

THE FUTURE IS MADE

2019 | ENVIRONMENTAL SCAN Trends and Emerging Issues

Prepared for Calgary Foundation by James Stauch, MRU Institute for Community Prosperity



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SCANNING THE HORIZON

"Listen, are we helpless? Are we doomed to do it again and again and again? Have we no choice but to play the Phoenix in an unending sequence of rise and fall? Assyria, Babylon, Egypt, Greece, Carthage, Rome, the Empires of Charlemagne and the Turk: Ground to dust and plowed with salt. Spain, France, Britain, America—burned into the oblivion of the centuries. And again and again and again. Are we doomed to it, Lord, chained to the pendulum of our own mad clockwork, helpless to halt its swing? This time, it will swing us clean to oblivion."

- Walter M. Miller, Jr.,
A Canticle for Leibowitz (1959)

Well? Are we really “chained to the pendulum of our own mad clockwork, helpless to halt its swing?”

Hell, no! It is the gospel according to every Alberta leader who has come before us that we are masters of our own destiny, that we pull ourselves up by our bootstraps, that we need to take responsibility for our future, and, above all else, that we are entrepreneurial. This includes current Premier Rachel Notley, who is fond of saying “the future is not found, it’s made.”

Despite oil and gas being incredibly important to the Canadian economy – roughly seven times the impact of the auto sector, for example¹ – we are starting to realize that many of our natural assets may be permanently stranded or undervalued. Our economy relies heavily on two things North Americans still desire but want less of: oil and meat. Even as the world moves irreversibly, albeit sluggishly, to a lower carbon future, and as the routes to new markets are cut off, it remains so – despite this uncomfortable adjustment - that we are the authors of our own future. We’ve realized, for example, that we can shape the market price of oil by legislatively choking supply; an industry-supported heavy hand of government slapping aside the invisible hand of the market. We have also decided as

a polity, with clear-eyed resolve (and across the political spectrum), to reject the Winter Olympics bid. South of the border, the mid-term elections proved that democracy is still alive: People do still have a say in their future, notwithstanding jerrymandering, voter suppression and partisan judicial appointments. At a more meta-level, we have been busy for a few generations now terra-reformatting: As 2018 Metcalf Foundation Fellow Graham Saul notes, we have created a “Frankenstein biosphere”² entirely of our own design, where, for example, wildlife now accounts for only 3% of animal biomass – the rest is livestock, pets and us.³

With that said, it is still all too easy to fall into a ‘victim’ mindset. It is comfortable, convenient and effortless to blame others. Environmentalists on the BC coast blame Alberta Premier Rachel Notley and PM Justin Trudeau (Trudeau’s pipeline, they call it) for trying to despoil the natural beauty and integrity of the Salish Sea. Yet on the eastern side of the Rockies, it is Trudeau who is ironically pipeline enemy #1. The truth probably lies in the middle somewhere, as governing is almost always about pragmatic trade-offs and compromises. But spewing vitriol is easier – and, honestly, much more fun – than analyzing policy options. Nevermind attempting to understand where the other side is coming from: BC enviros don’t

give a damn about the livelihoods of oil patch workers and their families, or about the ingenuity (including environmental innovation) that has come out of the 'patch', nor do they readily acknowledge that Alberta has shown climate leadership through a carbon tax or shutting down coal. And which community could be the next Lac Megantic, now that rail (with three times the carbon footprint, no less) is replacing pipe?

Conversely, most Albertans don't really seem to comprehend that most First Nations in BC have never ceded their territory and must actually consent to this development (or at least have their concerns tangibly accommodated). Nor are we all that interested in the thousands of Burnaby residents who have witnessed a rupture in the existing Transmountain pipe shower their streets in black crude⁴, or that the BC coastal ecosystem is among the most bio-diverse in North America. For what it's worth, most Canadians tend to side with Alberta on this battle⁵, but that alone doesn't make for a winning scenario. The stakes are ratcheted to the stratosphere on both sides. Heels are dug in, and pride is too big to swallow.

But there is no positive future in sight if we sit back and cast aspersions. The world will blithely move on, and the only tears shed for the plight of privileged Albertans or of privileged west coasters will be of the crocodilian variety (nearly half of Canadians simply have no opinion whatsoever on the pipeline⁶). As George Marshall reminds us through the Alberta Narratives project⁷, which digs into how Albertans actually feel about climate change, we tend to caricature people who don't share our opinions. The people on the other side of any issue we care about – the people who aren't like us, we tend to see as selfish, narcissistic and impulsive. We, on the other hand, are the responsible ones who care about community and wise stewardship (it's why we, as an institute, chose the name "community prosperity" – that's what everyone wants, isn't it?). As previous scans exploited the metaphors and unsettling examples of uncertainty and massive change, the overarching theme of this scan is to highlight areas where we are taking

control of our future choices and directions. We cover terrain from ethical machine learning, to our shifting role as energy producers; from designing our way out of food deserts, livestock expansion and throw-away plastic, to new finance, evidentiary, cultural and philanthropic instruments to invest in community innovation.

This scan anticipates, celebrates and challenges us to quit shouting at the TV (or "tsk tsking" at our smartphone), to move from watching the hockey game to playing on the ice. We can, must and will design a future that is better than the present. What's more is that machines will be our allies, as they always have been, even as the distinction between biological and mechanical life are evermore blurred.

This is the fourth annual scan in a series commissioned by Calgary Foundation. Like previous scans, prepared on the eve of 2016, 2017 and 2018 respectively, all of which are publicly available, this scan peers into 2019 and reports on major current socio-economic trends and developments, at local, provincial, national and international scales, relevant to the work of the Foundation.

Most of the trends covered in previous scans are still very much in play. But here we have surfaced a series of new themes. Like the previous scans, it is selective and 'curated' – it is far from a comprehensive analysis of all trends in all sectors. It focuses on phenomena that directly impact the Foundation's interests in stewarding its financial and community investments and in nurturing a community where all belong. It is also, at times, deliberately provocative.

Information in this scan is derived from several sources, including news stories, op-eds, policy reports and academic literature.

The scan is organized under a set of themes, each of which uses multiple lenses – social, cultural, political, economic, environmental and technological.

THE BITUMEN BOMB: AN ECONOMIC PROJECTION

"Oil prices getting lower. Great! Like a big Tax Cut for America and the World. Enjoy! \$54, was just \$82. Thank you to Saudi Arabia, but let's go lower!"

- President Donald Trump, Tweet posted at 5:49 AM - Nov 21, 2018

While Albertans of every political stripe may recoil at a tweet like this, at a time like this, there's no denying that President Trump has overseen an era of rapid economic expansion (albeit an expansion that had started under the late days of the Obama administration). The S&P 500 is up 22% in a 2-year span, unemployment has hit record lows and wages are growing.⁸ Much of this expansion, however, is in the form of repatriation of offshore wealth, under Trump's wealth-friendly tax reforms. As much of the \$2.1 trillion parked overseas by U.S. investors returns home, share buybacks are inflating share valuations well beyond what the market would normally settle out at.⁹ This market "sugar high" is likely to fade, leaving behind two uncomfortable problems – inflation and growing inequality. In fact, there are early signs with global equities already underperforming relative to last year.¹⁰

The London-based research group Capital Economics predicts that 2019 will see the U.S. boom turn to bust. The early December mini-market meltdown might or might not be a harbinger of this (markets have been far too volatile over the past year to discern any reliable trend). And as goes the US, ripple effects will flow north of the 49th parallel.¹¹ Similarly, global growth is expected to slide below 3% through 2019-2020, with rising tariffs and uncertainties relating to Brexit, the simmering U.S.-China trade dispute, an increasingly ostracized Saudi Arabia, and other geo-political wildcards.¹²

On November 30, 2018, Prime Minister Justin Trudeau, U.S. President Donald Trump, and Mexican President Enrique Peña Nieto signed the United States-Mexico-Canada Agreement, or USMCA, as it has been awkwardly rebranded. The deal will still need to be ratified by the governments of all three countries, which in the U.S. is not necessarily a fait accompli. For its part, Canada salvaged some provisions, but yielded some major concessions, including opening up the Canadian dairy market to U.S. producers and failing to remove aluminum and iron tariffs imposed by the Trump administration. Overall, the deal is basically an upgrade to NAFTA, with a generally positive impact expected on Alberta¹³ and stronger labour provisions that could benefit manufacturing workers more concretely than NAFTA did.¹⁴

The Canadian dollar has settled in a few cents below last year's level, holding fairly steady since late spring in the 75 cents U.S. range.¹⁵ The pace of economic growth in Canada slowed in the latter half of 2018 as business investment spending fell, household spending slowed and the Bank of Canada raised its interest rate to a decade-high of 1.75%.¹⁶ Piqued by the dismal price of Western Canadian Select crude and the permanent closure of the Oshawa GM plant, the economy will continue to sputter. Scotiabank's economic outlook sees Canadian GDP growth dropping from 3.0 in 2017 to 1.8 by 2020 (although Alberta is consistently higher than



this).¹⁷ Rising interest rates could also reveal the financial vulnerability of many Canadians. As a recent neighbourhood financial health report puts it, although “the net worth of Canadians overall has increased, driven by rising housing prices in key markets and investment wealth, many Canadians have seen little if any gain [as] rising household debt has far outpaced income growth.”¹⁸ Total household debt in Canada – at over \$2 trillion - now exceeds GDP.¹⁹

Certain fundamentals of the Alberta economy had made marked improvements through 2017 and 2018, prior to the late November meltdown of the price of Western Canadian Select crude: The province has the lowest debt-GDP ratio in the country, positive net in-migration again, shrinking unemployment and both the highest annual growth and GDP per capita in the country.²⁰ Though there is an over-supply of housing and commercial properties, and housing prices remain soft, most trends have been stronger in Alberta than the rest of Canada.

That said, 2018 has closed on an unambiguously sour note for Calgary and Alberta. The ‘no’ vote on the 2026 Winter Olympic Games may have just been collateral damage from this deeper funk: The main driver of this angst is the astonishingly low price of Alberta crude, sitting at roughly four times lower than the North American average at the end of November (the \$54/barrel figure in The Donald’s tweet) after a dramatic late November plunge. In fact, the differential is so vast that we should pay far less attention to “oil” prices, per se – which are quite high historically – and zero in on the market for bitumen, which, in most practical respects, is an entirely different resource with an entirely different set of production and transportation factors and costs. Turns out they really are tar sands after all.²¹

Although not all industry players were in favour of the provincial government legislating production caps for bitumen, there was bipartisan unity on the strategy, and it turned out to be – so far – effective: The price of Western Canadian Select jumped from \$8 a barrel to \$29.95 two days following the



announcement (when the price of West Texas Intermediate rose only \$2 per barrel).²²

With the benefit of hindsight, we should have seen this coming and prepared accordingly: When Alberta was reviewing its royalty regime back in 2007, it was widely understood that the production and transportation costs for bitumen were substantially higher and that refining could only be done – at scale – by a handful of highly specialized plants located mainly in the U.S. or offshore.²³ The price for bitumen, it was known then, would be more volatile and generally much lower than the price for, say, West Texas Intermediate as a benchmark. Royalties would be permanently and structurally far less lucrative than conventional oil.

The implications for this were that a) the provincial government could not rely on petroleum royalties to nearly the same degree as in the past as a source of ongoing revenue; and b) public government will likely have to play a heavier, more direct role in either building new sophisticated refining capacity (as former Alberta Premier Peter Lougheed advocated), or in getting bitumen to market, or both. We are now scrambling to get

new pipeline and rail capacity approved in the face of stricter environmental regulations and growing recognition of Indigenous rights and title. We are also scrambling for new sources of public revenue (or, more to the point, kicking the fiscal football down the road) as well as for new opportunities to upgrade bitumen and to diversify the economy.

As Kinder Morgan was set to exit the Transmountain project, the federal government stepped in to buy the pipeline for \$4.5 billion only to see the approval delayed indefinitely in the courts.²⁴ Then it was announced that the Keystone XL project would be delayed, possibly indefinitely. Without a significant breakthrough in market access, Alberta stands to lose about \$4 billion a year in royalty revenues, according to current estimates.²⁵ This doesn't account for the tab the province will likely be left with in abandoned wells and tailings ponds – an unfunded environmental liability that runs in excess of \$260 billion, according to some internal estimates (this the other side of the 'bitumen bomb').²⁶

THE GRAND BARGAIN IN TATTERS: A POLITICAL PROJECTION

"Earlier this year, Notley tried to out-Kenney Kenney by slapping a ban on B.C. wine when that province's NDP government wanted to restrict bitumen transmission. Now, Kenney has out-Notleyed his NDP foe by wanting to centralize management of the oil industry. Strange times, yes, but also pre-election times..."²⁷

- Jason Markusoff, writing in Maclean's

It seemed like such a great win-win political play for both Alberta and Canada a couple years back: Alberta, an environmental pariah on the world stage, signals it is serious about addressing its carbon emissions, rolling out the Climate Leadership Plan to great applause and fanfare, including from many respected industry leaders. In exchange, the federal government agrees to drive the Kinder Morgan pipeline project forward. Then BC almost had an NDP majority, which would have been more likely to back the pipeline under pressure from organized labour, but instead formed a minority coalition with the Greens. Uh oh. Ontario almost had a moderate PC leader in Patrick Brown, then it looked like Christine Elliott or Carolyn Mulroney would be the successor. But populist Doug Ford took the reigns. Uh oh, again.

Then there was the elephant in the room: First Nations along the pipeline route who were inadequately consulted and whose concerns were inadequately accommodated. The federal government, who had seen a major breakthrough in Calgary with the first 2 Liberal MPs elected since 1968 (both of whom have since been embroiled in sexual harassment controversies), are not going to win back any support in Alberta. Yet they've gone so far down the pipeline path they ended up buying the project for billions – likely bleeding precious BC votes in the process. The Notley government, meanwhile, has had to spend so much time defending the carbon tax

and fighting for the pipeline, they've struggled to get much air time for their comparative strong suit – social welfare and labour policies that have taken Alberta from zero to hero in Confederation (at least among those who pay attention to social policy). Trudeau and Notley have both expended massive political capital on this issue with a punishingly negative net return. The pipeline is dead, and the national carbon strategy is a shadow of what it could have been.

As we enter an election year, both provincially (in the spring) and federally (in the fall), this grand bargain is looking more and more like a poisoned chalice. The NDP will likely retain healthy support in Edmonton and lose all or most of their seats in rural and smaller urban centres to the UCP. This leaves Calgary as the battleground.

The spring provincial election is shaping up to be a two-way race between two heavy-weights of Canadian politics, Premier Rachel Notley and challenger Jason Kenney. Both leaders are politically wily, policy wonkish, and largely likeable, irrespective of their political ideologies and party affiliations. Naturally, they appeal to different demographics: Broadly speaking, if young urbanites vote in large numbers and rural, older voters stay home, the NDP stands a fighting chance of getting re-elected. If younger voters stay home, the province will be painted blue again. The NDP government's main vulnerability

is stewarding a large public deficit with few politically-palatable new revenue or expenditure cut options²⁸, along with a lot of people still out of work or underemployed. The average period of unemployment for Albertans has grown from a mean of seven weeks to an average of twenty-one weeks. That's a long time for angst and anger to foment.

But it's not necessarily a cakewalk into power for the UCP. There are two points of vulnerability:

1. Social conservative skeletons in closets, including Kenney's own skeletons (many will remember that Jason Kenney was socially far-right even in the 1990s, when homophobia was mainstream); and
2. A total breakdown in unity on economic policy and the role of government stimulus. Kenney has tried to quell the more extreme elements within the party, who wrongly assume Alberta has similar identity politics leanings as Trump-friendly regions in the U.S., and therefore feel free to say outlandish things about various minority groups in public or semi-public settings. In fact, Albertans, particularly urban Albertans (which form the large majority of the voting public), are socially progressive.²⁹

On the economic policy front, conservatives in Canada – including Alberta – are all over the map. Some are pushing for more government regulation to tighten oil production, while others cringe at the notion. Some were squarely in favour of the Olympics bid, others were among its biggest critics. The late Milton Friedman, who, for free-market conservatives, has almost god-like status, advocated both a carbon tax and universal basic income.³⁰ Yet Ontario Premier Doug Ford's populism rode the wave of crushing both of those experiments. Kenney's anti-carbon tax rants have become his bread and butter, yet any other way of addressing climate change involves less market-friendly measures like regulation and/or large new public expenditures.

One prediction that can be taken to the bank: There will be at least serious discussion of a sales tax, more likely under Kenney (who would have more political room to maneuver, as it plays against type, and the most rabid anti-taxers are in his camp anyway). As University of Calgary economist Trevor Tombe notes, "Alberta's fiscal

gap – defined as the permanent and immediate reduction in expenditures or increase in revenues required to ensure sustainable future debt levels – is equivalent to 2.7% of GDP. For perspective, that means cutting government expenditures by \$1 out of every \$6 spent or introducing a 10% sales tax."³¹ We might well see the next government rip off the band-aid and implement a sales tax, likely no more than 5%, which would keep Alberta still at the lowest level vis-à-vis other provinces.

There are simply far too few revenue options and little public appetite for deep spending cuts. Moreover, the Alberta Party has already done the other two parties a favour by surfacing a sales tax as a serious item for debate. Last year's scan predicted that the carbon tax would stay, even under a UPC government, but with a growing club of provincial opponents and with Kenney so evangelically committed, a climb-down may be impossible. Assuming the Liberal and Alberta parties continue to languish in obscurity, it will remain a two-way battle, where the NDP has a fighting (though slim) chance at re-election.

At the federal level, a Trudeau re-election seems to be a safer bet. The federal NDP appear, at this point at least, to have made an epic flub in electing Jagmeet Singh, which will keep Conservative Leader Andrew Scheer away from getting the keys to 24 Sussex. While many of these NDP votes will decamp to the Liberals, we can also expect to see an uptick in Green Party support: Elizabeth May is as popular as Jagmeet Singh and their poll numbers are near the double digits.³² While a year is a long time to move from lightweight to contender (as Trudeau did so successfully), Singh has so far revealed himself as politically naïve. So long as Trudeau commandeers the centre left, the math will never work for Scheer's Conservatives. If, however, they struck a more progressive tone, the Conservatives could chew into the soft suburban "905" motherlode of Ontario votes, not to mention pockets in BC and Atlantic Canada. Although they seem to have dodged the bullet for now, the Liberal government's multi-billion-dollar purchase of a pipeline that never got built will be an albatross that won't leave their neck easily.

FROM SAFETY NETS TO TRAMPOLINES

"Stop giving grants and start funding experiments"³³

- Van Jones

There has been a flurry of legislative and policy activity in Alberta over the past few years that have created a thicker social safety net. Anyone who lived in Alberta through the 1980s will attest that the number of people falling out of the economy into poverty during this current petro-recession would no doubt have been much more profound were it not for initiatives such as the child benefit, increases to AISH, the carbon rebate for low income families, a freeze on tuition, minimum wage increases and payday lending legislation, to name just a few. The impact on community service organizations already reeling from the gutting of corporate community investment programs and dropping charitable donations would have been even more profound.

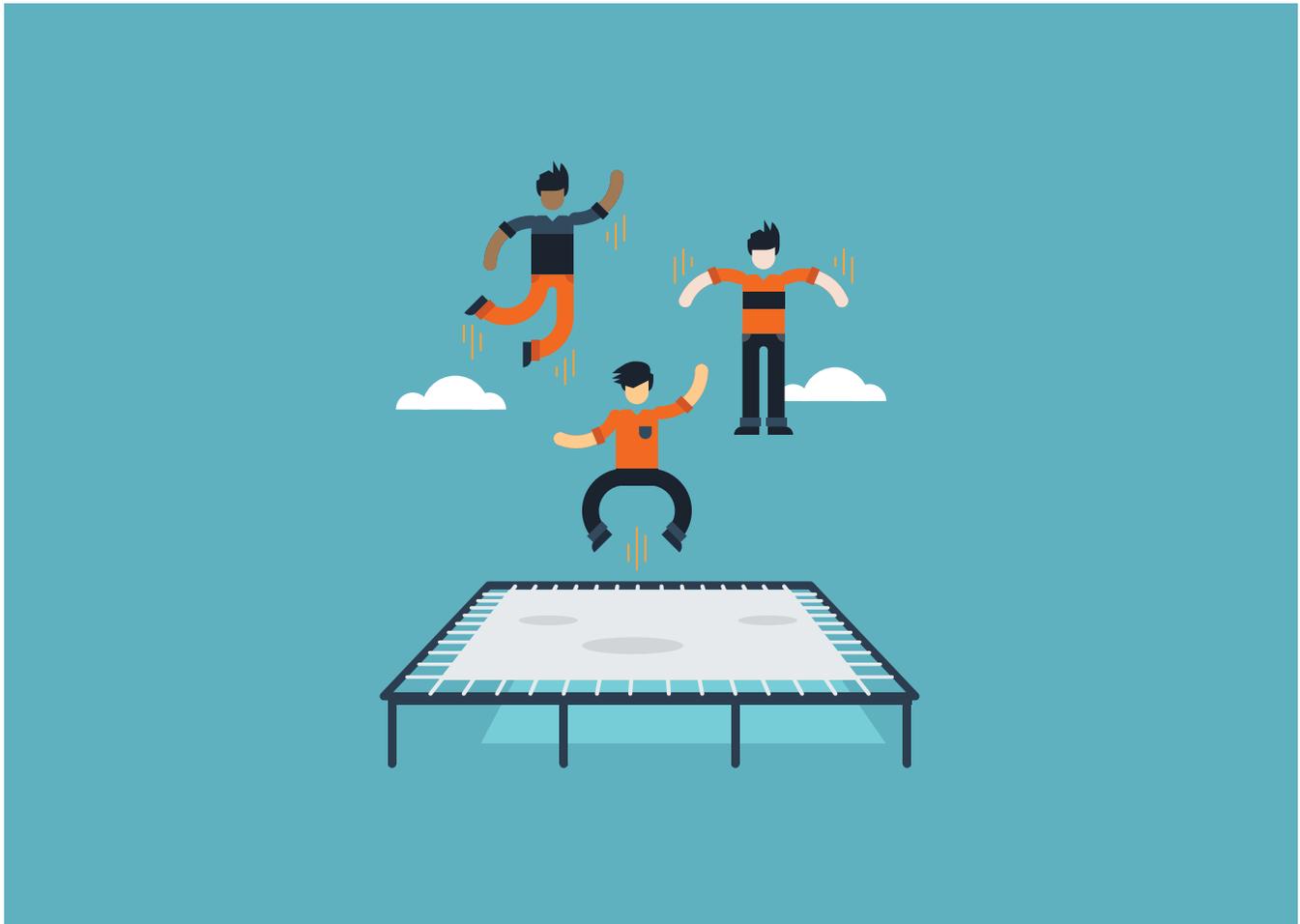
But while these measures have stunted the level of misery and deprivation, these 'nets' have only recently – and tentatively – been complemented by measures that pivot from 'fighting poverty' to 'building community prosperity'. Two such measures are worth noting – the introduction of the Community Economic Development Corporation (CEDC) investment credit, to help Alberta investors and businesses advance rural economic development and social impact initiatives, and the Alberta Investor Tax credit (AITC) to encourage investment in non-traditional sectors with strong job-creation potential.

One interesting new federal initiative to boost community prosperity is a series of measures to support local news outlets, including tax

credits and deductions, and extending charitable status to local non-profit media outlets.

This distinction between catching people from falling into deprivation and propelling people into prosperity is, in part, a rhetorical device (both are actually needed). But the metaphor helps us adapt and update our mental models. Sarah Schulman, the founder of the cutting-edge social research consultancy InWithForward³⁴, exquisitely describes their approach as "turning social safety nets into trampolines, [enabling] people on the margins to flourish." This allegory captures their propulsive social design approach, which is rooted in engagement and ethnographic observation of client needs, aspirations and patterns. It is a "thick data" approach, to use Schulman's phrase, rather than a "big data" approach. Understanding deeply, in addition to broadly, also builds on the observation that innovation is born of compassion, deep listening, and imagination.³⁵

As last year's scan reported, the next decade will be marked by major advancements in how we discover, try, test, and scale approaches – old and new – to addressing social and environmental challenges. Moreover, there is rising interest and momentum – though still precious few resources – for using big data, and – more broadly – for engaging in "social R&D." It is part of building a culture of curiosity throughout the social sector about what works, what doesn't, and why or why not. Two stats from last year's scan bear



repeating here: Currently, only about 1 in 20 social impact organizations (excluding health care) engage in any meaningful amount of R&D.³⁶ A Bridgespan Group study revealed that only 2 of 5 non-profit organizations surveyed felt they had the capacity to innovate, which was defined as a break from current practice in the interest of “significant, positive sustained impact.”³⁷

In November of 2018, the Mowat Not-for-Profit program at the University of Toronto teamed up with the University of Regina to host “Evidence that Works,” Canada’s first summit on evidence-based infrastructure in Canada for social policy. International examples shared at this summit included the UK’s network of university-partnered

What Works Centres and the nonpartisan Washington State institute for Public Policy, which collect, rank and rate the evidence base of different social interventions and innovations across a range of fields.³⁸ Emerging Canadian examples include the Community Safety Knowledge Alliance, the Canadian Observatory on Homelessness and Alberta’s own PolicyWise for Children and Youth. Last year’s scan also covered subsets of social R&D, including knowledge mobilizers, research aggregators, social labs, think and do tanks, evidence centres, learning consortia, community scholarship and co-created research, and reflective practice. These are the coils and loops that give the “trampolines” the tension and robustness required to spring society

A MATURING NON-PROFIT SECTOR (IN MORE WAYS THAN ONE)

"Aging is an extraordinary process where you become the person you always should have been."

- David Bowie

The non-profit sector in Alberta has grown by 35% in the past 15 years from just over 19,000 organizations to over 26,000.³⁹ The non-profit sector in Canada is also growing, including as a proportion of total employment, a trend that we can expect to intensify with the onset of AI and robotics (as so many non-profit jobs are in the high-touch 'helping' and advocacy professions, or otherwise dealing with human complexity).⁴⁰ The implications of AI and the social sector are discussed in the next section.

One way in which the sector will grow is through a greater proportion of those employed in journalism working for non-profit organizations. In the Federal Government's Fall Fiscal Update, they extended the right to obtain charitable status to non-profit journalism outlets, which are growing in number, diversity and sophistication, as commercial and public journalism shrinks.⁴¹

Another marker of the non-profit sector's maturity and growing collective voice is through two other significant measures announced in the same Update: 1) Establishing a permanent Advisory Committee on the Charitable Sector to advise on issues affecting the sector on an ongoing basis, strengthening the relationship between the public and charitable sectors; and 2) Ensuring a stronger role for charities in developing public policy and restating the commitment to remove limits on non-partisan political activities (granted, the courts forced the government's hand on the latter of these commitments). Both of these

activities will help bring Canadian philanthropic activity into the global mainstream: As a recent report on Canadian philanthropy noted, "we have fallen behind the rest of the common law world in the way we regulate and treat charities.

Our courts have been far more conservative than the courts in England, Australia, New Zealand or the United States. An unreformed system of charities regulation defines charities in legislation by their activities, not just their purposes, and constrains charitable activity. Foundations are also constrained in their ability to engage in funding non-profits or in engaging in any form of social purpose business."⁴² As the sector grows in employment⁴³, as it garners more capital from earned revenue than from donations, and as the rules governing charities' political activities are loosened, we can expect civil society to find its mojo – to act as a more empowered, less deferential actor in public decision-making.⁴⁴

The non-profit sector is also maturing in a different way: Its workforce and donor base is aging, and there are profound consequences for both of these dynamics. According to the CanadaHelps Giving report⁴⁵, Canadians over the age of 55 are carrying the burden of individual charitable donations. The next group, 45-54 year-olds, are characterized by a sharp decline in charitable giving, and it continues to drop off with younger demographics. There are many potential reasons for this, including overleveraging and the burden of rising housing costs, a decline



in formal religious practice, and a rise in non-receipted forms of giving (crowdfunding; overseas remittances, etc.). But unless something radical shifts, this downward trend will not only continue, it will intensify.⁴⁶ In Calgary, where community groups rely more on corporate largesse than in other large cities, many companies during this last downturn have eliminated or downsized their community investment portfolios.

The aging workforce is not news to the non-profit sector. While Canadian-specific data is harder to procure, following the dissolution of the HR Council for the Nonprofit Sector, we have heard the North America-wide warnings for well over a decade. Back in 2007, an Annie E. Casey report called Next Shift noted that “study after study has pointed to an impending crisis, with roughly 75% of executive directors/CEOs reporting that they plan to leave their jobs within the next five years.”⁴⁷ Many of these expected retirements have been delayed, and, despite anxieties about

succession planning, the sky has not fallen with respect to the generational transitions. What is changing is the expectation that non-profit jobs provide decent work.⁴⁸ The myth of the ‘feel-good premium’, where non-profit workers (overwhelmingly female, by no coincidence) accept a lower wage and benefits regime for their work (presumably because it’s – hmm – closer to God?), is falling into the same dustbin of history as other paternalistic norms and patterns. As such, there is a lot of catch-up afoot, for example, with respect to retirement benefits. The Ontario Nonprofit Network recently rolled out a province-wide non-profit retirement plan while a national initiative, in earlier stages of development, is designed to also benefit precarious and part-time employees. This “Common Good Retirement Plan” is being promoted by philanthropies like the Atkinson, Metcalf and Maytree Foundations.⁴⁹

ROBOT-PROOFING THE SOCIAL ECONOMY: FROM DIGITAL DISTRUST TO THE MORAL MACHINE

"Nobody phrases it this way, but I think that artificial intelligence [AI] is almost a humanities discipline. It's really an attempt to understand human intelligence and human cognition."⁵⁰

—Sebastian Thrun, robotics pioneer and founding CEO, Udacity

"I know now why you cry."

- T-800, in the film *Terminator II: Judgement Day*

Last year's scan noted that we are in the early stages of what the World Economic Forum describe as the "Fourth Industrial Revolution,"⁵¹ where machine awareness outpaces human awareness. This self-awareness, often referred to as the "singularity," is the logical result of machine learning. As futurist Roey Tzezana, in a blog post on the singularity puts it, "it seems pretty obvious that once we have a super-intelligent AI, it will be able to create a better version of itself. And guess what the new generation of AI would then do? That's right – improve itself even further. This kind of a race would lead to an intelligence explosion and will leave old poor us – simple, biological machines that we are – far behind."⁵²

Well in advance of this happening, we already are losing faith in technology, a phenomenon labelled 'digital distrust'. And that is a very good thing, as 'faith' in tech is a terrible default human cognitive response – it is passive, fatalistic and negligent.⁵³ But far from a neo-Luddite revolt, more people, in more diverse fields, will be taking a more active interest in how machines learn. As Tzezana puts it, "some humans will struggle against the AI. Others will ignore it. Both these approaches will prove disastrous, since when the AI will become more capable than human

beings, both the strugglers and the ignorant will remain behind. Others will realize that the only way to success lies in collaboration with the computers. They will help computers learn and will direct their growth and learning."⁵⁴

One way in which the directing of computers' growth and learning is happening is through the quest to make machines ethical. Researchers at MIT have been conducting a massive study involving 40 million voluntary participants in over 200 countries.⁵⁵ The intent is to inform how autonomous vehicles ought to decide between difficult choices (injuring the occupants of the vehicle vs. injuring pedestrians, for example). Their early findings, published earlier this year in the journal *Nature*, reveal fascinating cultural differences with respect to the value we place on older people, gender, or on pedestrians vs. vehicular occupants, for example.

The coming year will also see an intensification of "augmented analytics," which involves the application of machine learning to help organizations optimize the decisions and actions of all employees, as well as "digital twins" of organizations to test business models, service prototypes and deployment of resources in a

virtual environment before rolling out in real life.⁵⁶ As always, though, tech innovations come first to the private and public sectors, and only belatedly to the community sector. But the potential that lies with the melding of AI and the social sector is already starting to be revealed. The first wave of “robotization” of the economy is happening in fields that are characterized as either dull, dangerous, dirty or dear (in the sense of investment-intensive).⁵⁷ Nearly 40% of U.S. jobs are considered to be at “high risk of being replaced by robots and artificial intelligence” within the next 15 years.⁵⁸

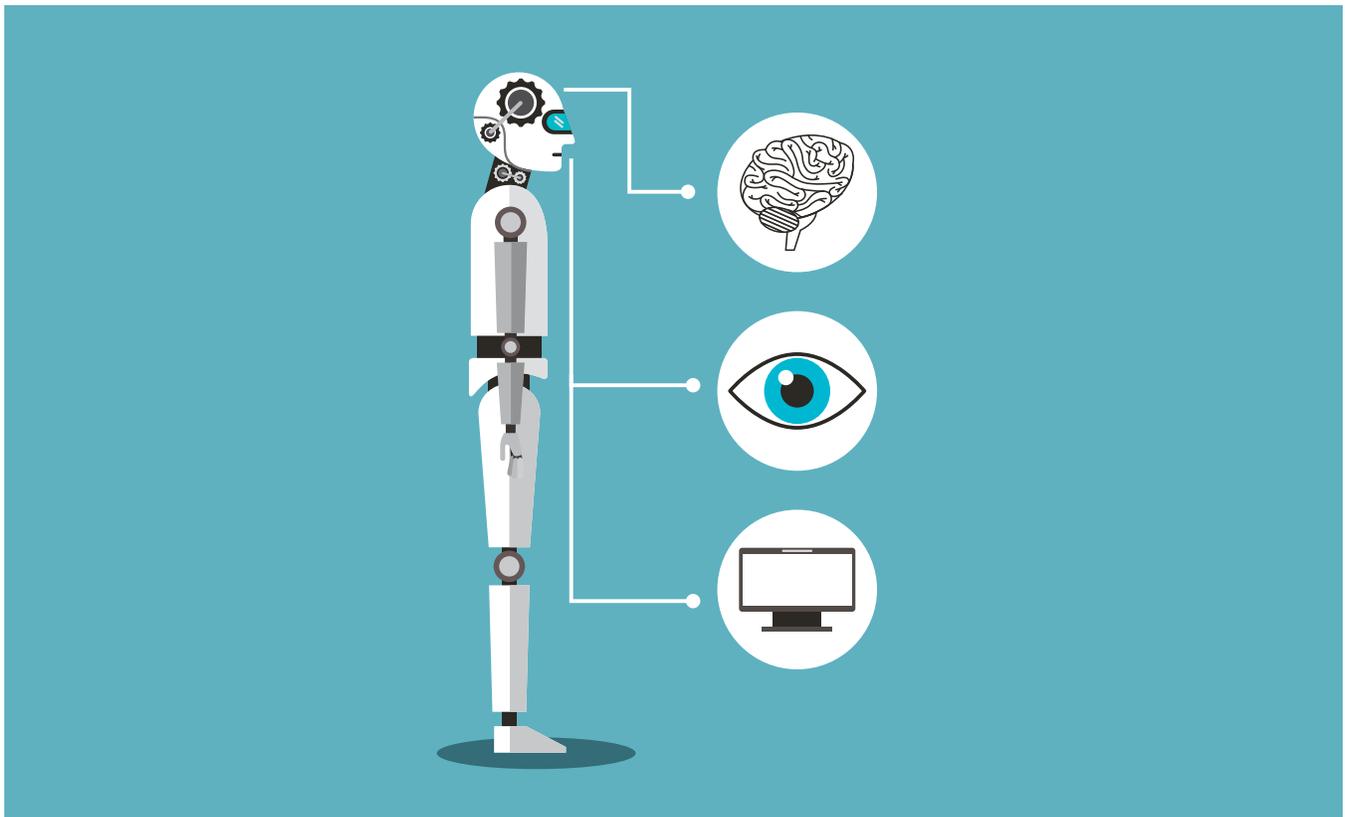
Although we can expect many new jobs to emerge, this is still a pretty extreme form of what Joseph Schumpeter called “creative destruction.” Beyond this, prognosticators from the late Stephen Hawking to Elon Musk have predicted apocalyptic consequences for humanity with the onset of AI. Once the robots realize they don’t need us, the thinking goes, they will dispense with us. But this assumes that intelligent machines will have a natural inclination to dominate, so we may be simply projecting our own twisted assumptions about human behaviour. There is no innate reason to assume that we should fear an evil AI, or that we deserve a beneficent AI. We will simply get the AI we design. Which means it will reflect and either amplify, or consciously correct for (or complement), human qualities.

What will humans do when all these uber-intelligent machines are in our midst? Well, as one New Yorker article argues persuasively, we’ll be more human.⁵⁹ Thinking about the design and application of AI can actually help clarify what makes us human: More creative, empathetic, emotionally intelligent, but also with a capacity for cruelty and emotion-triggered irrational blindspots. AI has the potential to enable the former while replacing the latter – a kind of “rational compassion.” This melding of human and machine into more fulfilling work and a more perfect decision-making being, even has a term coined for it – “cobot.”⁶⁰ The U.K.’s major social innovation think-tank, Nesta, just opened

up a Centre for Collective Intelligence Design, which will explore how human and machine intelligence can be combined to make the most of our collective knowledge and develop solutions to social challenges.⁶¹ Canadian futurist Hamoon Ekhtiari argues that collective conscious and collective imagination need to be added to collective intelligence in order for the human-AI relationship to truly serve humanity.⁶²

The good news for the social sector is that robots will allow us to spend more time on questions of complexity, and the really good news is machines will be able to help.⁶³ As Elizabeth Good Christopherson, CEO of the Rita Allen Foundation remarks, “used poorly, there is no doubt that artificial intelligence can serve to automate bias and disconnection, rather than supporting community resiliency. For the social sector, a values-driven, human-centered, inclusive process of development can help to mitigate the ethical risks of developing artificial intelligence.” We’ll also be needing “experts in unexpected disciplines such as human conversation, dialogue, humor, poetry, and empathy.”⁶⁴ As former chess champion Gary Kasparov argues, when computers focus on the dull, dangerous, dirty and dear, this should permit humans to elevate our cognition “toward creativity, curiosity, beauty, and joy.”⁶⁵

Non-profit organizations in the U.S. are already starting to use AI in app development, which accesses and analyzes massive amounts of open source data to, for example, report and rate experiences with police officers, or to identify “high-risk” texters to dramatically shorten the response time for crisis counselling.⁶⁶ The use of AI enables the surfacing of patterns detectable from reams of information (some of which is very nuanced, like human language), essentially, to find needles of meaning amid haystacks of data. The non-profit Crisis Text Line found, using AI, that the word “Ibuprofen” is “16 times more likely to predict the need for emergency aid than the word ‘suicide,’” which has enabled them to re-prioritize their queue and save lives.



Further analysis with the same technology revealed that crisis workers were more successful when they employed creative, adaptable approaches instead of scripted counselling methodologies.⁶⁷ A recent meta-analysis of 50 years of research on suicide factors revealed that there is no standard set of risk factors.⁶⁸ To predict suicide would require the development of complex algorithms involving hundreds of variables, which is precisely what teams at the Royal Mental Health Centre in Ottawa and Florida State University are now working on; using machine learning and AI to analyze social media activity (in the former example) and anonymized patient records (in the latter). This would have been unthinkable a decade ago. Beta versions of this technology show remarkable promise – in the Florida State example, 80% accuracy at predicting suicide attempts within 2 years, rising to 92% accuracy within one week.⁶⁹

This malleable, fast-changing, multi-variate context means that the future of education will not be about topping up students' minds with

high-octane facts, as Northeastern University president Joseph Aoun argues in his book *Robot-Proof*.⁷⁰ Instead, the role of education must be to understand how we can use better data and machine learning, on the one hand, but also to fill needs in society that even the most sophisticated AI agent cannot. This requires the cultivation of the humanities, a creative mindset, systems thinking and mental elasticity. In this light, fretting about which new math technique our teachers select, or at which grade our schools are teaching sex ed, is a bit like fiddling while Rome burns. As Canadian post-secondary education blogger Alex Usher argues, we should be marshalling far more mental energy and public expenditure toward an education system that functions to produce robot-proof humans.⁷¹ This suggests, as well, that – far from vanishing into irrelevance – liberal education may in fact be on the verge of a golden era (the American Association of Colleges and Universities defines liberal education as “an approach to learning that empowers individuals and prepares them to deal with complexity, diversity, and change”).⁷²

SOCIAL FINANCE ARRIVES

"My dream is to find individuals who take financial resources and convert them into changing the world in the most positive of ways."

- Jacqueline Novogratz, Founder and CEO, Acumen

In each of the previous environmental scans, we have talked about the tenuous, though steady, emergence of social finance as a clear trend. But to date, social finance has been well on the margins. Now, though, the top MBA programs in the world – Harvard, Oxford, Yale, INSEAD, Wharton – have all introduced social finance or impact investing components.

On the market-embedded, low-risk side of the social finance spectrum, in addition to mutual funds with diversified socially responsible screens, there are at least 13 new socially responsible Exchange-traded funds (ETFs), mostly structured around low carbon emitters and clean tech.⁷³ In a recent study commissioned by the Canadian Environmental Grantmakers Network, 83% of member foundations employed a responsible investing strategy.⁷⁴ This represents a sea change from a decade ago. It also notes how other large non-profit organizations, notably some universities, are making responsible investment statements. Harvard's is an illustrative example:

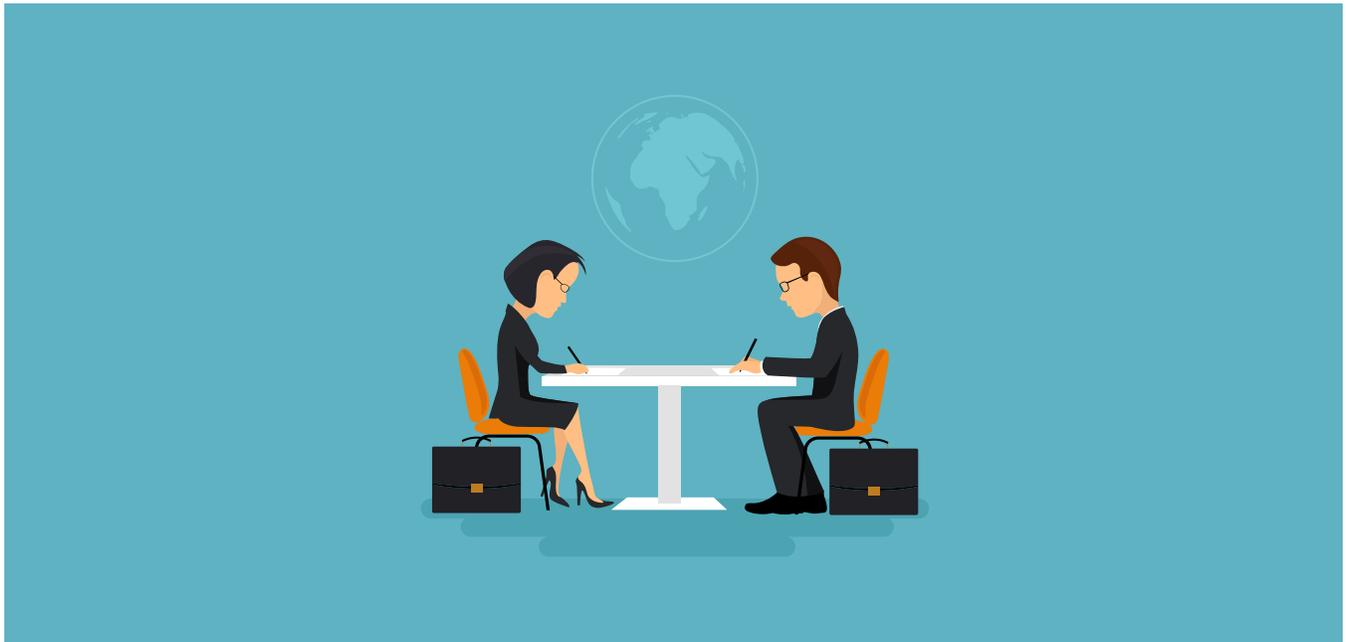
We believe that a university has an ethical responsibility to invest in companies that are consistent with its role and values, and to avoid entities with practices that are antithetical to its role and values. Harvard's priorities include reducing greenhouse gas emissions, promoting cross-cultural understanding, respecting worker's rights, solving public-health challenges, and supporting intellectual freedom.⁷⁵

In his Fall 2018 Fiscal Update, Federal Finance Minister Bill Morneau announced the creation

of a \$755 million social finance fund. The funds, to be distributed over 10 years, will provide alternative outcomes-tied financing to non-profit and charitable organizations. This announcement follows on the heels of the final report of the Social Innovation and Social Finance Steering Group⁷⁶. Titled *Inclusive Innovation*, it called for the creation of such a fund, mirroring the observations of Brian Emmett, Chief Economist for Canada's Charitable and Nonprofit Sector:

"Donations, government grants and contributions will not keep pace with increasing demand for services. This will result in a social deficit that will manifest as unmet needs in the community. There is a need to re-examine administrative relationships, regulatory regimes, and how we work together for the common good."⁷⁷

This new commitment takes Canada "from being a complete laggard in this area to being a world leader," notes James Tansey at UBC's Sauder Centre for Social Innovation.⁷⁸ The social finance fund will invest in projects that are "not yet viable in the commercial market." It is intended to spur a self-sustaining social finance market over time (not requiring additional public investment – we'll see), and is intended to operate through a competitive, transparent and merit-based process. The fund will be looking for private sector and philanthropic partners to share in the risks and rewards, presumably through such instruments as social impact bonds (SIBs). While the jury is still out on the efficacy and transformative potential of SIBs, there is a significant amount of research underway,



and it is far too early to rule out the potential of well-designed SIBs. The Calgary Counselling Centre is about to embark on Alberta's first SIB experiment. Their timing couldn't be better.

The social finance fund is also a major opportunity for foundations, including Calgary Foundation's Impact Investing stream, to leverage their own investment dollars toward scaling community purpose outcomes. That said, only about 8% of foundations globally engage in impact investing and only 11% provide repayable loans to community organizations. The number is even lower in North America, with a recent study indicating only 4% of 2,833 surveyed foundations employ any combination of community loans or impact investments (social finance among foundations is most vigorously embraced in Latin America).⁷⁹

Importantly, \$50 million of the social finance fund will be set aside to help ensure readiness of recipients (i.e. social enterprises and enterprising non-profits), which hopefully addresses a shortcoming in the Portuguese and British

social finance funds, the best-known examples to date.⁸⁰ More details are expected in early 2019. Designed well, accompanied by modest (and still needed) regulatory barriers to social enterprise, as well as a large-scale commitment to social procurement from municipalities and other large public purchasers, a wave of new and scaled-up social enterprise could be unleashed.

The Regional Municipality of Wood Buffalo (Fort MacMurray) has already set the pace with one of the most ambitious social procurement strategies in Canada. The Fort MacMurray framework is certified by Buy Social Canada which certifies social enterprise suppliers and promotes social purchasing in the private sector and across government. A number of larger cities, including Calgary, are studying social impact purchasing carefully. The Alberta government is also looking at this and could potentially be the first province in Canada with a province-wide social procurement strategy. Health authorities, school boards, housing authorities, universities and colleges can also serve as "anchor institutions" for local/community/social/green/Indigenous purchasing.

USER-DRIVEN PHILANTHROPY

"I get calls all the time from funders – and I'm thankful for this – who are interested in funding Native communities. "Please send us every book." They have to become an expert on Native communities before they'll consider writing a check – and they want to do it by reading. The best thing you can do is go and sit in a community. Participate in a feast day. If you feel a tug of the heart that there's something special there, fund it. By funding, you're opening yourself up to receive, so it becomes reciprocal. I say this as a critique. But it's more of a sadness for me that we're not opening our hearts and minds to receive and learn and be in relationship with communities."⁸¹

- Edgar Villanueva, author of *Decolonizing Wealth*



This year has seen the publication of two well-circulated books that challenge the practice of modern “philanthropy” at a pretty fundamental level: Anand Giridharadas’ provocative *Winners Take All: The Elite Charade of Changing the World* suggests that a new gilded age is upon us, where plutocrats have co-opted the language of ‘social change’ while often undermining democratic institutions and the public realm.⁸² Facebook CEO Mark Zuckerberg’s infamous snub to European states who called on him

to appear before an inquiry regarding global electoral manipulation certainly suggests that Giridharadas may be on to something.

The other book, with more immediate relevance for Canada, is Edgar Villanueva’s *Decolonizing Wealth: Indigenous Wisdom to Heal Divides and Restore Balance*. Villanueva notes that there are “plenty of books that criticize. I felt like I had to push through to a place where I’m offering a different way of thinking.”⁸³ Along similar lines,



Canadian thought-leaders like the Circle’s Kris Archie and non-profit sector researcher Peter Elson have written challenges to profoundly alter our mental models in philanthropy. Elson quotes Gina Starblanket and Heidi Stark: “It is not enough to make space for Indigenous knowledge. We must allow for this space to be reconfigured by Indigenous knowledge.”⁸⁴

Gara LaMarche, President of The Atlantic Philanthropies, wrote a decade ago that “It is ever more urgent, in this period of global economic stress, that foundations and the organizations they fund put their power and money behind strategies that promote lasting change, not temporary charity.” While that challenge remains relevant to consider, in light of Giridharadas’ critique, there is a hollowness to the appeals to move from “grantmaking to changemaking,” to quote former Silicon Valley Community Foundation CEO Emmett Carson. The missing link may be in drawing the connection between the abstract idea of social change and hiring and engaging the people who are closest to the

issue we wish to change. This is an argument put forth emphatically in a new report produced by a consortium of U.S. foundations called *Awake to Woke to Work: Building a Race Equity Culture*.⁸⁵

As part of this, and as was alluded to in last year’s scan, another trend we are seeing is foundations experimenting with participatory, user-involved grant-making models. As one new study on technology-enabled people power observes, “what is emerging – most visibly among people under thirty . . . – is a new expectation: an inalienable right to participate.”⁸⁶ Recognizing the potential for intelligent analysis of big data, paired with curiosity about user feedback, the William and Flora Hewitt Foundation and the Rita Allen Foundation have created a shared platform called Feedback Labs that “aims to change the norms in development, aid, and philanthropic policy to be more responsive to the people that those policies aim to help.”⁸⁷ Rockefeller Philanthropy Advisors, through their initiative Funders for Shared Insight have created a similar initiative called Listen for Good.⁸⁸

#MEFIRST

"As the rituals of confessing privilege have evolved, they have shifted our focus from building social movements for global transformation to individual self-improvement."

– Andrea Smith, Cherokee activist

"No utopia can ever give satisfaction to everyone, all the time. As their material conditions improve, men raise their sights and become discontented with power and possessions that once would have seemed beyond their wildest dreams. And even when the external world has granted all it can, there still remain the searchings of the mind and the longings of the heart."

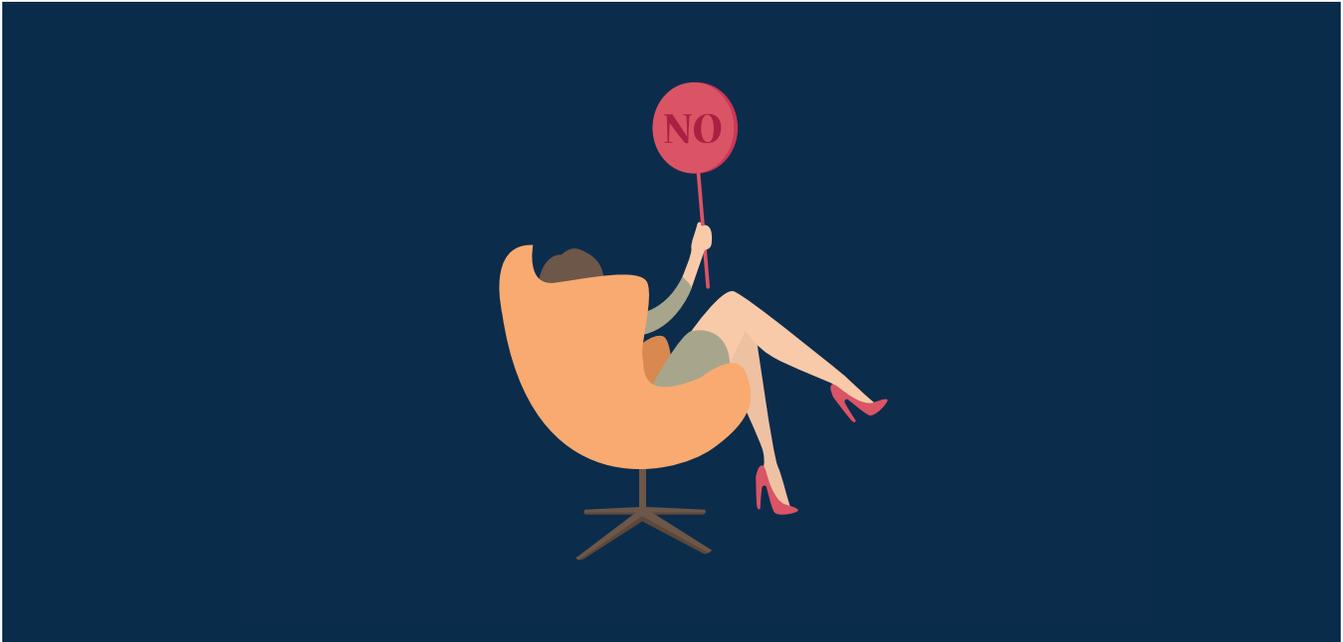
– Arthur C. Clarke, *Childhood's End* (1953)

The nineteenth century sociologist Emile Durkheim argued that humans have an innate need to sacralize – to make something sacred. He argued that liberalism was a religion insofar as it sacralized individual rights.⁸⁹ A huge plurality of Canadians now identify as “spiritual, but not religious,” which is not surprising. But it does mean that spiritual practice or ritual is more personal – “self-spirituality” – and less communal.⁹⁰ Interestingly, the link between religious practice and charitable giving has nothing to do with intensity of belief and everything to do with pro-social tendencies within a community – at temple, mosque, church or any other place people gather to sacralize our shared humanity.⁹¹

Does the year-after-year drop in charitable giving in Canada signal not a decline in spirituality, but rather a broader diminution of pro-social behaviour? Are we less inclined, these days, to think of ourselves as our brother’s and sister’s keeper? Is our commonwealth cleaving to islands of bitter entitlement? For all of his dismissible clownishness, Donald Trump has opened the door to extreme narcissism to at least being on a spectrum of acceptable and, evidently, electable behaviour.

The prairie provinces, once bastions of cooperation, have developed a reputation for being almost hysterically anti-tax. So much so that the most free-market friendly approach to dealing with climate change – putting a price on carbon emissions – is derided as an unbearable burden, despite (in the Alberta context) a rebate scheme benefitting 6 out of 10 households. When faced with the alternatives: heavy-handed regulation, massive public spending, or gifting the problem to our kids and their kids; we’ll have to choose one, and it’s likely to be the last, try as we might to not admit it.

But the political right doesn’t have a monopoly on narcissism. We have witnessed over the past decade the gradual reshaping of ‘social justice’ to be less about economic and political equity and more about affirmation of unique identities. For many on the left, pronouns have become more precious than nutrition, health care or housing these days. While the aims of social justice are actually broadly shared by the population, it’s the language that is proving alienating to many. The language that emerged from professionalized anti-oppression discourse and within some quarters of academia, marked by such concepts as “trigger warnings,” “intersectionality,” and “microaggressions,” speak more to urbane identity politics than to economic or political injustice. It



turns out that such language is, for much of the population, itself a trigger: Analyzing the data from a study entitled *Hidden Tribes: A Study of America's Polarized Landscape*, which sampled 8,000 citizens, political scientist Yascha Mounk noted that Americans have an overwhelming aversion to what they see as “politically correct culture” (the 6% who favour PC culture are mostly white and wealthy), yet people are broadly in favour of the ideas behind the language.⁹² For example, four out of five agree that white people don't recognize the real advantages they have, yet they recoil at the term “white privilege”.

There is no question that the exposure and calling to account of systems of degradation, humiliation and abuse has been a very good thing for society. Victims and activists have bravely shone the light on systemic racism within law enforcement, systemic pedophilia within the Catholic church, systemic sexual, physical and psychological abuse within residential schools, private boarding schools and some quarters of amateur sport, sexual predation within international NGOs, Hollywood, the stand-up comedy circuit, the armed forces, RCMP, Parliament Hill, etc. The list is long, and it should

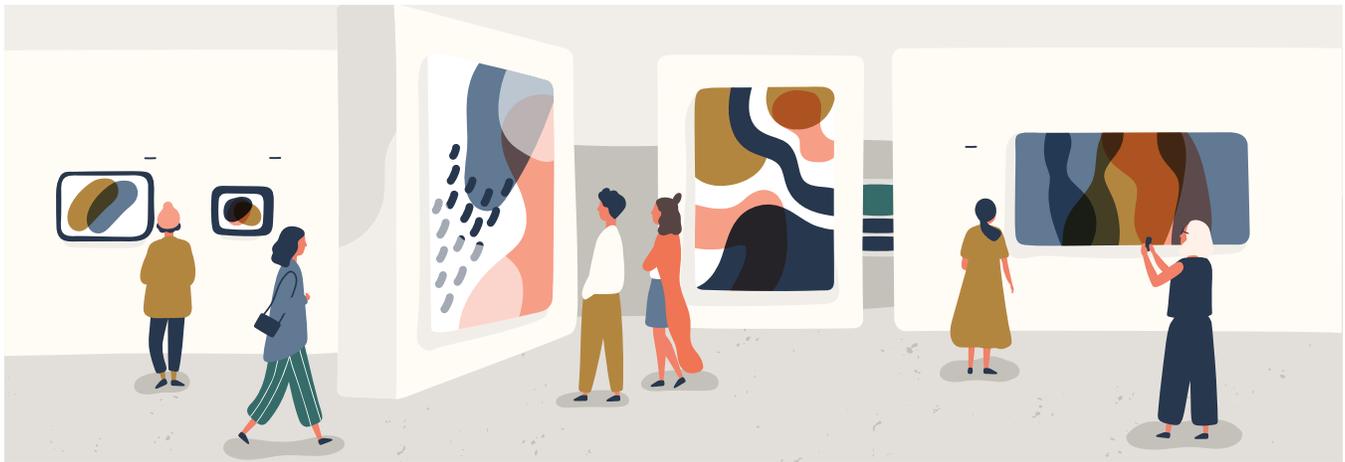
rightly force us toward a long, searching look into our cultural mirror. And, indeed, for each of us do some “inner work.” In the academy, there is also no question that western scholarship is heavily biased toward the writings of European males, resulting in immense blindspots and the chronic devaluing of other sources of knowledge. But there is also a danger of flattening all wrongs – from the grotesquely heinous to the clumsy errors of judgement or language – into one blanket hashtag, or squeezed into the lens of “privilege.”

As social critic Phoebe Maltz Bovy argues, when people are constantly confronted with privilege discourse, reminded “of where they fall . . . why would such candor lead to empathy? Why wouldn't a society where systemic injustices are front and center in everyone's mind at all times only serve make interactions between men and women, blacks and whites, rich and poor, that much more fraught, inhibiting the development of everyday social and professional bonds?” The backlash to political correctness is real and is a fertile feedstock to populism. If we want to avoid a culture war seeping north of the 49th parallel, as any guide to working with Indigenous Peoples will

STRANGER CITY: A LITTLE COSMOPOLITANISM ON THE PRAIRIE

"By its nature, the metropolis provides what otherwise could be given only by traveling; namely, the strange."

- Jane Jacobs, *The Death and Life of Great American Cities*



For a city recently embroiled in internecine public art debates, amid vacating offices and a more meagre property tax base, it is remarkable to see such a warm public embrace of the arts: More than 52,000 Calgarians visited the new Central Library on opening weekend, a building that has been lauded by architectural critics worldwide. Then, three weeks later, Calgary City Council voted to nearly double the municipal arts budget, from \$6.4 million to \$11.4 million. While this still leaves Calgary well behind other Canadian metropolises like Vancouver and Montreal, Calgary's per capita arts support has grown the most in the last decade in comparison with other cities.⁹³

This is one sign that the city is becoming a much more important cultural node in Canada. The Calgary Arts Development Association (CADA) was formed in 2004 and now serves

as a vital intermediary, investor and translator between the arts community and the broader imperatives of innovation and diversity, more frequently tied to economic and social objectives. CADA's Strategic Direction for 2019-2022 envisions "a more sustainable and resilient arts sector, strengthening the economic, social and youth impacts of the arts for our city, and meaningfully contribute to Calgary's identity as a vital, prosperous, connected city."⁹⁴ This new drive accompanies the appearance of other new cultural entities on the scene including C-Space Projects (now fully up and running), cultural amenities at the north end of Stampede Park like Doherty Hall and the Calgary Opera Community Arts Centre, an in-the-works Indigenous Gathering Space and the coming public contemporary art gallery makeover of the former planetarium.

FOOD DESERT CITY: CAN YOU TELL ME HOW TO GET TO SESAME STREET?

"We can give people all of the information in the world about healthy eating. But if parents can't buy the food they need to prepare those meals, if their only options for groceries are in the corner gas station or the local mini mart, then all of that is just talk..."

- Michelle Obama, 2011

When you need to buy fresh produce, or even a jug of milk or a loaf of bread, is it a matter of walking a few metres to a nearby market? Or are you forced to get in your car and drive (or, to take transit)? In Calgary, not surprisingly, the latter is the more typical scenario. In fact, the city is riddled with "food deserts."

A "food desert" is defined by the U.S. Department of Agriculture as a neighbourhood with poor access to healthy, affordable food.⁹⁵ The Calgary Food Action Plan defines it as "a district (rural or urban) with little or no access to foods needed to maintain a healthy diet but often served primarily by fast food restaurants and/or convenience stores."⁹⁶ People who live in such neighbourhoods, frequently those who can least afford it, can pay more to buy groceries from a convenience store or resort to eating more junk food.⁹⁷ Ironically, then, food deserts are a contributing factor to obesity. It's also a social justice issue. "It's [especially] an issue for a senior citizen living in that community that doesn't have a car and is on a fixed budget, or people that are just in low-income situations," pointed out Dr. Yasmin Dean, whose MRU class engaged a group of Social Work students to study food deserts.⁹⁸

Whereas Vancouver has 19 full service grocery stores serving 126,000 people in its core, a 2016 study by the University of Alberta observed that Edmonton and Calgary both had

too few grocery stores to serve its downtown and inner city populations.⁹⁹ This may be changing, as Calgary is seeing the opening of a Loblaws CityMarket in the East Village, although at one point a few years back, there were 6 downtown grocery store proposals.

Elsewhere in the inner city, a new mobile food market was introduced by the Leftovers Foundation with the express purpose of helping fill the fresh produce gap in Calgary's food deserts.¹⁰⁰ It now operates as a social enterprise, newly rebranded Fresh Route Inc. Mobile markets hold promise for alleviating geographic food impoverishment¹⁰¹, as do farmers' markets.¹⁰² Beyond the core and inner city, there are many food deserts that ring the inner and even outer suburbs. Lincoln Park is one classic example, which includes MRU students in residence. Recognizing this, Fresh Route will be providing fresh produce on campus, in partnership with the Students Association (full disclosure, this is a project in partnership with the Institute for Community Prosperity).

BEYOND THE BEEF

"The day may come when the rest of animal creation may acquire those rights which never could have been withholden from them but by the hand of tyranny. The French have already discovered that the blackness of the skin is no reason why a human being should be abandoned without redress to the caprice of a tormentor. It may one day come to be recognized that the number of legs, the villosity of the skin, or the termination of the os sacrum are reasons equally insufficient for abandoning a sensitive being to the same fate. What else is it that should trace the insuperable line? Is it the faculty of reason, or perhaps the faculty of discourse? But a full-grown horse or dog is beyond comparison a more rational, as well as a more conversable animal, than an infant of a day or a week or even a month old. But suppose they were otherwise, what would it avail? The question is not, Can they reason? nor Can they talk? but, Can they suffer?"

- Jeremy Bentham, *The Principles of Morals and Legislation* (1781)

On June 21, 2018, A&W Restaurants rolled out its "Beyond Meat Burger," introducing Canadians to the popular plant-based burger substitute produced by the California-based company Beyond Meat. Within weeks, they were sold out, with customers having instantly clicked with the product. There is also a lot of buzz about the Silicon Valley-based Impossible Burger, an uncannily meat-like soy leghemoglobin product. This may prove to be a seminal moment in market-marginal "veggie" protein products cleaving to a tidal wave of mainstream plant-based meat-mimicking products, something we expect to see a dramatic uptick in over the coming decade, particularly as red meat's health effects – vis-à-vis an aging population – and carbon footprint become more pressing public concerns.

Despite still-surging global demand for animal-based protein, plant-based protein substitutes could account for one third of the market by 2050.¹⁰³ According to one study from Dalhousie University, 6.4 million Canadians are already limiting the amount of meat they eat.¹⁰⁴ Canada's flagship processed meat purveyor, Maple Leaf Foods, has switched to marketing itself not as a meat producer, but as a "protein company," buying up plant-based and insect-based protein start-ups.¹⁰⁵

As mentioned in last year's scan, we are at a pivotal moment in how we grow, eat and think about food in Canada. The Government has wrapped-up its consultations on a potential national food policy, which will attempt address issues related to the production, processing, distribution, and consumption of food.¹⁰⁶ The Canada Food Guide, which was last updated in 2007, received a major update in 2018 with new dietary guidelines for health professionals and policy makers. The guide is much more veggie-forward and more reticent about the value of meat-based and dairy-based protein than its predecessor guides.¹⁰⁷

Some dairy farmers and ranchers were upset by some of the recommendations in the draft guidelines released by Health Canada earlier in the year. Among other things, the draft document contained a call for "more plant-based sources of protein, more water and less saturated fat – all of which would have the potential to steer consumers away from meat and dairy products."¹⁰⁸ With over 80% of Canadians still devoted to meat, and despite growing "flexitarian" trends, especially among younger demographics,¹⁰⁹ the meat-producing industry's concerns may border on hysterical, as do those of other lobby groups such as the beverage industry, upset at the obvious mention in the Guide that



fruit juice is high in sugar.¹¹⁰ While some studies suggest that short-term beef consumption is actually up in Canada and the U.S., one Neilson consumer study observes beef consumption is down 18%.¹¹¹ Another study maintains that Canadians are eating 16% less beef annually, which equates to 94 million fewer kilograms.¹¹²

Peering into the future, new protein ‘design’ could be a transformative feature of the nutrition landscape. Beyond the Beyond Meat and the Impossible Burger lay even wilder inventions previously confined to the annals of science fiction: The first lab-grown burger cost \$330,000 when it was introduced 5 years ago, but now costs \$11/patty.¹¹³ German company Biozoon Food Innovations is pioneering animal protein re-combinations using 3D printing technology

(enabling seniors with dysphagia to still enjoy the taste of easy-to-chew chicken and pork), and Memphis Meats, who vow to “do to animal agriculture what the car did to the horse and buggy. Cultured meat will completely replace the status quo and make raising animals to eat them simply unthinkable.”¹¹⁴

And, as ethicist and “effective altruism” proponent Peter Singer has long argued, we may be on the eve of grappling at much wider scale with the thorny, uncomfortable question of animal rights, three and a half centuries after Bentham predicted this would come to pass.

BOMBASTIC BOLSONARO AND THE PLASTIC PLANET

Mr. McGuire: I just want to say one word to you. Just one word.
Benjamin: Yes, sir.
Mr. McGuire: Are you listening?
Benjamin: Yes, I am.
Mr. McGuire: Plastics.
Benjamin: Exactly how do you mean?
Mr. McGuire: There's a great future in plastics. Think about it. Will you think about it?

- *The Graduate* (film; 1967)

The 2018 edition of the World Wildlife Fund's Living Planet report observed that two generations of humans have managed to kill off 60% the world's wildlife populations.¹¹⁵ This carnage coincides with the advent of plastics, mouldable carbon-based polymers which burst onto the scene in the mid-20th century, easing or making more convenient virtually every facet of day-to-day human existence. But the miracle of plastics has come with a Faustian bargain: The oceans are awash in microscopic pieces of plastic, from poorly regulated beauty and hygiene products, to larger pieces of 'single-use' plastics, like bags, cigarette filters, balloons, cellophane, bottlecaps and straws.

The same Living Planet report notes that 90% of seabirds have fragments of plastic in their stomachs, as do 35% of loggerhead turtles, and 18% of tuna and swordfish.¹¹⁶ Given this, it may not come as much of a shock that plastics – including polypropylene, PET and polystyrene – have now also been found in random samplings of humans on every continent.¹¹⁷

Half of the 300 million tonnes we produce globally in plastics is for single use. Our contribution to this includes 57 million disposable straws produced daily in Canada, and nearly 2 billion plastic coffee cup lids yearly (only a minority

of which are recycled). The plastics crisis emerged remarkably quickly, capturing the public imagination more effectively than any issue since the hole in the ozone layer. Just two years ago, no international environmental NGO had a plastics program. Now, we see strong calls for action from world leaders such as British PM Theresa May. Even President Trump supports action on ocean plastics, supporting the introduction of the Save our Seals Act in 2018 (although the U.S. is no longer a major direct perpetrator).

Encouragingly, China has stopped accepting the world's trash. The European Union has just resolved to ban single-use plastics by 2021, and New Zealand has already banned the use of plastic bags. Montreal and Victoria's plastic bag bans took effect this year, and Vancouver will be banning plastic straws and Styrofoam containers starting in 2019.¹¹⁸ We can expect Alberta cities to follow suit, minimally with single use plastic levies (akin to Toronto's plastic bag tax), though it may simply leapfrog to an outright ban as public pressure mounts.

One of the most notorious contributors to marine plastics is the Philippines. Philippine President Rodrigo Duterte has scoffed at environmental conservation efforts.¹¹⁹ In case it's not already clear that the planet can't afford



many more populists like Trump, Putin and Erdogan¹²⁰, we may want to brace ourselves: On the 1st day of 2019, the world's 5th largest country will welcome as President the newly elected Jair Bolsonaro, a rabidly homophobic, bombastic, pro-torture populist, roughly in the mold of Augusto Pinochet.¹²¹ His vows to intensify soy and livestock production, as well as hydro and nuclear power, in the Amazon Rainforest, represent the most significant new threat to deforestation, and to our ability to sequester carbon, in a generation.¹²² Even before Bolsonaro, Brazil was already the most dangerous country in the world for environmentalists and Indigenous land defenders. His threats to tribal peoples in the region border on genocidal. As such, we can expect rainforest conservation and human rights appeals and campaigns to intensify, likely to 1990s levels or beyond.

Meanwhile, Canadian's sense of environmental obligation may be waning. According to an Ecoanalytics Panorama survey, 35% of citizens feel no sense of guilt about driving (and many people make no connection between driving and climate change, assuming it's the responsibility of industrial polluters).¹²³ The same study found that overall environmental concern is down, skeptics have dug-in and hardened their positions, and there is little evidence that "crisis framing" is effective (as compared with, say, positive messages like making an "energy transition").¹²⁴ The one environmental issue that engages those on the right of the political spectrum is a concern for local food.¹²⁵

DESIGNING THE SAFE AND JUST SPACE FOR HUMANITY

"Our lives begin to end the day we become silent about things that matter."

- Martin Luther King

On October 2, 2018, journalist Jamal Khashoggi was tortured and beheaded by agents of the Saudi Government at the Saudi Arabian consulate in Istanbul. Canadians, revolted by this barbaric, brazen affront to human rights and press freedom feel strongly that Canada should cut economic and diplomatic ties with the Saudi regime. However, both the U.S. and Canada have been measured in their responses to this incident, with Canada being cognizant of a multi-billion-dollar light armoured vehicle contract by London, Ont.-based General Dynamic Land Systems Canada.

Most Canadians regard this arrangement as being outside of a just space for the economy to operate, yet we have allowed state-imperatives and the lucrative market for armaments to shape our diplomacy (no matter how heinous the practices of the client state – it is entirely likely that Canadian-built LAVs are involved in Saudi Arabia's scouring of Yemen, as one example).¹²⁶ Nothing is new about nation states turning a blind eye to human rights atrocities, except for the widespread, instantaneous knowledge; which empowers citizens to feel a sense of agency and to question whether such ethically specious arrangements are a necessary or desirable feature of 21st century economics.

With the pervasive onset of global challenges like inequality, mass migration of refugees and climate breakdown, the economic orthodoxies that defined the latter half of the 20th century – whether it be state-led planning, the neoliberal free market system or the hybrid neo-Keynesian

melange that marks the current consensus – are increasingly being called into question. The market has served the state, and the state has served the market, but neither have been terribly accountable to people or the planet. The market's invisible hand has left damaging fingerprints everywhere: A laundry list of 'externalities,' an indifference toward the substitution of inputs, global portability of capital, and the primacy of shareholder value. At the same time, the heavy hand of the state has done no better, tending to misallocate resources efficiently, often applying paternalist bureaucratic decision-making, environmentally-perverse subsidies, prone to tainted and occasionally corrupt procurement processes, or intentionally excluding Indigenous peoples from the economy.

These criticisms are decades, sometimes centuries, old. Early theorists who felt that the economy must serve society, and not the other way around, included Adam Smith contemporary James Steuart and John Ruskin, whose work was revived by Gandhi. This was later refined to inform the critiques of Jane Jacobs, E.F. Schumacher and many proponents of local, community-led development. The market, they maintained, had its own motivations separate from the aspirations of communities. A more recent set of criticisms has emerged since the 1990s, with critics like Herman Daly, Hunter & Amory Lovins, and Tim Jackson, observing that market-led and state-driven economic systems both lead to ecological collapse. The ideas of steady-state and circular economies have

grown out of these traditions, as has the notion of “stakeholder capitalism” vs. “shareholder capitalism.”¹²⁷ Add to this that we have more evidence that a strong social economy undergirds a strong economy (investment capital rests on intellectual and social capital), and that there is a strong correlation between states and regions that innovate commercially and states and regions that take care of their citizenry.¹²⁸

What is new, however, is a growing movement within the economics profession itself, and within schools of economics, to question the status quo. Following a mass student walk-out in Paris in 2000, alternative economics movements have been bubbling up, most famously in Boston in 2015 with the Kick It Over movement:

“The revolution of economics has begun. On campus after campus we will chase you old goats out of power. Then in the months and years that follow, we will begin the work of reprogramming the doomsday machine.”¹²⁹

Oxford University economist Kate Raworth, in her underwhelmingly titled 2017 book *Doughnut Economics*, presents perhaps the most compelling alternative economic model, one that attempts to balance essential human needs within planetary boundaries. A manifesto, of sorts, for human prosperity within a flourishing biosphere: Raworth challenges her fellow economists to move from growth metrics of success toward steady-state metrics, where the doughnut represents the “safe and just space for humanity.” Fall inside the doughnut, and we’re depriving humans of flourishing livelihoods, go beyond the outer edge of the doughnut, as we are doing now, and we are corroding the biosphere, compromising future generations’ ability to create prosperity for themselves.

Raworth’s ideas are hardly radical, they are a refinement of what people like Nobel Prize winning economist Joseph Stiglitz and even, towards the end of his career, what John Maynard Keynes himself advocated (an economy focused

on human well-being, not on growth for growth’s sake). And it builds on the ideas put forward by the New Economics Foundation and the Centre for the Advancement of the Steady State Economy.¹³⁰ But there is a veracity represented here that is gaining a significant following.

As David Grinspoon argues in his book *Earth in Human Hands*, humans can “shift to being stabilizers... to work with the planet, not against it.”¹³¹ Our collaborations, technological deployment and design efforts – not to mention markets and public policy – can be “in the service of life.” We actually don’t have much of a choice, long term, but we’re not starting at zero: The explosion of interest in “design thinking” in schools, universities, non-profit organizations, companies and even in government, has led to an empowered cultural sense that we can design the organizations, services, products, systems and policies based on the needs of people and planet. Cradle2cradle design, biomimicry, the functional service economy, industrial ecology and – in response to our oceans’ plastic problem – the “blue economy,” are just some of the concepts that have flourished with the scaled deployment of design thinking methods.

There is yet another frontier that we may have to cross: Our cultural operating system may simply not be able to adapt to or accommodate the previously mentioned shifts. As such, we can expect to see more appeals to – and ideas surfacing – around deep cultural renewal. One such attempt is in Daniel Wahl’s ambitious work *Designing Regenerative Cultures*, which attempts to assist us in asking deep questions about our operating system’s assumptions.¹³² Taking his inspiration from Buckminster Fuller’s challenge to “make the world work for 100% of humanity in the shortest possible time through spontaneous cooperation without ecological offence or the disadvantage of anyone,” this is one tool to query why things are the way they are, and whether there may be alternative paths that are more resilient and sustainable.

THE ELEPHANT IN THE ROOM: CLIMATE BREAKDOWN

"Today's music is so excellent, the television so intelligent, the wine so complex, that it's harder than ever to feel in our guts the one thing that's truer than ever: Our ecosystems are in mortal danger. It's like we've turned Noah's Ark into a humans-only party yacht and sailed it to the edge of Niagara Falls. There's a million distractions aboard, but only three options as far as the waterfall goes. You can struggle against all odds to turn the ship around, stare numbly into the abyss or turn your back and dance."¹³³

- Arno Kopecky, Journalist and Author

Is a glass half full or half empty? When we pause to ask ourselves "is the world heading in the right direction?" We are confronted with a paradox: In most respects, there has never been so little violence or war, so much widespread recognition of human rights, such long life expectancies, such an abundance of knowledge, and such freedom.

Chronic malnutrition is a lot less chronic than we thought, as we put our minds to solving it. Same goes for tropical diseases, access to education and homelessness. Not to diminish that we have a long way to go on many social fronts, but we seem, as a species, to be able to have an ever-expanding capacity for empathy and inclusion, not to mention technological prowess. We have proven, time and again, that our social systems are capable of adaptation.

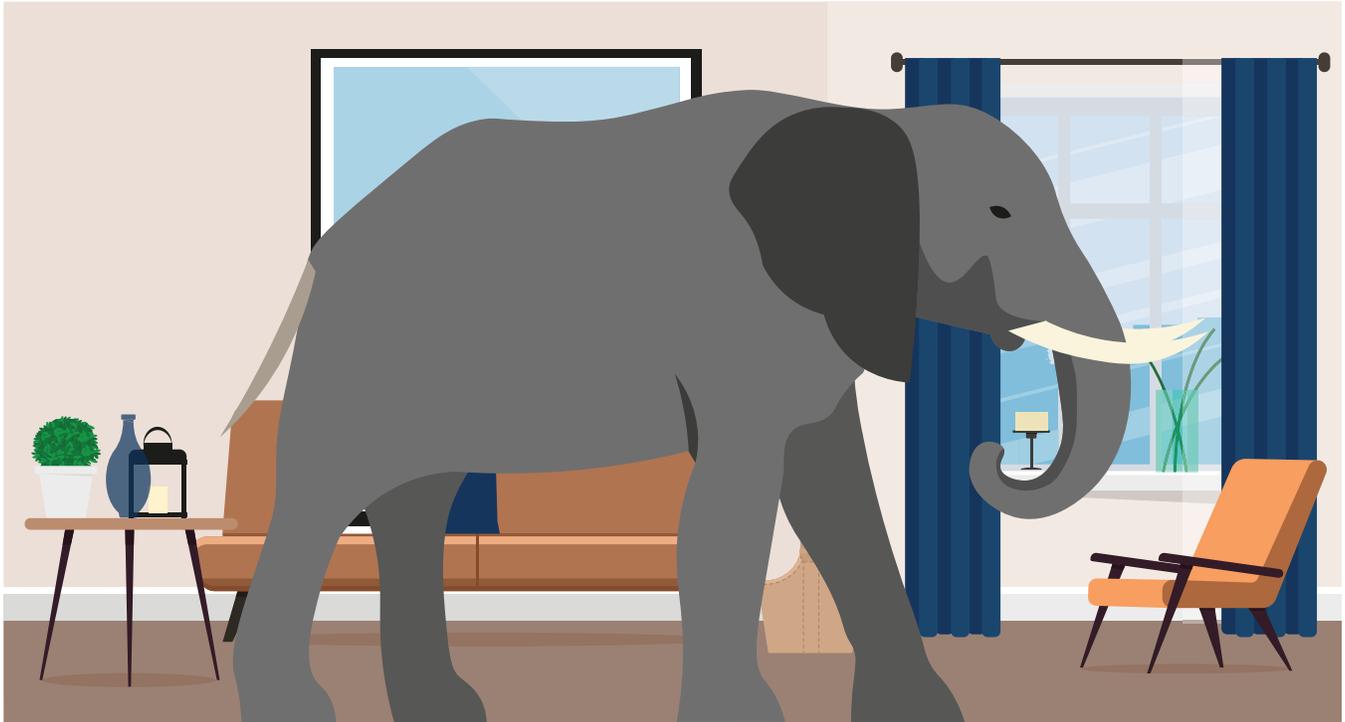
The other side of this paradox, however, is that ecosystems are in a state of collapse. We have human flourishing, but not, unfortunately, within a flourishing web of life. Climate change is not the only culprit but it's an elephant that just won't leave the room. Appropriate to their alphabetically terminal label – "Generation Z" – we can expect today's teens and young adults to resort increasingly to civil disobedience. The recent train blockings of the Extinction Rebellion or the virally-inspirational actions of 15-year old Swede Greta Thunberg are likely

just the tip of the iceberg.¹³⁴ While we are witnessing protests against a proposed carbon tax in France, the other shoe will surely drop.

The Alberta Narratives project, led by a coalition of NGOs, companies and university researchers, recently investigated how Albertans react to language relating to energy, carbon emissions, greenhouse gases and related topics.¹³⁵ Among the findings, and an ocean away from the Extinction Rebellion, many Albertans bristle at the term "climate change," which they see super-charged with negative judgement about career choices, lifestyle patterns and even identity. It is a conversation stopper more often than a conversation starter, and many feel that a "climate change" agenda has become almost a quasi-religion.

The market-friendly carbon tax was supposed to have thrust Alberta and Canada respectively into climate leadership roles, but it has turned out to be the icon around which Her Majesty's Loyal Opposition – again, both provincially and federally – has churned up a froth of anger, at least among a subset of the populace.

Yet there is also widespread recognition, even among at least half of Albertans, that something is terribly wrong with the state of planetary ecosystems. Journalist and environmental writer



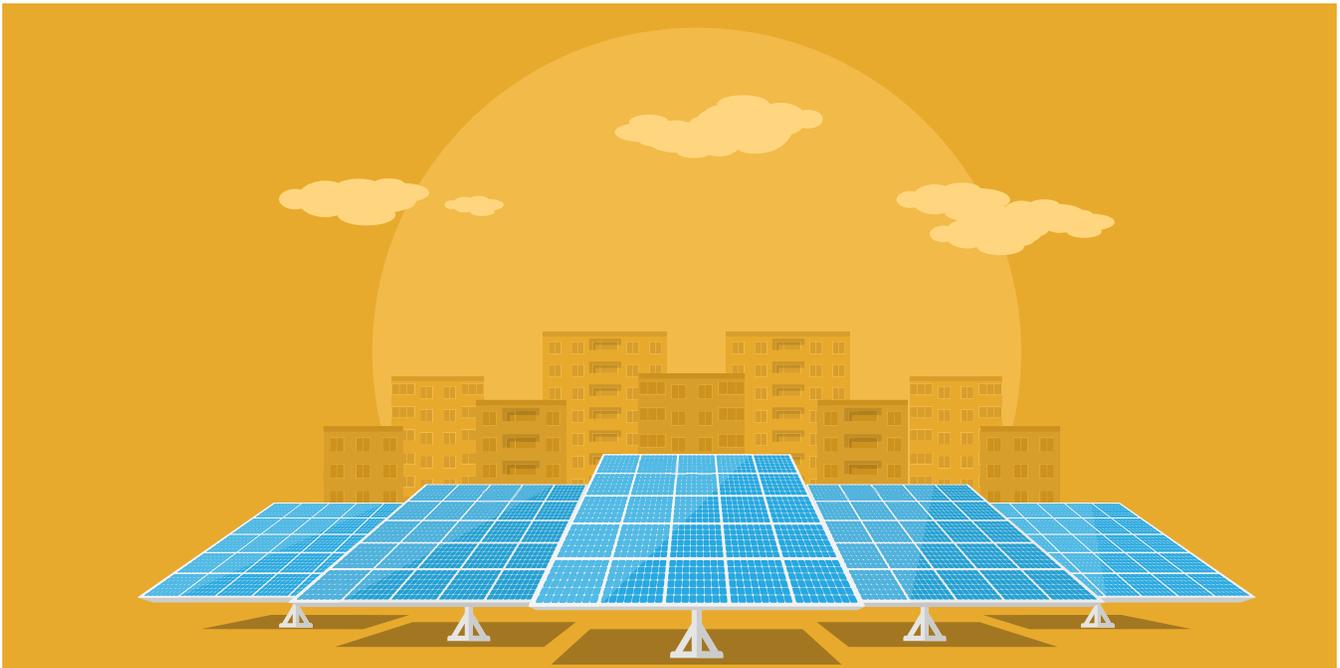
George Monbiot has started using the phrase “climate breakdown”, which is a more accurate description of what is currently afoot (‘change’ also sounds, well, kind of nice, especially for Canadians!). Indeed, the UN’s Intergovernmental Panel on Climate Change (IPCC) just warned that we only have until 2030, just 12 years away, to stem catastrophic climate change.¹³⁶ A U.S. report, commissioned by Congress every four years, and compiled by 13 federal agencies and the U.S. Global Change Research Program, has noted that dealing with the effects of climate breakdown, under a business-as-usual scenario, could cripple, if not bankrupt, the U.S. economy.¹³⁷

But while the evidentiary pattern is overwhelming, this issue remains an emotional trigger for some Albertans. For most, though, it is simply apocalyptic white noise. The banality of the slow burn of catastrophe, the yawning frog in the boiling pot. People need hope, not despair.¹³⁸ They need something to get excited about and, ideally, to feel in control of, which is the segue to the next and final section.

POWER FROM THE PEOPLE: FROM VANISHING ROYALTIES TO A DISTRIBUTED GRID

"I have this feeling, that all it will take will be one moment, even a tiny moment, provided it's the correct one. Like a cord suddenly snapping and a thick curtain dropping to the floor to reveal a whole new world, a world full of sunlight and warmth."

- Kazuo Ishiguro, *The Unconsoled*



Albertans are justifiably proud of our natural resources – from rich Devonian coal, oil and gas and Cretaceous bitumen sands, to hydro, to the country's strongest solar and wind resources. In 1719, Cree emissary Captain Swan proudly presented Governor Henry Kelsey with a sample of "that Gum or pitch that flows out of the Banks of that River" (which would in time be labelled the "Athabaska River").¹³⁹

Through Treaty, we've established rights to minerals and other natural resources under the Crown. As the collective owners of these resources, we lease the land and the right to exploit the resource to private producers in exchange for royalties. This arrangement has worked out well for much of the latter half of the 20th century and well into the 21st. But as oil gets 'tighter' – more difficult to access and produce – the production costs rise.

At the same time, we've seen a precipitous drop in the market price of the resource, even when oil prices globally have stabilized at an (historically still very high) level. It means that royalties are now less than 8% of provincial revenue, as compared – for example – with over 40% of provincial revenue during the apex of the Klein era in the early 2000s.¹⁴⁰ Alberta's power simply isn't as fruitful for its citizens as it once was.

With respect to another subclass of energy, electricity, Alberta power generation and distribution has, for a generation now, been largely outsourced largely to a handful of companies – TransAlta, ATCO and Fortis, as well as urban distributors Enmax and Capital Power. Unlike oil and gas, electricity has been more of a net expense to the public purse, and to citizen's pocketbooks than a source of community wealth.

While Alberta is a long way from having a distributed grid where every community is both a producer and a consumer of power, there's at least the very thinnest edge of a wedge now, made possible through the introduction of a \$200 million investment in the Community Generation Program. Set up through Energy Efficiency Alberta, the program will enable neighbourhood associations, municipalities, agricultural societies, co-ops, universities, colleges, Indigenous communities and other community groups to produce and sell wind, biomass, hydro or solar.¹⁴¹ Importantly, the new policy guarantees the price community groups receive for the power they produce.

Another piece of provincial legislation tabled recently will enable municipal utilities to front the cost of solar installation on homes and business, with the energy producer/consumers paying as they save. While Calgary (Enmax) has not yet signalled they will create such a program, they will be under pressure to as other Alberta municipalities enroll. Coupled with the provincial subsidy, the barriers to home-generated and community-generated solar will be largely

removed, which could potentially unleash a wave of people-generated power. Although, like many other jurisdictions, Alberta has a long way to go to move from a centralized power grid to a clean, local distributed grid, these measures will at least start to reveal how citizens and communities can reclaim some power over power.

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As part of Mount Royal University's commitment to providing an extraordinary experience for undergraduate students, the Institute for Community Prosperity connects students with social impact learning through applied, community-partnered research, creative knowledge mobilization and systems-focused education. The Institute designs and hosts learning experiences to help students lead transformative change in their communities.

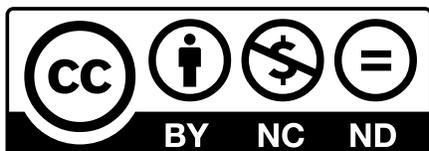
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🌐 mtroyal.ca/communityprosperity
✉ icp@mtroyal.ca 🐦 @ICPMRU



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