SH*T'S GETTING REAL

2022 ENVIRONMENTAL SCAN



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"Remember when people thought... 2020 was uniquely cursed, the worst year ever, that all would be resolved by January. Instead, 2021 has proved to be a fraught annum of unfinished transitions, half-kept promises, all torque and in-betweens."

TIME Magazine

01 Introduction

Never has a wild ride felt so sedentary. Maybe that's why so many people have taken to the streets, plazas, pipeline rights-of-way, ambulance rights-of-way, and old growth forests. Perhaps it's the craving for community, to be an authentic part of history (rather than watching it on our devices), or for the rush that civic action creates when like-purposed hearts beat together en masse. Sure, some of the reasons for collective civic action are ludicrous. Some are beyond offensive - to healthcare workers, to the memory of the nearly 30,000 Canadians who have lost their lives COVID-19 in Canada alone, to the 600,000 experiencing lingering symptoms from COVID, to those who have placed civic duty over vanity, complying with public health orders for nearly 2 full years and counting, and to equity-seeking groups for whom the benefits of prosperity have been elusive (and who form a disproportionate share of the "essential" workforce).

But while some mass civic actions are specious, others seem necessary; Vitally transformative to our broken social contract, to reconciliation, or as a rebellion against the extinction of our species. When we send our kids to school with orange shirts in remembrance, when hundreds of teddy-bears now line every highway that abuts or transects First Nation reserve lands, when a valid QR code has become more precious than gasoline, and when 'buy local' is no longer just the mantra of kombucha-swilling idealists but of chambers of commerce and the American President, we know the ground has shifted. Small wonder it's uncomfortable for many. In fact, if you're not feeling uncomfortable, you're not paying attention.

If Canada lost its innocence in the trenches of World War I, we lost our national mythology this past spring and summer; a mythology of being a beacon of inclusion and enlightenment. Canadian flags were at half-mast for nearly half a year following the revelation of the 215 graves of children who attended the Indian Residential School on the Tk'emlúps te Secwépemc First Nation. As resting place after resting place of hundreds more children were revealed, with probably thousands more to come,2 these gravesites, intentionally left unmarked or desecrated, are reminders that Canada is guilty not merely of cultural genocide, but also full-blown genocide. We now know that the federal government, and the churches and religious orders, were well aware (for many decades) of the abuse, under-nourishment, and disease proliferation in the schools, such that the schools were more mortally hazardous to Indigenous children than World War II was to soldiers. Moreover, this ugliness was also a charitable endeavour, revealing that the institution of 'charity' itself not only has a dark side, but is in league with the project of colonization. It all adds up to a monstrous stain on Canada's history and a deep and unwavering challenge to our collective identity and mythos.

We have lost our innocence in another irreversible way: While the Arctic has been dealing with the effects of climate change for decades, the effects of global warming are now hitting closer to where lots and lots of people live. The record-shattering summer temperatures of 2021 in Western Canada, inducing regional droughts, mass marine life die-offs, and the positive feedback loop of wildfire-induced / wildfire-spawning pyro-cumulonimbus storms, are all part of how the climate crisis is manifesting itself in this otherwise beautiful and fortunate part of the world. "Super, Natural" British Columbia may need a rebrand after a year marked by catastrophic forest fires, floods, and landslides, not to mention the continued clearing of ancient Douglas fir, Western Red cedar, and Sitka spruce. We can add "atmospheric rivers", "heat domes" and "smoke storms" to our list of new phrases, alongside "supply chain disruptions", "vaccine passports" and "non-fungible tokens".

The rate of change in Canada is unprecedented, and the impact is unsettling for communities of all sizes and geographies.⁴

Carole Saab, CEO, Federation of Canadian Municipalities

We are living through one of those rare periods that come along perhaps once every five or six decades, where a profound and permanent readjustment is taking place. What complex systems theorists call a phase transition. All kinds of institutions, sectors, conventions, and power relationships are being upended. It is a period of immense anxiety for those who fear the future, and dizzying excitement for those eager to jettison the past. But it also intensifies perceived divides; Between urban and rural, linear planners and nonlinear creatives, corporate Calgary and entrepreneurial Calgary, ambiguity-loving adaptive types vs. those who crave certainty or fear change. This scan will no doubt be unsettling and affirming in equal amounts, for those on either side of these divides. It is hoped that these observations and provocations can form the basis for dialogue, or at least debate. We have big hairy problems and we need all available hands, hearts and minds to solve them; Including new ideas and voices paired with old capital and connections.

While the pandemic has helped reveal (and in many cases exacerbate) inequality, both globally and within Canada, and despite a more 'activist' seeming federal cabinet, it would be a mistake to assume that we are entering some golden era of social justice. Pandemics are by no means natural 'levellers'. Inequality continued to rise in the period immediately following the 1918 Spanish flu and World War I, and we are seeing levels of inequality now reaching and exceeding those of the late 1800s Gilded Age. Yes, universal child care is now being implemented, but most large employers, and all of the large financial institutions, were squarely in favour of this: As reported in last year's scan, the trade-off in economic growth and an expanded labour market outweighs the added fiscal burden.



Other universal social programs have more of an evidentiary hill to climb, or there are competing commercial interests at stake. Consider, for example, that the federal government was first elected on a platform promising a national pharmacare program. Talk of pharmacare has since all but evaporated. Calls for a universal basic income continue, buoyed by evidence that CERB/CRB, which served as a temporary form of guaranteed income, had a measurable short-term positive effect on enhancing food security and reducing/preventing poverty. Bill C-35, an Act introduced recently in the House of Commons to create a new Canada Disability Benefit - a form of guaranteed income for Canadians with disabilities - has about a 50/50 chance of passing.3 And report after report has emphasized the importance of adding universal homecare provisions to the Canada Health Act, but this remains well off the radar screen, as government prefers to tweak our broken system of long-term care (itself one of the largest failures in the annals of Canadian public policy). It also remains taboo to open up the Canada Health Act, despite so many aspects of preventative and basic health care being sidelined. As such, it may yet take a 'Great Depression' scale socio-economic cataclysm to usher in a true rebalancing of the social contract.

Some of the themes in this year's scan look a bit deeper at either the phenomenon of inequality itself, or at the symptoms of economic marginalization (which also double as determinants of health) – specifically affordable housing and food security. Other sections look at how aspects of modernity are reconfiguring our relationship to each other, for example through reconciliation, or are stunted by the growing epidemic of loneliness and social isolation. Previous scans have covered emerging tech trends – blockchain, AI, EVs, hydrogen, the internet of things, etc. – technologies

that will have a transformative impact on the way we live, work, and play. This scan focuses on two frontier tech trends that are blurring the line between humans and machines: Gene editing, wherein we can alter the human genome (with both liberating and horrifying potential outcomes) and immersive tech (whereby we will increasingly be able to experience something like reality, but in a virtual world, again with both emancipating and troubling potential consequences).

A year that began with a failed coup d'etat in Washington, D.C. and ended with the successful launch of the James Webb telescope, the most complex and delicate piece of engineering ever created by human beings, is hard to top on the audacity meter. Indeed, there are many reasons to expect that 2022 will be substantially more 'normal': Following the Omicron wave, the pandemic will most likely shift finally to endemic status. However, the pace at which it does so - despite Canada's comparatively strong vaccination rates - is entirely dependent on our ability to achieve vaccine equity between the privileged North and Global South, as well as in our own backyard, overcoming the intransigence of the vaccine-obstinate (it's well past time, not to mention mountains of evidence, for "hesitancy"). Meanwhile, high commodity prices will provide temporary buoyancy for Alberta's most important industry, even as it continues to permanently restructure and automate. With inflation and the pressure to increase interest rates, the ability of governments to borrow may be more constrained and the window may narrow for transformative public policy. And yet, despite our collective craving for normalcy, on the pages that follow transformative policy is exactly what we're on the cusp of, on issue after issue, for the sake of our youngest citizens, and for the generations that follow.



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Scanning the Horizon

At the request of the Calgary Foundation, the Institute for Community Prosperity has prepared scans of major current socio-economic trends and developments at local, provincial, national and international scales. New scans were prepared in late 2015, 2016, 2017, 2018 and late 2020. This is the sixth such scan, peering into 2022.

Information in this scan is derived from several sources, including news stories, op-eds, policy reports and academic literature. Most of the trends covered in previous scans are still very much in play. But here I have surfaced a series of new themes, and provided additional context around themes previously touched upon. Like the previous scans, it is a selective sampling of issues, not a comprehensive analysis of all trends in all sectors. As well, these scans are intended to not just be predictive about near future probabilities, but also to add context to current events, and to illuminate undercurrents and 'sleeper' issues.

	2016 If You Don't Like the Weather	2017 Into the Unknown	2018 Terra Cognito	2019 The Future is Made	2020 Unmasking the Future
Economic Update and Forecast	•	•	•	•	•
Political Update and Forecast			•		
Populism / Authoritarianism / Polarization		•	•	•	•
Federal/Provincial Relations				•	
Employment Precarity / Income Supports / Social		•			•
Contract / Future of Work Fiscal Precarity (Alberta)					
Economic Innovation / Alternatives					
Tech Trends (AI, Blockchain, etc.)					
Climate Change					
Trade					
Immigration					
Oil and Gas				•	
Renewables, EVs and Energy Alternatives		•		•	•
Plastic		-		•	-
Nonprofit Sector Trends & Disruption	•		•	•	
Data and Measurement	•		•		
Social Enterprise and Community Economic Development		•		•	
Economic Alternatives / Challenges to					
Shareholder Capitalism					
Child Care					•
Social Finance / Impact Investing					
Social Innovation Social R&D and Human-Centered Design					
Systems Thinking and Collective Impact				•	
Youth Mental Health					
Drugs (Cannabis, Opioids, etc.)		•			
Digital Access and Equity					•
Aging in Place / Long-Term Care	•		•		•
Dementia		•	-		
Poverty (incl. Living Wage, UBI, etc.)	•	•	•	•	
Affordable Housing			•		
Food Security			•	•	
Education	•		•		
Indigenous Peoples / Reconciliation					
Cultural Spaces & Creative Infrastructure					
Placemaking / Civic Innovation	•			•	•
Philanthropy or Non-profit Trends		_	•		
Leadership & Civic Engagement	•	•	•		
Racism & White Privilege					
Misogyny / Women's Empowerment		•			•
Long term care					
Ageism / Ableism					•





"We stand at a crossroads in Calgary and in Alberta. To rebuild our economy, we have to transform our economy." 5

Todd Hirsch, ATB Financial



BACKLOGS, BUBBLES AND BUILDING BACK BETTER: **An Economic Forecast**

Most of Canada's "fundamentals" are strong, and have allowed the country to be more resilient than most in the face of the challenges of the last two years. As Maclean's columnist Paul Wells points out, we have low public debt and strong levels of social capital (and therefore trust) relative to most other countries; our embrace of immigration is multi-partisan and arguably stronger than anywhere; we have the second highest rate of vaccination in the G7; our ultra-right nationalist political movements are super fringe; and our access to high quality affordable education is arguably the best in the world; all assets that prove valuable in a rapidly and profoundly changing world.6

But 2021 tested this resilience. It was a year of immense economic volatility, induced by openings and closings of regional economies as the pandemic third, fourth and now fifth waves wash over attempts to create sustained prosperity. But the biggest global economic story this past year was the return of inflation. Fueled by higher energy and commodity prices, supply shortages (especially in food, automobiles, health care and energy), surging demand (notably in microchips and other electronic components), as well as ballooning food prices (partly due to a growing frequency of extreme weather events), US Consumer prices in October 2021 were 6.2% higher than a year ago. This is the highest

year-over-year price inflation increase since 1990. In Canada, inflation growth is matching 2003 levels, but most economists predict it will get worse in 2022, though likely won't breach the double-digit levels of the 1970s.⁷

These inflationary pressures are leading to calls in some quarters to either raise interest rates, rein in public spending, or both. Notably, the recent Speech from the Throne explicitly stated that austerity would not be Canada's reaction to inflation. Which pretty much guarantees that interest rates will rise, especially as The Bank of Canada ends quantitative easing and has signalled an accelerated schedule for potential rate hikes (we are expecting three separate rate hikes in 2022).8 Some, though, do not see interest rate hikes as inevitable. Frances Donald of Manulife financial, for example, notes that inflation is likely a temporary issue related mainly to supply shortages.⁹ And Omicron or another virulent variant could throw yet another curveball at central banks. The most severe potential consequence of higher interest rates would be that many more Canadians could find themselves unsustainably house-poor (and/or food insecure). This year, 40% of Canadians had trouble meeting their essential expenses, up from 30% in 2020.¹⁰ While many may have lamented that Calgary's home-prices have been stagnant for the past half decade, the country's other largest urban markets may be on the cusp of a major (and painful) correction, according to the Bank of Canada. 11 An entire section is devoted later in this scan to Canada's housing affordability crisis.

According to the IMF, the global and Canadian economies are projected to grow at virtually identical rates over the coming year, at just under 5%. The Bank of Canada's estimate for GDP growth is slightly more conservative, at 4.25%. But far from a return to normal, the path to growth is a zig-zagging carnival ride. We are seeing, for example, the largest fluctuations in supply and demand since World War II. Because of these wild swings in real-time economic performance, most of the conventional Canadian data is only useful for telling us where the economy has been, not where it currently is. The economics profession is increasingly having to look at unconventional data sources like Open Table reservations and Google mobility data to get a clearer real-time picture. Another increasingly unreliable bellwether are stock markets, which, for what it's worth, have experienced historic new heights. The S&P/TSX climbed to the highest level ever this November (same with the Dow Jones Industrial Average, S&P 500 and Nasdaq), though news of the new variant put a temporary dent in these gains. However, there is little to temper the overall buoyancy of markets, as bond yields are historically low (even negative in some cases),

and, as one commentor observed, stock markets seem brazenly confident "because they know that central banks and policymakers have their back". While the markets soar, Canada's poverty rate has grown dramatically. Over a quarter of Canadians – or 6.75 million households – are now categorized as 'low income', up from 4.6 million in 2018. 16

After a dismal fiscal ledger the past few years, and the humiliation in 2020 of receiving more in federal assistance than Alberta provided to confederation (by roughly \$11 billion, the first time this reversal has happened since the 1960s, and not the most strategic time to hold a referendum on equalization), strong oil and gas prices in 2021 cut Alberta's anticipated \$18.3 billion dollar deficit down to \$5.8 billion.¹⁷ In fact, non-renewable resource revenues are edging toward a record high set 15 years ago, nearly \$8 billion this year from bitumen royalties alone.¹⁸ Aside from BC, Alberta retains the lowest debt-to-GDP ratio in the country. As noted in other scans, Alberta's reliance on oil and gas revenue, while paying short term dividends so long as oil prices stay high, is not a recipe for long-term fiscal sustainability. So, while Alberta stubbornly avoids reforming its revenue mix to a more sustainable taxpayer-dependent model, it is able to ride out the fiscal dependence on the natural resource sector for at least a little while longer, kicking the can down to future governments and generations to rectify this fiscal precarity. Beyond the volatile oil and gas sector, there has been steady growth in tech, agriculture, clean energy, tourism, and the film and television industry, which has seen a banner year, helped along by new tax credits and incentives. After an epic 8.2% contraction last year, ATB Financial expects Alberta's GDP to expand by 6.3% to round out 2021, followed by 4.3% in 2022.¹⁹

Both high unemployment and slower growing wages (relative to the rest of the country), will remain a challenge in the short-term, though in certain sectors (especially tech-related), employers are reporting significant worker shortages. The Alberta Government's Labour Mobility Act is a very positive step toward helping speed up credential recognition for migrants.

Calgary's economic forecast is lifted by energy sector forecasts, with the Conference Board of Canada predicting a 7.6% jump in GDP growth, the highest among 13 cities in Canada, and a complete reversal from last year's 7.4% drop.²⁰ After being at a statistical standstill over the past year, Re/Max anticipates housing prices in Calgary will rise 3% in 2022.²¹ Some expect the oil market to remain bullish for much of the next decade, as demand continues to rise (even in the face of decarbonization efforts) and supply growth is constrained, especially in the US.²² And while Calgary still trails other Canadian cities in attracting venture capital, there is a noticeable uptick in technology-related businesses, whether newly developed (e.g. Avatar Innovations), expanding (e.g. Benevity is on a 300-person hiring spree), or moving to the city (e.g. Mphasis, Infosys, the RBC Innovation Hub, and the Amazon cloud computing hub).²³ Calgary is among the three cities in North America that have climbed the fastest in terms of tech talent attraction, though this still places us sixth overall in Canada.²⁴ In order for Calgary to sustain a longer-term recovery, far deeper investments in education, training, the experience economy (arts, culture, live experiences, etc.), social inclusion and diversity, and decarbonizing / clean technologies will need to be priorities.²⁵

"Our only hope of keeping global warming within 'safe' limits (in fact, the agreed target is much safer for some than for others) is to accelerate a green transition with massive, co-ordinated public investment aimed at innovation leaps and an economic paradigm shift."²⁶

Mariana Mazzucato, author of Mission Economy: A Moonshot Guide to Changing Capitalism (2021)





"If you want to get on in right-wing politics, it is essential you master the art of vice signalling. You must show you are tough, hard-headed, a dealer in uncomfortable truths, and, above all, that you live in 'the real world' – as if any of us had the option of living anywhere else."²⁷

Nick Cohen, UK author and columnist



THE ALBERTAN ART OF VICE SIGNALLING: **A Political Forecast**

"Virtue signalling" is a phrase used to call out the symbolic or rhetorical communication of progressiveness, masking an underlying failure to follow-through authentically. It is the aesthetic of progressivism without much substance. Prime Minister Trudeau in many ways is virtue signalling embodied, a self-described 'feminist' Prime Minister with a reputation for treating female MPs and cabinet ministers poorly. Oddly though, in Alberta, a series of political events suggest we might be a province where the exact inverse dynamic thrives. We like to hang our vices on our sleeve, while secretly harbouring progressive ideas and preferences. As University of Alberta political scientist Jared Wesley observes, Albertans are symbolically conservative but liberal in our policy choices.²⁸ When a political party labelled "conservative" is offered up to Alberta voters, we mark our ballot in the affirmative. But when stripped of labels, and the choice is then focused not on party brand but on policies and personalities, the large cities (and many of the smaller ones) vote centre-left.

There is no clearer demonstration of this than the outcomes of the federal and municipal elections, mere weeks apart. The federal Conservatives in Alberta enjoyed another landslide. While they bled votes on both the right and left, they were in such a strong position to begin with that it barely registered other than losing a couple of seats. Yet, the election in Edmonton and Calgary of centrist mayors and progressive-majority councils was a stunning rebuke of right-wing policies at the local level. It's not clear whether this represents a sea change or rather just another incremental evolution in the Alberta ethos. As political scientist Jack Lucas noted, you have to go back to the mid-1940s to find a Calgary mayor who was not either affiliated with the Liberal Party, or whose politics were otherwise Liberal-esque in aspect.²⁹ Lucas adds "on some issues, like energy policy, Calgarians have distinctively conservative tendencies. And there's a deep connection between Calgary and the federal Conservative Party. This makes us seem — and think of ourselves as — well, conservative. But on many other issues, from medically assisted dying to foreign trade, our views are indistinguishable from demographically similar Canadians outside of Calgary. That is, we look like broadly progressive urban Canadians. And when it comes to municipal issues, we tend to look even more consistently progressive."30

Like clockwork, Alberta delivered a motherlode of seats to the federal Conservatives in the 2021 election, but elsewhere in Canada the status quo also prevailed. The collective consciousness of Canadian voters delivered a mild rebuke to all parties: An election was not needed, the governing Liberals failed to make the case that they somehow lacked a "mandate", or that they deserve unbridled praise for the handling of COVID-19. The other parties failed to offer either compelling alternatives or a readiness to govern. It is also clear that Canada is now squarely a majority-progressive country, much more like northern Europe than America or Britain, which means that the only way the Conservatives will ever take back power is either a perfect vote split on the left, or a more clearly centrist platform. O'Toole smartly tacked toward the centre in most respects, but the albatross of caucus disunity on vaccines and their waltz into the Liberal trap on gun policy gave the dual impression of a weak leader and a party not only divided sharply along urban-rural lines, but also saddled with enough zany MAGA-types to paint the brand as Canada's answer to



the Republican Party rather than classically "Tory". 31 As well, the Liberals *look* a lot more like suburban Canada than the Tories do (the latter with a 95% white federal caucus). 32 By the next election, which we can expect no sooner than early 2024, there could well be an across-the-board slate of new party leaders: The Greens for sure, the NDP if Singh fails to bring more gravitas to the role, the Conservatives because they are riven with warring factions (those on the right feeling betrayed by O'Toole, while the centrists likely realize that their next winnable leader ought to be a woman), and the Liberals due to the inevitable best-before-date of a leader who has failed to deliver a majority two elections running. The inevitable back-bench revolt will begin with Trudeau's next major public misstep.

Provincially, despite a majority government, the picture is dramatically more volatile. For most of Premier Kenney's term now, he has been the most unpopular premier in Canada, and likely the most unpopular Alberta premier in at least two generations. A number of MLAs, though for many disparate reasons, have called for Kenney's resignation, and increasingly it appears the shadow stratagem in caucus is to make Kenney personally 'wear' every misstep and mistake made by the government as a whole. This extends a nearly two-decade long tradition of provincial Conservatives eating their own leadership. While a leadership review is set for this coming April, if the current math doesn't change, both within the caucus and with respect to polling data, it is possible that Kenney may resign of his own accord before that point. It is also possible that he might call everyone's bluff with an early election; Better to go

down with the house, or maybe even snatch victory from the jaws of defeat. If the former scenario plays out, it would leave the final year of the UCP majority to stage a leadership contest with enough time to give profile to the new leader. It is unlikely that the next UCP leader would come from within cabinet, though many rural MLAs, and much of the grassroots, would likely back a Brian Jean or perhaps a Jason Nixon campaign, while urban centrist-leaning MLAs might advocate for, say, a Doug Schweitzer, Rajan Sawhney, or Leela Aheer bid. Finance Minister Travis Toews has the advantage of being both rural and reputationally even-keeled. More likely is a strong push for someone with previous provincial or cabinet experience who is currently out of politics - Rona Ambrose being one obvious choice. Others might try and convince MP Michelle Rempel to make the leap. Regardless, it is hard to picture a scenario where another white male candidate is a winning ticket against Rachel Notley, especially given the frat-house atmosphere the current cabinet is painted with. Kenney was one of the most talented Harper-era Ministers, so any other white male in the Conservative orbit, while they might think their capabilities exceed Kenney's, would likely fair badly in the next election. And David Suzuki may have thrown Kenney an inadvertent Hail Mary pass by raising the spectre of environmental terrorism, which Kenney is doing his level best to exploit. Ever the shrewd tactician, do not count Kenney out.



"When asked which values animate provincial politics, most Albertans continue to describe the dominance of wild west notions, like populism, western alienation, settler colonialism, frontier masculinity, bootstrap individualism, and the primacy of prosperity doctrine (hard work produces wealth)... The resulting caricatures most often depict roughnecks, cowboys and farmers. In short, Albertans' perception of the typical Albertan remains static, gendered, racialized, and rooted in a "wild west" past. When asked about their own political preferences, however, the average Albertan is far less conservative than this image portrays."33

Jared Wesley, political scientist

The NDP, both financially and in the polls, has benefitted handsomely from the UCP's disarray, both in terms of donations and polling numbers. A year ago, it looked as if an NDP election victory in 2023 would require a split on the right, with the resurgence or emergence of a strong far right third-party option. Polls lately, however, indicate a clear NDP majority, were an election to be held today. The NDP would likely prefer to run against Kenney than a new, fresh leader. There are no cracks in Notley's legitimacy within the party (if anything, a point of vulnerability is that they are too reliant on Notley's popularity rather than party's platform, ideas or brand). And any damage the brand might have sustained from a lackluster federal NDP election run seems trivial. The NDP has also benefitted from the almost perfect invisibility of either the provincial Liberals or Alberta Party (though an election race could shift the fortunes of these fringe options in ever-fickle Alberta). The spoiler, though, could be dark money: UCPleaning Political Action Committees (PACs) are likely to far out-raise and out-spend NDP-leaning PACs.

Globally, we may be experiencing a calm before the storm. Vladimir Putin seems hell-bent on invading Ukraine. Brutal state violence against anti-government protestors in Kazakhstan, a country larger in area than Western Europe, could further destabilize the region. China's tolerance for conflict with other nations - Canada being one among many – appears to be growing. Energy shortages in the UK are just one symptom of the aching hangover that was the inevitable follow-on to the euphoria of Brexit. The world's most trusted and experienced leader, Angela Merkel, has now exited the scene, yielding German governance to a tenuous green-social democrat-free market coalition. Elsewhere, Sub-Saharan Africa is justifiably resentful of a world that has rapidly shut its doors to travel and trade to the region, fearing the spread of the Omicron variant, yet has been miserly in sharing surplus vaccines. Indian Prime Minister Narendra Modi has done his level best to undermine the world's largest democracy, pandering shamelessly to Hindu nationalism.³⁴ The Taliban has assumed control in Afghanistan, rendering the United States' 20-year project, on balance, a strategic and tactical failure (13 of those years involved Canada as a partner, which was our longest war and our first armed conflict since Korea in the 1950s). Most disconcerting of all, perhaps, is the resurgent popularity of Donald Trump (currently leading Biden in the polls), accompanied by the United States' failure to adequately prosecute, or futureproof itself from, armed insurrection. The 2022 mid-term elections will be an interesting bellwether, and not likely to break the Democrats' way, especially given the rampant re-districting and state-level moves to hamper elections.³⁵ Already, 18 states have enacted laws that make it harder for Americans to vote, largely in reaction to false and mostly racist claims of voter fraud.36



THE NEW GIVING IS TAKING BACK: A Civil Society Forecast

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"It's time to have a Minister for Charities, and a BDC equivalent to support the sector."

Marina Glogovac, CanadaHelps

How Canadians give is changing, and more radically than statistics reveal. The 2021 Giving Report from CanadaHelps tracked a 10% drop in overall charitable giving last year, dropping to 2016 levels.³⁷ On the other hand, there was an 86% jump in online giving. There was also a 126% jump in giving to Indigenous organizations, likely to be much higher still when this year's stats are tallied. A spring Angus Reid survey for Telus found that only 39% of Canadians had made a donation through the first quarter of 2021, versus 60% in the same period prior to COVID.³⁸ It is possible that more Canadians are donating to non-charitable causes, like grassroots social movements and crowdfunding local businesses affected by the pandemic. It is also possible that rising inequality and economic hardship for many is playing a role.

At the federal level, there will likely be an increase in the disbursement quota for charities announced in the next budget, which will directly affect foundations. An increase to the disbursement quota has many proponents, from some foundations themselves, to equity-seeking groups, to those who have critiqued the mismatch between the urgency of society's challenges versus the primacy of preserving capital.

But perhaps the most interesting development with respect to regulating civil society is Senator Ratna Omidvar's campaign and recently tabled Bill S-222, which aims to enable registered charities to gift to anon-charitable public purpose entities. Omidvar is also among those advocating for the sector to have a connecting point to government more substantial than the status quo, which is to say more influential than income tax bureaucrats within the CRA. A UK-style Commission, Ministry of Charities or some other visible, high-level presence, are among the options many in the sector have been promoting for years. There is also a renewed push for building stronger nonprofit sector leadership via either a greatly strengthened or new national alliance or organization (a range of options are explored in a new paper from Susan Phillips at Carleton University, commissioned by the Max Bell and Muttart Foundations).40

Meanwhile, after a flurry of announcements about Social Innovation and Social Finance back in 2018, not much has happened other than an initial \$50 million Readiness Fund investment in social enterprise. A permanent Readiness Fund would be a good start toward enacting what was supposed to be a \$755 million total commitment, much of it to be brokered through social finance intermediary institutions. A Social Innovation Advisory Council was similarly announced, but not yet implemented.

Finally, there is more and more discussion about the digital future of civil society and social impact. Nonprofit organizations need access to high-quality tech training and data literacy training, perhaps building on the federal Digital Main Street initiative available to small businesses.

Amid an otherwise bleak landscape of provincial supports for the nonprofit sector, one notable new standout is the Alberta Civil Society Fund. However, at \$20 million provincewide to expand civil society's capacity to address a wide range of social problems facing Albertans, its total 3-year budget is less than a third of the Calgary Foundation's annual grants budget. A much more revealing signal about how the government approaches civil society is the aforementioned Allen Inquiry. The findings of the inquiry itself were benign, and in many cases laudatory of the work of the sector. But the very commissioning of the inquiry sent a clear signal to charities and nonprofits that they best watch themselves. While some charities are fighting back, threatening to sue Alberta Premier Kenney for defamation if he doesn't retract and apologize for statements mischaracterizing the Report, 41 it is notable that none of these organizations are Alberta-based.

Like other sectors, but far more than ever this year, the social impact sector has been challenged to decolonize; To decolonize mindsets, policies and practices. Reconciliation demands that we examine our own "mission-driven" work; Our organizations, our sector, and the underlying assumptions that sustain it. The institution of 'charity' facilitated Canada's national project of forced assimilation and genocide. As the fastidiously-researched history report of the Truth and Reconciliation Commission outlines, based on the Victorian industrial schools and reformatories, the residential schools were pitched to the government by the Oblates, who were evangelists, not educators. 42 Their operations were (and still could be) deemed charitable because they were "advancing religion" - Christianizing Indigenous children and expunging all trace of their culture, including family ties. Many of the organizations that ran these schools still exist in Canada today, unsullied in their status as federally registered charities. Others continue to run "mission schools" in the global south - all charitable and tax deductible. There are of course deeper questions this surfaces with respect to not just what "mission-driven" means, but also "helping", "aid", "rescue", and "teaching". When we set out to "do good" or "give back", how much colonial baggage accompanies these aims? Do our Elizabethan and Victorian definitions of what constitutes 'charity' hold up to modern scrutiny?⁴³

The phrase 'settler philanthropy' has entered our lexicon, reminding us that the Euro-Canadian variety of philanthropy is just one of many philanthropic and gifting traditions, some of which are simply under-recognized. Others are still resurfacing after having been banned for decades. Reconciliation and decolonization is just one of the new "edges" to a new philanthropy, to borrow phrasing from Deloitte's Monitor Institute. Foundations are challenged to explore these "edges", and to be participants, facilitators, and active agents and allies of the profound societal shifts underway.⁴⁴ The Hewlett Foundation, for example, is providing seed funding to initiatives that aim to replace neoliberal economic thinking and practice. Mackenzie Scott, Jeff Bezos' ex-partner, has donated roughly \$4 billion to 400 organizations (\$10 million per organization) in unrestricted funding. More and more foundations are talking about rebalancing power as an explicit focus of not just grant-making, but investment policy and operations. The Chicago Community Trust, which used to couch grassroots empowerment grants as "community development" now explicitly aims to build the power of racialized communities, full stop. The WK Kellogg Foundation, one of the most recognized philanthropic entities in the US, have radically re-configured their front-line grantmaker-grantee interface, reducing paperwork, flattening hierarchies, and introducing collective decision-making.⁴⁵ A number of Black and Indigenous organizations in Canada have started pushing back on doing bespoke funding proposals, taking a page from the start-up world and pitching their value, talent, and overall plan of action rather than whiling their precious time away doing multiple unique applications for each and every unique funder. All these actions, and more, help build equity into institutional philanthropy, and will likely move from the margins to the mainstream over the coming decade.

Philanthropy futurist Lucy Bernholz, in her new book How We Give Now, outlines still more radical approaches to how donating and gifting are being reconfigured in a digital age.⁴⁶ Bernholz's book is actually targeted to non-high-net-worth givers, and serves as a guide to investing in the growth and flourishing of a digital commons and in a shared project of building digital (and global) civil society. A reminder that our data is of immense value, and something we can gift in safe, non-exploitative, and even liberating ways, it sees the new philanthropy as both deeply participatory and focused on actively side-stepping (and even undermining) the proprietary platforms of the tech titans. Bernholz notes that the modern conception of philanthropy misses a large terrain of what people are doing to make the world a better place. The ideas, stories and recommendations in Bernholz's work make once de rigueur concepts like "effective altruism", "philanthro-capitalism" and "shared value" seem utterly ancient.

The origin story of the word "philanthropy" is Prometheus stealing fire from Zeus, stripping the Gods of their divine power, and gifting it to humanity as knowledge, wisdom, culture, and civilization itself. For all of the tech gods' high-minded rhetoric about how they are changing the world for the better, there is one standout that can lay legitimate claim to this mantle: Ashoka Fellow Jimmy Wales' creation of the non-profit Wikimedia Foundation, and its centrepiece Wikipedia, stands as an enduring and utterly vital testament to the power and potential of the digital commons. If it weren't for Wikimedia, every digital image in art history, for example, would be 'enclosed' (made proprietary) by Getty Images, Alamy, Shutterstock or any other number of commercial image platforms, a vindication of French anarchist Pierre-Joseph Proudhon's famous phrase "property is theft". Stealing back such digital property, including our online identities, may return philanthropy to its Promethean roots. Indeed, the need for a new humane civilization demands it.

"Right now, there is no mechanism that allows the sector as a whole to connect with the government on a regular basis. There is no capacity in government to act as an enabler, an interlocutor, and a navigator on matters of legislation, regulations, and programs. Yet, we know that many of the government's aspirations can only be delivered with the active support and participation of the sector."⁴⁷

Senator Ratna Omidvar

SURREAL ESTATE: Canada's Affordable Housing Crisis

"What worries me is that my 25-year-old daughter will not be able to afford to live in the neighborhood, and in the town she grew up in."48

Ahmed Hussen, Federal Minister of Housing, Diversity and Inclusion

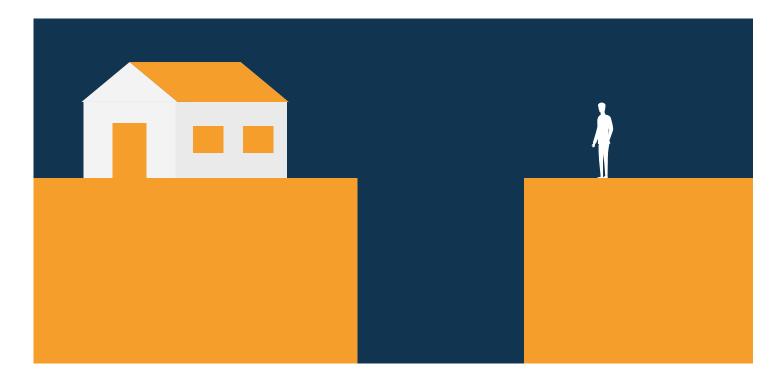
Aside from the pandemic, housing affordability is arguably the most pressing public policy challenge at both federal and provincial levels. The cost of living has rocketed to the top of Canadians' list of concerns in the last month or so of polling, and far and away the biggest cost of living concern is the cost of housing.⁴⁹ It's easy to see why: the average home price in Canada is nearly \$700,000, up from just over \$500,000 a mere two years ago (though Calgary's average price has actually fallen slightly in the same period).⁵⁰ According to the Canadian Real Estate Association, average home prices have risen 50 per cent over the last five years.⁵¹ Many of those in the housing market are either 'house poor' or hazardously overleveraged, having mortgages furnished through historically low interest rates (that some are predicting could soon rise sharply to stem inflation). Home equity has become the single greatest source of de facto capital gain, and also an exponentially greater strategy for retirement planning than RRSPs. That is, for those lucky enough to be in the market.

Many others are shut out of the housing market entirely, with no realistic hope of achieving home ownership, particularly in the country's major urban markets. The largest intergenerational transfer of wealth in history – from Boomers to Millennials (mostly) – enables outsized down-payments for a small group of privileged first-time home buyers. This inflates costs, as does the speculative aspects of homebuying, whether amped up through blind bids (which may not affect prices overall, but can harm inexperienced purchasers, and is susceptible to the shady realtor practice of phantom bids). Well over a third of those under 40 have given up looking to buy a home altogether, rising to over 40% in the West. Adding to this ownership unattainability angst is that Canada also has a strong cultural bias against rental. In sharp contrast, renters make up the majority of citizens in such prosperous countries as Switzerland, Austria and Germany.

The Speech from the Throne signalled Canada's interest in ending chronic homelessness. According to the Canadian Observatory on Homelessness, at least 235,000 Canadians experience homelessness in a given year, with 25,000 to 35,000 - the population of fans at a Labour Day classic - on the streets on any given night. Homeless counts at a municipal level are ad-hoc and sporadic throughout the country, but in 2018, the Calgary Homeless Foundation counted over 3,000 people living on the streets, far more than our share of Canada' population should warrant.

Much like food security, discussed elsewhere in this scan, while there are many complex pathways to homelessness, in most instances homelessness is fundamentally an issue of income inadequacy—i.e. poverty. As well, as the Homeless Hub points out, vulnerable people turn to the homelessness sector for support when other systems fail: "Examples of systems failures include difficult transitions from child welfare, inadequate discharge planning for people leaving hospitals, corrections, and mental health and addictions facilities, and a lack of support for immigrants and refugees." Domestic violence also renders people homeless.

After decades of under-investment in subsidized housing, more accurately characterized as outright neglect, relative to other developed economies, the federal government is re-establishing actual policy goals and funding targets to "end chronic homelessness". The appointment this fall of Canada's first ever Minister of Housing is an encouraging start, as is the articulation of a rights-based approach to housing: The 2019 National Housing Strategy Act "recognize(s) that the right to adequate housing is a fundamental human right affirmed in international law", noting that such a right is enshrined in Chapter 11 of the International Covenant on Economic, Social and Cultural Rights.58 Recognizing that people experiencing homelessness often also suffer from health issues, have additional barriers or require other supports, 'Housing First' is the other principle that many institutions have adopted to address homelessness. 'Housing First' moves people into independent and permanent housing as a first step. It then "provides people with immediate access to permanent housing with no housing 'readiness' or compliance requirements. It is also recovery-oriented and centres on consumer choice, self-determination and community integration."59



Historically, the federal government's involvement tended to focus on demand-side tools, administered through the Canada Mortgage and Housing Corporation (CMHC). The Home Buyer's Plan is a good example of this, allowing first-time home purchasers to use their RRSPs toward a down payment. There is also now a Home Buyer's Incentive, in which the government helps with the down payment and in exchange has an equity stake in the value of the home. The government is promising to extend and make this program more 'flexible', as well as to increase the Child Tax Benefit. Other demand-shaping strategies include taxes and other restrictions on non-owner-occupied foreign ownership.

However, after years of calls from affordable housing advocates, Minister Hussen has acknowledged that demand-side solutions are no longer enough. Supply side actions are desperately needed; We need substantially more new housing stock in most markets, including owner-occupied, cooperative, rental and subsidized categories. As part of this, a \$4 billion Housing Accelerator Fund was recently announced, which aims to help increase the capacity of non-profit organizations and municipalities to reach a collective target of "100,000 new middle-class homes", as well as a "rent-toown" program (details pending).60 But there is a long way to go: Canada has the lowest proportion of subsidized rental of all OECD countries.⁶¹ While these are encouraging steps, it's not at all clear that this adds up to an adequate set of measures, considering that Canada's previous national housing program, eliminated nearly three decades ago, added 20,000 units per year of subsidized housing for low-income people.

Another big systemic barrier is public perceptions of not just homeless people, but of renters. Countless community associations and "ratepayer" groups across the country have become accustomed to using such tropes as "preserving the character of our neighbourhood" or "we're not against affordable housing, just not here." Many have even co-opted the language of Jane Jacobs. 62 Not only are these objections often a barrier to creating more dense (and occasionally subsidized) housing, or active or public transportation improvements, particularly in transit-oriented places, but increasingly such objections are being called out as thinly veiled racism and classism. 63 Such objections are one of the factors in an underinvestment in the so-called "missing middle" - i.e. duplexes, triplexes, and walk-up apartments (not to mention secondary suites) in neighbourhoods otherwise dominated by single-family homes. The federal Accelerator Fund may help push past this, as it aims to "increase densification; speed-up approval times; tackle NIMBYism and establish inclusionary zoning bylaws; and encourage public transit-oriented development."64 Other communities are calling out NIMBY ism and inverting the concept: Yes! In My Backyard (YIMBY) Guelph - Wellington is a new campaign giving voice to community members who want to eliminate homelessness AND see their community as part of the solution.65 The YIMBY campaign trains citizens to challenge the toxic myths fueling NIMBYism and to advocate and educate across social networks and with fellow neighbours.

Given this flurry of Canada-wide interest and activity, one could be forgiven for thinking that housing was a federal responsibility, but it's actually provincial. The Alberta Ministry of Seniors and Housing currently provides support for housing through a rent supplement program, and through seniors' lodges and apartments, as well as through a small community housing portfolio. There are over 24,000 Albertans on affordable housing wait lists.⁶⁶ The Alberta Government is temporarily investing \$21.5 million in funding to ease capacity issues at 14 homeless and women's shelters across the province, and it has launched a provincial task force on homelessness, made up of representatives from social agencies, academics and law enforcement officials.⁶⁷ More ambitiously and encouragingly, Alberta has also announced, through its Stronger Foundations 10-year strategy to add 25,000 units of affordable housing, bringing the province-wide number of subsidized units to 82,000.⁶⁸ However, the legislation enacting this, the Alberta Housing Amendment Act, 2021, has come under fire for potentially decreasing the affordable housing supply, as it proposes the sale of government-owned housing stock to the private sector.⁶⁹ The details of "private-public partnerships" referred to in the bill are also yet to be written, including what the role for non-profit providers will be.

According to the City of Calgary's Foundations for Home report, outlining the city's affordable housing strategy for 2016-2025, Calgary has 12,000 affordable housing units, which is 3% of the overall housing market. That is a smaller number than any of the four other largest Canadian cities and well below the national average of 6%. But the City's capacity to add more housing is constrained by its already stretched fiscal capacity, and by Provincial coffers. The scale of new builds of affordable housing, at roughly 300 units/year over the past decade, will have to increase seven- to eight-fold to keep pace with demand. While the scale of the housing challenge has proved be beyond even the ambitious the reach of collective local initiatives like the RESOLVE campaign or Calgary's 10 year-plan to end homelessness, Calgary's affordable housing sector is much more aligned, communicative and focused on learning and sharing emerging practices than many other community services sub-sectors, for example through the annual Open Doors conference. Already we are seeing major new projects come onstream from HomeSpace and Horizon, for example. With new public money, the sector should be well positioned to deliver.

Homelessness may not be only a housing problem, but it is always a housing problem.

Cushing Dolbeare, US housing advisor (Nixon administration)

2022 ENVIRONMENTAL SCAN



Social Isolation Across the Agesⁱ

"Loneliness becomes an acid that eats away at you."⁷²

Haruki Murakami

Loneliness and social isolation are related. but distinct concepts. One can feel lonely though surrounded by people (as with many seniors living in lodges or care facilities), while others who may be socially isolated may not feel lonely (as with many seniors who are 'aging in place', but also stuck in a suburban food desert with a dismal walkability score). Social isolation can be seen as either a low quantity (or frequency) of contact with others, or as a low quality of contact. Whereas loneliness is the feeling of being alone, regardless of the amount of social contact. Both can be chronic or episodic, and are manifest in many different ways. Both are also negative determinants of health, affecting both physical and mental well-being (notably connected to anxiety, depression, substance abuse, and cardiovascular disease risk) as well as longevity.⁷³ Loneliness and social isolation lead to premature death from all causes.74 In fact, it is even a stronger mortality risk factor than obesity, with one researcher having suggested it is equivalent to smoking 15 cigarettes a day.⁷⁵

Canadians are experience both loneliness and social isolation in much greater numbers, and are both a factor contributing to, and being a symptom of, the country's mental health crisis.⁷⁶ It is a phenomenon which we have typically associate with older adults but alarmingly it is now more frequently and acutely experienced by younger generations. While only a quarter of seniors report feeling lonely (or report experiencing social isolation⁷⁷), one third of adults between 45 and 65 are lonely.⁷⁸ And the problem is most concerning for younger adults – Generations Y and Z.

Encouragingly, more than 80% of Canadian seniors report that they "always" or "often" had someone they could depend on to help when they really needed it, a finding correlated to higher levels of life satisfaction. ⁷⁹ Older adults, overall, also have the strongest and most vibrant mutually-supporting social networks of any demographic in Canada. However, one in four older Canadians still experience social isolation. This may be an underestimate, as socially isolated seniors are, not surprisingly, one of the most challenging groups to study, from a primary research standpoint. Statistics Canada's Canadian Community Health Survey, which looked at a range of social isolation indicators, revealed that one in twenty Canadian seniors report having no one to speak with all (or nearly all) of the time. ⁸⁰ Over 15% of older Canadians do not have close friends, and one in twenty-five essentially have no loved ones in their life. ⁸¹

But the causes of seniors' social isolation are complex and multi-varied. Obviously, those without spouses or children are at higher risk of experiencing loneliness, but there are many other risk factors. Female seniors, who tend statistically to outlive men, are nearly twice as likely to live alone. Experience, who tend statistically to outlive men, are nearly twice as likely to live alone. Experience, and are settings, those without access to transportation, seniors living in poverty or with a disability, and non-heteronormative individuals are among those at heightened risk for social isolation. Seniors in rural areas have challenges accessing services, and are more likely to experience social isolation and a range of health issues. There is a connection between low income, social isolation, and nutritional risk among older adults, particularly men who are members of a racial minority group. And that seniors in public long-term care facilities were more likely to experience social isolation than those in private facilities, where residents tended to have greater economic and family resources to draw from. There is a positive (reinforcing) feedback loop at play here as well: Mental health is an important risk factor for seniors becoming socially isolated, which in turn heightens the risk of mental illness.

The COVID-19 pandemic, unsurprisingly, exacerbated social isolation for every age group, though most intensely for seniors. In a recent online summit on the Future of Aging in Canada, gerontologist Dr. Brad Meisner noted that social isolation became both deeper and more widespread over the last 18+ months, resulting in spikes in substance abuse and a range of mental health issues.⁸⁷ The reaction of public health authorities understandably was to lock out families from seniors' residences and care facilities. But many residents simply withered due to a lack of contact with loved ones, ironically heightening vulnerability to infection. Partially as a result of this, seniors now have the second highest rate of anxiety and mood disorders, after young adults. Internet reliance among seniors has also led to a rise in incidents of fraud and online victimization.

¹Parts of this section are adapted from James Stauch. Aging and Thriving in the 21st Century: A Scan and Selective Systems Analysis of Trends and Issues Facing Older Canadians. Institute for Community Prosperity and ATCO SpaceLab. 2021.

Social isolation is also a major issue among the 8 million Canadians who are actively caregiving, which is underrecognized and underappreciated insofar as the burden and stress experienced, and where social isolation and loneliness can mix with, and reinforce, depression, financial problems, poor health, and the quality of care itself (and is also a risk factor for elder abuse). Most informal caregivers (a.k.a. family caregivers) are women, most of whom are employed in other jobs and in their peak earning years, 28% of whom also have children under 18 living at home (the so-called 'sandwich generation'), and 10% of whom are doing caregiving on a full-time basis.⁸⁹

While the problem of loneliness and social isolation currently affects a minority of Canadians, it is nonetheless a substantial plurality, and we can expect the issue of social isolation to become much worse over the coming decades. Young people experience loneliness twice as often as older adults⁹⁰, and Millennials, the so-called "loneliest generation", already report unprecedented levels of loneliness.⁹¹ In one US-wide survey, 30% of millennials said they always or often felt lonely, compared with 20% of Generation Xers and 15% of Boomers.⁹² And early data suggests the problem may be even worse for Gen Z, who we know have an even more difficult time working from home than Millennial workers.⁹³ Also, an Ipsos poll found mental health issues in general are plaguing Gen Y and Z Canadians, at 76%, at a much higher rate than Gen Xers (52%) or Baby Boomers (31%).⁹⁴ Although this may also be influenced by younger generations' greater ease (lowered stigma) at self-disclosing mental health issues, there is nonetheless a recent sharp rise in youth mental health issues. And, it appears that this epidemic is at least partly fueled by feelings of loneliness.⁹⁵



"What should young people do with their lives today? Many things, obviously. But the most daring thing is to create stable communities in which the terrible disease of loneliness can be cured."88

Kurt Vonnegut

The reasons for this heightened sense of aloneness – beyond pandemic-induced social distancing – are not well understood, but could include lowered access to social participation (fewer opportunities to develop either bonding or bridging social capital), delayed court-ship, marriage and child-rearing relative to previous generations, and over-reliance on social media (humans are social creatures, but there many aspects of face-to-face interaction that are lost when we rely on digital means of communication). As one commentator frames it "Ironically, these platforms that are designed to bring people closer together, can in turn contribute to, and heighten feelings of, loneliness and fear of personal failure — all of which impact negatively on our mental health." Because we don't yet have a good handle on the causes, there are no obvious fixes to this problem, nor should there be an expectation that loneliness and social isolation simply improves with age.

Social isolation is alleviated not just by increasing the number of contacts and engagement with other human beings, but also enhancing sense of belonging, quality of individual relationships, and the strength and quality of one's networks. There is undoubtedly an important technological dimension to this, which could either be made considerably worse, or possibly made better (much more data is needed) through immersive tech, a topic covered elsewhere in this scan. As well, living in inner cities rather than suburbs or exurbs can have positive impacts on active living, mental health and reducing social isolation. For seniors, innovations in housing and living arrangements, inter-generational contact, and age tech (such as robotic pets and personal digital assistants) offer potential ways to reduce isolation, but society must be prepared for the scale of this problem to reach epidemic proportions with each passing decade, absent radical action. "Age-Friendly Communities" is an upstream approach to addressing quality of life and overall well-being, with the aim of reducing social isolation, and ultimately delaying morbidity and mortality. Age-Friendly communities done well, and it must be said there are still precious few examples, also have the benefit of enhancing connection, interaction and active living for everyone else in the community.

66

"By December [2021], the average household will have to pay five per cent more for their groceries, or about \$700 over the course of a year. In dollars, this is the largest increase in history." 100

Sylvain Charlebois, Dalhousie University

O8
FOOD

SELDOM SEEN CUISINE:

The Stubborn Persistence of Downstream Food Securityⁱⁱ

Food security, as defined by the UN, is when "all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life."101 Food insecurity - the inverse of food security - not only negatively impacts health and survival, but also learning and community prosperity. Food security is also a UN Sustainable Development goal - Goal 2: Zero Hunger¹⁰² Worldwide, despite the dramatic increase in food production since the Green Revolution of the 1960s, over 820 million people are now food insecure, with global demand for food expected to increase by nearly 60% over the next four decades.103 Fully 12.4% of Canadians or 1.1 million households (representing more than four million individuals) experience chronic food insecurity.¹⁰⁴ Food insecurity was mentioned for the first time in a federal throne speech last year, specifically in reference to strengthening local supply chains. Despite Alberta's prosperity, food insecurity is either just over or just under the national average (depending on how it is measured). According to the last StatsCan survey on food security, 518,600 Albertans were experiencing food insecurity at various points between 2015 and 2018¹⁰⁵, a number that has likely risen in the intervening years, given Alberta's economic woes.

Many people think of food security from the consumption standpoint: As the universal availability and affordability of food (or of nutritionally viable food) - i.e. "Do we have enough food to ensure that no one goes hungry?" We might think of this as downstream food security. Others think of food security from a production perspective: Either as the ability of the food production system to maintain healthy land, soil, genetic diversity and agricultural resilience, including in the face of droughts and other natural disasters (climate-change induced or otherwise), or as the continuity and resilience of food supply chains. We can refer to these risks as forms of upstream food security. This scan only covers downstream aspects of food security. 106

Downstream food insecurity is arguably not a social problem in and of itself, but rather is almost always a symptom or indicator of a lack of income. Downstream food security is also an important determinant of health. Individuals who are food insecure are nutritionally deprived and have poorer health outcomes, including higher rates of obesity, type 2 diabetes, diet-related metabolic and chronic diseases, as well as an impaired ability to work and learn. A severely food insecure person will cost the public health care system more than double what a food secure person will. There is a particularly strong association between food insecurity and mental health challenges, such as increased risk of depression and suicide, which could be partially due to factors such as stress and anxiety.

And the problem, in the near term, is at risk of getting worse: According to the Maple Leaf Centre for Action on Food Security, COVID-19 induced a 39% spike in overall food insecurity in Canada. During the March 2021 HungerCount, a regular scan of food bank use over a one month period conducted by Food Banks Canada, there were over 1,300,000 visits to one of over 2,300 emergency food programs, a 20% increase from the same period in 2019. The HungerCount further notes that there is a volatile "perfect storm" afoot, with rapidly rising housing costs, unemployment, stagnant incomes and inflation of food prices combining to push more Canadians into downstream food insecurity. The impact of the BC floods

[&]quot;This section contains insights and text that originally appeared in James Stauch and Cordelia Snowdon: The Right to Eat Right: Connecting Upstream and Downstream Food Security in Calgary. Institute for Community Prosperity, YYC Food Security Fund at the Place2Give Foundation. December, 2021.



could exacerbate this in Western Canada. As well, not surprisingly, food insecurity is particularly acute among post-secondary students, given the precarity of income and debt burdens faced by Canadian students. One recent study estimated that 40% of university students are food insecure, no doubt further impairing the mental health epidemic plaguing Canadian students.¹¹⁴

Like most of the globe's cultures, food continues to play a central role in Indigenous culture and community, including through language and ceremony. However, the First Nations Food, Nutrition and Environment Study (2019) found that Indigenous food insecurity was up to 7 times higher than the rate for Canadians as a whole, noting in particular significant eco-systemic reasons for hampered access to traditional foods. The same report found that "the diet of First Nation adults across Canada does not meet nutrition recommendations. There are inadequate intakes for vitamins A, D, and C, folate, calcium, and magnesium. On days when traditional food is present, recommendations for several nutrients are more likely to be met." Food insecurity among First Nations communities specifically was found to be highest in Alberta, with prevalence of food insecurity at 60% of the adult population, vs. (a still alarmingly high) 48% average for First Nations across Canada.

Children are overrepresented among those relying on emergency food aid. The introduction of the Canada Child Benefit has had a measurable (though modest) positive effect on reducing food insecurity, including a modest decline among children. But many children are still going to school hungry, which has a severe impact on educational outcomes for those students, and ultimately costs the economy and society down the road. According to the Coalition for Healthy School Food, Canada is one of the only OECD countries without a national school food program. Like most Canadian cities, Calgary relies instead on an array of mainly

volunteer-run charitable food aid programs. In contrast, according to the World Food Programme, 1 of every 2 children on earth (in 161 countries) benefit from some form of publicly subsidized school meal program.¹²¹

Calgary was the only large city in Canada to experience a modest decline in the number of food insecure households between 2015 and 2017, consistent with broader poverty data. Nonetheless, according to Vital Signs 2020, 33% of Calgarians struggle to afford basics like rent, utilities, and groceries, and 17% often or always struggle. Tens of thousands of Calgarians access emergency food hampers. In 2016, for example, over 170,000 Calgarians, including 66,000 children under 16 accessed food hampers from the Calgary Food Bank alone. Post-secondary students in Calgary are also experiencing food insecurity. In 2019 alone, demand for food hampers increased by over 20% at the University of Calgary, and at MRU demand doubled. Calgary is also more prone to the phenomenon of food deserts: In a study conducted in 2015, only 63% of Calgarians lived within 2 kilometres of a grocery store, significantly lower than most other Canadian cities examined.

The impact of the pandemic on Calgary's food sector reflected trends across the country. Most Calgary businesses experienced a drop in revenues during the COVID-19 pandemic and 70% of Calgary businesses "access[ed] at least one relief program." Pardest hit of all were restaurants. On the other hand, the pandemic actually benefitted a lot of smaller scale local producers, and 45% of Calgarians last year reported growing their own food, a big jump from 37% the previous year. Pardent State of Calgarians last year reported growing their own food, a big jump from 37% the previous year.

There is no 'local'. Local is an illusion... We need a fundamentally different approach to fulfill our global responsibilities. We only get out of this mess by getting out together. 136

Indy Johar, Dark Matter Labs

Emergency food demand initially spiked during the early days of the pandemic, with most food banks reporting surging demand in the first month of the pandemic, but soon thereafter, there was an overall decrease in demand as government supports kicked in.¹²⁹ The introduction of the federal CERB subsidy (later called Canada Recover Benefit, or CRB) alongside top-ups to the Canada Child Benefit effectively served as a basic income proxy, and has temporarily lightened the food affordability burden for millions of Canadians. The Calgary Food Bank, for example, saw a 6% decline in demand attributed to the introduction of CERB.¹³⁰ However, a study of 200 low income households conducted by Vibrant Communities Calgary (VCC) and the University of Calgary revealed that the most economically marginalized Calgarians suffered the most from COVID-19's economic fallout.¹³¹ The study noted that many food donation programs were temporarily shuttered due to health restrictions (also hampered by a sharp drop in volunteers), while many low income households did not apply for CERB due to lack of internet access or misunderstanding the program's eligibility requirements.

On the interventions and 'solutions' side, the City of Calgary Neighbourhoods department has identified 35 city-wide resources and over 200 neighbourhood nodes where Calgarians can access emergency food aid, including hampers, gift cards, cooked meals, grocery delivery, bagged school lunches, pet food and other supports.¹³² The municipality itself is under pressure to step up its interest in local food security. The City currently dedicates only one full time position to the issue of food security and the community food strategy - Calgary EATS - is now nearly a decade old.¹³³

Another recent study on Calgary's emergency food system by VCC, conducted with the Canadian Poverty Institute, noted that the pandemic resulted in heightened demand for emergency food assistance, which in turn revealed gaps in the emergency food assistance system, ¹³⁴ although Calgary Food Bank, in reviewing its data over a similar period, noted a CERB-induced drop. ¹³⁵ It is possible that these seemingly contradictory findings could be explained by the increased number of organizations that had not previously provided food aid, including human service agencies, resource centres, community associations and religious organizations starting food hamper programs or other forms of food assistance (although some of these organizations' food aid is also supplied or backstopped by the Food Bank). Estimates run as high as 400 organizations in Calgary that started delivering food, also buoyed by both the United Way and the Calgary Foundation, which earmarked funding for food programs. The wide array of local emergency food resources results in both competition and collaboration, though is undoubtedly confusing from the standpoint of the food-insecure Calgarian. It is also confusing for funders – whether public or private - who want to move the dial on food insecurity.

O G INEQUALITY

"YOU GUYS PAID FOR THIS":

The Exo-Planetary Third Gilded Age

The Gilded Age refers to the period between the late 1800s and 1913. It was a term coined by Mark Twain in his 1873 satire of a political and economic system in the thrall of colourful plutocrats, whose wealth reached heights that were unparalleled in history. Unparalleled, that is, until now. There was actually a second 'mini-gilded age', otherwise known as the Roaring Twenties, with inequality parallels to the pre-pandemic 21st century. But global wealth extremes have now well-surpassed that level.

The world's richest 500 people currently have a combined wealth of \$8.1 trillion, ¹³⁸ or an average of \$16 billion per person (more each than the annual GDP of most African countries). In 1913, at the end of the Gilded Age, the Rockefeller, Frick, Carnegie, and Baker families held 0.85% of the United States' total wealth. As of July 1, 2021, the top 0.00001% richest people – just 18 families – held 1.35% of American wealth. The richest 0.01% – around 18,000 U.S. families – have even surpassed the wealth levels reached in the Gilded Age of Twain's era. The top 18,000 wealth holders in the US (if they were a town, they'd be the population of Cochrane, Alberta) hold 10% of American wealth today. This figure now exceeds the top 0.01% held by 9% of Americans in 1913, and is five-fold the comparable rate for the most egalitarian period (albeit still perversely unequal) of the late 1970s. The Panama Papers, Paradise Papers, and most recently the Pandora Papers have exposed tax avoidance and evasion of the wealthy and powerful, and other reports have surfaced detailing the tax circumvention strategies that lie well beyond the reach of ordinary people. ¹³⁹

In such a light, billionaires launching themselves into the stratosphere and musing about terraforming other planets is the modern equivalent of "let them eat cake", the phrase purportedly uttered by Marie-Antoinette, dismissing the peasant famine on the eve of the French Revolution.¹⁴⁰ The world's second richest man, Jeff Bezos, has a net worth currently over \$200 billion, which is about 3.5 million times more than the net worth of an average Amazon employee (which we can only conclude must mean he's also 3.5 million times more innovative, 3.5 million times more ethical and 3.5 million times more philanthropic). An average American worker would need to work almost 4.7 million years (without spending anything), or more than 17 times longer than Homo Sapiens have existed on Earth, to reach that level of wealth.¹⁴¹ Returned from a stratospheric jaunt aboard his phallic vanity rocket, he breathlessly, unironically, said the following: "I want to thank every Amazon employee and every Amazon customer because you guys paid for this." And pay for it they have: Bezos' now legendary union-busting efforts and employee intimidation in the face of safety complaints and carbon performance criticisms (with viral images of employees urinating in bottles due to an absence of bathroom breaks as evidence) have all helped pay for this.¹⁴³ And, of course, Bezos isn't even the world's richest man. That honour belongs to fellow space traveller Elon Musk, who investment firm Morgan Stanley predicts will be the first trillionaire in human history. 144

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"It is a time when one is filled with vague longings; when one dreams of flight to peaceful islands in the remote solitudes of the sea, or folds his hands and says, What is the use of struggling, and toiling and worrying any more?"

Mark Twain, The Gilded Age (1873)



Meanwhile, millions upon millions of people working full time, often below the poverty line, are yielding up the surplus value of their labour to these 21st century rocket-setting cyber-robber barons. An IPSOS poll across 28 countries revealed that poverty and inequality is substantially in the lead among issues keeping people awake at night, far ahead of the coronavirus, crime, or climate change. And many of these inequalities, both within Canada, and abroad, have become both more obvious and pronounced during the pandemic. As Ian Goldin of Oxford's Martin School observes, "The wealthy were not only able to keep their well-paid jobs but also benefited from soaring stock markets and rising house prices. Low-paid workers were, in contrast, more likely to have jobs in the sectors that suspended activities, including hospitality and tourism. They were also more likely to work in essential services such as nursing, policing, teaching, cleaning, waste removal and as shop assistants – in all of which occupations, they had a higher likelihood of being exposed to COVID-19.**

This past year marked an awakening of sorts around inequity, leading to necessary, difficult conversations around the decades-long exclusion of Indigenous Peoples, Black Canadians, and in other various ways, Non-white, non-European, non-Anglo Saxon, non-heter-onormative, non-male marginalization. The questions that these conversations surface force all Canadians to look in the mirror. Equity-seeking groups are asking uncomfortable questions about the roots of inequality in Canada: Who gets, and who got (all those years ago when land was plentiful and people were few) the property, the plum jobs, the mortgages and business loans? Who gets, and who got (all those years ago) to define what voluntarism is, or what 'giving back' looks likes, or what the profile of a philanthropist is? Who paid the price and who reaped the benefits, to arrive at the prosperity some of our communities enjoy today (and others are excluded from)?¹⁴⁷

There is also massive inter-generational inequity afoot here. Young people have sacrificed much during the pandemic, to protect public health, and in the face of obnoxiously entitled behaviour of many Boomers and Gen Xers. They have put up with compromised educational experiences, disrupted social lives, uncertain job prospects, and we are leaving them a legacy of public debt, a warmer planet with more extreme and costly weather events (after having dragged our feet on climate action for a quarter century). In order for young people to have a bright and sustainable future, a greater redistribution of wealth appears not just necessary, but inevitable. Canada has so far avoided an estate tax, and the Broadbent institute's Tax the Rich campaign hasn't yet taken hold in the popular imagination. But circumstances will force our collective hand to rebalance the fiscal contract, nationally and provincially, sooner or later.

EVALUATING WHAT WE VALUE: Measuring Community Prosperity

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"We are living Oscar Wilde's aphorism – knowing the price of everything but the value of nothing – at incalculable costs to our society, to future generations and to our planet." 162

Mark Carney, Former Bank of Canada Governor

When we think about the performance of business and commerce, we can distill this into a small number of valuations, chief among which is profitability. Every first-year business student is oriented to the straightforward calculation of Return on Investment (ROI). While many have tried, calculating the social return on investment is exponentially more difficult. In fact, conservatively, there are at least 100 competing methodologies for measuring social impact. Similarly, when we evaluate macro-economic performance, we speak in terms of gross domestic product (GDP), unemployment levels, housing starts, commercial vacancy rates and other metrics. But when we evaluate macro social trends – trends that relate to well-being, civic engagement, cultural vitality, and sustainability, for example – we encounter a much higher level of complexity, disagreements about what are insightful indicators, contested and often incomparable metrics (either from period to period, or across jurisdictions), and phenomena that are valued, but near impossible to attach numeric value to.

As former Bank of Canada Governor Mark Carney notes in his new book *Value(s)*: *Building a Better World for All*, our modern urban societies overvalue market-based metrics and undervalue other ways of understanding and measuring value. As he points out, Amazon the company has a readily identifiable market capitalization of \$1.7 trillion even as we struggle to measure the value of Amazon the forest, despite its incalculably greater importance to the planet. Carney's is an updated take on Senator Robert Kennedy's critique of GDP (called GNP back when Kennedy was running for the Democratic presidential nomination): "[GNP] measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country. It measures everything, in short, except that which makes life worthwhile". ¹⁵¹

There have been many attempts in recent years to measure what matters at many different scales. At a national level we have initiatives like the (chronically under-resourced) Canadian Index of Wellbeing, based at the University of Waterloo, or the new Century Initiative National Scorecard. Internationally, there are myriad examples, perhaps the best known of which are the UN Human Development Index, where Canada ranks 16th, or the Social Progress Index, where Canada ranks 6th globally, performing well on opportunity and the fundamentals of wellbeing, but not quite as strong on meeting basic human needs. Is The best examples of where community prosperity measurement is codified in national policy and accounting frameworks is either Bhutan's Gross National Happiness metrics, or the more recent New Zealand Living Standards Framework, the latter of which holds particular promise for Canada to replicate in adapted form. We even have duelling global happiness reports, one that ranks Canada 15th, the other a dismal 105th, depending on whether the emphasis is happy people or a happy planet.

All of this is background to how we might think of measuring community prosperity locally, building on the efforts of the Calgary Foundation's Vital Signs, Sustainable Calgary's State of Our City reports, and the Enough For All reports of Vibrant Communities Calgary, for example. We can also draw inspiration from such places as Winnipeg (MyPeg, powered by the United Way of Winnipeg), Los Angeles (which has done a wonderful job of integrating and benchmarking against the UN Sustainable Development Goals, or SDGs) or Boston (which helps sense-make and create discussion space around metrics via the Boston Indicators project, hosted by the local community foundation).

When we put effort into measurement, we can better contextualize not only how we are performing, but also which cities we wish to learn from or emulate. For example, we sometimes hear people argue that Calgary should strive to be more like Denver, Austin, Nashville or Portland. But while such cities may have some learnings with respect to culture and tourism, they are far from exemplars of sustainability. Calgary's public transit use rates, for example, are much closer to those of Toronto, Montreal and even NYC than to these other cities. With good metrics we can also compare across time, often turning up surpises: Dr. Noel Keough, founder of Sustainable Calgary, which has been producing the State of Our City report for the past quarter century, points out based on longitudinal metrics that Calgary's population density, while having steadily risen over the past decade, is still not what it was in the 1970s, and nowhere near what it was in the 1950s.¹⁵⁶

Calgary is undergoing seismic economic and social change change that will only accelerate in the coming decade. This has bred a tsunami of conversations, exercises and even the birth of new networks and organizations focused on re-thinking nearly everything about the city. Young people, families, and retirees are asking "Do we stay in Calgary?" Non-profit organizations are challenged to measure community impact using high quality data, with heightened pressure coming in the form of tech-driven, data-fuelled, social impact innovation. Companies are incorporating community prosperity data into ever-more important environmental, social, and governance (ESG) performance metrics. And many of these processes are increasingly framed within the UN SDGs, goals we are mournfully far from reaching as a planet (and in many respects as a country) by the 2030 target.

The Institute for Community Prosperity, alongside the CityXLab and seventeen other community partners, have been on a year-long journey to inquire into how we approach performance indicators at the community, city-wide, and national scales.¹⁵⁷ Measuring What Matters is an independent community forum for nurturing dialogue and critical conversations associated with how we measure community prosperity. We uncovered over 350 performance metrics covering domains ranging across physical, emotional, intellectual, spiritual economic, and ecological dimensions of wellbeing, used across a wide set of international, national and local indexes. This research reveals that all of the existing indices have different strengths and vulnerabilities. Consider just Vital Signs (which is high profile and uses original insights instead of off-the-shelf data, but lacks the ability to compare city to city, or longitudinally (through time, in order to establish trendlines), State of Our City (which tracks 42 indicators, and comparable through time, but lacking in profile), and the Social Progress Index (now focusing on Alberta, thanks to ATB Financial, comparable through time and across jurisdictions, but with relatively few dimensions examined).

Indices also reveal often contradictory trends: The Social Progress Index ranks Canada first in the world on tackling undernourishment, yet a Brookings review of Canada's performance on the SDGs suggested we are deeply under-performing on food security. Similarly, one measure – that of The Economist Intelligence unit – ranked Calgary as the most liveable city in North America in 2019 (and 5th in the world). But the Bohemian Index of the Martin Prosperity Institute, albeit a few years older, ranks the city's liveability well below the top 10 in North America (although still above the mean). 159

Also, the more our enthusiasm for measurement takes over, the more blind spots enter the frame. As a study of Indigenous Perspectives on Measuring What Matters reveals, we are far from having clarity on what actually matters, particularly to those who have been excluded from decision-making tables and previous indicator efforts. Techno-rational approaches to planning and performance measurement have tended to also undervalue equity considerations, being more the domain of white male practitioners, and in Calgary further fueled by the preponderance of engineers, geologists, accountants, and lawyers that populate civic, philanthropic and community boards. Conventional thinking about community prosperity measurement has also biased the present, instead of thinking inter-generationally. Some are even asking how might a new sense of the 'sacred' be brought back to our cities? 161

Enter the Calgary Equity Index, an online tool developed within the City of Calgary's Neighbourhoods department. Over two years in the making, this tool is currently being used inside the municipal government apparatus, but will be rolled out to the public in early 2022. It will allow for a much more accessible and robust comparison of neighbourhoods on a range of civic, economic, environmental, health, and social measures, from access to parks, transit and post-secondary schooling, for example, to walk scores. But while the Equity Index is an exciting development and a major new contribution, the discussion around community performance metrics is still in its infancy. All peoples – Indigenous and settler, newcomers and multi-generational Canadians, and all sectors - community, commercial, and public – will need to be part of this evolving conversation.

Surely all Calgarians have a vision for their city that is more than a place to gain material prosperity – one that is vibrant, culturally thriving, freed from the scourges of poverty and racism, and a wonderful place to not just work, but to live a creative life. Calgary may be a place to be healthy and active, to express one's true identity to the fullest (and to feel unequivocally supported in doing so), a place to seek enlightenment, to fall in love, to raise kids, and to grow old (by choice, not just by circumstance). A place that works for everyone, and where everyone feels welcome. And not just now, but well into the future, into our journey of healing, reconciliation, and decolonization. But we need many more tools, much deeper insights, and more dialogue across divides, to gauge where we are on this journey.



Terms like prosperity & community prosperity sound wonderful, & of course everyone wants a prosperous community, but that surface level of consensus falls apart when you bring in evaluation & comparison. 163

Katharine McGowan, Measuring What Matters Podcast

GENETICS

A CRISPR IMAGE:

The Genetic Quest for Human Perfectibility

As the COVID-19 pandemic sent the scientific world into a no-holds-barred effort to find vaccines and treatments, many scientists put their discoveries into the public domain to catalyze the effort. Among these findings were reams of data pertaining to DNA, RNA, and other aspects of biogenetics.

Since the discovery of the double-helix DNA molecule by Watson and Crick in the 1950s, and the mapping of the human genome from 1990 to 2003, genetics research and genomic innovation has grown exponentially. Perhaps, though, the greatest leap forward came with the discovery of "clustered regularly interspaced short palindromic repeats", or CRISPR, a group of DNA sequences found in simpler unicellular organisms that has led to the ability to snip, insert and effectively re-sequence DNA strands in much more complex organisms, including humans. CRISPR opens the door to nearly complete control over genetic composition and ultimately organism re-design. The implications of this technology are far-reaching, with potential to cure many diseases, to genetically modify crops, and to create new biofuels, for example. CRISPR gene editing could even be used to design new species or bring extinct species back into being.164

The benefits of gene editing are too numerous to recount. The research to date includes breakthroughs toward the elimination of such genetic maladies as sickle cell anemia and cystic fibrosis, or enhancing resistance to viruses such as HIV, herpes, and hepatitis B, as well as resistance to cancer. Mere weeks ago, scientists announced a major breakthrough in fighting anti-biotic-resistant pathogens using CRISPR technology, potentially leading to tens of millions of lives saved over the coming decades. Gene editing has already allowed us to redesign plants and animals, including fruits and vegetables that can sit far longer in the pantry without rotting, cows without horns, and mosquitos unable to transmit malaria. The global gene editing market is expected to grow from \$4.2 billion US in 2020 to \$13 billion by 2028, fueled by agritech, biotech and therapeutics. However, the broader genomic revolution that gene editing is a part of has led to commercial applications now estimated to be in excess of \$345 billion US in net returns, a nearly three-fold growth in the past two years (not surprising when one considers mRNA vaccine development).

But it doesn't take long for ethical questions to surface: Will this be technology that only the rich can afford, or those in privileged societies with top tier health care? How will this affect bio-diversity and human diversity? Theoretically, such technology holds the power to create sub-species of humans with superior intellect, brawn, speed, or any other traits we can affix a genetic marker to. The 2016 Worldwide Threat Assessment, the annual report presented to US Congress by the Director of National Intelligence, described genome editing as a potential weapon of mass destruction that nation-states might try to develop. What is deemed particularly threatening is also among the most encouraging aspects of CRISPR: "Gene drives", which ensure an edited gene is inherited by all of the genetically-engineered organism's offspring and in subsequent generations. 168 There are obvious potential echoes of eugenics, and of having the a priori ability to preference embryos that successfully have been edited fit for purpose. Over time, without strong international regulation and enforcement, a genetic caste system could emerge. As the co-discoverer of CRISPR, Jennifer Doudna, herself warns: "The power to control our species" genetic future is awesome and terrifying. Deciding how to handle it may be the biggest challenge we have ever faced."169

"I have no doubt, this technology will — someday, somewhere — be used to change the genome of our own species in ways that are heritable, forever altering the genetic composition of human kind." 170

Jennifer Doudna, 2020 Nobel Prize Winner (Chemistry) and author of A Crack in Creation: Gene Editing and the Unthinkable Power to Control Evolution (2017)

"...when we can program molecules the way we program microchips, what is it we want to do with this fire that we've snatched from the gods?"

Walter Isaacson, former CEO, Aspen Institute and CNN

THE DIGITAL IMAGINARIUM: Hyperreality and the Experience Machine

"A speech with magical force. Nowadays, people don't believe in these kinds of things. Except in the Metaverse, that is, where magic is possible. The Metaverse is a fictional structure made out of code."

Neal Stephenson, Snow Crash (1992)

On October 28, Facebook founder and CEO Mark Zuckerberg announced a rebranding of the company, now called Meta Platforms Inc., and along with it a strategic focus on building the "metaverse". "Metaverse" is a term that first appeared in science fiction writer Neal Stephenson's 1992 novel Snow Crash, an anarcho-capitalist dystopia in which the United States has ceded most of its power and territory to private organizations and tech entrepreneurs. Zuckerberg promises that the metaverse "will be the successor to the mobile internet, we'll be able to feel present - like we're right there with people no matter how far apart we actually are." While there is no set definition of the metaverse, broadly speaking it is a virtual space where digital representations of people - avatars - interact in all kinds of scenarios, from the banal to the fantastical.¹⁷² Zuckerberg described a splendid vision of the metaverse as an "even more immersive and embodied internet" where "you're gonna be able to do almost anything you can imagine-get together with friends and family, work, learn, play, shop, create-as well as entirely new categories that don't really fit how we think about computers or phones today." As evolutionary cyberneticist Vasily Vikoulov describes the metaverse, "just as we can read, listen to, and watch videos of anything we want today, soon we'll be able to experience stunning lifelike simulations in virtual reality indistinguishable from our physical world. We'll be walking and actively interacting in the Metaverse, not slavishly staring at the flat screens. We would be able to turn our minds inside out and show our dreams to each other in this ecstadelic matrix of our own making."174

Some have suggested, pointing out that virtual worlds already exist in many forms, from Minecraft and Roblox to Second Life, and (perhaps most powerfully) in NVIDIA's "Omniverse" project, that Zuckerberg's announcement is mostly a distraction from Facebook's blizzard of negative press over the past couple years.

But this critique doesn't negate the overall trendline, nor the fact that Meta has been buying up immersive tech companies, from Oculus to Bigbox VR to Within, maker of the popular VR workout game Supernatural.¹⁷⁵ TIME's top technology prizewinners this past year include such immersive standouts as Google Maps Live View, Lenovo's ThinkReality A3 Smart Glasses, and the Qualcomm Snapdragon XR2 Platform, billed as "the world's first extended reality (XR) to unite 5G and AI".¹⁷⁶ And companies well beyond tech are getting into the metaverse game: Architects like Foster + Partners are using immersive tech to visualize building details for clients, and BMW has built a "digital twin" of one of its factories, allowing it to test different assembly line configurations before spending big dollars on a real-life build.

The philosopher Robert Nozick, famous for providing moral philosophical justification for inequality and neoliberalism, a proponent of anarcho-capitalism who doubtless would have been a proud apologist for Zuckerberg's acquisitive prowess, was - somewhat ironically - also a critic of utilitarianism and hedonism, two strands of thought that place the pursuit of happiness, or pleasure, at the epicentre of human ethics. The 'thought experiment' Nozick devised to was an "experience machine" (also called a pleasure machine), where humans would have the choice to unplug from the "real" world, and plug into the machine (which, thanks to science fiction, can variously be thought of as the "metaverse", "hyperreality", the "Matrix", or a "transhuman" plane of existence). But there was no experimental way to test whether humans would choose to unplug from reality or would prefer real life. Nozick wrote about the experience machine in his 1974 book Anarchy, State and Utopia, months before Nolan Bushnell and Ted Dabney released their video game creation "Pong" as the first offering on the home video gaming platform Atari.

But over the half century since Pong, we have created more and more of the technological conditions in which such a grand social experiment is not just possible, but inevitable. Already, our smartphones, tablets, wearable devices, gamified worlds, and social media presences are not merely tools, but extensions of our consciousness and identities. These digital appendages increasingly shape our social networks, beliefs and ideologies, and our mental model of the world around us. This can be expected to intensify with advancements in 3-D graphics, virtual reality, augmented reality, and the exponentially more complex processing enabled through 5G internet, machine learning, and eventually quantum computing. More recent advances in brain-computer interfaces (BCIs), neuro-prosthetics, subcutaneous micro-electrode arrays, and other bio-technology, while potentially liberating for people



"Going outside is highly overrated."

Ernest Cline, Ready Player One (2011)



with brain injuries or cognitive disabilities, also offer possibilities for early-stage integration of our biology with the metaverse; Texas start-up Paradromics' implantable BC is use a platinum-iridium placed under the skull and on the surface of the brain to interface with neurons. These advances signal a kind of proto-"cyborgification", where humans – in a sense - "transcend" our bodily frame. UK scientist Peter Scott-Morgan, after being diagnosed with ALS, has combined 'radical robotics', Al and surgery to turn himself into a self-described cyborg in order to overcome loss of motor neuron function. More distant permutations of this might involve an uploading of memory and even consciousness in permanent electronic form. While this sounds terrifying on one level, others are more optimistic about what this could mean for humanity, and especially the planet. Renowned environmentalist James Lovelock, for example, has already labelled this coming era of hyperintelligence "the novacene". Texample in the planet is sufficient to the planet in the planet

This phenomena at an individual level would essentially be a tech-enabled form of self-transcendence – and there are already many philosophical proponents, grouped under the label "transhumanists". Tim Cannon of biotech start-up Grindhouse Wetware, who has already undergone numerous electro-sensory body modifications of his own, frames transhumanism thus: "Ask anyone who's transgender. They'll tell you they're trapped in the wrong body. But me, I'm trapped in the wrong body because I'm trapped in a body. All bodies are the wrong body." A term first used by Canadian W.D. Whitehall in 1940,¹⁷⁹ transhumanism has become a creed, often chanted by dewy-eyed singularity-philes living under too much Aquarian California sun. But it is also advocated by such serious thinkers as Nick Bostrum, head of the University of Oxford's Future of Humanity Institute, and co-founder of the World Transhumanist Association with fellow Oxford scholar David Pearce, a proponent of the "hedonistic imperative" – "a moral obligation to work towards the abolition of suffering in all sentient life". This hedonistic imperative would make Nozick roll over in this grave, as he concluded (though without the ability to test his experience machine thesis) that most humans would not choose to enter the simulated world to eliminate their suffering and to maximize their pleasure.

Ironically, the proponents of this real-world red-pill authenticity - of feeling pain, suffering, and sacrifice - now more frequently come from the eco-left side of the spectrum; Mary Midgely, Jeremy Rifkin, and Bill McKibben are among those who have warned of the dangers of transhumanism. It could prevent us from sensing what we have lost, they argue, and from fighting for what remains of the world. Others warn of the proprietary nature of immersive tech, with metaverse market estimates reaching upwards of US\$8 trillion. Indeed, we're already seeing stories of metaverse real estate, and apparel giant Nike has been filing new applications for digital avatars of the company's trademarks, anticipating the sale of virtual clothing, headwear, and shoes in online and simulated worlds. Still others warn that the left side of our brain has taken over modernity, dominated by mechanistic and reductive thinking, leaving arts, culture and creativity to atrophy, an asymmetry that might only get worse as we surrender our pastimes to corporate-created worlds. Incidentally, some of transhumanism's proponents are equally bullish on gene editing, described in the previous section of this scan, as both clusters of technology might serve – in their own ways - to radically improve human intelligence and longevity.

Many of the great stories of human civilization deal with transhumanist concepts, from the Epic of Gilgamesh to Dante's Divine Comedy, and the idea of human transcendence beyond our earthly shackles is a cornerstone of the majority of western and eastern faith traditions, as well as intensely secular philosophies, like Nietzsche's Übermensch. But with each passing year, what was once in the realm of faith or storytelling, is now part of the evolving human narrative. Public policy, regulation, and civil society engagement with these trends will, as usual, have to race to catch up.

13 DRUGS

FROM DEATH TO DECRIMINALIZATION: The Coming Metamorphosis in Drug Policy

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"Over the last six years, 18,000 Canadians have lost their lives to drug addiction. If 18,000 people lost their lives in traffic collisions, our country and our communities would not accept that. There would be an outcry."

Bryan Larkin, President, Canadian Association of Police Chiefs

In the first seven months of 2021 alone, a record 821 Albertans died of opioid poisoning (representing a 33% jump from the year previous), including 262 Calgarians. This is a public health emergency, which is increasingly forcing the question about the efficacy of our current approach to illicit drug criminalization and stigmatization. Tainted street drugs kill an average of twenty Canadians a day (a scale that results in a noticeable impact on life expectancy overall in Canada), including six deaths a day in British Columbia alone. As one journalist notes, "illicit drug toxicity is now the top cause of death for people aged 18 to 39 and the fourth highest cause of death for the entire B.C. population, behind cancer, heart disease and stroke." COVID-19, by comparison, is the 7th most deadly malady in the province over the past 2 years.

Some also note how fentanyl addiction is often tied to prescription pain medication. In the past year alone, courts have ruled that over US \$36 billion in payouts must be made by pharmaceutical companies and distributors, led by Purdue Pharma, manufacturer of OxyContin, for aggressively marketing opioids while downplaying the risks¹⁸⁷. As Lloydminster Mayor Gerald Aalbers observes, "when you think of an adult having a sports injury, leading to an opioid crisis. 'No that couldn't happen.' I challenge you to come down [to a civic information session on opioids] and see firsthand what can happen in one's life. Having gone through major surgery, I can easily understand dealing with pain. And when that pain does not go away, it's a serious issue." ¹⁸⁸

A growing chorus of police chiefs, mayors, public health experts, and grassroots groups like Moms Stop the Harm are calling for a more effective, de-stigmatized and compassionate approach to this health issue, including prioritizing treatment over incarceration (or in many cases full decriminalization of the use of all narcotics), as well as more public understanding of addiction as a disease. The City of Barrie, for example, is calling on Ottawa to commit to a national overdose plan, including ensuring a safe supply of illicit street drugs and decriminalization for personal use.189 Bryan Larkin, the head of the Canadian Association of Police Chiefs, is another vocal proponent of de-criminalization, noting that so many fringe crimes (property crimes in particular) are linked to addiction. In an interview with CTV, Larkin said he was raised to believe "drugs are bad and people who use drugs are criminals."190 But by criminalizing possession, low-income Canadians and people of colour are disproportionally targeted. This is doubly absurd, he points out, when one considers that addictions are a mental health issue.

As they did with prescription-based safe injection sites, Vancouver is leading the way: Dr. Patricia Daly, Chief Medical Officer of Health, is pushing for a compassion club model that would see non-prescribed contaminant-free cocaine, meth, and heroin provided to users. Vancouver's city council voted to support an application from the Drug User Liberation Front to procure and distribute drugs (tested for contaminants), which would require an exemption from the federal Controlled Drugs and Substances Act. Others, however, are not convinced that a safe supply is the answer, and could exacerbate addiction absent other parallel interventions (it also does very little to remove stigma).

"...more and more people all over the world have begun to recognize three startling truths: drugs are not what we think they are, addiction is not what we think it is, and the drug war has very different motives to the ones we have seen on our TV screens for so long."

Johann Hari, UK journalist and author

Portugal, once Europe's epicentre of drug use and abuse, famously decriminalized the public and private use, acquisition, and possession of all drugs in the year 2000. Its approach diverted resources from public order (policing and criminal justice prosecution) to public health. This effectively cut its drug use rate in half, dramatically reducing new HIV infections, drug deaths and the prison population in the first decade, with more incremental improvements over the second decade.¹⁹³ It is far from utopia, however. The effectiveness in eliminating criminal activity has been uneven, and eight years later they re-criminalized possession of large amounts, blurring metrics of success.¹⁹⁴ Still, Portugal's fatal drug poisoning rate is consistently now below the EU average, while the proportion of prisoners sentenced for drug-related offences has fallen to 15% from 40% pre-2000.¹⁹⁵ Importantly, decriminalization is part of a broader package of reforms, including harm reduction, health and addictions treatment reforms, and public education, the most important effect of which has been "to allow the stigma of drug addiction to fall, to let people speak clearly and to pursue professional help without fear."196

Others advocate for expanded drug decriminalization for reasons of research potential, treatment of mental health challenges, including substance addiction, PTSD treatment, and even enhanced creativity and managerial performance. Still others advocate for expanding the approach we have already taken with cannabis to other classes of recreational drugs with lower public health risk thresholds (e.g. magic mushrooms, MDMA, ketamine). After an initial small uptick in public consumption of cannabis following legalization, consumption fell, then rose again during the pandemic. The only demographic that has showed a consistent rise in cannabis use in every quarter tracked are senior citizens, though women have also caught up to men in consumption, such that there is no longer a gender divide. Other trends include fewer people smoking and more people eating it, and – most critically – a plummeting decline in sourcing from dealers or illegal storefronts.

As with cannabis, there may first be a medical-use testing ground before recreational legalization is considered (which is more typically about norming the issue for political purposes, than it is for research purposes). According to a recent Nanos poll, 78% of Canadians support the use of psychedelic drugs in palliative and end-of-life care.²⁰⁰ Health Canada has already granted a small number of exemptions from the Controlled Drugs and Substances Act for cancer patients use psilocybin, the active psychedelic ingredient in magic mushrooms.²⁰¹ Others are pushing for exemptions for use in psychotherapy and in palliative care, while still others smell a new potential venture capital play.²⁰²

With sufficient evidence marshalled, a growing diversity of voices, and reflecting on how benign an experiment the legalization of cannabis has been, we can expect at least a more public discussion of decriminalization, and possibly a legislative push that could start as a private members bill and find its way into legislation if enough people look the other way and hold their nose. Already, prosecutors were instructed last year to pursue only the most serious and flagrant drug-possession offences.²⁰³

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"Recent climate action announcements might give the impression that we are on track to turn things around. This is an illusion. Our addiction to fossil fuels is pushing humanity to the brink. We face a stark choice: either we stop it, or it stops us. It's time to say, 'Enough ... Enough of treating nature like a toilet. Enough of burning and drilling and mining our way deeper. We are digging our own graves."

António Guterres, UN Secretary-General

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CLIMATE

FROM GRAVE DIGGING TO CARBON LEADERSHIP: A Climate Vulnerability Forecast

It is hard to overstate the degree to which climate change is putting constraints on future prosperity and the wellbeing of our communities. As one respected international climate number-cruncher noted recently, "the challenge is unbelievably huge. Individually, we'd have to eliminate about nine-tenths of our carbon emissions" to reach sustainable targets. 204 COP 26 in Glasgow, the latest in an annual gathering of world leaders, scientists and other key players attempting to wrestle this challenge to the ground, signalled not just the urgency of having to address the problem, but put to rest the notion of a gradual transition to a sustainable future. At this point, we are now facing an abrupt and highly disruptive transition. Not only has global action to date been too incremental and tentative, but the macro trendlines put the challenge into perspective: Based on current trends and national commitments, the UN estimates with current measures and commitments we are on track for a 2.7 degrees Celsius average global temperature rise before 2100.²⁰⁵ Some models go as high as 5 degrees Celsius in the same time period, absent additional action. Moreover, warming is not evenly distributed: Our own government predicts warming in Canada to average 4 degrees Celsius by the end of the century, and as much as double that in the far north.²⁰⁶ As the World Resources Institute recently put it "It's clear that agriculture as we know it simply can't thrive in a warming world", adding this is especially true in semi-arid areas (which is much of Southern Alberta).207 Even as population rises, climate change could reduce global food production by as much as one third by the end of the century.²⁰⁸

Moreover, the global economic growth rate targets are typically around 3% annually, which means that we are on a course to have eight times the amount of economic activity (and, by extension, consumption) by the early 2090s. As environmental writer George Monbiot describes this, "it's like the Gemino curse in Harry Potter and the Deathly Hallows, which multiplies the treasure in the Lestrange vault until it threatens to crush Harry and his friends to death." Decorated economist Nicholas Stern,

who is pro-growth (and whose famous 2006 report, with projections that in hindsight seem modest, but which were dismissed at the time in many circles as alarmist) recently added that economic forecasts have "grossly undervalued the lives of young people and future generations who are most at threat from the devastating impacts of climate change." While carbon output as a ratio of GDP is dropping, it is inconceivable that the planet can sustain this level of increased consumption without extreme and widespread misery, conflict, and collapse of entire ecosystems.

But holding the world's attention is a challenge - with every 1% uptick in local unemployment, there is a 3-5% drop in people's belief that climate change requires action.212 While we may think of overcoming the climate crisis as a technological and political challenge, rethinking and reconfiguring the fundamentals of our economic assumptions, priorities and methods is arguably the most urgent (yet difficult) challenge of our time. It will require something far deeper than better "purpose-driven" ESG reporting, cleantech challenges, and more vigilant regulation. There are many economists, financial institutions, enlightened industry groups and civil society coalitions thinking about this and actioning alternatives. These approaches - realistic, attainable and not naively revolutionary - are categorized and aggregated well by the global Wellbeing Economy Alliance, for example.²¹³



Despite high-minded rhetoric from federal leaders, and despite the implementation of a nationwide carbon tax, Canada's performance on climate change, when compared globally, has been dismal. Like many countries, there is yawning gap between our pledges and policies. In fact, according to the Climate Change Performance Index, compiled by the Bonn-based thinktank Germanwatch, Canada has actually fallen in the global rankings under the Trudeau government, to a miserable rank of #58, out of 60 countries analyzed, falling further behind such reputational laggards as Russia and Australia. While there is a modest drop in carbon dioxide emissions per capita, the trend line for total emissions in Canada continues to rise.

Our renewables sector, subsidized at a fraction of carbon-emitting sectors, has grown by only 4% in the past 5 years (though notably much of that growth has been in Alberta). Additionally, we still mine and export both thermal and metallurgical coal, with provincial plans afoot to intensify both activities. And a report by Environmental Defence and Oil Change International notes that Canadian producers are set to expand annual oil and gas production by nearly 30 per cent above 2020 levels, which would mean a 25 per cent increase in annual carbon emissions. All of this means that Canada's transition to a low-carbon future will be all the more expensive, painful, and divisive. Even the modest gesture of Canada committing to a net zero target, echoing commitments already announced by a number of major oil and gas companies, was greeted with such engorged headlines as "Ottawa declares war on Alberta oil" 216 and "The Laurentians prepare for war on Alberta."

The good news is that there is an unprecedented level of global and national urgency, and a massive generational shift afoot in the seriousness with which people and institutions are approaching this shared challenge. According to recent polling across 28 large countries, Canadians are the second most concerned about climate change (slightly behind Germany).²¹⁸ In a recent Leger poll,

75% of Canadians, and nearly 70% of Albertans feel there is still a chance to reduce the effects of climate change. A large majority of Canadians support climate action measures such as carbon pricing and phasing out coal, and notably more Albertans now support (rather than oppose) Canada's pledge to cap emissions in the oil and gas sector.

The blue chip Canadian Institute on Climate Choices identifies a wide range of already-available technologies and solutions that should not face insurmountable commercial or public policy constraints to widespread implementation.²²¹ As reported in last year's Scan, there are many exciting developments on the renewable energy front in the province, as well as in industries adjacent to, and spun off from, the oil and gas sector (hydrogen, lithium, carbon capture and storage, new road construction materials, carbon nanotubes, deep geothermal). Renewable energy costs have fallen dramatically, electric cars are moving to scale (as described in detail in last year's scan), and the embrace of net-zero targets, carbon disclosure, SDG commitments, and circular economy pivots is becoming more ubiquitous in the corporate sector. Over 2,700 companies have committed to climate disclosure, in alignment with the Taskforce on Climate-related Financial Disclosure, which helps inform the financial system's exposures to climate-related risks.222

All three mainstream federal parties have committed to climate action, with the Liberal plan – if acted upon – having been lauded as potentially leading-edge globally by at least one former Green Party leader. While many Albertans may bristle at the appointment of environmental activist Stephen Guilbeault as federal Minister of Environment and Climate Change, it does send a signal that the plan may turn into real action. At the local level, a once pro urban sprawl Mayor Gondek has motivated Council to declare the climate emergency, as well as a commit to making Calgary a Net-Zero city by 2050.²²³

The world could be far richer by many measures if we do what this catastrophe demands of us. If we don't, catastrophes such as the violent flooding that recently cut off Canada's largest port and stranded the city of Vancouver are reminders that the cost of addressing the crisis is dwarfed by the cost of not doing so.²³⁰

Rebecca Solnit, journalist

While government leadership at all levels has tended to be either tepid or missing, civil society has not exactly filled the breech: Only 2% of all philanthropic funding in Canada is devoted to climate change. In 2014, only 8% of over 200 environmental NGOs polled in Alberta indicated climate change as among their top three priorities (this figure jumped to 28% in the 2020 survey).²²⁴ As the 650-page Allen Report - the Alberta Inquiry into Anti-Alberta Energy Campaigns - underscores, less than one fourteenth of all "foreign funding" of Canadian charities was for environmental initiatives, and 1/2 of this was for wetland conservation through one organization - Ducks Unlimited.²²⁵ The philanthropic sector is also belatedly turning its sights toward climate change action: Globally, foundation funding on climate change is growing fast, and there is a push for more systemic, integrated approaches to climate philanthropy that promote alternative economic models and that engage directly with government, the commercial sector, and social movements.²²⁶ The Canadian Philanthropic Commitment on Climate Change, albeit with a scant 26 signatories so far, calls on all foundations, "regardless of their mission, status, or geographic location, to come together and signal their commitment to climate action."²²⁷ As Annie Bérubé , Program Director at the McConnell Foundation, points out, "thanks to previous research and experimentation we now have the knowledge we need to achieve the deep and rapid emissions reduction needed in most economic sectors in Canada."228 Alberta Ecotrust Foundation's Climate Innovation Fund, in partnership with the Canadian Federation of Municipalities' LC3 initiative, is injecting new grants and investment capital into the Calgary and Edmonton social economies.

But while most institutions are increasingly swimming in the same direction, the Alberta government has been reluctant and slower to take up the climate action mantle. So much of what they came into power pledging was so feverishly critical of climate action (especially market-friendly climate action) that they are fighting not only a credibility gap, but hampered by epic missteps that the Kenney government will have to work hard to overcome and put behind them. The Allen Report not only found no wrongdoing by pro-climate-action NGOs (i.e. no evidence was found that Alberta's reputational besmirchment was the result of shady or illegal activity), but it saved its harshest words for the UCP government itself, particularly around the focus, governance and lack of transparency around the Canadian Energy Centre Ltd. (a.k.a. "War Room"). The War Room's public relations effort, putting forward the argument that Canadian oil is more ethical than other global sources of supply (unlike Saudi Arabia, Canadians don't perform crucifixions and beheadings, in case anyone was wondering) is more likely harming, rather than helping, the reputation of the resource

sector. Consumers in Times Square, far from running to their nearest gas station to ask for Canadian product, are more likely to wonder why we are trying so hard (or, worse, what are we hiding?). And humiliatingly, the government has ended up adopting the federal carbon tax program in lieu of a made-in-Alberta downstream carbon pricing scheme. Although the provincial government has more recently thrown its support behind renewables and quasi-renewables (e.g. hydrogen), it has an image problem to surmount on this file. Turning climate action from a wedge issue into a re-election pillar will be a hard pivot for the UCP to make, but could well be essential to their political survival.



SPRING FORWARD, LAND BACK: Reparation as Reconciliation

NOTE: This chapter is co-authored with Latasha Calf Robe.

Reconciliation is a challenge to not only what it means to be a Canadian, but also to the very idea of Canada. At the heart of Reconciliation is truth-telling, deep listening, commitments to change institutions and relationships (including nation-to-nation relationships), and acknowledging land. It is a challenge issued to all Canadians to learn about the systemic, historic and intentional exclusion of Indigenous Peoples from the economy, the dismantling of their food security, and the erosion of a viable land base essential to restoring both economic self-reliance and food sovereignty.

Reconciliation entails renovating the stories that prop up one mythos of Canada, hearing the painful stories that remained hidden under the surface (or, more accurately, that settler Canadians chose not to believe), and eventually, over time, building a shared new narrative. As Ted Chamberlain reminded us in one of the great Canadian non-fiction books of the 21st century so far, If This is Your Land, Where are Your Stories?, it is stories that legitimize land.²³¹ In the case of Indigenous Peoples, those stories are captured not only in oral tradition, but have been painstakingly mapped onto the landscape in preparing for mining, forestry and fisheries negotiations, through harvest studies, use and occupancy studies, traditional knowledge projects, archeology, toponym and genealogy research, and ethnographies.²³²

No settler Canadian knew the connection between stories and land better than Chief Justice Thomas Berger, who died this past April, after having quite literally (and profoundly) helped change the map of Canada. Famous for at least three monumental legacies – as lead counsel in arguing the successful Calder case, which reignited the Nisga'a Land Claim negotiations (after a nearly century-long hiatus), for leading the Inquiry into the Mackenzie Valley Pipeline (the platinum standard for oil and gas development consultations and precursor to 'environmental assessment' in the decades that followed), and for sacrificing a Supreme Court appointment in favour of publicly advocating for the inclusion of Section 35 into the Charter. Berger helped cement the constitutional recognition of Aboriginal rights and title. A model both of allyship and of meaningful and authentic consultation, he helped build a more just society fundamentally rooted in recognition of rights to land.

But in many ways, Berger was the acceptable (white, male, Anglo-Saxon) vessel through which other voices were first amplified. Leaders like Ethel Blondin-Andrew, who later became the first Indigenous woman in parliament, or Stephen Kakfwi, one of the longest-serving Premiers in Canadian history (only bested by such giants as Ernest Manning, W.A.C. Bennett and Maurice Duplessis). Another of the leaders of this transformative period – Mary May Simon – is now Governor General. Such leaders, all of whom were involved in negotiating major transfers of land (and other land-based rights) from the Canadian state back to indigenous peoples, have inspired an army of young Canadians in this century – Indigenous and settler – eager to take up the challenge and hard work of Reconciliation, a generation who will push beyond performative land acknowledgement into deeper forms of authentic acknowledgement, including land-based reparation.

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"There needs to be reparations following reconciliation, we are beyond the apology stage." 248

Melanie Fiddler, Cote First Nation (and Calgary-based economic development advocate)

"Landback" began as a campaign initiated by NDN Collective, centered on the fight to reclaim the Black Hills of South Dakota, including Mount Rushmore, seen as a colonial scar on a sacred landscape. To some this is cancel-culture run amuck. but the Rushmore monument was carved by a man with ties to the Ku Klux Klan,²³³ and it's hard to ignore that two of the four visages were slave owners and one (Teddy Roosevelt) had an obsessive malice toward Indigenous people. Roosevelt, often hailed by conservationists as the creator of the national parks system, placed a premium on ethnically cleansing the 'park' lands of Indigenous inhabitants. His treasury of quotes is peppered with wild-eyed racism and ferociously cruel anti-Indigenous proclamations.234



But the "land back" campaign has also inspired a proto-movement north of the border. A small group of Haudenosaunee activists, for example, set up a camp last year in Caledonia, giving it the address "1492 Land Back Lane."²³⁵ The Yellowhead Institute at Ryerson University published a Red Paper entitled Land Back in 2019, with a follow up report on "Cash back" this past year.²³⁶ But the land back concept is rapidly being co-opted. There are allegations that some NGOs are using it as tool to fundraise for their own purposes, rather than in the cause of authentic allyship.²³⁷ And Marc Miller, at his swearing-in as the new Crown-Indigenous Relations Minister, turned a few heads when he said that the government's relationship with Indigenous peoples "has been broken because of land — land theft — and it's time to give land back."²³⁸

Even as Minister Miller makes this declaration, the highest profile dispute in Canada involving Indigenous land is the Wet'suwet'en defence of their territory in NW coastal BC in opposition to the Coastal GasLink pipeline, built by Calgary-based TC Energy. The pipeline would carry natural gas from a hydraulic fracturing facility in Dawson Creek to a liquification facility in Kitimat. Through much of the fall, RCMP have clashed with Wet'suwet'en land defenders²³⁹ and hereditary chiefs. But little about this is new. The Wet'suwet'en have been battling industrial development on their unceded territory since the 1970s, and many other Nations have joined in protests against pipelines, freight rail, old growth logging, and other industrial developments on Indigenous land. These actions were a major national issue in the months before the pandemic, and they are resurfacing again, revealing in the process a number of unhealed open sores in the body of Canadian confederation:

Unceded Land and Bad Faith Treaty-Making: Many parts of Canada, including Wet'suwet'en territory and most of what is presently called "British Columbia" (which doesn't sound at all colonial!) are unceded territory. They are not under treaty, and as such, are not in a fundamental sense under Canadian jurisdiction. But even the numbered treaties are subject to considerable dispute. We know that the treaties were signed under varying degrees of duress, obfuscation and, subsequently, broken promises. James Daschuk's book Clearing the Plains documents, for example, how Indigenous peoples on the prairies were forced into treaty by way of famine, followed by food rationing in exchange for signatures. Fundamental misunderstandings of what a treaty signifies between the Euro-Canadian colonists and Indigenous signatories – the former that it was an extinguishment of title and surrender of land, the latter that it was the beginning of a relationship of co-existence on shared land, have set the tone for a century and a half. Small wonder, then, that when major changes to waterways or landscapes are proposed, that vocal Indigenous concern or opposition is almost always assured.

Clashing Worldviews: The doctrine of "cession" is itself dubious. For Indigenous Peoples, no one can "own" land in any absolute sense, anymore than one can own animals, or air, or other people. As Allan Greer, Canada Research Chair in Colonial North America at McGill University, points out "Indigenous peoples did not see land as a saleable commodity; their languages did not even have words to convey the sense of "ceding" or "selling" territory: Thus the treaty text cannot have faithfully reproduced the oral agreements that were negotiated." Similarly, the notion of "crown land" holds that public land is held in trust by Her Majesty, the sovereign. But for Indigenous Peoples, the land itself is sovereign – it is the land that wears the crown. As the Land Back editorial collective at Briarpatch Magazine frames it, "when we say "Land Back" we aren't asking for just the ground, or for a piece of paper that allows us to tear up and pollute the earth. We want the system that is land to be alive so that it can perpetuate itself, and perpetuate us as an extension of itself. That's what we want back: our place in keeping land alive and spiritually connected."²⁴¹

Shifting Jurisprudence: A succession of court cases since the 1960s (that is, since Indigenous people in Canada were permitted to hire lawyers), have gradually brought more clarity and refinement to questions of Indigenous title, occupancy, and the duty of governments to consult or accommodate in the face of changes or challenges to land use. These cases are some of the most famous and seminal in Canadian history: Marshall, Sparrow, Delgamuukw, Tsilhqot'in, Grassy Narrows... Most recently, a decision in a BC court in favour of Blueberry River First Nation, faced with forestry, oil and gas, agriculture, mining and hydroelectric development pressures overlapping on their territory, ruled that a failure to take into account *cumulative* effects of multiple development proposals is a breach of Treaty.²⁴²

Specific Claims: The Government of Canada has negotiated settlements on more than 460 specific claims, with roughly the same number either still in negotiations or in an earlier stage of consideration.²⁴³ Recent examples from Alberta include the Onion Lake Cree settlement, expanding their opportunity to be an active participant in natural resource development, and Bigstone Cree, which included the transfer of 140,000 acres of Provincial Crown land to become new reserve land.²⁴⁴ The Mikisew Cree specific claim, ratified in 2017, took 24 years to negotiate, a not-unusual timeline.²⁴⁵ Not surprisingly then, others have pursued specific claims through the courts instead. In 2019, a federal judge ruled Canada was in breach of Treaty 7 and that the Kainai (Blood) Nation was entitled to 710 square miles of land. The reserve is currently 547.5 square miles.²⁴⁶

But a broader interpretation of "land back" goes far beyond land exchange or "Adding to Reserve" through land claims agreements or court cases. The notion of "land back" is not just a federal (or even a federal-provincial joint) responsibility, nor is it just limited to a conversation about crown land. Municipalities, land owners, foundations and others can share in this movement. The City of Victoria, for example, is looking at sharing a fixed portion of all newly assessed (developed) lands with the Songhees and Esquimalt First Nations on a permanent basis. An Indigenous variant of the "conversation easement", which provides charitable tax receipts to the donor, is already in practice in the US.

There are also major questions of governance, voice, agency, harvesting rights and stewardship over crown lands, including parks and protected spaces. The federal government's Indigenous Guardians program, a partial response to decades of chronic and systemic exclusion from the formal conservation apparatus of the Canadian state, aims to expand Indigenous involvement (on a pilot basis only, however) in stewardship of their traditional lands and waters. Co-managed parks, like Gwaii Haanas National Park and Tombstone Territorial Park in the Yukon, have shown the efficacy of Indigenous guardianship, not to mention their critical role in self-government and treaty arrangements. Co-management agreements – sometimes called community-based resource management - have been in place for decades throughout the far north, but they are curiously absent from the Alberta landscape.

On the contrary, under the UCP government we have turned from indifference to neo-colonial hostility in how Indigenouscrown relations are unfolding: The most obvious example of this is the new Alberta Litigation Fund, which actively undermines Indigenous sovereignty, stating that "Applicants [to the fund] need to show how their legal action will advance Alberta's interests..."247 If a First Nation or Metis organization applied to the fund to, for example, litigate a coal mining play on their traditional territory, they'll be told to go pound sand, as it's not in Alberta's interests to impede industry, no matter how irresponsible or non-consultative a given proponent might be. This kind of approach can be expected to draw negative international attention to Alberta at a time when we're telling the world to buy Albertan because we are 'clean' and our human rights record is unsullied.

Despite the uptick in awareness and interest over the last summer, stemming from the heart-wrenching discoveries of mass burial sites at former residential schools. and the first national statutory holiday in honour of Reconciliation (which the Prime Minister conspicuously blew off), mainstream Canada may not be ready for what's next. There is bound to be discomfort, resentment, and continued or even intensified clashes as Reconciliation takes on a more active, restorative shape. But there is no going back. The return of land will be the most agonizing and conflict-ridden part of reconciliation, but it will permit us to spring forward as a nation. A slight modification to Burton Cumming's iconic Canadian anthem seems a fitting way to end this scan:

Maybe I'll be there to shake your hand Maybe I'll be there to share the land That they'll be giving [back] When we all live together.



With land comes knowledge... Our knowledge, cosmologies... and all of the relational structures that connect to that knowledge have been impacted and, to some degree, severed by colonialism. When we say 'Land Back,' we are acknowledging and invoking those ancient knowledge systems and calling for a validation of them in our contemporary times.²⁴⁹

Alex Wilson, Opaskwayak Cree Nation (and with University of Saskatchewan)



Endnotes

- ¹ TIME Photo Department. "TIME's top 100 photos of 2020", TIME. November 24, 2021. https://time.com/6123078/top-100-photos-2021/
- ² Carole Saab. Where are we heading? (webinar). Colleges and Institutes Canada. October 20, 2021. https://www.youtube.com/watch?v=mKW3fgCxEgo
- ³ Ian Brown. "Disability advocate Al Etmanski wants Canada to make history with a new guaranteed-income policy", Globe and Mail. January 1, 2022. https://www.theglobeandmail.com/canada/article-disability-advocate-al-etmanski-wants-canada-to-make-history-with-a/
- ⁴ The TRC report documented the deaths of more than 6,000 students as a result of residential schools, but, according to former TRC Commissioner Chief Justice Murray Sinclair, the true figure "could be in the 15-25,000 range, and maybe even more." "Murray Sinclair calls for inquiry into residential school burial sites, more support for survivors", CBC Radio: The Current. June 2, 2021.
- ⁵ As quoted in Chris Varcoe, "For Calgary to recover, 'we have to transform our economy'", Calgary Herald, October 28, 2021.
- ⁶ Paul Wells. Where are we heading? (webinar). Colleges and Institutes Canada. October 20, 2021. https://www.youtube.com/watch?v=mKW3fgCxEgo
- ⁷ Jason Markusoff, "Inflation is about to get way worse in 2022—and nearly everyone in Canada will feel the pinch", Maclean's, November 24, 2021.
- Theophilus Argitis and Shelly Hagan, "Bank of Canada Accelerates Potential Timing of Rate Hikes", Bloomberg (online), October 27, 2021. https://www.bloomberg.com/news/articles/2021-10-27/bank-of-canada-accelerates-potential-timing-of-rate-hikes
- ⁹ Frances Donald, ATB Financial (presentation). Calgary's Economic Outlook. Hosted by Calgary Economic Development. November, 2021.
- ¹⁰ Seymour Management Consulting Inc. The Financial Resilience and Financial Well-being of Canadians with Low Incomes: Insights and analysis to support the financial empowerment sector. Prosper Canada and ABLE Financial Empowerment Network. November, 2021
- 11 Kevin Carmichael, "Investor-fuelled housing mania puts Central Canada's biggest cities at risk of correction: Bank of Canada", Financial Post, November 23, 2021. https://financialpost.com/news/economy/canadas-housing-market-at-higher-risk-of-correction-due-to-extrapolative-expectations-bank-of-canada
- ¹² International Monetary Fund. World Economic Outlook 2021 (website), October, 2021. https://www.imf.org/en/Publications/WEO/ lssues/2021/10/12/world-economic-outlook-october-2021
- 13 Donald, 2021.
- ¹⁴ The decoupling of stock markets from on-the-ground economic performance was discussed in last year's scan.
- ¹⁵ Ian McGugan, "Why markets seem more brazen than ever", Globe and Mail, November 6, 2021.
- ¹⁶ Seymour Management Consulting Inc., 2021.
- ¹⁷ Government of Alberta. 2021-2022 Mid-year Fiscal Update and Economic Statement. November 30, 2021.
- ¹⁸ Kelly Cryderman, "Province sees reversal of fortune in oil royalties", Globe and Mail, November 17, 2021.
- ¹⁹ Todd Hirsch, ATB Financial (presentation). Calgary's Economic Outlook. Hosted by Calgary Economic Development. November, 2021.
- ²⁰ Conference Board of Canada. Major city insights: Calgary, Autumn 2021 (webpage), Oct. 7, 2021. https://conferenceboard.ca/%28X-%281%29S%28adzcci3rjmmovvfoyrywwcbb%29%29/e-library/abstract.aspx?did=11305
- ²¹ Re/Max. Calgary Housing Market Outlook (web post). December 1, 2021. https://blog.remax.ca/calgary-housing-market-outlook/
- ²² Eric Nuttall, for example, notes that US shale companies are under too much pressure to provide investors with dividends and share buybacks instead of scaling production, and further predicts West Texas Intermediate will reach historic high prices within 3 years. Shirley Won, "Smart Money: Eric Nuttall", Globe and Mail Report on Business, December, 2021.
- ²³ Hirsch, 2021.
- ²⁴ CBRE. Scoring Canadian Tech Talent: Ranking Canadian Cities on Competitive Advantages and Appeal to Tech Workers and Employers. June, 2021. https://www.cbre.com/insights/reports/scoring-tech-talent-in-north-america-2021#introduction
- ²⁵ See, for example, the Canada West Foundation's work around talent attraction and retention (https://cwf.ca/research/publications/young-talent-attraction-and-retention/), as well as Chris Varcoe, "For Calgary to recover, 'we have to transform our economy'", Calgary Herald, October 28, 2021.
- ²⁶ Mariana Mazzucato, "The right institutions for the climate transition", Social Europe, November 22, 2021.
- ²⁷ Nick Cohen, "The Tories are the masters of 'vice signalling'", The Spectator, May 24, 2018. https://www.spectator.co.uk/article/the-tories-are-the-masters-of-vice-signalling-
- ²⁸ Westley, 2021.
- ²⁹ Recall that even Ralph Klein, who later joined the Conservative Party, was initially a Liberal.

- Jack Lucas, "Why 'conservative' Calgary keeps electing progressive mayors", CBC (online), October 23, 2021. https://www.cbc.ca/news/canada/calgary/calgary-progressive-mayors-naheed-jyoti-1.6221389
- The Republican-esque association of the federal Conservatives is especially strong in the suburbs, where they have failed to make inroads (outside of the west) in the last three elections. Even in historically solid-blue suburban ridings, especially in Calgary, they have yielding voting percentage share, as compared with the last election. See, for example, Gary Mason, "Conservatives at a cross-roads", Globe and Mail, October 23, 2021.
- ³² John Paul Tasker, "After Monday's vote, the federal Conservative caucus will be 95 per cent white", CBC (online), September 22, 2021. https://www.cbc.ca/news/politics/conserative-caucus-95-per-cent-white-1.6185707
- ³³ Jared Westley, "Who do Alberans think they are?", CBC (online), October 25, 2021. https://www.cbc.ca/news/opinion/opinion-who-do-albertans-think-they-are-municipal-election-results-1.6221407
- 34 Sumit Ganguly, "Profiling Modi's India", Foreign Policy, November 28, 2021. https://foreignpolicy.com/2021/11/28/modi-india-democracy-hindu-nationalism-ethnic-jaffrelot-review/
- ³⁵ Richard Alberta and Allan Rock. "Canada must prepare for a Trump revival", Globe and Mail, November 27, 2021.
- ³⁶ Brennan Centre for Justice. Voting Laws Roundup: July 2021 (website) https://www.brennancenter.org/our-work/research-reports/voting-laws-roundup-july-2021
- ³⁷ CanadaHelps. The 2021 Giving Report. https://www.canadahelps.org/en/the-giving-report/
- Telus. "Canadians invited to participate in TELUS Days of Giving as new survey finds we feel more compelled than ever to give back" (web posting), April 29, 2021. https://www.globenewswire.com/news-release/2021/04/29/2219699/0/en/Canadians-invited-to-participate-in-TELUS-Days-of-Giving-as-new-survey-finds-we-feel-more-compelled-than-ever-to-give-back.html
- ³⁹ Brennan Doherty, "Canadian Charities Say Building Partnerships With Local Organizations Is Tough.
 This New Senate Bill May Change That", Future of Good. July 27, 2021. http://www.ratnaomidvar.ca/
 canadian-charities-say-building-partnerships-with-local-organizations-is-tough-this-new-senate-bill-may-change-that/
- ⁴⁰ Susan Phillips, Megan Conway, and Christopher Dougherty. Enhancing Policy Leadership for Canada's Charitable and Nonprofit Sector: A Conversation Starter. School of Public Policy and Administration, Carleton University. November, 2019.
- Bob Weber. "Environmentalists threaten Alberta Premier Kenney with lawsuit over inquiry remarks", CBC, November 24, 2021. https://www.cbc.ca/news/canada/edmonton/kenney-environmentalists-lawsuit-1.6260639
- ⁴² Truth and Reconciliation Commission of Canada. Canada's Residential Schools: The History, Part 1 Origins to 1939. McGill-Queen's University Press. 2015. https://nctr.ca/records/reports/#trc-reports
- I am grateful to Karen Ball at CCVO, for co-drafting an unpublished article upon which these observations are drawn. I am also grateful to MRU students Jillian Mah and Ashley Dion, who as an extension of their participation in the global Map the System Challenge interrogated charity as a form of colonization in their short film Liminal: Is Charity Designed to Fail? https://www.youtube.com/watch?v=mageMOAOF_o
- ⁴⁴ Monitor Institute (by Deloitte). What's Next for Philanthropy: A Look at Emerging Trends (webinar). Stanford Social Innovation Review. September 16, 2021.
- ⁴⁵ All of these prior examples come from the Monitor Institute, 2021.
- ⁴⁶ Lucy Bernholz. How We Give Now: A Philanthropic Guide for the Rest of Us. MIT Press, 2021.
- ⁴⁷ Senator Ratna Omidvar. "Opinion: Charities Need Money, but Also More to Spur Post-Pandemic Recovery", Hill Times, August 18, 2021. http://www.ratnaomidvar.ca/opinion-charities-need-money-but-also-more-to-spur-post-pandemic-recovery/
- ⁴⁸ Chris Hall, "Canada's new housing minister faces complex, cross-jurisdictional challenges", CBC, October 30, 2021. https://www.cbc.ca/news/politics/new-housing-minister-ahmed-hussen-1.6230340
- ⁴⁹ Darrel Bricker, Ipsos, as quoted in Rachel Gilmore, "Trudeau takes aim at cost of living, housing affordability in throne speech", Global News, November 23, 2021. https://globalnews.ca/news/8395693/trudeau-cost-of-living-housing-affordability-throne-speech/
- ⁵⁰ WOWA, "Canadian Housing Market News" (website), October 27, 2021. https://wowa.ca/reports/canada-housing-market
- ⁵¹ Hall, 2021.
- The Liberals have promised ban the practice of blind bidding. While there is no evidence this would reduce housing prices significantly, relative to open auctions, ending blind bidding can protect inexperienced buyers from overpaying. See https://institute.smartprosperity.ca/publications/blind-bidding and https://www.cbc.ca/news/politics/fact-check-blind-bidding-ban-1.6163254 for more context.
- RBC, "Are Canadians dreaming of owning a home? It's complicated: RBC Poll" (blogpost with survey tables), April 12, 2021. http://www.rbc.com/newsroom/news/2021/20210412-spring-home-ownership-poll.html
- ⁵⁴ OECD. Affordable Housing Database. Social Policy Division Directorate of Employment, Labour and Social Affairs. Sept. 24, 2021.
- ⁵⁵ Gaetz S, Dej E, Richter T, Redman M. The State of Homelessness in Canada 2016. Toronto: Canadian Observatory on Homelessness Press, 2016.
- ⁵⁶ Calgary Homeless Foundation. Calgary Homeless Count. 2018.

- ⁵⁷ Homeless Hub: Causes of Homelessness (website). https://www.homelesshub.ca/about-homelessness/homelessness-101/causes-homelessness
- ⁵⁸ Government of Canada. (n.d.). Human Rights-Based Approach to Housing. https://www.placetocallhome.ca/human-rights-based-approach-to-housing
- ⁵⁹ Homeless Hub: Housing First (website). https://www.homelesshub.ca/about-homelessness/homelessness-101/housing-first
- 60 Hall, 2021.
- ⁶¹ OECD, 2021.
- ⁶² Naama Blonder, "NIMBYs, Jane Jacobs Won't Help Us Solve Today's Housing Crisis" (blogpost), Storeys, November 30, 2021.
- ⁶³ Alex Bozikovic, "Yes, in my backyard: How urban planning must shift to meet our postpandemic challenges", Globe and Mail, March 6, 2021.
- ⁶⁴ Liberal Party of Canada, "Help Cities Accelerate Housing Construction", Forward for Everyone [platform], September, 2021. https://liberal.ca/our-platform/1-4-million-new-homes/
- ⁶⁵ Canadian Alliance to End Homelessness, "Bright Spot: Yes! In My Backyard campaign rises up against NIMBYism" (blogpost), May 31, 2021. https://caeh.ca/bright-spot-yimby/
- ⁶⁶ Sarah Komadina, "Alberta government announces plan for more affordable housing", Global News, November 1, 2021. https://globalnews.ca/news/8342185/alberta-affordable-housing/
- ⁶⁷ https://www.cbc.ca/news/canada/edmonton/jason-kenney-homeless-domestic-violence-covid-alta-1.6252130
- ⁶⁸ The number of provincial units is currently 57,000. The total number of affordable housing units in Alberta, including non-profit and municipal owned, is closer to 110,000.
- ⁶⁹ Lisa Johnson. "Advocates call on Alberta government for better housing support, say Bill 78 is doomed to fail", Edmonton Journal, November 22, 2021. https://edmontonjournal.com/news/politics/advocates-call-on-alberta-government-for-better-housing-support-say-bill-78-is-doomed-to-fail
- ⁷⁰ City of Calgary. Foundations for Home: Calgary's Corporate Affordable Housing Strategy 2016 2025. 2016.
- ⁷¹ Sarell Azuelos, "Housing all Calgarians" (blogpost), Enough for All, November 22, 2021. https://enoughforall.ca/articles/housing-all-calgarians
- ⁷² Haruki Murakami. 1Q84. Shinchosha, 2009.
- ⁷³ Julianne Holt-Lunstad, 2015, "Loneliness and Social Isolation as Risk Factors for Mortality: A Meta-analytic Review." Perspectives on Psychological Science 10.2: 227–237.
- ⁷⁴ Centers for Disease Control and Prevention. "Loneliness and Social Isolation Linked to Serious Health Conditions." (web post), April 29, 2021. https://www.cdc.gov/aging/publications/features/lonely-older-adults.html
- 75 Douglas Nemecek, MD, Chief Medical Officer for Behavioral Health, Cigna, as quoted on the findings of a pan-US survey of loneliness https://chcimpact.org/lonelinessimpact/
- ⁷⁶ "The number of Canadians at high risk meaning they've experienced some combination of debilitating stress, hopeless depression and consideration of suicide or self-harm is at the highest point since Ipsos began its polling in 2015, jumping from 33 per cent to 50 per cent this year." Sean Boynton, "Canada is seeing a mental health 'crisis' but more are willing to discuss it: poll", Global News, May 5, 2021. https://globalnews.ca/news/7834773/mental-health-week-poll-ipsos/
- 77 Government of Canada. Who's at risk and what can be done about it? A review of the literature on the social isolation of different groups of seniors. Ottawa: National Seniors Council, 2017. https://www.canada.ca/en/national-seniors-council/programs/publications-reports/2017/review-social-isolation-seniors.html#h2.1
- ⁷⁸ This is based on US data: National Academies of Sciences, Engineering, and Medicine. Social Isolation and Loneliness in Older Adults: Opportunities for the Health Care System. Washington, DC: The National Academies Press, 2020.
- ⁷⁹ Sharanjit Uppal and Athanase Barayandema. Life Satisfaction Among Seniors. Statistic Canada: 2018. https://www150.statcan.gc.ca/n1/pub/75-006-x/2018001/article/54977-eng.htm
- ⁸⁰ Statistics Canada. 2010. Canadian Community Health Survey Healthy Aging (Cycle 4.2).
- 81 Ihid
- ⁸² Older women are also about a third more likely than men to live in institutional settings.
- 83 Government of Canada, 2017. https://www.canada.ca/en/national-seniors-council/programs/publications-reports/2017/review-social-isolation-seniors.html#h2.1
- ⁸⁴ Julie L Locher, Christine S Ritchie, David L Roth, et al., "Social Isolation, Support, and Capital and Nutritional Risk in an Older Sample: Ethnic and Gender Differences." Social Science & Medicine 60.4: 747–761, 2015.
- ⁸⁵ Valentine Trépied, ⊠Les personnes âgées vivant en EHPAD, isolement ou solitude? ∑, Documents Cleirppa 8.47: 24-28, 2012.
- ⁸⁶ Given that social support is a protective factor for mental health challenges. Neena Chappell and Laura Funk, "Social Support, Caregiving and Aging", Canadian Journal on Aging 30.3: 355-370, 2011.
- ⁸⁷ Brad Meisner. The Future of Aging in Canada (online summit). Employment and Social Development Canada, June 9, 2021. https://www.youtube.com/user/HRSDCanada

- 88 Kurt Vonnegut. Palm Sunday: An Autobiographical Collage. Dial Press Trade Paperback, 1981.
- ⁸⁹ Picard, 2021.
- ⁹⁰ Stephanie Child and Leora Lawton, "Loneliness and social isolation among young and late middle-age adults: Associations with personal networks and social participation." Aging & mental health, 23(2), 196–204, 2019. https://doi.org/10.1080/13607863.2017.1 399345
- ⁹¹ Jamie Ballard, "Millennials are the loneliest generation" (blogpost), YouGovAmerica, July 30, 2019. https://today.yougov.com/topics/lifestyle/articles-reports/2019/07/30/loneliness-friendship-new-friends-poll-survey
- ⁹² Jamie Ballard, "Millennials are the loneliest generation", YouGovAmerica. July 30, 2019. https://today.yougov.com/topics/lifestyle/articles-reports/2019/07/30/loneliness-friendship-new-friends-poll-survey
- ⁹³ Smartsheet Inc., "Over 90% of Young Workers Having Difficulty Working from Home" (website). April 22, 2020. https://www.smart-sheet.com/content-center/news/over-90-young-workers-having-difficulty-working-home-survey-finds
- 94 Boynton, 2021.
- ⁹⁵ Page Grossman, "Millennials are hit the hardest by the loneliness epidemic, and here's why" (blogpost), Zendesk. September 10, 2020.
- ⁹⁶ Pema Bakshi, "Why Are Millennials And Gen Z The Loneliest Generations?" (blogpost), Refinery 29, October 12, 2021. https://www.refinery29.com/en-ca/millennial-gen-z-loneliness
- ⁹⁷ Nicholas Nicholson Jr., 2009, "Social Isolation in Older Adults: An Evolutionary Concept Analysis." Journal of Advanced Nursing 65.6: 1342-1352.
- ⁹⁸ There is conflicting research about the association of city living with mental health, with many studies noting that urban living is more frequently correlated to higher rates of mental health challenges than rural living, while other studies note that inner city living is less anxiety-inducing than suburban living.
- 99 Emily Greenfield, "Age-Friendly Community Initiatives: Conceptual Issues and Key Questions", The Gerontologist 55.2: 191-198, 2015.
- ¹⁰⁰ Charlebois, S. (2021, August 19). Federal Election Campaign Needs to Address Rising Food Costs. Regina Leader-Post. https://lead-erpost.com/opinion/opinion-federal-election-campaign-needs-to-address-rising-food-costs
- ¹⁰¹ Food and Agriculture Organization of the UN. (2005). Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security. Rome: UN. p. 5. https://www.fao.org/3/y7937e/y7937e00.pdf
- 102 UN Sustainable Development Goals. (2021). Goal 2: Zero Hunger. UN. https://www.un.org/sustainabledevelopment/hunger/
- ¹⁰³ van Dijk, M., Morley, T., Rau, M. L., & Saghai, Y. (2021). A Meta-Analysis of Projected Global Food Demand and Population at Risk of Hunger for the Period 2010–2050. Nature Food, 2, 494–501. https://doi.org/10.1038/s43016-021-00322-9
- ¹⁰⁴ Raphael, D., Komakech, M., Torrence, R., & Bryant, T. (2018, September 27). We Fail Our Citizens in Canada and The UN is Onto Us. The Conversation. https://theconversation.com/we-fail-our-citizens-in-canada-and-the-un-is-onto-us-103894
- 105 Tarasuk & Mitchell, 2020, p. 10.
- ¹⁰⁶ For an analysis of the history, issues, trends and local opportunities related to upstream food security, as well as more insight on national and international food security perspectives, see James Stauch and Cordelia Snowdon: Homegrown Solutions: Connecting Upstream and Downstream Food Security in Calgary. Institute for Community Prosperity, YYC Food Security Fund at the Place2Give Foundation. December, 2021.
- 107 PROOF. (2021). Household Food Insecurity in Canada. https://proof.utoronto.ca/food-insecurity/
- ¹⁰⁸ Alberta Health Services (AHS). (2013). Nutrition Guideline: Household Food Insecurity. https://www.albertahealthservices.ca/assets/info/nutrition/if-nfs-ng-household-food-insecurity.pdf
- ¹⁰⁹ Tarasuk, V., Cheng, J., de Oliveira, C., Dachner, N., Gundersen, C., & Kurdyak, P. (2015). Association between Household Food Insecurity and Annual Health Care Costs. Canadian Medical Association Journal, 187(14), E429-E36. p. E432. http://dx.doi.org.lib-proxy.mtroyal.ca/10.1503/cmaj.150234
- Davison, K., Marshall-Fabien, G., & Tecson, A. (2015). Association of Moderate and Severe Food Insecurity with Suicidal Ideation in Adults: National Survey Data from Three Canadian Provinces. Social Psychiatry and Psychiatric Epidemiology, 14(1), 21-30. p. 970. https://doi.org/10.1007/s00127-015-1018-1
- ¹¹¹ According to one of Canada's leading food policy experts, Sylvain Charlebois of Dalhousie University, as noted in Taylor, B. (2021, August 31). Why are Prices Going Up at the Grocery Store? CTV News. https://www.ctvnews.ca/canada/why-are-prices-going-up-at-the-grocery-store-1.5567771
- 112 Stern, S. (2020, November 9). 2020 Where Did the Time Go?. Around the Table Blog, Maple Leaf Food. https://www.mapleleaffoods.com/stories/2020-the-year-of-the-unexpected/
- ¹¹³ Food Banks Canada. (2021). HungerCount 2021 Report. p. 5. https://hungercount.foodbankscanada. ca/?_ga=2.20895864.1112029623.1635427599-468254652.163422019.
- ¹¹⁴ Sing, N. (2021, October 7). The Fight to End Hunger on Canadian University Campuses. Maclean's. https://www.macleans.ca/education/the-fight-to-end-hunger-on-canadian-university-campuses/

- O. (2019). First Nations Food, Nutrition and Environment Study: Final Report for Eight Assembly of First Nations Regions. Assembly of First Nations and University of Ottawa. p. 34, 54. http://www.fnfnes.ca/docs/FNFNES_draft_technical_report_Nov_2__2019.
- ¹¹⁶ Chan et al., 2019, p. 6.
- ¹¹⁷ Chan et al., 2019, p. 54.
- ¹¹⁸ Food Banks Canada, 2021, p. 6.
- ¹¹⁹ Food Banks Canada, 2021, p. 6.
- ¹²⁰ Coalition for Healthy School Food. (2018). School Food Programs Around the World. https://www.healthyschoolfood.ca/school-food-programs-around-the-world
- ¹²¹ World Food Program (WFP). (2020). State of School Feeding Worldwide. Rome: World Food Programme. p. 2. https://www.wfp.org/publications/state-school-feeding-worldwide-2020
- 122 StatCan. (n.d.). Canadian Community Health Survey (CCHS), 2017-18 and 2015-16 as cited in Tarasuk & Mitchell, 2020, p. 15.
- ¹²³ Calgary Foundation. (2020). 2020 Vital Signs Report. p. 7. https://calgaryfoundation.org/wp-content/uploads/120300-calgaryfoundation-vital-signs-report-v5-hr-print.pdf
- 124 Ferguson, E. (2016, December 25). More Kids than Ever Arriving to School Hungry as Food Insecurity Rises. The Calgary Herald. https://calgaryherald.com/news/local-news/more-kids-than-ever-arriving-to-school-hungry-as-food-insecurity-rises
- ¹²⁵ Lukey, J. (2019, September 28). 'You have People going Hungry' to Fund Post-Sec Education: SAMRU Rep. Livewire Calgary. https://livewirecalgary.com/2019/09/28/alberta-post-secondary-food-bank-demand-soars/
- ¹²⁶ Lu & Qiu, 2015, p. 274.
- ¹²⁷ Momentum. (2021). Municipal Opportunities for Accelerating COVID-19 Recovery in Calgary: Increasing Inclusion and Supporting Local Business. p. 1. https://momentum.org/wp-content/uploads/2021/09/Municipal-Opportunities-for-Accelerating-COVID19-Recovery.pdf
- 128 Calgary Foundation, 2020, p. 9.
- ¹²⁹ Food Banks Canada. (2020). A Snapshot of Food Banks in Canada and the COVID-19 Crisis. pp. 35-37. https://www.foodbankscan-ada.ca/COVID-Report-2020
- 130 Calgary Food Bank. (2021). COVID-19 Impact on the Calgary Food Bank. p. 6. https://www.calgaryfoodbank.com/research/
- ¹³¹ Enough for All Evaluation Advisory Committee. (2021). Understanding the impact of COVID-19: Addressing structural barriers that are widening inequities and exacerbating vulnerability. Vibrant Communities Calgary & University of Calgary. https://enough-forall.cdn.prismic.io/enoughforall/24f2de12-f64d-445d-ae16-d5313561ac00_Understanding+the+impact+of+COVID-19+Addressing+structural+barriers+that+are+widening+inequities+and+exacerbating+vulnerability+June+2021.pdf
- ¹³² Nancy Dick, personal correspondence. See also Calgary COVID-19 Community Food Resources by Quadrant. (last updated October 14, 2021). www.tinyurl.com/covidfoodyyc-list
- ¹³³ The Calgary Food Committee. (2012). Calgary EATS: A Food System Assessment and Action Plan for Calgary. The City of Calgary. https://www.calgary.ca/content/dam/www/pda/pd/documents/calgary-eats/calgaryeats-full-food-system-assessment-action-plan-for-calgary.pdf
- ¹³⁴ Vibrant Communities Calgary (VCC) & The Canadian Poverty Institute. (2021). Examining Calgary's Emergency Food System. https://prismic-io.s3.amazonaws.com/enoughforall/b0af43d7-7c93-4lee-88cf-fb9dc17cbd51_ Examining+Calgarys+Emergency+Food+Assistance+System.pdf
- ¹³⁵ Calgary Food Bank, 2021, p. 17.
- ¹³⁶ Indy Johar. #FRAGILEFUTURE Episode 1. Future of Good. November 30, 2021. https://www.linkedin.com/video/event/urn:li:ugcPost:6871133893685243904/
- ¹³⁷ Documented in previous scans, with analyses, for example, by Thomas Piketty.
- ¹³⁸ Jeffrey Sachs, Special Adviser to the United Nations General Secretary. "Caring for Our Common Home" (lecture), International Meeting of Prayer for Peace promoted by the Community of Sant'Egidio "Peoples as Brothers, Future Earth. Religions and cultures in dialogue", Rome, 6-7 October, 2021. https://www.jeffsachs.org/recorded-lectures/4zwgc6nnlx2rkfpzs2pbc562hdwdgy
- 139 Jesse Eisinger, Jeff Ernsthausen and Paul Kiel, "The Secret IRS Files: Trove of Never-Before-Seen Records Reveal How the Wealthiest Avoid Income Tax", ProPublica, June 8, 2021. https://www.propublica.org/article/the-secret-irs-files-trove-of-never-before-seen-records-reveal-how-the-wealthiest-avoid-income-tax
- ¹⁴⁰ There is actually no evidence that Marie-Antoinette actually said this. The alleged attribution first appeared in Jean-Jacques Rousseau's Confessions (1765).
- ¹⁴¹ The figures are updated from a 2019 article by Annalisa Merelli, "The average US worker would need 10 times the length of all human history to earn as much as Jeff Bezos", Quartz, October 10, 2019. https://qz.com/1723454/this-is-how-long-an-average-us-worker-needs-to-become-a-billionaire/

- ¹⁴² John Naughton, "Jeff Bezos' vision of life among the stars won't mend a broken world", The Guardian, July 24, 2021. https://www.theguardian.com/commentisfree/2021/jul/24/jeff-bezoss-vision-of-life-among-the-stars-wont-mend-a-broken-world
- ¹⁴³ Casey Newton, "Amazon is finally realizing it has a labor problem", The Verge, April 16, 2021. https://www.theverge.com/2021/4/16/22386992/amazon-is-finally-realizing-it-has-a-labor-problem
- ¹⁴⁴ Devon Pendleton. "Elon Musk will become a trillionaire with SpaceX, Morgan Stanley says", Bloomberg Wealth. October 19, 2021. https://www.bloomberg.com/news/articles/2021-10-19/trillionaire-musk-will-be-powered-by-spacex-morgan-stanley-says
- ¹⁴⁵ Ipsos. What Worries the World (blogpost), November 25, 2021. https://www.ipsos.com/en/what-worries-world-november-2021
- ¹⁴⁶ Ian Goldin, "COVID-19: how rising inequalities unfolded and why we cannot afford to ignore it", The Conversation, May 20, 2021. https://theconversation.com/covid-19-how-rising-inequalities-unfolded-and-why-we-cannot-afford-to-ignore-it-161132
- ¹⁴⁷ This paragraph is adapted from the Director's Note of the Annual Report 2021 of the Institute for Community Prosperity, Mount Royal University.
- ¹⁴⁸ As quoted in an interview with Ben Stein. "In Class Warfare, Guess Which Class Is Winning", New York times, November 26, 2006. https://www.nytimes.com/2006/11/26/business/yourmoney/26every.html
- ¹⁴⁹ This article outlines 98 social impact measurement methods, but there are many more used in Canada not included here: Luigi Corvo, Lavinia Pastore, Arianna Manti, and Daniel lannaci, "Mapping Social Impact Assessment Models: A Literature Overview for a Future Research Agenda", Sustainability, 13: 4750, 2021. https://doi.org/10.3390/su13094750
- ¹⁵⁰ This paragraph is repeated here with permission from the unpublished Measuring What Matters Project Plan (2021), Institute for Community Prosperity and CityXLab.
- ¹⁵¹ Kennedy, R. F. Remarks at the university of Kansas. JFK library, March, 1968. https://www.jfklibrary.org/learn/about-jfk/ the-kennedy-family/robert-f-kennedy/robert-f-kennedy-speeches/remarks-at-the-university-of-kansas-march-18-1968
- ¹⁵² Lisa Lalande, "Measured progress: A new National Scorecard provides the framework for smart and inclusive long-term growth for Canada", The Philanthropist, March 30, 2021. https://thephilanthropist.ca/2021/03/
 measured-progress-a-new-national-scorecard-provides-the-framework-for-smart-and-inclusive-long-term-growth-for-canada/
- ¹⁵³ UN Human Development Index http://hdr.undp.org/en/content/human-development-index-hdi and Social Progress Index 2021. https://www.socialprogress.org/?tab=2&code=CAN
- New Zealand Living Standards Framework https://www.treasury.govt.nz/information-and-services/nz-economy/ higher-living-standards/our-living-standards-framework
- 155 World Happiness Report 2021. https://worldhappiness.report/ and Happy Planet Index https://happyplanetindex.org/countries/?c=CAN
- ¹⁵⁶ Noel Keough. Equity in Global Context: Pursuing Equity in a Climate-Constrained World. Community Indicators Consortium (conference keynote speech), November 3, 2021.
- 157 See www.measuringwhatmatters.ca
- ¹⁵⁸ McArthur, J. & Rasmussen, K. Who and What Gets Left Behind: Assessing Canada's Domestic Status on the Sustainable Development Goals. Global Economy and Development, Brookings Institution, 2017. https://www.brookings.edu/wp-content/uploads/2017/10/working-paper_assessing-canadas-domestic-status-on-the-sdgs1.pdf
- ¹⁵⁹ Richard Florida, "Bohemian Index", Atlantic Monthly, June 4, 2010. https://www.theatlantic.com/national/archive/2010/06/bohemian-index/57658/
- Angela Bear Chief. Measuring What Matters: Indigenous Perspectives from Treaty 7 and Moh'kinsstis. Institute for Community Prosperity, 2021. https://www.mtroyal.ca/nonprofit/InstituteforCommunityProsperity/_pdfs/Measuring-What-Matters__Indigenous-Perspectives-from-Treaty-7--Mohkinsstsis.pdf
- ¹⁶¹ Jayne Engel, "Sacred Civics: Seven Generation Cities" (webinar and online article), Shareable, February 16, 2021. https://www.share-able.net/sacred-civics-seven-generation-cities/
- ¹⁶² Mark Carney. Value(s): Building A Better World for All. HarperCollins, 2021.
- ¹⁶³ Katharine McGowan. Measuring What Matters, Episode 2 (podcast). August, 2021. https://open.spotify.com/episode/5KhEJ19OK9D6UzdTn79Eus?si=bf3255ddc3ae4da4&nd=1
- 164 The-Crispr, "Antibodies Part 1: CRISPR" (podcast), WNYC Studios, June 6, 2015. https://www.wnycstudios.org/podcasts/radiolab/articles/antibodies-part-1-crispr
- ¹⁶⁵ Wei Li Thong, et al., "Gene editing enables rapid engineering of complex antibiotic assembly lines", Nature Communications, 2021. DOI: 10.1038/s41467-021-27139-1
- ¹⁶⁶ Fior Markets, "Global Gene Editing Market Is Expected to Reach USD 13 billion by 2028" (press release on market report), November 10, 2021. https://www.globenewswire.com/news-release/2021/11/10/2331930/0/en/Global-Gene-Editing-Market-Is-Expected-to-Reach-USD-13-billion-by-2028-Fior-Markets.html
- ¹⁶⁷ MSCI. "The Genomic Revolution: Why Investors Are Paying Attention" (sponsored blog), Visual Capitalist, October 25, 2021. https://www.visualcapitalist.com/the-genomic-revolution-why-investors-are-paying-attention/
- ¹⁶⁸ Sharon Begley, "Genome-editing is deemed US national security threat", STAT, February 10, 2016. https://www.statnews.com/2016/02/10/genome-editing-national-security/

- 169 Doudna, 2017.
- ¹⁷⁰ Jennifer Doudna. A Crack in Creation: Gene Editing and the Unthinkable Power to Control Evolution. Mariner Books, 2017.
- Dan Milmo. "Enter the metaverse: The digital future Zuckerberg is steering us toward", The Guardian, October 28, 2021. https://www.theguardian.com/technology/2021/oct/28/facebook-mark-zuckerberg-meta-metaverse
- Kyle Orlando, "So what is the 'metaverse' exactly?", Ars Technica, November 7, 2021. https://arstechnica.com/gaming/2021/11/everyone-pitching-the-metaverse-has-a-different-idea-of-what-it-is/?utm_source=pocket&utm_medium=email&utm_campaign=pockethits
- ¹⁷³ Mark Zuckerberg, "Founder's Letter" (web posting), Meta, October 28, 2021. https://about.fb.com/news/2021/10/founders-letter/
- ¹⁷⁴ Alex M. Vikoulov and Antonin Tuynman. The Syntellect Hypothesis: Five Paradigms of the Mind's Evolution. Ecstadelic Publishers, 2019.
- ¹⁷⁵ Peter Kafka, "Facebook is quietly buying up the metaverse", Vox/Recode (online), November 11, 2021. https://www.vox.com/recode/22776461/facebook-meta-metaverse-monopoly
- 176 TIME. The 100 Best Inventions of 2021. https://time.com/collection/best-inventions-2021/
- ¹⁷⁷Channel 4. Peter: The Human Cyborg (documentary). https://www.channel4.com/programmes/peter-the-human-cyborg
- ¹⁷⁸ James Lovelock. Novacene: The Coming Age of Hyperintelligence. MIT Press, 2019.
- ¹⁷⁹ Peter Harrison and Joseph Wolyniak, "The History of 'Transhumanism'", Notes and Queries. 62 (3): 465–467, 2015.
- 180 Kathleen Power, "The End of Suffering", Philosophy Now, 2006.
- ¹⁸¹ Jon Swartz, "What is the 'metaverse' and how much will it be worth? Depends on whom you ask", MarketWatch (online), November 24, 2021. https://www.marketwatch.com/story/what-is-the-metaverse-and-how-much-will-it-be-worth-depends-on-whom-you-ask-11637781312
- ¹⁸² Jessica Golden. "Nike is quietly preparing for the metaverse", CNBC (online), November 11, 2021. https://www.cnbc.com/2021/11/02/nike-is-quietly-preparing-for-the-metaverse-.html
- ¹⁸³ Ian McGilchrist. "Neuroscientist argues the left side of our brains have taken over our minds", CBC Ideas, October 22, 2021. https://www.cbc.ca/radio/ideas/neuroscientist-argues-the-left-side-of-our-brains-have-taken-over-our-minds-1.6219688
- ¹⁸⁴ Alberta Health Services. Alberta substance use surveillance system (website, accessed October, 2021). https:// healthanalytics.alberta.ca/SASVisualAnalytics/?reportUri=%2Freports%2Freports%2F1bbb695d-14b1-4346-b66e-d401a40f53e6§ionIndex=0&sso_guest=true&reportViewOnly=true&reportContextBar=false&sas-welcome=false
- ¹⁸⁵ Health Canada. Opioid- and Stimulant-related Harms in Canada (website). Last updated, September, 2021. https://health-in-fobase.canada.ca/substance-related-harms/opioids-stimulants/
- ¹⁸⁶ Jen St. Denis. "'We Haven't Done the Most Basic Thing to Address This Crisis'", The Tyee, October 21, 2021. https://thetyee.ca/ News/2021/10/21/Most-Basic-Thing-To-Address-Crisis/?utm_source=weekly&utm_medium=email&utm_campaign=251021
- ¹⁸⁷ Nate Raymond, "Drug companies say enough U.S. states join \$26 bln opioid settlement to proceed", Reuters, Sept. 7, 2021. The Purdue Pharma settlement, also referenced in this article, is addition to the \$26 billion settlement involving a range of other companies, the largest portion of which (\$5 billion) is Johnson & Johnson.
- ¹⁸⁸ Gerry Lampow. "Come and see, says Mayor Aalbers", MyLloydminsterNow, Nov. 4, 2021. https://www.mylloydminsternow.com/50332/come-and-see-says-mayor-aalbers/
- ¹⁸⁹ Bob Bruton, "National overdose action plan gets support from city councillors", Barrie Today, Nov. 4, 2021. https://www.barrietoday.com/local-news/national-overdose-action-plan-gets-support-from-city-councillors-4718035
- ¹⁹⁰ Colin Perkel, "Top police chief urges Canada to decriminalize hard-drug possession", CTV News, January 28, 2021. https://www.ctvnews.ca/health/top-police-chief-urges-canada-to-decriminalize-hard-drug-possession-1.5286467
- ¹⁹¹ St. Denis, 2021.
- ¹⁹² Vincent Lam, "As a doctor, I was taught 'first do no harm.' That's why I have concerns with the so-called 'safe supply' of drugs", Globe and Mail, November 2020.
- ¹⁹³ Johann Hari. Chasing the Scream: The First and Last Days of the War on Drugs. Bloomsbury, 2015.
- 194 Ximene Rego, Maria João Oliviera, Catarina Lamiera and Olga S. Cruz, "20 years of Portuguese drug policy developments, challenges and the quest for human right" Subst Abuse Treat Prev Policy 16, 59, 2021. https://doi.org/10.1186/s13011-021-00394-7
- ¹⁹⁵ Drug decriminalisation in Portugal: setting the record straight. TRANSFORM Drug Policy Foundation, May 13, 2021. https://transformdrugs.org/blog/drug-decriminalisation-in-portugal-setting-the-record-straight
- ¹⁹⁶ https://transformdrugs.org/blog/drug-decriminalisation-in-portugal-setting-the-record-straight
- ¹⁹⁷ For example. Michael Pollan. How to Change Your Mind: What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence. New York: Penguin Press. 2018.
- ¹⁹⁸ Michelle Rotermann. Looking back from 2020, how cannabis use and related behaviours changed in Canada. Statistics Canada. April 21, 2021. https://mjbizdaily.com/wp-content/uploads/2021/04/Looking-back-from-2020-how-cannabis-use-and-related-behaviours-changed-in-Canada.pdf
- ¹⁹⁹ Health Canada. Canadian Cannabis Survey: 2020. August, 2021. https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/research-data/canadian-cannabis-survey-2020-summary.html

- ²⁰⁰ Josie Kao, "The promise and pitfalls of psychadelics", Globe and Mail, November 27, 2021.
- ²⁰¹ Camille Bains, "Patient hopes Canada will introduce regulations for psychotherapy with 'magic mushrooms'", CBC, January 18, 2021. https://www.cbc.ca/news/canada/british-columbia/magic-mushrooms-regulations-canada-1.5877324
- ²⁰² Bains, 2021.
- ²⁰³ Perkel, 2021.
- ²⁰⁴ John Rapley, "Who's footing the climate change bill?", Globe and Mail, November 20, 2021.
- ²⁰⁵ Harry Stevens and Brady Dennis, "National climate pledges are too weak to avoid catastrophic warming. Most countries are on track to miss them anyway." Washington Post, November 3, 2021. https://www.washingtonpost.com/climate-environment/interactive/2021/climate-pledges-cop26/
- ²⁰⁶ Government of Canada. Canada's Changing Climate Report. Environment and Climate Change Canada, 2019. https://changingclimate.ca/CCCR2019/
- ²⁰⁷ Carter, R. (2021, June 23). How to Transform Food Systems in the Face of Climate Change. World Resources Institute. https://www.wri.org/insights/how-transform-food-systems-face-climate-change
- ²⁰⁸ Kummu, M., Heino, M., Takes, M., Varis, O., & Viviroli, D. (2021). Climate Change Risks Pushing One-Third of Global Food Production Outside the Safe Climatic Space. One Earth, 4(5), 720-729. https://doi.org/10.1016/j.oneear.2021.04.017
- ²⁰⁹ George Monbiot, "Capitalism is killing the planet it's time to stop buying into our own destruction", The Guardian, October 25, 2021.
- 210 Ibid.
- ²¹¹ Nicholas Stern. "A time for action on climate change and a time for change in economics" (working paper), Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science, October 26, 2021. The quote is from Stern's Interview with the Guardian. "Climate crisis: economists 'grossly undervalue young lives', warns Stern", The Gaurdian, October 26, 2021.
- ²¹² Andrew Meyer, "Do economic conditions affect climate change beliefs and support for climate action? Evidence from the US in the wake of the Great Recession", Economic Inquiry, October 5, 2021. https://onlinelibrary.wiley.com/doi/abs/10.1111/ecin.13036
- ²¹³ Wellbeing Economy Alliance. From the Old Way to the New Way (website). https://weall.org/resources#oldwaynewway
- ²¹⁴ Germanwatch. Climate Change Performance Index: Canada (website) https://ccpi.org/country/can/
- ²¹⁵ Based on numbers from Rylstad, a Norway-based energy research organization. Ainslie Cruikshank. "Trudeau promised to cap emissions, but Canada's oil and gas companies have different plans", The Narwhal, Nov. 3, 2021.
- ²¹⁶ Jessie Klein, "Trudeau declares war on Alberta oil", National Post, November 1, 2021. https://thenarwhal.ca/canada-oil-and-gas-climate-plans/?utm_source=The+Narwhal+Newsletter&utm_campaign=2b7cb938d6-Nov.+4+2021+%E2%80%94+Newsletter+%E2%80%94+non-members&utm_medium=email&utm_term=0_f6a05fddb8-2b7cb938d6-108682040 https://national-post.com/opinion/jesse-kline-trudeau-declares-war-on-alberta-oil
- ²¹⁷ Josh Andrus, "The Laurentians prepare for war on Alberta", Western Standard, October 31, 2021. https://westernstandardonline.com/2021/10/andrus-the-laurentians-prepare-for-war-on-alberta/
- ²¹⁸ Ispsos, 2021.
- Leger Marketing Inc. Northern American Tracker (COP 26 and climate change). Association for Canadian Studies (ACS) and published in the Canadian Press. Nov. 10, 2021. https://leger360.com/surveys/legers-north-american-tracker-november-9-2021/
- ²²⁰ Sarah Reid, "New poll suggests Albertans are optimistic that climate change can be prevented", CTV News, Nov. 8, 2021. https://calgary.ctvnews.ca/new-poll-suggests-albertans-are-optimistic-that-climate-change-can-be-prevented-1.5658429
- ²²¹ Canadian Institute for Climate Choices (website). https://climatechoices.ca/
- ²²² Taskforce on Climate-related Financial Disclosures (website) https://www.fsb-tcfd.org/
- ²²³ City Council's climate emergency declaration passed 13-2 on November 15, 2021.
- ²²⁴ In Alberta Ecotrust Foundation's sectoral survey, conducted every 5-7 years, Alberta's 200+ environmental nonprofit environmental organizations are asked to list the top 3 environmental issues that they focus their attention on. In the 2014 survey (Mapping What Matters) 8% of respondents identified climate change as one of their top 3. In the 2020 survey (Navigating the Future), 28% of respondents identified climate change as a priority. Thanks to Rod Ruff for providing this information.
- ²²⁵ Steve Allen. Alberta Public Inquiry into Anti-Alberta Energy Campaigns: Final Report. July 30, 2021. https://open.alberta.ca/publications/public-inquiry-into-anti-alberta-energy-campaigns-report
- ²²⁶ Heather Grady, The State of Climate Philanthropy (blogpost), Rockefeller Philanthropy Advisors, Oct. 26, 2021. https://www.rockpa.org/the-state-of-climate-philanthropy/
- ²²⁷ Community Foundations of Canada, Environment Funders Canada, Philanthropic Foundations Canada, and The Circle on Philanthropy and Aboriginal Peoples in Canada. Canadian Philanthropy Commitment on Climate Change (website). 2021. https://philanthropyforclimate.ca/
- Annie Bérubé, "COP 26: Canadian philanthropy and the climate crisis", PhiLab (online), Oct. 16, 2021. https://philab.uqam.ca/en/home-blog/cop26-canadian-philanthropy-and-the-climate-crisis-with-annie-berube/

- ²²⁹"There were several missteps from the outset that damaged [the Alberta Energy 'War Room's'] reputation from which it has not been able to recover. Its governance, and accordingly its credibility, is seriously compromised... it may well be that the reputation of this entity has been damaged beyond repair." From pages 648-649 in particular of the Report. Allen, 2021.
- ²³⁰ Rebecca Solnit, "Ten ways to confront the climate crisis without losing hope", The Guardian, November 18, 2021. https://www.theguardian.com/environment/2021/nov/18/ten-ways-confront-climate-crisis-without-losing-hope-rebecca-solnit-reconstruction-after-covid
- ²³¹ Edward Chamberlain. If This Is Your Land, Where Are Your Stories? Finding Common Ground. Vintage Canada. 2004.
- ²³² A good overview of all of the tools used by Indigenous nations to demonstrate continuous title, use and occupancy is provided by David Carruthers. "Mapping the "Sufficient, Continuous and Exclusive" Tests", PlanLab Ltd. (blogpost), September 14, 2015. https://www.planlab.ca/author/dcarruthers/
- ²³³ Amy McKeever, "The heartbreaking, controversial history of Mount Rushmore", National Geographic, October 28, 2020. https://www.nationalgeographic.com/travel/article/the-strange-and-controversial-history-of-mount-rushmore
- ²³⁴ For example, as chronicled in Hermann Hagedorn. Roosevelt in the Badlands. Houghton Mifflin, 1921: In an 1886 address, he declared: "I don't go so far as to think that the only good Indian is the dead Indian, but I believe nine out of every ten are, and I shouldn't like to inquire too closely into the case of the tenth. The most vicious cowboy has more moral principle than the average Indian. Take three hundred low families of New York and New Jersey, support them, for fifty years, in vicious idleness, and you will have some idea of what the Indians are. Reckless, revengeful, fiendishly cruel."
- ²³⁵ Brett Forester, "Ontario judge extends injunctions against what he calls 'lawless protesters' in Caledonia", APTN News, October 9, 2020.
- ²³⁶ Yellowhead Institute, Red Paper: Land Back, Ryerson University, 2019, https://redpaper.yellowheadinstitute.org/
- ²³⁷ For example, the David Suzuki Foundation's landback page may or may not be an honest, authentic primer on the topic. the https://davidsuzuki.org/what-you-can-do/what-is-land-back/
- ²³⁸ Brett Forester, "Is Marc Miller's vow to 'give land back' all sizzle, no steak? These analysts say yes", APTN News, October 28, 2021. https://www.aptnnews.ca/national-news/miller-land-back-all-sizzle-no-steak-analysts-say-yes/
- report on such actions in such a way that labels those who defend their lands, lives and livelihoods as "protesters", and decontextualizes these struggles in a way that suggests these actions of demonstration or civil disobedience simply pop into existence by a marginal band of troublemakers. More often than not, these actions of deep roots, and widespread legitimacy within the nations involved, tied as well to most of the issues covered in this section of the Scan. The rationale for using "land defenders" is explained well by Rhea Rollman. "Protesters? Or land protectors?", The Independent (online), October 28, 2016. https://theindependent.ca/to-each-their-own/protesters-or-land-protectors/
- ²⁴⁰ James Daschuk, Clearing the Plains: Disease, Politics of Starvation, and the Loss of Indigenous Life. University of Regina Press, 2019.
- ²⁴¹ Longman, Riddle, Wilson, and Desai, 2020.
- ²⁴² Emma Gilchrist, "Blueberry River First Nations win precedent-setting Treaty Rights case", The Narwhal, June 30, 2021. https://the-narwhal.ca/blueberry-river-first-nations-bc-supreme-court-ruling/
- ²⁴³ Crown-Indigenous Relations and Northern Affairs Canada. Specific Claims (website). https://www.rcaanc-cirnac.gc.ca/eng/1100 100030291/1539617582343 In addition to Specific Claims, there is a whole parallel history of Modern Comprehensive Land Claim Agreements. But while these are critical to understanding the contemporary history and development of Northern Canada and parts of BC, they are not directly relevant to Southern Alberta, so are not covered in this scan.
- ²⁴⁴ Crown-Indigenous Relations and Northern Affairs Canada. Success stories: Agreements and land claims (website). https://www.rcaanc-cirnac.gc.ca/eng/1306932724555/1539953769195
- ²⁴⁵ Melinda Trochu, "Mikisew Cree vote to accept \$136M Treaty 8 settlement from federal gov't", CBC, October 17, 2017. https://www.cbc.ca/news/canada/north/mikisew-ratify-settlement-1.4358862
- ²⁴⁶ Meghan Grant, "Blood Tribe wins massive land claim battle in federal court", CBC, June 12, 2019. https://www.cbc.ca/news/canada/calgary/blood-tribe-big-land-claim-federal-court-decision-1.5172198
- ²⁴⁷ Government of Alberta. Litigation Fund (website). https://www.alberta.ca/litigation-fund.aspx
- ²⁴⁸ Kathleen Martens, "Is the Additions to Reserve policy the best way for feds to return stolen land?", APTN News, Nov. 3, 2021. https://www.aptnnews.ca/national-news/is-the-additions-to-reserve-policy-the-best-way-for-feds-to-return-stolen-land/
- ²⁴⁹ Nickita Longman, Emily Riddle, Alex Wilson, and Saima Desai, "'Land Back' is more than the sum of its parts", Briarpatch Magazine, Sept. 10, 2020.

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