

**“Bringing the Region to the World and the World to the Region:”¹
The Impact of Place on the Role of Universities in Non-Metropolitan Regions**

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Abstract

The assumption behind the recent literature on the role of universities in non-metropolitan development is that “place” matters. Non-metropolitan universities (NMU) can act as a positive catalyst in integrating these regions into the new knowledge based economy. The underlying belief is that not only will the NMU be physically connected to the local community and its citizens but how the university conducts its research and teaching will be impacted by their embeddedness in the particularities of non-metropolitan region (e.g., they will propose different research questions). This paper proposal seeks to test the above assumptions by examining a case study of a non-metropolitan region not served by a local university, the Regional Municipality of Wood Buffalo. Containing the Athabasca oil sands, the RMWB is on the frontline of one largest resource booms in Canada’s history. A rapid population increase has placed significant stress on the region’s physical and social infrastructure. In both their teaching and researching activities, post-secondary institutions can play an important role in assisting the community in managing the positive and negative effects of this phenomenal growth. To help determine whether or not “place” matters, this paper will examine the role that the local community college, Keyano College, the University of Alberta, and the University of Calgary have played and are expected to play in regional development within the RMWB.

¹ This phrasing is taken directly from Nord (2002: 179)

Does “place” matter in how an university conducts its affairs? Having completed my first two degrees in my hometown at the University of Northern British Columbia (UNBC), I instinctively want to answer in the affirmative. Built “in the North, for the North,” a widespread grassroots effort combined with regional political commitment pushed the provincial government to develop a full standing university (McAllister, 2004: 269-270). From its creation, the public believed that UNBC should be transformative institution. In a variety of different ways, UNBC has kept this public trust at the centre of its mission². Having moved to Alberta to pursue my PhD, I am confronted with some of my initial assumptions about the role of non-metropolitan universities. While my dissertation centres upon a natural resource and a resource-based region, I am no longer engaging in research “in place.” Non-metropolitan universities (NMU) are often developed in the hopes that they will act as transformative economic, social, and cultural catalyst in their respective regions (Nord, 2002). If they reach their fullest potential, they “bring the world to the region and the region to the world” (Nord, 2002: 179). None of Canada’s six northern universities are located in Alberta (Weller, 2002: 100). While Athabasca University is physically located in Alberta’s provincial north, Weller does not consider it to be a northern university because it provides services to students irrespective of place through distance learning. Therefore, the majority of post-secondary needs of Alberta’s provincial north must be met by either local community colleges or the University of Alberta³ and University of Calgary⁴. To understand better, how non-metropolitan universities make a difference in their respective regions, I have decided to pursue this question from my new vantage point by examining the Regional Municipality of Wood Buffalo’s (RMWB) relationship with the University of Alberta and the University of Calgary, as well as its local community college, Keyano College. In examining this relationship, I plan to use Nord and Weller’s (2002) assessment criteria by evaluating the Alberta case study in the following areas: access to not only undergraduate university training but also professional schools, and the university’s role in local and regional economic development.⁵ However, a NMU can also play an important symbolic and representational role (Weller 2002). This is the focus of the last section. However, since the Alberta Government is unlikely to develop a new northern university to serve this region, I want to first root this discussion by outlining some factors which I believe account for why Alberta has not developed an NMU in its provincial north and in particular in the community of Fort McMurray.

²A discussion on the current role that UNBC plays in regional development is the focus of another paper by Tracy Summerville, Gary Wilson, and Rob van Adrichem.

³The University of Alberta is one of Canada’s largest universities with over 36,000 students. Its main campus and Campus Saint-Jean, its French language faculty, are located in Edmonton. It also has a third campus in Camrose, a small liberal arts undergraduate campus which has fewer than 1000 students.

⁴Founded in 1966, the University of Calgary now has over 28,000 students. In 2006, University of Calgary join G13, a group of Canada’s leading research universities, of which University of Alberta was one of the founding members. This paper does not evaluate Alberta’s third stand-alone university, University of Lethbridge, a relatively small university located in southern Alberta.

⁵Nord and Weller also examine how the NMU affects the social and cultural development of the region. This is often afterthought for non-metropolitan universities in Canada’s north, with the important exception of the preservation and development of First Nations culture (Weller, 2002). Due to constraints of a paper, this aspect is not considered here. However, it is important to note that, unlike many NMUs in Canada, Keyano College has a fine arts program which brings original art, in a variety of forms (e.g., public art gallery, theatre) to the residents of Fort McMurray. It is also developing new community sports facilities.

The Context –People, Place, and Politics

Alberta's provincial north, as defined by the Northern Alberta Development Council (NADC) contains about 60% of its land mass but has only 10% of its population (NADC, 2007). It is a region dominated by oil and gas sector, forestry, and agriculture. However, the development of oil sands, located exclusively in Alberta's provincial North, is awe-inspiring. Containing the world's second largest reserves, the oil sands cement Canada's position as an energy superpower. It is estimated that there are 174 billion barrels, which are economically recoverable (Canadian Centre for Energy Information, 2006). With 1.1 million barrels per day, the oil sands current production is greater than that of Texas (Ibid). The Alberta oil sands projects are so large that industry no longer uses the term mega-projects to describe them but has started to refer to \$5 billion plus projects as elephant projects which "evoke visions of awesome intelligence and success as well as immense expense" (Jaremko, September 25, 2006: A14).⁶ Because of its energy sector, the Alberta government has managed not only to pay down its entire debt but has also increased its spending to be the highest provincial per capita. It has sufficient funds to meet any perceived needs. Yet, it has not developed a northern university instead choosing to pursue the university transfer programs as the primary means of fostering access to post-secondary education in rural areas. Below, I outline how I believe population, geography, and the nature of Alberta politics make it unlikely that a NMU will be developed in the near future. First, I argue that until recently there was not sufficient population to support the development of a full separate university. In immediate period, the explosiveness of population growth makes other infrastructure needs more pressing. Second, geography works against establishing a non-metropolitan university as the two large centres within the Alberta's provincial north are closer to Edmonton, the capital city of Alberta, than to each other. Third, the political will to lobby for a new university is non-existent and unlikely to form given Alberta's political context.

People⁷

Alberta's largest oil sands deposit, the Athabasca oil sands⁸ are located within the boundaries of the Regional Municipality of Wood Buffalo (RMWB)⁹. Stimulated by the federal and Alberta government, the rise of new and expanded oil sands developments directly account for the population explosion (47.37% in the last five years) in the RMWB (Urquhart, 2005). See Table 1 for a breakdown of population growth. Despite covering a large area, over 83% of RMWB's population lives in the urban community of Fort McMurray (RMWB, 2005: 6). This rapid increased in population has placed significant stress on the municipality's physical and social infrastructure. According to the Athabasca Regional Issues Working Group *et al.* (2005), the region needs \$1.2 billion in capital improvements for the 2005-2009 period in order to manage the boom (24). One of the smallest northern communities hosting a non-metropolitan university is Prince George, BC. When the drive to build an university first

⁶The oil sands were originally referred to as the tar sands.

⁷ Fort McMurray is by far the biggest community in Alberta's provincial north. Although relatively similar in 1996 when Grande Prairie had a population of 31,400, its population growth has not kept paced with RMWB (Alberta First, 2007^a). By 2006, it had grown to contain a population of 44, 631.

⁸ As a non-conventional source of oil, the Alberta oil sands require large amounts of processing.

⁹ The city of Fort McMurray amalgamated with Improvement District #143 in 1995 to form the Regional Municipality of Wood Buffalo (RMWB, 2003: 1).

began in 1987, the population of the city was just under 68,000.¹⁰ Two years after UNBC opened in 1994, the population had increased to 75,150. In the last three years, Fort McMurray has grown to a similar size as Prince George as both communities describe their population as being just under 80,000. However, the important number may be not the overall population but the growth rate.

Table 1: Regional Municipality of Wood Buffalo – Total Population & Growth Rates

2006*	78,792
2005*	73,176
2004*	67,105
2003*	57,099
2002*	58,317
2001**	41,465
1996**	35,213
Population % change 1996-2001	15.08%
Population % change 2001-2006	47.37%
*Official Population List, Alberta Municipal Affairs	
**Statistics Canada Census	
Source: Alberta First, 2007 ^b , <i>Regional Municipality of Wood Buffalo Statistical Profile</i> http://www.albertafirst.com/profiles/statspack/20699.htm	

In addition, the RMWB is expected to grow another 31,000 to 34,000¹¹ before 2010 (RIWG, 2005, 6). This has placed tremendous strain on the community's resources and has resulted in a significant infrastructure debt. The boom is so out of control that the Mayor of RMWB has called for the slow-down of new projects in order to give the community time to catch its breath. Key priorities include the development of new wastewater treatment plant and the release of crown land for new housing developments (Athabasca Regional Issues Working Group (RIWG) et al., 2005: 7). A comprehensive report outlining the infrastructure needs for the Wood Buffalo region identified that the post-secondary education infrastructure needs centred upon revitalizing Keyano College's Fort McMurray campus to better train trades and technologies workers needed by the oil sands industry (29). This report does not include any perceived current or future need for expanded university services let alone a full standing university.

Place

About 100 miles out of Edmonton, however, as car swings north onto Highway 63, the features of the land show faint evidence of man's imprint. Only the lonely strip of highway, some pockets of road construction and the lights of an occasional oncoming car, hell bent out of isolation for the city, distinguish the musket-topped land and the endless boreal forest from

¹⁰ The 1986 census population for the City of Prince George was 67, 620.

¹¹ When one includes those living in work camps estimated between 7,000 to 10,000.

what it must have been long before the arrival of the first while explorer in western Canada (Pratt, 1976, 13).

In Pratt's 1975 description, one gets the immediate feeling that one is leaving civilization and entering an isolated far distance land. Yet the driving distance of 439 km to Alberta's capital city, Edmonton, is comparatively short in northern terms. Currently, taking only 4 ½ hours (Travel Alberta, 2007), one can travelled there, take a tour of oil sands, and back within a day. Instead of encountering the odd car, one is likely to be delayed by commuter and industrial traffic. The RIWG (2005) has called for significant upgrading (\$500 million) to Highway 63 (31). Travelling within the municipality's 68,000 kilometres (See Figure 1) and between northern locales is more difficult than reaching Edmonton. For example, there is only winter road access to Fort Chipewyan. In addition, one can get to Calgary ½ hour quicker (7 ½ hours travelling time) than travelling to Grande Prairie, the second largest city in Alberta's provincial north (Travel Alberta, 2007). Commuting patterns and business linkages often tie Fort McMurray to more southern locales rather than other provincial north communities. For example, Suncor provides a bus from Edmonton, Red Deer, and Calgary for its contract workers who live in camp. Fabrication of oil sands plants often occurs in Edmonton and then assembly is done on site. Just outside of Edmonton, there are plans to build more upgraders to process the oil sands into a useable form.

Figure 1: RMWB Map



(RIWG et al., 2005: 9).

These linkages help tie the City of Edmonton, located near the geographic centre, to Alberta's provincial north. Viewing itself as 'the Gateway to the North', the City has developed a northern strategy, headed by Mayor Mandel, to help strengthen its relationship with its northern neighbours and its capacity as a staging area for northern developmental projects (City of Edmonton, 2007). The majority of the energy companies' Canadian head office are now located in Calgary. Therefore, Alberta's two metropolitan cities are intractably link to oil sands development in RMWB. Two important consequences to developing a NMU flow out of this. First, while post-secondary institutions located in Edmonton are not local, they are relatively close in regional terms. For example, both the Prince Rupert and Fort St. John regional campuses of UNBC are located further away than Fort McMurray to Edmonton. As discussed in more detailed in the section on *Access*, this opens many opportunities for collaborative programs between Keyano College and University of Alberta. Second, despite the distance, the large metropolitan centers of Edmonton and Calgary have quite close links with the regional development of RMWB. The section below on *Regional Development* further explores these linkages.

Politics

As detailed in the *Access* section, the longstanding government policy is to provide post-secondary education in rural areas through the college system. Therefore, it is unlikely that the Alberta government would develop a new NMU without sustainable political pressure from the region. Yet, this is unlikely to materialize. The standard explanation is that Alberta politics are relatively homogenous with little dissent. In support of this argument, they point to the history of one-party dominance. In the last 72 years only two parties have governed with the Social Credit party in power from 1935 to 1971 when the Conservative party took power. The common account, espoused best by C. B. Macpherson, was that Alberta's electorate was relatively homogenous consisting of small independent farmers combined with the fact that Alberta had quasi-colonial economy dependent on world markets, bankers and railways. This produced a weak party system (Smith, 2001, 280). This view ignores dissent both within provincial electorate, as well as inter and intra region rivalry. For example in seven out of its nine elections, the Social Credit party garnered at least 85% of the seats despite having on average only 52% of the popular vote (284). This distortion continues today with on average half the population votes for the government and half against it (299). Urquhart (2005) argues that Alberta's north contains a multitude of different experiences from areas suffering depopulation to ones who are trying to manage both strong economic and population growth. As a result, while they are likely to agree that local government needs more tools and resources to confront its issues, they are unlikely to agree on a specific course of action. So while dissent as well as intraprovincial conflict may exist against the provincial government, it is not heard as loudly as it would be in other jurisdictions likely because of the fear getting on the wrong side of a government who has been in power for over 30 years. For example, while the mayors of Calgary and Edmonton may feel free to criticize the provincial government¹², rural municipalities are more reluctant to do so for fear that they will be punished (Urquhart, 2005: 99). Universities are not immune from feeling this pressure. In May 2004, Ralf Klein released a paper he wrote for an Athabasca University class, which contained large sections

¹² For example, the Mayor of Calgary recently criticized the 2007 provincial budget for having too many strings attached to new municipal funding.

directly lifted from various websites (Tittley, 2005: 254-255). With various academics insisting that the paper should have received a failing grade, the government called on the university presidents to support the premier which they did by writing letters praising the premier for his 'commitment to life long learning.' As voiced by an editorial in the Lethbridge Herald, the message given was:

You play by Ralf's rules, or you don't play. But this takes that troubling principle one step further. Praise Ralf or pay the consequences (255).

It is important to remember that movement to create UNBC initial gained strength in direct opposition to what a provincial cabinet member reputedly said:

In the Interior, people don't think of education beyond Grade 12. The questions they ask at the end of day are "How many trees did you cut today?" or "How were things down in the mine?" (McAllister, 2004, 269).

While its true that Albertans have successfully persuaded the Conservative government to abandon some of its some policy initiatives (e.g., the '3rd way' of health care), it is unlikely that there is sufficient enough consensus within Alberta's north or that it would be sustained in the face of government opposition to successfully lobby for a non-metropolitan university. In addition, they would likely face opposition from both University of Alberta and University of Calgary who would likely make the argument that they are severing this region well.¹³ As for RMWB going it alone, they have had great difficulty in lobbying for more essential infrastructure (e.g., upgrades to their local sewer system in Fort McMurray, release of provincial land for new housing developments) that they are unlikely to risk any political capital arguing for an university which is not even on their radar.

Northeastern Alberta & Post-Secondary Education

Post-secondary education was not immune from the 1990s 'Klein Revolution' which cut operational budgets with the idea that this "stick" would force institutions to cut redundant or declining programs and therefore increase the institution's responsiveness to the labour market (Herbert Emery, 1997). The clearest impact of the Klein Revolution was to increasing shift the financial burden from the province to the students by means of higher tuition fees (Ibid). However with the rise of budgetary surpluses, the Alberta government has covered the cost of recent tuition fee increases. This represents a privatization as post secondary education moves towards a user-pay funding model (Harrison, 2005). Tying higher education to be more responsive has pushed post-secondary education towards vocationalism (viewing it as the means to acquire job training) and commercialization of research (Harrison, 2005). These developments are part of wider trend affecting Canadian universities. The effects of these have been uneven across the universities with some faculties benefiting to a greater extent from increase collaborations with industry. Like many other North American jurisdictions, the Alberta government's focus appears to be enlarging educational opportunities for northern residents by increasing access points rather than embracing the idea that an NMU can serve as transformative catalyst. As stated in the introduction, this section

¹³ Weller (2002) notes that when a NMU is being proposed for Canada's north, it often faces opposition from southern universities who feel that they are serving the region well.

evaluates post-secondary education in RMWB using Nord and Weller's (2002) assessment criteria.

Access

Rural and northern residents historically have lower university participation rates than their metropolitan counterparts. RMWB fits into this pattern having lower participation rates than Edmonton and Alberta as a whole (RMWB, 2006: 44).¹⁴ One contributing barrier is the physical distance between these residents and the nearest university (e.g., Frenette 2004; Nord 2002). Not only does this raise the financial costs of attending an university but it also can create social and cultural barriers by removing the student from their home environment (Nord, 2002, 178).¹⁵ In addressing this issue, governments have a spectrum of options from:

- helping more rural and northern residents attend established universities by reducing the costs through the provision of grants and loans¹⁶,
- establishing university transfer classes at the local college,
- fostering partnerships between the local college and an established university to offer some of its courses on site
- establishing local degree granting programs, to
- developing a full NMU.

The *raison d'être* for developing NMUs, especially in northern areas, have been to address this under-representation (Nord, 2002: 178). Not only can NMU provide the opportunity for more young people, especially from low-income families to attend universities, they also help to keep more young adults within the community. Community leaders often demand that the NMU deliver more than just a generalist liberal arts and sciences program by including a range of professional and business programs (e.g., social work, education, nursing) as a means of addressing critical skill shortages (Ibid). Thus, the NMU is perceived as important local actor in providing an adaptable workforce.

Alberta post-secondary system has traditionally relied on university transfer model as the means of delivering university education in its regions (Dennison and Schuetze, 2004: 17). Its 1999 "Campus Alberta" plan reinforced this direct by promising "the automatic portability "automatic portability of credits from local colleges and Bible schools" (Titley, 2005: 264). At Keyano College's main campus in Fort McMurray, students are currently able to complete their first and second year university classes in the following areas: arts, commerce, education, engineering, fine arts, and science. Although transferable to other universities, the majority of university transfer courses offered at Keyano College are modeled on University of Alberta classes as a result their content and credit weights matched their equivalent courses (Keyano College,

¹⁴ When one considers trade certification, the reverse is true with Fort McMurray having a higher percentage. This is likely due to nature of oil sands employment and the availability to pursue these trades at Keyano College.

¹⁵ Students seeking to find more independence or escape their small community may see this as an advantage.

¹⁶ The Alberta government provides a very small (\$500 to \$1500) non-repayable grant to northern students who demonstrate a high financial need. However, this does not increase the total amount of funds available to the student because their Application for Financial Assistance is reduced by the amount of the grant that they received.

2007/2008, 109). Although the Alberta Government is expanding the number of degree granting colleges (Advanced Education and Technology, 2007, p. 10), Keyano College does not offer any degree programs on its own. Instead, it collaborates with a variety of universities to allow students to complete all 4 years of the degree at their Fort McMurray campus:

Table 2: University Programs offered in Fort McMurray

<i>Collaborative Degree Programs between Keyano College and the institution listed</i>	
<i>Current</i>	
University of Alberta	Bachelor of Science in Nursing Full program as well as the post RN program stream. Bachelor of Education Begins Fall 2007
Athabasca University*	Bachelor of Administration Bachelor of Arts Bachelor of General Studies *Completion of 3 rd and 4 th year classes will involve some home study (e.g., distance learning)
<i>Future</i>	
University of Calgary	Bachelor of Social Work ¹⁷
University of Lethbridge	Bachelor of Fine Arts in Drama Memorandum of Agreement to explore the possibility of offering this degree in Fort McMurray signed in the Fall 2006).
Hosted Programs (Keyano College provides space)	
University of Alberta	Masters of Business Administration in Natural Resources & Energy One cohort, which will begin 2007 and finish in 2010. Taught by U of A faculty.
Source: Keyano College <i>Credit Calendar 2007-2008</i> and Annual Report 2006	

One of the most obvious absences is the absence of collaborative partnerships with University of Alberta's School of Engineering despite the fact that close links exist between the school and the community (e.g., active alumni association and sponsored research projects). Perhaps, the primary advantage of these collaborative partnerships is that the students received a recognized credible degree from an established institution. Dennison and Schuetze (2003) note that a "quasi accreditation requirement exists in the form of the need to qualify for membership in the Association of Universities

¹⁷ The 2005 Annual Report listed a collaborative Bachelor of Social Work degree program under their Operational Overview; however, the 2006 report listed that the proposed program was under discussion. Recent announcement indicates that it hopes to be accepting students in Fall 2008 (U of C, 2008).

and Colleges of Canada” (27). Degrees received by non-member institutions will likely not be viewed with the same weight. Based on their membership criteria, membership in the AUCC will be extremely difficult for a college who offers a broad range of programming (e.g., adult basic education, vocational and trades programming) in addition to any degree streams (Ibid). For example, key criteria include:

1 Institutional Members

(d) It has as its core teaching mission the provision of education of university standard with the majority of its programs at that level.

(f) Its undergraduate degree programs are characterized by breadth and depth in the traditional areas of the liberal arts and/or sciences and first degrees of a professional nature – such as medicine, law, teacher education, engineering – have a significant liberal arts and/or science component.

(g) It has a proven record of scholarship, academic inquiry and research, expects its academic staff to be engaged in externally peer reviewed research and to publish in externally disseminated sources and provides appropriate time and institutional support for them to do so.
(AUCC, 2007)

While AUCC have admitted degree-granting colleges (e.g., University College of Cariboo¹⁸) as institutional members, they have denied membership to BC’s Kwantlen University College (Dennison and Schuetze, 2004: 27). The diversity of Keyano College programs is reflective in its student enrolment (See Table 3). Its 2003 *Annual Report* gave a more specific breakdown of enrolment – only 18.69% of its study body was enrolled in university transfer classes or in its nursing collaborative degree program.

Table 3: Keyano’s College’s Enrolment by Division, 2003-2006

Enrolment by Division			
	Community & Upgrading Education	Trades & Heavy Industrial	Academic & Career Programming
2006	19	34	47
2005	25	31	44
2004	32	16	52
2003	33	26	52

Source: Keyano College, *Annual Reports, 2003-2006*

While this percentage may increase with the addition of new collaborative degree programs, it also plans to expand its offering of trades program (Keyano College, 2006, p. 6). Given its current direction, it is unlikely that it would be eligible for membership in the AUCC. Its collaborative partnerships with other Albertan universities represent a unique way to increase local access to variety of university degree programs.

¹⁸Two university colleges established by BC government in the 1990s (University College of the Cariboo and Okanagan University Colleges) have now been transformed into full universities (Thomson River University and University of British Columbia – Kelowna).

Local and Regional Economic Development

Due to the particular nature of their host communities (e.g., resource-based economy), non-metropolitan universities can have a large impact on local regional economic development (Nord, 2002: 197). First, they represent a diversification of the local economy and positive impact simply by the number of actual jobs and ancillary spending. Since it is often more difficult to recruit and retain professionals to these regions (Way, 2005), they can ease some labour shortages by providing a well educated and skilled workforce. However if they remain unconnected to broader regional goals, then they will be “largely training the youth of the region for outmigration to jobs that do not exist within their regions” (Weller, 2002: 113). Therefore, they must offer professional programs at both the undergraduate and graduate level. This will help them become an “industry incubator” by attracting new business to locate nearby and to develop potential commercial spin-offs (Nord, 2002). The impact of actual spending due to the presence of campuses and/or research centres is negligible because neither university maintains a campus or research centre there.¹⁹ In the near future, they will likely ease the labour shortage in areas, like nursing and teaching, where collaborative degree programs have been developed. However, due to the limited nature and the fact that there is only one graduate program offered (Masters of Business Administration in Natural Resources and Energy), their overall impact in this area likewise will be very limited. Yet, both institutions have had a tremendous impact on the region’s overall economic development because of their research into oil sands technology. This involvement is highlighted below.

The University of Alberta has been part of developing oil sands technology since its inception in 1908. Its first president, HM Tory, disagreed with the federal government’s decision to turn control over development to the private sector (Chastko, 2004, 6). Believing that the current state of technology was not developed sufficiently enough, he advocated for further research and inquiry. At this time, the specific composition of oil sands was unknown; therefore, at the behest of his university president, Adolph Lehmann, a chemistry professor, began his own research (8). In 1920, Dr. Tory again clashed with federal agencies when they accepted the results of McGill scientists over those at the University of Alberta. Due to this negative response and drying up of federal research funds, the University and the provincial government decided to pursue their own research agenda by establishing the Scientific and Industrial Research Council (the precursor to the Alberta Research Council) (12). Having learned that Dr. Clark at the federal mines branch had successfully separated oil from the rest of the sands, Dr. Tory enticed him to join the faculty. Dr. Clark continued his work and successfully devised a hot-water extraction separation treatment, which kick started modern day commercial oil sands extraction. This high level of involvement continues to this day with the University of Alberta taking the lead role in variety of oil sands technologies: oil sands upgrading, oil sands surface extraction methods and the management of oil sands tailings (AERI, 2007). At the heart of this involvement is the Imperial Oil-Alberta Ingenuity Centre for Oil Sands Innovation (COSI), which consists of 50 professors, technical staff, and graduate students. With about 30 million in government and industry support, the centre promises to engage in “high-risk research,” like replacing Clark’s hot water process with chemical solvents (Jaremko, 2007: G1). This could revolutionize oil sands extraction because the use of water is considered to be a limiting factor as it takes two to three barrels of water for each barrel of oil

¹⁹ There would be limited economic impact from travel to and from the region in the course of teaching some class or conducting research there.

production (Ibid). Oil sands research crosses over many different engineering streams. Some streams, like chemical engineering have developed a specific subset of undergraduate and graduate courses. Other research centres also have an interest in Alberta's energy policy. For example in Fall 2006, the Institute of Public Economy held a series of workshops on managing the current boom, questioning the current royalty regime, and examining Alberta's climate change policy. The Environmental Research and Studies Centre has examined oil sands impact on Athabasca Water Shed. Using a political economy perspective, the Parkland Institute critiques how both levels of government have managed the boom (e.g., see their most recent report, *Taming the Tempest*) (Parkland Institute, 2007). The Community Service-Learning Program is offering a spring course examining the nature of boom in Fort McMurray. This course contains a field component within the community and has the students assist with the completion of Dr. Dorrow's community ethnography. The above is thumbnail sketch of a variety of University of Alberta's faculty and research centres are engaging in oil sands research.

The University of Calgary is home to the pioneers of the second primary method of oil sands extraction, an *in situ* process - Stream Assisted Gravity Drainage.²⁰ Invented by Dr. Roger Butler, now a U of C's professor emeritus of Chemical and Petroleum Engineering, this process unlocked billions of barrels of oil sands, which would otherwise be unrecoverable (Lowey, 2004). First tested in 1978, this process only received widespread commercialization in the late 1980s and early 1990s when computer-controlled drilling rigs could more accurately drill the necessary wells (Chastko, 2004: 217) Chastko argues that this new process is "the single most important development in oil sands technology since Karl Clark's work on hot water separation" (218). In 2003, the University of Calgary established the Institute for Sustainable Energy, Environment and Economy (ISEEE, 2007), a multi-disciplinary institute. Funded projects include research investigating not only making the *in situ* process more efficient by requiring less energy but also research into Alberta's legal and policy framework. This institute builds upon U of C's numerous degree programs, in addition to its Faculty of Engineering, which focused on the energy sector including a Master's in Resource Law and MEc in Energy Economics (Ibid).

Both University of Alberta and University of Calgary are multidisciplinary leaders when it comes to the energy sector but what about other issues affecting Alberta's provincial north? While the University of Alberta is not a northern university, it does perceived itself as being a leader in northern research with over 250 faculty and graduate studies engaged in northern projects (U of A, 2004, 1). This represents just over 7% of its academic staff. For the most part, this strategy centres upon Canada's territorial north and other circumpolar regions rather than northern Alberta. Some projects, which incorporate northern Alberta as an area of study, include:

- Network North, a multidisciplinary team, is working with northern communities to conduct a series of studies on health and environmental security. This involves working with community to establish specific research objectives

²⁰ For bitumen deposits buried too deep for surface mining, energy companies use the *in situ* process. This involves drilling wells into the deposit then injecting steam, which loosens the bitumen so that it can flow into a horizontal well and then pumped out. Large amounts of natural gas are need to turn the water into steam.

- Sustainable Forest Management Network focuses on developing management strategies and environmental technologies to manage Canada's boreal forest in order to sustain multiple forest values. (U of A, 2004: 19).

Research on areas important to provincial north, and in particular RMWB, are often group as being "rural" rather than northern issues. For example, a team of U of A 's medical specialists travel to northern communities, including Fort McMurray, to delivery education to primary care physicians about how to better manage Type 2 diabetes (U of A - Faculty of Medicine and Dentistry, 2005). In March 2007, the RMWB signed a memorandum of understanding with the University of Calgary to engage in research that goes beyond oil sands related technology to include issues such as community planning, infrastructure design, and air quality monitoring (U of C, 2007). This type of agreement will help ensure that research engaged in RMWB is responsive to community needs.

Symbolism

As the above sections highlight, both University of Alberta and University of Calgary are highly invested in oil sands technology research but also are increasingly engaging in research that tackles RMWB's social and environmental challenges. They are also engaging in creative collaborative partnerships with Keyano College. Yet, I would argue that there is still something missing. Weller argues that non-metropolitan universities are evidence of a community's maturity, "since universities are institutions that are seen as almost perpetual, in the sense they rarely die, they symbolised a transition from 'frontier' areas to settled 'homeland' areas" (116). Although this is intangible, it is still very powerful – the symbolism of representing oneself to the world. When government seeks to improve their management of the oil sands boom, they often turn to individuals and institutions outside the region for the answers. For example, Alberta government recently established an expert panel to review Alberta's royalty regime. The panel includes economists from both University of Alberta and the University of Calgary (Alberta Royalty Review, 2007). Government is not the only outside actor, who turns to experts housed at Alberta's universities, for example media often turns to professors to provide commentary on current events. For example, the Calgary Herald media are looking for political analysis of the public dispute between David Suzuki turned to David Taras, a political scientist at the University of Calgary, to comment on the public dispute between David Suzuki and Alberta's new premier, Ed Stelmach (Komarnicki with Fekete, 2007: A1). The issue is not the contributions of these individuals; it is the absence of local voices. I would hypothesize that experts housed in a non-metropolitan university would bring a differing perspective and therefore approach the issue with new research questions. For example, an economist living in Fort McMurray may examine the question of resource rents in regard from a regional perspective rather than provincial perspective. The other side is that non-metropolitan universities bring the outside world to the region. For example, Ronald Wright, a Massey Lecturer and author of a *Short History of Progress*, spoke at University of Alberta about the "traps of progress":

(Alberta is) a place where we have to get away from gold rush-boomtown mentality associated with the oil and gas business. The oilsands are huge emitters of carbon dioxide gas. The consequences of that are going to far outweigh in the long run the short-term profits being made by a relatively small number of people (Gerein, 2007:B1).

It is important for residents of RMWB not only to hear critiques but also to have the opportunities to engage in a dialogue with individuals, such as Ronald Wright. Research has demonstrated that outside movements, like the environmental movement (anti-sealing and anti-hunting campaigns), can have tremendous impact on the lives of residents living in resource-based communities (Myers and Summerville, 2004). By facilitating dialogue by bringing outside thinkers into the region, there is an opportunity to move past rhetoric to a higher level of understanding of each side's position.

Conclusion & Recommendations

The RMWB is well served by the University of Alberta and the University of Calgary as these institutions have formed collaborative relationships with Keyano College, the municipality and the oil sands industry. Oil sands technology research at U of A and U of C has twice revolutionized the industry. New collaborative degree programs will likely reduce the labour shortages in their fields. Solutions to pressing local needs will likely be identified through municipality-university partnerships. And yet, this paper argues that something is missing that could be better fulfilled with the further development of post-secondary infrastructure within Fort McMurray. The community would benefit from the physical presence of faculty and research centres. Since a full standing university is unlikely and giving Keyano College degree granting status is problematic, I am recommending the development of a satellite campus. Although neither institution has plans to develop one, I believe a satellite campus would address the concerns outlined in this paper in the following ways. First, a satellite campus could bring a more holistic approach towards oil sands development and its social and environmental affects both within the institution but also within government. An interdisciplinary approach is necessary to meet the challenges which arise from the level of development currently occurring. Second, not only would this bring a diversification to the economy but it will also be a new source of human and social capital. Third, a satellite campus can help the community to look past the latest boom (e.g., by asking questions about what will happen when the bust comes?). Most importantly, it can be an important catalyst in the region speaking for itself. Due to location and the fact that Keyano College's university transfer classes are based on U of A's ones, I believe the best course of action would be for UA to develop a satellite campus. U of A has had some recent experience in this regard with the development of the Augustana campus in Camrose. Keyano College would continue to fulfill its vital role (e.g., its trades, technology, and basic upgrading programs).

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