 TO 2006</td>
<td>$1 Billion</td>
<td>$225,000</td>
<td>225%</td>
</tr>
<tr>
<td>2006 TO 2008</td>
<td>$0.6 Billion</td>
<td>$1,637,000</td>
<td>273%</td>
</tr>
<tr>
<td>1998 TO 2008</td>
<td>$2.6 Billion</td>
<td>$2,213,910</td>
<td>221%</td>
</tr>
</tbody>
</table>

Source: Created from City of Toronto, Operating Budgets. At: www.toronto.ca/budget

However, a major problem in identifying spending trends using this data is that spending does not just refer to the formation of a cluster policy or even to cluster development. Economic development can encompass many different areas such as business attraction and retention and the development of Business Improvement Areas (BIAs).

In 2006, a Budget Advisory Committee Agenda meeting listed the Economic Development Sector Initiatives costs as part of the overall Operating Budget for 2006 (City of Toronto, 2006). However, while these costs are only in aggregate form it sheds some light on the spending patterns involved.

Table 3 Economic Development Sector Initiatives 2006

<table>
<thead>
<tr>
<th>Economic Development Sector Initiatives (2006)</th>
<th>Gross ($000s)</th>
<th>Net ($000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$220,500</td>
<td>$220,500</td>
</tr>
</tbody>
</table>
As Table 3 indicates, the total amount allocated to the seven cluster initiatives the City was then developing was $220,500, which provides an average of $31,000 per cluster. This figure is consistent with data obtained from interviews which found that the figure for cluster development was about $30,000 per cluster (City of Toronto, 2008). This money was spent on trade shows and other promotions.

The property tax is what economists refer to as an inelastic tax, meaning it does not grow with the economy in the way income tax does, so raising the rate will not bring in enough revenue.

If we look at the aerospace cluster we see that the City spends about $15,000 annually, a sum that is considerably less than the average figure of $30,000 per cluster. This is clearly not a lot of money for cluster development in aerospace.

**Multi-Level Governance Programs and Activities**

Relevant policy documents for the multi-level governance programs and activities factor indicate there are a number of programs for the aerospace cluster but there is a paucity of programs to support the fashion cluster. There are a total of seven programs that can support the development of the aerospace cluster; three of these programs can be classified as direct programs while the remaining four programs can be classified as indirect programs.

The three key federal aerospace programs are: (1) the Community Investment Support Program (CISP) created in 1998 to support foreign direct investment in municipalities;
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(2) Technology Partnerships Canada created in 1996, and terminated in 2006, to provide funding and support for strategic research and development (R&D) that would produce economic and social benefits to Canadians; (3) The Strategic Aerospace and Defence Initiative (SADI) created in 2007 to specifically support Canada’s aerospace and defence industries after TPC had been terminated (Government of Canada, 1996, 1998, 2007).

In addition to these programs there are four other programs: (1) the Industrial Research Assistance Program (IRAP) created in 1952; (2) the Industrial Regional Benefits (IRB) program created in 1986; (3) the Scientific Research and Experimental Development (SR&ED) tax credit program which was established in 1986; and (4) the Export Development Canada (EDC) program (1960), that guarantees lines of credit and equipment financing. These programs only have an indirect bearing upon the creation of any aerospace cluster because they apply to all knowledge-based technologies (Government of Canada, 1952, 1960, 1986).

The Ontario provincial government had two programs that were important: (1) the Advanced Manufacturing Investment Strategy (AMIS), and (2) the Next Generation of Jobs Fund (NGOJF). AMIS was created in 2006, and the program was designed to encourage aerospace firms, and other types of firms, to invest in leading-edge technologies that would increase overall productivity in the economy. The NGOJF was created in 2008 and it is used to create high value-added jobs in aerospace as well as in some other key sectors of the economy. Both programs have since been terminated (Government of Ontario, 2006, 2008, Interview, 2014).
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The major federal programs for the development of the fashion cluster are not as numerous. They are (1) The Canadian Apparel and Textile Industries Program (CATIP) now terminated, (2) Global Opportunities for Associations (GOA), and (3) Invest Canada Community Initiatives (ICCI) (Government of Canada, 2002, 2008).

The fashion sector also suffers from a lack of program support from the provincial government. There is not one provincial program to help bring about the development of a cluster-based innovation policy for the fashion sector.

When aerospace interviewees were asked how effectively the three levels of government work together in support of cluster-based innovation policy in the City of Toronto a number responses were elicited. The majority of the interviewees stated that in terms of programs, such as the Strategic Aerospace Defence Initiative, the federal government deliberately bypasses the province and the City and works with firms. The logic here was that the federal government did not wish to get involved with the City of Toronto because if it did, it would have to get involved with all the other municipalities across the country.

The majority of the interviewees thought this type of thinking was very short-sighted on the part of the federal government. The interviewees suggested that perhaps the federal government needed to be involved with the City government because Toronto is Canada’s largest city, not some small town. (Interviews).

When interviewees were asked whether or not they saw any evidence of a multi-level governance structure in the City of Toronto they replied that to achieve such a thing was easier said than done. The majority of the interviewees thought, “the federal government
is just not there” in terms of policy development, or coordinating policy development between the three levels of government. There is nothing in terms of industrial development policy, or programming. The majority of the interviewees also thought the federal government exhibited a bias towards municipalities since, in the words of one interviewee, the federal government believes that “municipalities just fix potholes.” Overall, the majority of the interviewees did not see any evidence of multi-level governance coordination occurring among the three levels of government with respect to Toronto.

In addition, our respondents felt that there are real problems with the current multi-level governance approach to cluster-based innovation policy-making. As far as the aerospace sector is concerned there is a lot of work needed for the coordination of efforts on the part of the three levels of government. As it stands now there appear to be too many policy silos.

When the fashion sector interviewees were asked how effectively the three levels of government work together in support of cluster-based innovation policies in the City of Toronto their responses were candid. The majority of the fashion sector interviewees had never seen the federal government coming to the City government asking to deal with them directly about anything. In their mind there is no city, provincial or federal coordination of policies for the fashion sector taking place (Interviews). Moreover, not only is there a lack of coordination by all three levels of government, there is not even one specific program that the City can apply for directly, apart from CISP for export help, so that it can grow the fashion cluster. And the fact that there is not one major program
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available from the provincial government further compounds the problem of the industry thriving in the future.

Following upon these responses, a further question was posed to the interviewees as to why it is that the federal and provincial governments did not want to get involved with the fashion sector. The majority of the interviewees responded by saying they did not think that people in government understand the value of the design component in fashion. For example, one person felt that people in government did not understand the linkages to innovation in the industry, nor do they understand the important contribution that the fashion industry makes to culture in the City of Toronto. While aerospace, automotive, and biotech have captured the interest of senior levels of government, the fashion sector has not captivated and interested them in the same way.

Therefore as was the case with the aerospace sector, the second group of interviewees felt that there are many problems implementing a multi-level governance approach to cluster-based innovation policy-making at the municipal level. The primary federal program, CATIP, has now been terminated and the provincial government has nothing to offer. Furthermore other programs that do exist can only be accessed by firms directly or by third party organizations.

Montreal’s Aerospace Sector

Toronto’s strategy focused on what were seen as existing clusters. However, the mixed record of Toronto implementing its cluster strategy stands in stark contrast to that of Montreal; therefore it is worth looking at what Montreal has accomplished.
Over fifty per cent of Canada’s employment in the aerospace industry is in Montreal. And Montreal is the only city in Canada, along with being one of the only places in the world, where an entire aircraft can be designed. The production of aircraft in Montreal began in the 1920s when several American, British, and Canadian producers competed to produce small propeller aircraft. In 1944, a small group of Canadian Vickers employees founded Canadair in Ville St. Laurent, in the north end of Montreal. In 1976, Canadair acquired the exclusive rights to the blueprints for the Learjet 600 from the Learjet Corporation in Wichita, Kansas. These blueprints were used to modify the original Learjet and turn it into the Challenger 600, whose first prototype flew in 1978. In 1986, Bombardier Corporation of Montreal bought Canadair and then decided to enter the regional aircraft market by developing regional jets. Bombardier’s rise in the aerospace world has been rapid: in just a little over a decade Bombardier Aerospace, with 15,000 employees in Montreal, and 28,000 employees around the world, became the world’s third largest producer of aircraft. Montreal became a thriving aerospace city in Canada, and Bombardier became the anchor firm that created the labour pool around which most other companies have located (Niosi and Zhengu, 2005:11).

Montreal’s Cluster Strategy

Because Montreal’s cluster strategy differs in many respects from Toronto’s, it is important to highlight each strategy. Montreal’s cluster strategy is developed through the Communauté métropolitaine de Montréal (CMM). Founded on January 1, 2001, CMM is the planning, coordinating, and funding body serving 82 municipalities. The CMM has jurisdiction over nine major fields one of which is economic development. And one of the
main goals of the CMM’s economic development plan is to foster the development of industrial clusters across the metropolitan territory (CMM, 2007:6).

The heart of CMM’s cluster strategy consists of the following key stages: mobilizing and coordinating stakeholders, assessing the cluster’s strengths and weaknesses, and using the Competitiveness Fund, and funds provided by its partners such as the Government of Canada, the Quebec government, through various ministries, along with the private sector, to fund its cluster initiatives (CMM, 2007:4-7).

The antecedents that led to the development of this cluster strategy began long before the CMM’s founding in 2001 (Klein, Tremblay, and Fontan, 2014). In 1991, the Quebec government, under the direction of its Minister of Industry, Commerce, Science and Technology, adopted a new innovative economic development strategy built around the cluster theory of Professor Michael Porter from Harvard University. Ultimately, all of these developments led to the creation of the CMM, which led to the creation of the CMM’s first Economic Development Plan in 2005 (Tremblay, 2006:6).

Montreal’s cluster strategy for the aerospace sector began in 2005 when the CMM launched a project to identify and map metropolitan industrial clusters. This was the first phase of a project aimed at implementing an integrated innovation and economic development strategy for the entire region. Once a consensus was reached on the cluster’s development plan, the job of coordinating the plan was assigned to a cluster secretariat. In the aerospace sector, the secretariat that was created was Aero Montreal (CMM, 2014). Available at: http://grappesmontreal.ca/cluster-development/origins-of-montreals-me…
Aero Montreal is a cluster organization, created in 2006, that mobilizes all the industry players around common goals for the aerospace sector (www.aeromontreal.ca). The Director of Aero Montreal argues that the aerospace sector in Montreal is a cluster because of Greater Montreal's aerospace concentration. Montreal is an aerospace capital like Toulouse and Seattle; it has 50 percent of the Canadian workforce, and 55 per cent of Canadian aerospace sales, along with 70 per cent of all Canadian R&D. Aero Montreal played a key role in developing this cluster (Aero Montreal, 2012:12). Today Aero Montreal has an organized structure that has clear governance mechanisms, and it provides a single forum in which all key stakeholders can meet together to address common strategic issues of importance to the sector. In a keynote address to an aerospace conference held in Toronto in 2012, Ms. Benoit suggested that Toronto needs “to create an organization similar to Aero Montreal if it wants to develop a cluster for aerospace”. (Benoit, 2012:10).

Comparing and Contrasting the Toronto and Montreal Cluster Factors

While the statements made above provide some indication of the differences in each city’s cluster strategy, if one compares and contrasts both the Toronto and Montreal aerospace sectors by looking at the three factors of leadership, local government finance, and multilevel governance programs and activities further insights into the development of these cluster strategies emerge.

In Montreal, the leadership for the development of the aerospace sector came from the domination of the prime contractors: Bombardier, Bell, CAE, and Pratt and Whitney Canada (Tremblay and Klein, 2009). In Toronto, the leadership for the development of
the aerospace sector came from City Council, the City bureaucracy, the Mayor and the business classes (City of Toronto, 2000; Agenda for Prosperity, 2008).

In Montreal, the local government finance factor is different from the one found in Toronto. At the official launch of its Economic Development Plan in 2005, the CMM stipulated that a total investment of $6 million per year would be allocated to fund metropolitan clusters. This funding which covered the years 2005-2008 was divided into four equal shares with the Quebec provincial government, the Canadian government, the CMM, and the private sector contributing 25 per cent. In 2008, the CMM renewed this funding framework, but this time it was the Quebec provincial government, the CMM, and the private sector that contributed equally to funding cluster activities (http://grappesmontreal.ca/cluster-development/communaute-metropolit…). By contrast, local government finance for the Toronto aerospace sector came from the City’s economic development budget which allocated a mere $15,000 for cluster policy development spending (City of Toronto, 2006).

Finally, the multilevel governance programs and activities factor for the aerospace sector in Montreal indicates that two programs are available for developing this sector. The Strategic Aerospace and Defence Initiative (SADI) and the Scientific Research and Experimental Development (SR&ED) program which offers 15 per cent tax credits from the Government of Canada, and 14 per cent from the Quebec government (http://www.montrealinternational.com/en/foreign-investments/sectors/…) Toronto as our case study analysis indicates also has access to SADI and the SR&ED programs (Government
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of Canada, 1986; 2007). Neither Montreal nor Toronto has access to a direct specific provincial government program for the aerospace sector.

Drawing the threads of the analysis together, it is evident that Montreal’s cluster development strategy and policy, particularly with respect to its aerospace sector, was more successful than Toronto’s because it had extensive, ongoing, and committed business leadership; it had a significant amount of financial resources at its disposal to fund cluster development; and it had a fully developed cluster organization in Aero Montreal that helped to fully develop and govern the birth of its aerospace cluster.

While other Canadian cities have opted for a more piecemeal, or intermittent, approach to cluster strategies both Toronto and Montreal appear to be the major cities that have it as a key focus of their local economic development strategies (Bradford and Bramwell, 2014).

Today Aero Montreal has an organized structure that has clear governance mechanisms, and it provides a single forum in which all key stakeholders can meet together to address common strategic issues of importance to the sector.

Conclusion and Policy Implications

A number of policy lessons and observations emerge from our analysis and discussion of these two case studies at the local government level that have important implications
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for both policy practitioners and scholars who are interested in economic development
policy and cluster development. First, policy practitioners must understand that clusters
cannot be created from scratch. The assets that are key to cluster development are firm-
based, and the consensus of opinion is that clusters emerge organically or through
inadvertent ends. What governments can do is support these clusters through various
policies once they are present. Second, both political and business leadership that is
constant and sustained is critical for the development of cluster-based innovation policy
because one has to develop engagement and ties with local government and then drive
that engagement upward to the provincial and federal government and outward to the
business and research community.

For those scholars interested in economic development policy, more research is
needed in the area of local government and the multilevel governance approach to policy
development. At the present time, the interview evidence suggests that the federal
government is not there in terms of policy development, or coordinating policy
development, between the three levels of government. Since it is both critical and
necessary for the City to align and coordinate its policies with the other levels of
government so that it can receive the proper funding and programs it needs, it is
imperative to understand the reasons why this is not happening.

Finally, an organization similar to that of Aero Montreal has to be developed for both
the aerospace and fashion sectors so that they can become true clusters and generate the
proper type of cluster-based innovation policies they will need to thrive in the global
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economy: a technology policy for aerospace and an advanced manufacturing and design policy for fashion.

This investigation of cluster-based innovation policy at the local level raises the issue of research questions that require further exploration. On an empirical level additional case studies beyond the two presented here are needed to either affirm or nullify this first set of findings at the local government level. Until this is done, the only thing that can definitely be stated about cluster-based innovation policy at the local government level is that it is still very much a work in progress.

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