Gaming as a	Strategy for	Revitalizing	Indigenous	Culture
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"We are lost." 1
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First Nations counsellor from "Fraser River Journey".

"Hope is not a plan."²

Mary Simon interview with George Strombolopolous.

"We are trying to engage tech-oriented students." Heather McGregor (audio interview).

Located on the shores of the Athabasca River, the small hamlet of Fort McKay is home to approximately 700 First Nations peoples, primarily of Dene, Cree, and Metis heritage. While serene in its quaint beauty, the people of Fort McKay are fighting for everything. They are watching as the land around them is literally being torn from under their feet. This is because Fort McKay is situated at the geographic centre of the Alberta Tar Sands. The Tar Sands is actually 3 massive deposits of bitumen, the largest called the Athabasca Oil Sands. Together, the Tar Sands is estimated to contain 1.7 trillion barrels of bitumen, an amount "comparable in magnitude to the world's total proven reserves of conventional petroleum. (Athabasca Oil Sands, Wikipedia, 2013)." Employing tens of thousands of people, the Tar Sands is the major source of petroleum exports to the United States of America. "As of 2010, oil sands production had increased to over 1.6 million barrels per day (250,000 m3/d), where 53% of this was produced by surface mining and 47% by in-situ. The Alberta government believes this level of production could reach 3.5 million [barrels per day] (560,000 m3/d) by 2020 and possibly 5 [million barrels per day] (790,000 m3/d) by 2030." Major corporations are digging up the Earth around Fort McKay, refining it releasing vast arrays of toxins into the environment, and selling their oil products to an increasing number of countries. How can a small community combat the forces at work against them? How can the people of Fort McKay push back and try to slow or perhaps stop this multi-trillion dollar giant of an industry? Because if the projections of development of this area continues, the peoples of Fort McKay will either move, or be slowly poisoned into extinction. First Nations culture is so intricately intertwined with the land - all that lives on, under, and above the land is part of the individual and is seen as inseparable of thought or body -

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¹ (year?). The Fraser River Journey. Retrieved from http://media.elearning.ubc.ca/det/ETEC521/FraserRiver-H.264-300Kbps-Streaming-16x9.mov.

² (2012). FULL INTERVIEW: Mary Simon - YouTube. Retrieved November 29, 2013, from http://www.youtube.com/watch?v=sGYVepqdnLE.

³ (2013). McGregor, H. Audio Interview with Cynthia Nicol - Please Listen and Comment! Retrieved from

https://connect.ubc.ca/webapps/portal/frameset.jsp?tab_group=courses&url=%2Fwebapps%2Fblackboard%2Fexecute%2FdisplayLearningUnit%3Fcourse_id%3D_26242_1%26content_id%3D_1476151_1_%26framesetWrapped%3Dtrue

that I fear the latter will occur, as leaving the land would perhaps be the equivalent to leaving your body and your mind.

This option is not an option but an impossibility.

While the Tar Sands perhaps serves as an extreme example, the challenges that face First Nations cultures to retain their way of life present themselves throughout Canada. I believe education is a key strategy to promote traditional culture and ways of life. Educational policy, currently steeped in the scientific approach of Western thought, is being challenged in many parts of Canada, and indigenous groups advocate for indigenous knowledge to be present within a culturally responsible curricula. For example, regions of northern Canada have made great strides to adopt culturally sensitive curricula, namely the Inuit Qaujimajatuqangit, also known as "IQ", which is the Education Framework for Nunavut Curriculum (McGregor, H.E., 2012b).

And as changes to curricula are made, the tools and resources with which to teach are reconsidered. Over the past decade, digital tools, such as cameras and computers have been used to try to foster an increased interest in learning in general. These tools are being used in an increasing variety of ways; from helping preserve the languages of indigenous peoples, to sharing stories of First Nations youth, to sharing aspects of culture which have been secret in past generations. The tools lend themselves to "traditional cultures reliant on oral presentation" whereas, "print media or conventional classroom language instruction are difficult to use in [such cultures]" (Zimmerman and Bruguier, 1997). As part of an approach to increasing motivation in learning, and in turn, to revitalizing indigenous culture, I believe that gaming is one tool that is often overlooked and undervalued, and could re-engage youth who feel disconnected with their cultural roots.

Many parents have argued that videogames are a waste of time; that they "rot the brain". The truth is that there is now considerable amounts of evidence and research which shows that video games, and the learning strategies employed through video games, is beneficial to learning. Dr. Judy Willis (2011) presents a brain-based argument supporting the use of video games as a learning tool.

She explains that gaming is...

a model for best teaching strategies. Games insert players at their achievable challenge level and reward player effort and practice with acknowledgement of incremental goal progress, not just final product. The fuel for this process is the pleasure experience related to the release of dopamine... a neurotransmitter that, when released in higher than usual amounts, goes beyond the synapse and flows to other regions of the brain producing a powerful pleasure response. ... The motivation to persevere is the brain seeking another

surge of dopamine -- the fuel of *intrinsic reinforcement* [and when]...Compared to an adult brain, a young brain needs more frequent dopamine boosts to sustain effort, persevere through challenges and setbacks, and build the trait of resilience (2011).

Dr. Sasha Barab, professor of learning sciences at Indiana University, supports the use of gaming as a learning tool. As principal investigator of the "Atlantis Remixed" project - an online avatar-style video game where students take on the role of hero and explore virtual worlds.

Dr. Barab ...

...is appalled by a "...50% dropout rate in school [in parts of the United States]... This is totally unreasonable. There has to be a point where we say, "You know what? It's not all those kids that's the problem. It's the way that we are thinking about school. It's the way we use textbooks, it's the resources we give the kids and ultimately it's the kinds of things that we are allowing the kids to do, and as long as they don't care about those things then we are going to lose more kids in our educational system." (YouTube).

Furthermore, Dr. Barab posits,

When we look at how kids are being positioned to engage, to tinker with, to explore, to represent themselves, to pursue their passions with these new media tools, and then we look at how disciplinary content of schools is being positioned - we have a real disconnect; and we wonder why when they finish school they run home, jump in these new media, where they have agency, they have consequentiality, they have people taking up what they are doing – they have a legitimate role for using these [new media].(2009)"

While I believe videogames are not *the* solution, I would argue that they could be *part of a* solution. My personal stance is reflected in the words of Dr. Nancy Turner who states, "Digital media is another tool that can be used. You can't just rely on the digital tools. You can't just live in a virtual world. Digital characters can get their [ie. youth] interest, but they will need to "get out there" and meet the teachers and the people with the knowledge; go to those places and find some way to connect directly with all of those things...Digital storytelling can help lure out our youth to the forests and the land to make those connections." (Nancy Turner; UBC site). In my explorations, I came across two gaming websites which I believe revolutionize the approach to engaging youth, particularly First Nations youth, and attempt to teach, through digital storytelling and first person exploration, that which is at risk of being lost. The two sites are "Path of the Elders" (http://www.pathoftheelders.com/index.php) and The "Inuit Qaujimajatuqangit Adventure Website" (specifically their Interactive Movie - http://inuitq.ca/vle.html).

The first site, Path of the Elders [PotE], states its goal as follows: "...[T]o provide you with an understanding of the historical times in which Mushkegowuk and Anishinaabe peoples signed Treaty No. Nine, and how this treaty has impacted the lives of our people." The site itself is a combination of essay, photo gallery, video gallery, audio gallery, and first person video game. PotE even has teacher's resources across grades 4 to 10 connecting the game content to learning outcomes. Let's have a look at the introduction to playing the game...

[PotE: Introduction video]

In PotE, you and your avatar are a member of the First Nations community. Responsibility has been placed squarely on you, the hero, to learn the traditional ways in order to fulfill the prophecy and 'win' by achieving self governance. Quests in the game vary from hunting moose, to paddling canoes, to watching videos describing the ways of the past. There is limited guidance - the onus is on the player to discover through trial and error which way to go and what path to follow first, second, etc.

On the second site, the "Inuit Qaujimajatuqangit Adventure Website" [IQAW], is an interactive movie where you must explore "rooms" and go on video quests. "As you successfully complete each adventure, and the computer games within the movie, you are rewarded with a stone to build your very own Inuksuk, like those out on the Arctic tundra which have guided Inuit for thousands of years. Your Inuksuk will symbolize your ability, by the end of the movie, to use IQ to navigate your way through life." The game immerses the player within 5 distinct scenarios building on the virtues: environmental stewardship, justice, learning by doing, and sustainable community. Let's look at the introduction to this interactive movie...

[IQAW Opening Scene]

The ominous voice at the start of the game almost dares the player to take on the challenge and begin the quest for understanding traditional ways of Inuit peoples. The site itself employs a variety of medias, including digitized images of carvings and prints, tons of professional "re-enactments" by actors playing out roles within the developing story of the game, video recordings of "phone messages" giving you background history of Inuit culture, 360 degree virtual reality photography, and traditional legends also re-enacted by actors. I found myself quickly addicted as it was up to me to figure out how to put another stone on my virtual Inuksuk.

⁴ (2007). Path of the Elders - Free Treaty 9 Games! Aboriginal Cree - First ... Retrieved December 1, 2013, from http://www.pathoftheelders.com/.

^{5 (2007).} Inuit Qaujimajatuqangit | Interactive Movie. Retrieved December 1, 2013, from http://inuitg.ca/vle.html.

Along the way I learned vast amounts about Inuit culture and was often immersed within both English and Inuktitut environments simultaneously.

Both the PotE and IQAW interactivities plunge the learner into an environment quite different from reality. The user can escape into these games, being fed clues as rewards for investigating. The clues help the gamer progress through virtual worlds, while the games continuously weave culture and history throughout. Learning becomes a reward for overcoming challenges. I believe that youth would enjoy these immersive experiences. Through use of the games, the student would learn of culture as well as the changes that have been forced upon indigenous peoples to bring them to where we are today.

And where we are today is a difficult reality for many indigenous peoples. I would argue that today's First Nation youth are more disconnected than ever from the past. As we move from one generation to the next, the struggles of previous generations fade into the horizon and the dominant culture continues to influence minority cultures. We see the loss of language and the adoption of "White ways" rather than traditional practices as primary concerns in aboriginal communities. Medias, such as popular music, TV, and movies represent a culture very different than that of the past and have large influence upon the next generation. The video games I have introduced here flip this scenario on its head - media is being used to revitalize the past, record important aspects of language and culture, and shine a light on the histories which have brought us to the present.

I believe that the challenge upon educators is to find new ways to bring interest and value into education. Black (2010) states, "The reality is that the modern school is no silver bullet, but an extremely problematic institution which has proven highly resistant to fundamental reform. No system that discards millions of normal, healthy kids as failures — many of them extremely smart - will ever provide a lasting or universal solution to anything." (Cole and O'Reilly, 2012). In addition, Marker (2006) writes, "Racism has propelled a tribal exodus from the public schools and has left non-native educators in a haze of confusion about how to be culturally responsive to the indigenous community while conforming to the pressures and presumptions of cultural neutrality in mainstream schools." The quest then is to convince educators that strategies, such as gaming, has value and brings with it faculties of learning that can engage today's learner and foster a sense of connectedness with the past.

In an era where culture, like the lands beneath the citizens of Fort McKay, are being extracted, refined, diluted, and sold, I believe we need to adopt gaming as an approach to achieve real change in education and help build a path towards increased cultural responsiveness.

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Additional Resources

http://www.fortmckay.com/ccab/ccab.html

http://www.edmontonjournal.com/Fort+McKay+First+Nation+wins+right+appeal+oilsands+project/9053839/story.html

http://www.pm.gc.ca/eng/media.asp?id=1742

http://oilsandstruth.org/

http://insideclimatenews.org/news/20131114/iea-tar-sands-export-pipelines-needed-canadas-oil-boom?page=2

http://www.fortmckaygroup.com/page.php?id=1

http://www.theglobeandmail.com/news/politics/first-nation-drops-out-of-frustrating-oil-sands-monitoring-talks/article14880697/

http://www.fortmckay.com/media.html

Game Sites:

http://inuitq.ca/aboutProject.html

 $\underline{http://www.pathoftheelders.com/news}$