


“Beam us up, Bgwëthnënë!” Indigenizing science (fiction)

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Abstract

The popularity of Indigenous-authored science fiction art, literature, film, and even video games has exploded in recent years. More than just a niche interest, these works have material effects on the possibilities young Indigenous people envision for themselves. Contrary to research on the negative effects of Native American stereotypes on youth, positive representations of Native peoples found in Indigenous science fiction portray alternative futurisms to those represented in mainstream science fiction. Developed in concert with traditional knowledge and value systems, alternative futurisms as depicted in Indigenous science fiction forefront Indigenous agency in a genre where Indigeneity is either absent or made irrelevant. This article investigates the ways in which Indigenous science fiction creators leverage traditional knowledge systems to paint a picture of Indigenous futures that depart from mainstream science fiction in material ways.

Keywords

Indigenous, science fiction, film, futurisms

Introduction

Bgwëthnënë is a significant agent in *Anishinaabé*¹ traditional origin stories and plays a role in how Indigenous peoples of the Great Lakes region conceptualize and actualize the future. “Beam us up, Scotty!” The original catchphrase from which the title of this article is an iteration has been uttered by generations of people—even those who have never even been introduced to its original context² in the (1969) series, *Star Trek*. The catchphrase comes from the command Captain Kirk gives to Montgomery Scott when he and any of his comrades need to be transported back to the Starship Enterprise. So, who or what is Bgwëthnënë?

Bgwëthnënë is the *Bodwëwadmimwen*³ word for “bigfoot,” “yeti,” or “wild man” (Benton-Banai, 2010) but literally translates to “he or she lives naturally.” Bgwëthnënë is the wild man, the one who lives alone, who makes no wigwam, nor has a community. In Anishinaabé oral history, he is also the one who taught the original man how to live. There’s a traditional story⁴ in which Bgwëthnënë will raise up all *Neshnabék*⁵ to the clouds somewhere beyond Earth at the end of the world. And, indeed, it is believed, the world will end. But when the Earth has healed itself, we will be lowered back down to receive instructions on how to live again from Bgwëthnënë. Upon first inspection, this story seems bleak as it prophesizes the end of the world. However, mainstream science fiction (SF) similarly prophesizes the potential or even the inevitability of apocalyptic futures due to resource over-extraction, climate change, and other ecological devastation.

While mainstream SF and Indigenous SF share similar themes such as climate change, that is where the comparison ends. Science fiction widens the imaginative space for

speculation about alternative futures. It provides an arena to tell stories about humanity’s shared anxieties, as well as hope. Because mainstream SF is defined by the Western intellectual tradition, it exhibits a core set of limited axioms such as privileging empiricism and repeating motifs such as colonization and neoliberal multiculturalism (Bould, 2012).

Therefore, to Indigenize SF necessitates a complete ontological shift in the foundational knowledge system upon which literary works of the future are constructed. In terms of climate change—a popular topic in mainstream SF in recent years—Indigenizing SF requires using prophetic stories like Bgwëthnënë’s in any analysis on human agency in the face of ecological destruction. Resistance to controversial environmental undertakings through Anishinaabé politico-ceremonial social movements such as the Women’s Water Walkers from the *Midewiwin* (Medicine) Society⁶ (see McGregor, 2008) was of central interest at the beginning of my dissertation research which began in 2017. However, interviews and participant observation with ceremonial leaders naturally evolved to discussions of Indigenous alternative futurisms.⁷

Because knowledge systems are historically situated and politically deployed, the Western approach to scientific inquiry—while it continues to maintain power

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and political influence—is not superior to other ways and methods of knowing (Cajete, 2000; Kimmerer, 2013; Law & Joks, 2019; Menzies, 2006; Price, 2002; Tuhiwai Smith, 1999; Whyte, 2018). Yet, Indigenous science and ingenuity are undervalued or, more commonly, completely ignored by media and the public. The ancestors of Indigenous peoples around the world developed governance systems and ecological management strategies that sustained communities for thousands of years. As the 2017 Indigenous letter of support for the March for Science explains, Indigenous scientists specializing in agriculture, astronomy, and hydrology, just to name a few, flourished in North America prior to European arrival and continue to exist despite the destructive efforts of settler-colonial institutions (Kimmerer et al., 2017; TallBear, 2013).

The increase in popular dystopian films like *Hunger Games* (2012) paralleled by the lesser known, but growing number of Indigenous-made SF works in recent years has warranted a renewed look at diversifying and Indigenizing science. Representations of people of color in spaces and places where they are not expected to be—whether that is in film or the science lab—have material effects on the possibilities that young people envision for themselves (McDuffie, 2001). This is both because of children’s abilities to envision themselves in those same roles by seeing someone who looks like them and because these stereotypes have powerful effects on how adults, especially teachers, are conditioned to interact with diverse students. Because instructors and others in similarly influential roles often have unexamined biases on the perceived potentials (or lack thereof) for some of their students over others, they are likely to dismiss or even stifle the creative and intellectual interests of already underrepresented groups (Brandt & Carlone, 2014; Ferguson, 1998; Kocaj et al., 2018; Newall et al., 2018; Prast et al., 2018).

Inclusion and diversity are not just ethical goals; they make disciplines like science and industries like filmmaking better by incorporating more perspectives, experiences, and wider considerations of solutions (Surna, 2018, p. 50). Yet, despite the societal benefits and industrial innovation that result from social diversity, the reality is that exclusionary practices, particularly in powerful and influential industries like filmmaking and in the sciences, continue (Griffin, 2018; Singer, 2001). Worse yet, these exclusionary practices exist and are supported by the pervasive notion that science is an inherently White invention.⁸

Despite the large amount of literature which dismantles Eurocentrism, science is still colloquially understood as a singular achievement of White men.⁹ In line with these biases, persistent gatekeeping practices experienced by Indigenous peoples is devastatingly common. The most recent statistics from the 2017 National Science Foundation (NSF) report on “Women, Minorities, and Persons with Disabilities in Science and Engineering” shows that while women (of all ethnicities) represent just under half of all employees in science, technology, engineering, and mathematics (STEM), and representation of most non-White ethnicities are generally on the rise, Black and American Indian/Alaskan Native representation has decreased since 1995 (which was already quite low back then). Researchers have attributed these statistics to

institutional exclusionary practices intended to keep non-binary, non-Whites out of coveted art and academic spaces (Miheuah & Wilson, 2004).

What effect do these demographics have on youth, and how can a critical perspective start to reverse them via a renewed perspective on Indigenous SF? Lempert (2014) argues, “Native SF film provides a creative subversive mode of representation” (pp. 164–176) in a space where Indians are usually inappropriately represented or made completely irrelevant (p. 164). Visual representation of disenfranchised groups in speculative fiction leads to higher self-esteem and encourages younger folks to enter these privileged spaces (whether it is filmmaking or science).¹⁰

Methods

As part of a larger research project for my dissertation work on how climate change affects Indigenous communities in the Great Lakes region of the USA, I conducted traditional ethnographic methods such as purposive and snowball sampling strategies for open-ended and structured interviews, participant observation, audio recording of interviews, and photo documentation from 2017 to 2019. In addition to standard research design protocols approved by the University of New Mexico’s¹¹ Institutional Review Board, I worked with my tribe, the Pokagon Band of Potawatomi Indians, to establish a Memo of Understanding which was voted on and approved by Tribal Council before beginning research. I completed 18 audio recorded semi-structured interviews with 20 individuals which have all been completely transcribed except for one (participant preferred notes were taken instead and approved by participant). On average, the interviews lasted 57.84 min. However, these compact and rich recorded conversations are heavily informed by participant observation that lasted for 2 years (1.5 years of which was consecutive) while I lived on the Pokagon Band of Potawatomi reservation (located in southwestern Michigan and northern Indians) full-time.

The participants in this research included the following:

1. Pokagon Band citizens and non-citizen employees of the Pokagon Band government;
2. Indigenous (mostly Anishinaabé) environmental activists from the Three Fires Midewiwin Lodge in Bad River, Wisconsin as well as environmental activists from the Lac Vieux Desert Band, the Gun Lake Band, the Pokagon Band in Michigan, and several other Anishinaabé communities from Canada;¹²
3. Affiliates of the Gun Lake environmental organization, the Jijak Foundation;
4. Anishinaabé Midewiwin ceremonial leaders; and finally
5. Michigan non-tribal environmental organizations such as the Great Lakes Lifeways Institute and the Goodwillie Environmental School.¹³

These research activities strengthened and intensified the underlying connected between Indigenous media

representation and issues of climate change. But they led to the question of how Indigenous media, more specifically, Indigenous SF, leverages traditional knowledge systems to paint a picture of Indigenous futures that depart from mainstream SF?

Indigenous knowledge

The specific methodology outlined above resulted in the repeated connection between two topics typically forced apart by mainstream science and SF: traditional stories or knowledge systems on one hand, and science, futurity, and astronomy on the other hand. For example, traditional birthing teachings that are being initiated via workshops in Anishinaabé tribal communities are talked about by elders in terms of instructions written in the sky (constellations). While my most recent research did not afford me the appropriate amount of time to delve deeper into these localized initiatives, Indigenous SF media did.

Walking the Clouds—the seminal anthology highlighting SF works by Native writers—includes both newer SF stories and those typically filed under “traditional.” Dillon (2012) defines a tradition of Indigenous SF called “reservation realism” as “a fiction that sometimes fuses Indigenous sciences with the latest scientific theories available in public discourse, and sometimes undercuts the western limitations of science altogether” (Dillon, 2012, p. 2). One example of this is Sydney Freeland’s (2012) short film, *Hoverboard*, when a young Navajo girl is inspired to travel in time after watching *Back to the Future Part II*. Departing from the tradition of crisis films about Indigenous communities which typically center on social ills, Indigenous SF like *Hoverboard* (2012) makes space for Indigenous agency and wonder.

In addition to bringing the viewer into the everyday lived realities of reservation life like in *Hoverboard* (Freeland, 2012), Indigenous SF privileges autochthonous, localized, and historically situated knowledge systems instead of Western science with its ties to the Enlightenment in Europe. Indigenous SF draws from traditional knowledge systems to speculate on the technology of future societies with two important facets: (a) Indigenous people are present and (b) Indigenous agency is at the forefront of the story. For example, the 2012 film, *The 6th World—An Origin Story*, written and directed by Nanobah Becker (Diné) (2012, *Navajo Times*, Interviewer), tells a story about a near-future mission to establish human existence on planet Mars. However, the genetically modified corn that was supposed to sustain the cosmonauts on their journey becomes diseased and fails. Luckily, Tazbah Redhouse (Jeneda Benally) discovers contraband Diné corn that was smuggled onto the ship without their knowledge. This heritage corn is what ultimately saves the mission and humanity. *The 6th World* shows how Indigenous existence is deeply imbedded in, affected by, and conversely affects onto contemporary global politics.

Indigenous SF resists the relentless dismissal by mainstream society of past scientific achievements by Indigenous peoples such as technological accomplishments and far-reaching ancient diplomatic ties of Indigenous

nations before the arrival of Europeans. The popular series, *Ancient Aliens*, foundational argument regarding structures and art produced by past societies—especially those of Africa and Indigenous America—is that they were visited, influenced, and even aided by extraterrestrials in their construction of large structures and technological innovations. This argument has been criticized for dismissing the accomplishments of people of color; *Ancient Aliens* is a racist program, in other words (Bond, 2018).

Alternatively, Indigenous SF highlights and celebrates autochthonous scientific advancements. In an influential roundtable by Rebecca Roanhorse (Ohkay Owingeh Pueblo) called, “Decolonizing SF and Imagining Futures: An Indigenous Futurisms,” Johnnie Jae (Otoe-Missouria and Choctaw) explains,

We needed an outlet to celebrate our *indigenerdity* and change the narrative. Most folks are not familiar with indigenous people beyond the primitive “Hollywood” Indian and whitewashed history that has people believing that we were just sitting around and doing nothing prior to colonization. So, it’s hard for them to even acknowledge the indigenous roots and sciences behind many of these “modern discoveries.” (Roanhorse, 2017)

Indigenous SF honors Indigenous traditional knowledge systems and manners of storytelling in ways which have meaningful contributions to identity and visions of the future.

Defining Indigenous science (fiction)

The Gunn Center for the Study of SF defines SF as any story about humans encountering change, whether it is facilitated by technology or not. Therefore, SF media encompasses what has been called fantasy. Science fiction is also provocative as it “seeks to subvert the dominant paradigm, when the author sees the status quo as harmful” (Gunn Center, 2016). In other words, SF provides a space for examining human relationships to the universe in alternative or potential futures.

Indigenous SF is not just about mainstream SF works being produced by Indigenous peoples. Therefore, using the term, “Indigenous SF” without defining it runs the risk of deploying problematic ideas of the genre—parochial ones that are defined by outside, non-Indigenous influences. For example, it may become an iteration of juxtaposing savage bodies onto “advanced” landscapes. The Potawatomi scholar, Kyle Whyte, uses the term, “Indigenous Science (Fiction)” with the use of parentheses. I do the same in the title of this article, because—while related and overlapping—science and fiction have their own intellectual traditions in Indigenous worldviews. Indigeneity and science (plus or minus fiction) indicate that Indigenous science, also called “traditional knowledge systems” or “Native science” (Cajete, 2000) on the one hand, and fiction on the other, can function relative or independent from each other.

But first, what is science? Just this question alone warrants an entire subdiscipline within the humanities, history, epistemology, and so on. And, indeed, there are rich academic investigations and artistic explorations on what science is or ought to be. This article need not repeat them. Instead, if you simply Google, “What is science,” your search will return about three billion results. The very first dictionary definition offered by these results summarizes science as “the intellectual and practical activity encompassing the systematic study of the structure and behavior of the physical and natural world through observation and experiment” (Google Dictionary Results, 2020). The politicization of knowledge production is in the spaces and universes of the words used in this definition: For example, what is considered “intellectual?”; What is meant by “systematic” (read: “logical”); Where does the “natural world” end and supernatural worlds of existence begin? All these answers depend on the community whose knowledge systems are being discussed and privileged.

The fiction part of SF is typically used to refer to the written form of expression. The Gotham Writers’ Workshop reifies this definition: “fiction: a made-up story told in prose with words alone.” In addition to literature, SF can be film, a comic book, or even a song. In general, fiction is a deeply personal enterprise. One creates fiction for “meaning. Our curiosity, and perhaps insecurity, compels us to explore continually the who, what, where, when, and why of our existence” (Steele & Didato, 2004). Science fiction genres blend what is defined as impossible with the possible, telling stories about humanity’s hopes and fears.

Both science and fiction have unique and complicated historical traditions and differentiated political deployments within privileged spaces independently of one another. For example, while much has been published demonstrating the equal validity of traditional knowledge systems to Western science (Kimmerer, 2013; Menzies, 2006; Pierotti, 2010; World Intellectual Property Organization, n.d.), Indigenous peoples are still trying to leverage their knowledge systems to protect their lands, cultures, and sovereignty (Corburn, 2002; MacGregor, 2018; Menzies, 2006; Robyn, 2002; Willow, 2012). With these issues in mind, I use the term “Indigenous SF” to refer to:

Indigenous-made speculative film, art, video games, literature, and oral storytelling that draws from autochthonous knowledge systems to envision and convey alternative futurisms and pasts to mainstream ones with Indigenous communities at the forefront of this imaginary landscape.

This definition includes traditional stories likely transcribed nearly a century ago in salvage ethnographic projects, oral traditions used for generations in Indigenous communities, as well as contemporary and experimental works expressed in film, comic books, video games, and even trading cards that have become increasingly popular in recent years. So, Indigenous SF, as Grace Dillon succinctly puts it, “is not new, just overlooked” (Dillon, 2012, p. 2).

But why is there a need for the analysis of Indigenous SF in the first place? How is this phenomenon any more than a

niche interest? The definition of SF presented in this article reinforced through a survey of Native North American SF works can be used to advance the existing interventions of non-Western science into practices of mainstream science, and offer a way to enact what Lempert (2018) calls “generative hope” for better futures.

A goal of science and, by extension SF, should be to fully engage with and enact “the ways in which colonial realities and knowledges might intersect less destructively” (Law & Joks, 2019). As others have argued (Attebery, 2005; Byrd, 2011; Medak-Saltzman, 2017), the representation of people of color as meaningfully existing in technocratic futuristic imaginaries is unusual. And even when Indigenous peoples are included, it is rarely on their terms or told from their perspectives. This is due to a long tradition riddled by power imbalances and informed by Indigenous peoples’ positions in the colonized mental dynamic. Indigenous peoples and “traditional” or “tribal societies” are opposite social imaginaries of mainstream SF consumers; Indigenous SF is “practically an oxymoron” as Taylor (2016, n.p.) puts it. Unlike the future of technocratic empiricist societies (understood as the future of White nation-states), Indigenous communities are “closer to nature” and “have culture” (usually in need of protection by patriarchal academic and museum institutions). In accordance with this mental binary, the meaningful use of advanced technology would alienate Indigenous peoples from who they truly are, like in the (Cameron, 2009) film, *Avatar*.

Mainstream SF participates in the erasure of Native peoples. Futures represented in mainstream SF have advanced beyond the need for identities tied to the land in the ways Indigenous communities stubbornly do, as future humans depart Earth in search for other homes. These departures, aided by advanced technology and sometimes even alien societies, are often the result of ecological and social pressures as portrayed in the SF novel and 2011 TV series, *The Expanse*, and the 2014 film, *Interstellar*. Another cause is the desire for discovery as depicted in *Mission to Mars* (Palma, 2000) with Jim McConnell’s (Gary Alan Sinise) unanticipated decision to leave our solar system to join humanity’s alien ancestors at the end of the film. These representations are cosmopolitan, multiworld ecologies of social possibility as well as destruction (often at the same time).¹⁴ In other words, they are “the procolonial, prosupremacy of (certain) humans, proextractive, procapitalist, and promasculinist elements of these narratives that present the natural world and (certain) peoples as needing to be tamed, exploited, civilized, removed, or vanquished” (Medak-Saltzman, 2017). This includes the ways in which Indigenous peoples are talked about in SF. For example, in season 3 of *The Expanse* (2018), character Jim Holden explains to his comrade that “When the European tall-ships first arrived on the American continent, the natives couldn’t see them.” He goes on to explain that, because the sight was so shocking, and the cultures so different, Native Americans were facing an assured elimination.

With all its glorification of “colonization,” “discovery,” and “pioneering,” cloaking the very real history of genocide that resulted from those same projects of empire building is an irony of SF that is not lost on Indigenous peoples (Byrd,



Figure 1. Debra Yepa-Pappan, *Live Long and Prosper (Spock Was a Half-Breed)*, 2008, with permission from artist.

2011; Kerslake, 2007; Rieder, 2012). Many of the ways Indigenous peoples are present (Kincaid, 2014) or, more often, absent in mainstream SF works have been taken up in the creative slap-backs by Native peoples—one example being the comedic and clever podcast, *Métis in Space*, whose Indigenous hosts review SF shows and movies over a bottle of wine. Another is in the work of Jemez Pueblo artist, Debra Yepa-Pappan, with her “I is for Indians” series pieces: “Live Long and Prosper (Spock Was a Half Breed),” which challenges viewer’s stereotypes of Native Americans, as well as comments on mixed identities of many Native peoples (see Figure 1).

As explained, Indigenous peoples are almost completely absent from most futuristic imaginaries. They are not even *allowed* to exist (see W. Golberg, 2016, Neil deGrasse Tyson’s *StarTalk* interview about Black women in *Star Trek*). With that, one answer to the question of why Indigenous folks would want to consume, imitate, or even interact with SF with all its racism and empire building is that SF gives people spaces to breathe, experiment, create, and hope. In my research, I found that despite explicit criticisms, SF is an enthusiastically consumed and talked about topic on the Pokagon reservation and by Anishinaabék more generally.

What is more, as mainstream SF films put women’s roles at the forefront as capable protagonists like in *Mortal Engines* (2018) instead of perfunctorily supports to fight empire and corruption, it is no surprise Indigenous folks would be able to relate to that; Indigenous peoples have been resisting empire for over 500 years. As Chippewa scholar, Medak-Saltzman (2017) explains, Indigenous “traditions have always incorporated elements of futurity, prophecy, and responsibility-rooted strategies for bringing

forth better futures” (p. 139). So, it is not unusual that young Indigenous media consumers are attracted to SF. However, when mainstream SF inaccurately co-opts Indigenous images or leaves them out of the future all together, there is more pressure to resist the narrative that Indians are not capable of existing in the future while also creating new narratives—ones more in line with Indigenous perspectives and value systems.

(Outer) space, place, and non-human relatives

As mentioned above, an important departure that Indigenous SF makes from mainstream SF is in the vocabulary of “conquest” of new spaces and places. Mainstream SF uses terms such as “discover,” “colonize,” and “expand” (Byrd, 2011; Kerslake, 2007; Medak-Saltzman, 2017, p. 142; Rieder, 2012). Alternatively, the short-animated film, *Hands to the Sky* (2016) by Elizabeth LaPensée (Anishinaabé/Métis), shows the fallout from oil extraction. In one scene, the spacecraft named “Santa Maria” seems to call out and imitate the tradition of colonization in mainstream SF media (a theme which is especially prevalent in media involving space travel).

Apocalyptic and dystopian SF films like *Interstellar* (Nolan, 2014) have foregrounded issues of ecological destruction in recent years. Even while Indigenous SF is often concerned with environmental issues, the modes of engagement and understandings of how to address these issues are quite different from mainstream examples. Davis and Todd (2017) explain that settlers are especially anxious about climate change, species extinction, resource depletion, and social unrest in the Anthropocene. The uncanny processes of toxic waste, global temperature rises in the ocean and air, and extreme weather catastrophes are just a few examples that comprise anthropogenic anxiety. But Indigenous experiences with issues attributed to the Anthropocene are different; Indigenous communities have already undergone loss of place, access to resources, species extinction, and dire social unrest because of colonialism. They continue to live with those consequences today in what Whyte (2016) refers to as “our ancestors’ dystopia now.” Indigenous peoples began to process the emotional shock and trauma of cataclysmic environmental and social devastation hundreds of years before settlers, and it shows in the media they produce. Because Indigenous SF writers and artists are not exclusively engaging with psychologically working through this Anthropocene-induced anxiety the way mainstream media is, how are they writing about the environment or other beings affected by the Anthropocene?

Indigenous SF draws from autochthonous knowledge systems as opposed to Western science exclusively, and it is informed by the unique human and non-human relationships experienced in Indigenous homelands. Stories are the most effective way Indigenous peoples have and continue to leverage their knowledge systems in diverse settings and multiple purposes. Stories have the capacity to inform, entertain, inspire, and influence behavior. In an Anishinaabé

perspective, stories can do all these things, not just to other people but to animals, unknown entities, “spirits,” and other non-human beings. In Melissa K. Nelson’s (Turtle Mountain Chippewa) “The Hydromythology of the Anishinaabég: Will Mishipizu Survive Climate Change, or Is He Creating It?” she turns both the Western understandings of climate change and humanity’s power to address it on its head. As a powerful *manitou* (spirit or more accurately, “entity that acts upon something or creates change”), “Mishipizu is a protector of natural resources and a mediator between the water, land, and sky beings” (Nelson, 2013, p. 213). And these “hydromyths” as she calls them as well as other Indigenous stories can and are used to understand contemporary issues, including environmental issues. Nelson’s (2013) use of Mishipizu and “trickster logic” is a form of speculative fiction—using Indigenous knowledge systems to understand cosmo-ecological processes and possibilities for the future.

Understanding Anishinaabé relationship to “mythical” beings who live throughout the landscape is one thing, but what about the concepts of those landscapes? How are these eco-cosmologies differently portrayed in Indigenous SF? One example of this is LaPensée’s video games. In her 2017 2D side scrolling game, *Thunderstrike*, players can save the world by defeating harmful oil and gas industries represented by a snake. LaPensée discusses how she works to decolonize video games on a podcast episode of *Skoden Chronicles*, “Indigenous Futurisms and the Politics of Video Games” (LaPensée, 2018). She explains that mainstream games tend to make knowable space and place by the player “discovering” a region represented on a cartographic map. It is as if the region only exists because you, the player, arrived there. Alternatively, LaPensée (2018) employs “Indigenous game mechanics” by side scrolling her game right to left. This reflects the structure of Anishinaabé cardinal directions as well as pictographic literary forms.

Finally, one other point of discussion relating to Indigenous space and place is the issue of autochthony. In other words, Indigeneity is defined by place-specific realities. Indigenous identities are tied to the land. So, how do Indigenous SF creators deal with exploration in ways which do not just carbon copy manifest destiny-type SF narratives? Through the intellectual and creative work, Carey F. Whitepigeon (2017) (Potawatomi) employed in the writing of her first novel, *Daughter of Dawn and Darkness*, she creates a space for reclaiming her Anishinaabé identity. In an interview I conducted with her, she talked about using the writing process to explore her identity and Indigenous womanhood. On the topic of Indigenous SF, she proclaimed, “Why *can’t* Anishinaabé travel through space and make homes on other planets?!” which was less of a question than an assertion of Indigenous possibility (Personal communication, September 20, 2018). Her question jostles the idea of Indigeneity being defined by autochthony, belonging to a specific place in other words. In a broader sense, Whitepigeon (2017) also makes space for Indigenous peoples to exist in the future. In her novel, Anishinaabé (“Anishinaabéh” as she spells it in her book)

have expanded their nations to other worlds but, in doing so, have not abandoned their inherent relationship with and identity that is rooted in land. “Magical” abilities passed down through family and clan systems as well as issues of blood politics exist in Whitepigeon’s future. In using those elements to tell her story, she comments on those matters that very much occupy the present. To these ends, “Native authored [SF] extends the *miinidiwag* tradition of ironic Native giveaway, or storytelling that challenges readers to recognize their positions with regard to the diasporic condition of contemporary Native peoples” (Dillon, 2012, p. 6). It is

That feeling of “connection” [which] constitutes the difference between western science and the indigenous perspective of the natural world . . . Understanding the synchronicity of these cycles, as well as the physical and metaphysical essences of creation, make up the cosmology of the Anishinaabék. (Price, 2002)

As Whitepigeon’s novel and Price’s quote describe, Indigenous knowledge systems and SF are actualized in place, but our conceptions of Indigenous place-making can extend beyond Earth.

Conclusion: “Beam us up, Bgwëthnèné!”

Science fiction, in general, is birthed from the intellectual and creative explorations of communities who express—through stories—the infinite multiverse of human potential with varying degrees of human agency in terms of where Indigenous peoples see the trajectory of their futures going. This can mean a dystopic future, and often the root of the problem in mainstream SF stories has to do with technology gone wrong such as in the franchise, *The Terminator* (1984), and the popular Netflix series, *Black Mirror* (2011); or human cruelty to the Earth and to each other such as in the novel and film, *Cloud Atlas* (2012).

Science fiction, however, is still riddled with racist rhetoric, erasure of Indigenous peoples, and limited conceptions of the future due to its reliance on a singular knowledge system: Western empiricism. Because the exclusivity of SF from people of color and from Indigenous youth more specifically is an extension of the exclusionary practices of science—one that results in keeping non-Whites out of coveted art and academia—we need to encourage the creative process which leads to Indigenous SF film, literature, and art. Alternatively, Indigenous SF uses traditional stories, place-based knowledge, value systems, and even mainstream SF (sometimes in ways which speak back to or challenge those mainstream stories) to tell a story that advances Indigenous communities. Departing from mainstream SF which writes Indigenous peoples out of the future altogether, the prophecy of Bgwëthnèné described above makes space for Indigenous agency and reclaims the future.

Science fiction paints a landscape of the future. Indigenous SF allows that landscape to be filled with

Indigenous place-based stories and knowledge systems. This gives us space to nation build and to hope. Artfully summed up by Native Realities:

Featuring the incredible tales of Indigenous icons, First Nations freedom fighters, Aboriginal astronauts, and Native American superheroes whose stories have long been coopted, unheard or ignored. We strive to give you the most original and authentic representations of Native and Indigenous peoples through stories and texts that educate and entertain children, youth and adults.

More than revitalization, Indigenous story-telling—whether that is through visual art, literature, music, or film—has material effects on the possibilities young Indigenous people envision for themselves. Counter to research on the negative effects of Native American stereotypes on youth, positive representations of Native peoples observed in Indigenous SF portray alternative futurisms to those represented in mainstream SF and celebrate Indigeneity knowledge while making space for Indigenous agency in the future.

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Notes

1. Refers to Native American groups originally from the Great Lakes region.
2. Almost in an Orwellian “dying metaphor” fashion.
3. Potawatomi language.
4. Which I will not relay in its entirety here for cultural reasons.
5. Neshnabé specifically refers to Potawatomi groups, whereas Anishinaabé is an Ojibwe spelling. The longer spelling, Anishinaabé, is an identifier often used about the Ojibwe, Odawa, and Potawatomi (i.e. Algonquian-speaking groups) more broadly.
6. Midewiwin (Ojibwe spelling) is often translated as “medicine.” And while there are important healing components traditional to this Society, the term actually refers to the sound of the water drum used in the Midewiwin ceremonial Lodge.
7. This article was inspired by my dissertation which is an ethnographic exploration of Anishinaabé cosmology and Potawatomi futurisms, and addresses the central anthropological elements of knowledge production, space and place, and conceptions of temporality in the creation of Indigenous science fiction (SF).
8. One interesting idea is exemplified in the famous “Draw-a-Scientist Test.” Studies have shown that most children across cultures have been trained to envision scientists as White males (Chambers, 1983; Finson, 2002; Finson et al., 1995;). In this experiment, young people are instructed to draw a scientist. These pictures often depict White males in lab coats,

middle-aged or older, working alone (highlighting individual instead of collaborative achievement) with Western symbols of knowledge production such as books and beakers. Repeated in different age groups, across the world since the 1980s, children—even in places like rural China—often draw the same thing. This imagery affects the way even the youngest, most impressionable members of our society consume knowledge and affects the development of their internalized potential lifetime success. Anyone who does not conform to the stereotypical pasty skinned, unruly haired, thick glasses, and lab-coat-wearing male is not seen as possessing or even capable of possessing legitimate knowledge.

9. See Bynum’s (2012) popular text, *A Little History of Science*, as a telling example.
10. See Nagle (2018).
11. Where I am enrolled in the Doctoral program in the Department of Anthropology.
12. This seems extensive. But it is not. Anishinaabé groups travel great distances throughout the Great Lakes on a regular basis for ceremonies and environmental political action.
13. Some information provided by elders or presenters at certain events (such as a traditional birthing presentation and cosmology I went to and, of course, at Midewiwin ceremonial doings) was not culturally appropriate to be written or recorded. So, at the conclusion of each research day, I wrote edited personal reflections to summarize my observations in my field notes to reframe sensitive cultural information as well as concretize the subtle, easily forgotten, nuances of everyday research activities. I also took Potawatomi language classes twice a week for 2 years, participated in language immersion events, participated in Potawatomi Water Walks protesting environmental issues, and hosted a quarterly Indigenous film screening event in my community.
14. Especially as class struggle has become a foregrounded issue in recent years (Brownfield, 2017; also see films, *Elysium* (2013), *Chappie* (2015), and *Divergent* (2014)).

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