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Mavericks

IBA PU Alumni Canada

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Charlie Munger on how to rise in life:

"I constantly see people rise in life who are not the smartest, sometimes not even the most diligent, but they are learning machines. They go to bed every night a little wiser than they were when they got up and boy does that help, particularly when you have a long run ahead of you."

Mavericks Note

From the Desk of the Editor – Mavericks Quarterly

As we turn the page from 2025 to 2026, it feels like opening a fresh issue of Maverick with that familiar mix of pride and anticipation. Over this past year, each quarterly edition has arrived like a carefully wrapped parcel of ideas, filled with the voices of university professors from across the world. Their thoughtful, well written articles have given Maverick a rich texture, the quiet rustle of new research, the bright spark of bold opinions, and the steady undertone of timeless wisdom.

Looking back on 2025, there is a real sense of accomplishment. We set out to publish four quarterly issues, and we did so with consistency, care, and heart. Each edition reflected our collective effort: contributors who poured their expertise onto the page, editors who shaped every line, and readers who welcomed Maverick into their screens.

As we step into 2026, the horizon feels wide and bright. We are committed to making Maverick even better: more engaging topics, deeper insights, and an even broader range of voices from academia, industry, and our own alumni family. Thank you to everyone who has written, reviewed, shared, and read Maverick. Your energy and support are the heartbeat of this publication.

On behalf of IBA PU Alumni Canada, I wish you and your families a peaceful, prosperous, and inspiring 2026. May the coming year bring you new ideas, meaningful connections, and many more pages of knowledge to enjoy together.

Editorial Team, Mavericks Quarterly

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Agree to disagree: Why we fear conflict and what to do about it

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In an era of heightened political polarization, merely longing for civility is no longer enough. Understanding just how to debate and respectfully disagree has become truly imperative, now more than ever and for a couple good reasons.

Humans are wired for connection. Our brains evolved for collaboration.

Sharing experiences with people who see the world as we do feels affirming. It makes collaboration possible. And in prehistoric times, our survival depended on it. Working together meant protection, food and belonging, while conflict risked exclusion or, worse, death.

But civility isn't about avoiding conflict, it's about choosing to see the other's humanity all while fully disagreeing with them.

The weaponization of civility

Avoiding conflict for the sake of civility comes at a cost.

Societies move forward when people are willing to engage in honest disagreement, exposing blind spots and opening paths to progress. Yet too often, calls for civility are used as tools of oppression, privileging those already served by the status quo.

History is full of examples — from women's suffrage to the civil rights movement — where demands for "politeness" were used to quiet those pushing for change.

When discomfort is mistaken for disrespect, dissidence is curtailed and legitimate anger invalidated. At such moments, civility ceases to be a virtue and becomes a mechanism of control.

This helps explain why reactions to "cancel culture" have been so strong — a response to the ways in which demands for consideration can be seen as silencing rather than inviting dialogue. Recent events from cancelled university lectures to the suspension of high-profile comedic television hosts reveal how fear of controversy increasingly constrains open expression.

Maintaining civility is a delicate balance. When disagreement turns uncivil, especially in the public sphere, people tend to withdraw altogether, eroding the

very dialogue that civility is meant to protect.

Grounding civility in dignity

True civility begins with a disposition of the heart — a sincere recognition of the dignity of others.

From that foundation flow the actions and skills that make respectful engagement possible: listening with curiosity, showing courtesy and extending respect even in disagreement.

Civility, however, is not simply about being polite; it is about choosing to see others as moral equals, worthy of being heard and understood. In fact, civil disagreement is healthy and necessary.

In workplaces, teams that can debate ideas respectfully tend to be more innovative and make better decisions than those that avoid conflict altogether.

When grounded in dignity rather than deference, civility enables the kind of disagreement that strengthens communities rather than divides them. It reflects the diversity of our experiences, interests and values — fuelling the dialogue, learning and innovation that help societies grow stronger.

Some conversations feel unsafe

Certainly, some engagements feel riskier than others. Part of this comes down to our physiological makeup — factors largely beyond our control.

The balance of hormones and neurotransmitters in our bodies influences whether we are more prone to react impulsively or respond calmly in moments of tension. This biological wiring is continually shaped by our experiences, including how we've learned to navigate conflict and connection in the past.

When our bodies and minds are already operating near their stress limits — for example, while caring for a sick child, navigating a divorce or managing financial strain — our capacity to engage thoughtfully shrinks. In those moments, even minor disagreements can feel overwhelming, not because of the issue itself but because our systems are already overtaxed.

These personal limits are magnified by the social environments we inhabit. Social media, for instance, amplifies echo chambers and rewards outrage, reinforcing our tendency to interact only with those who share our views.

In such spaces, argument often becomes interest-driven rather than truth-oriented — more about winning than understanding.

When one or both sides see their position as morally correct, any deviation from it is framed as wrong, leading to emotionally charged, difficult-to-resolve conflicts. As soon as our moral convictions harden into absolutes, compromise becomes nearly impossible.

And without shared moral ground, we begin to justify the dehumanization of the "other," treating those who disagree not as mistaken, but as immoral — and therefore unworthy of empathy.

How to have tough conversations

Productive disagreement begins with self-awareness.

Start by asking why a certain conversation feels risky. What emotions or experiences might be shaping your reaction? Then pause to decide whether this discussion is worth having, and with whom.

What are your motives for engaging? Are you entering a genuine exchange or simply entertaining debate for debate's sake? Does this context or person matter to your learning, your work or your advocacy? Or are you engaging in discourse that reinforces division rather than insight?

Communication skills also matter because when we believe in our ability to communicate effectively and influence another person's perspective, we feel safer and more confident entering a difficult conversation. People who see a disagreement as manageable — and themselves as capable of managing it — are more likely to engage constructively rather than withdraw in frustration or defensiveness.

Cultivating skills in listening, reflection and self-regulation, together with dispositions such as open-mindedness, tact, empathy and courage, creates the conditions for genuine and respectful dialogue — the kind that not only builds understanding but sustains relationships and strengthens communities over time.

Ultimately, civility is about engaging in debates with ethics, humility and humanity.

It asks us to create space for honest conversations — where discomfort signals growth, not danger, and where disagreement strengthens rather than fractures our society.

Dr. David Tindall- University of British Columbia

Artificial intelligence is front and centre at COP30

David Tindall

Professor of Sociology, University of British Columbia

We live in a time often characterized as a polycrisis. One of those crises is human-caused climate change, an issue currently being discussed by delegates at the COP30 climate talks in Belém, Brazil.

Another is disinformation, much of which has been focused on climate change. A third potential crisis comes from the implications of artificial intelligence for society and the planet.

When it comes to AI and climate change, there are a variety of opinions, from the optimistic to the pessimistic and the skeptical. Given the overarching concerns about environmental harms of AI, it is surprising to some that AI is front and centre at COP30, which I am currently attending.

Both COP30 President André Aranha Corrêa do Lago and Simon Stiell, executive director of the United Nations Framework Convention on Climate Change, have noted the importance of AI and other aspects of technology for addressing climate change.

While there has been some consideration of AI in addressing climate change at previous COPs, COP30 is the first conference where AI has been formally integrated as a central theme in the conference agenda.

AI at COP30

On the first day of COP30, "science, technology and artificial intelligence" was explicitly listed as one of the key themes. Initiatives included the Green Digital Action Hub, a global platform to drive a greener, more inclusive digital transformation.

Additionally, there was a session introducing the AI Climate Institute. A key goal of the AI Climate Institute is to enable Global South countries to design, adapt and implement their own AI-based climate solutions.

In these and other forums, there were discussions about digital decarbonization technologies and advances in data transparency for emissions. Proponents argued these initiatives were designed to help countries harness technology to meet their climate goals.

When it comes to AI and climate change, there is a tendency for people to think about the increased environmental and climate change harms that AI will bring. In this regard, there has been a lot of recent media coverage on the potential of increased carbon emissions, water use and environmental damage as a result of mining for critical minerals.

A key issue is the emissions produced by data centres. As many commentators have said — including Stiell — data centres need to have electrical power sources if AI is to be aligned with climate action.

How is AI relevant to addressing climate change?

AI is already being applied in climate change mitigation. At COP30, former United States vice president Al Gore gave a presentation about the role of Climate TRACE in addressing climate change. Climate TRACE is a non-profit coalition of organizations that have been developing an inventory of exactly where greenhouse gas emissions are coming from to help governments, organizations and companies to reduce or eliminate these emissions.

Climate TRACE uses satellite imagery, remote sensing, artificial intelligence and machine learning to estimate emissions. In his presentation, Gore demonstrated visual examples in a slide show.

AI can play a role in reducing emissions in a number of ways. One, as noted above, is by tracking emissions. Another is by making energy systems more efficient and thus reducing emissions through energy savings.

Reducing energy use and emissions were not the only type of efficiencies discussed at COP30. Conservation of water use and increased efficiencies in agricultural production were also highlighted. An example is the AI for Climate Action Award that was given to a team from Laos this year for a project using AI for farming and irrigation.

Climate adaptation

AI has the potential to make a big impact in the area of climate adaptation. Key issues were discussed at COP30 at a session called Smarter than the Storm: The Future of AI in Forecasting and Proactive Responses to Build More Resilient Communities.

Scientific research has demonstrated that machine learning can assist local governments in their decisions about options for climate adaptation. AI can be an integral part of an early warning system.

It can be used to predict floods using sensor data, predict wildfires using satellite and weather data, monitor social

media for disaster response and identify areas at risk of landslides.

AI tools involved in these various processes include machine learning, deep learning, natural-language processing and computer vision. Consistent with overarching concerns at COP30 about the importance of social and climate justice, proponents of community AI applications emphasized the need for transparency, affordability of data and AI systems and the sovereignty of community data.

Dangers of disinformation

Climate disinformation is a key type of disinformation in contemporary society. AI can either be a source or a counter to climate disinformation.

At COP30, disinformation and climate denial was mentioned in a number of contexts, including by Brazilian President Luiz Inácio Lula da Silva. One key event on this topic was the announcement of a Declaration on Information Integrity on Climate Change, which a number of countries endorsed.

AI can be considered a triple-edged sword. Unregulated expansion of AI has the potential to do enormous environmental harm and magnify misinformation and disinformation.

However, principled development of AI, powered by clean energy sources, also has the potential to significantly reduce carbon emissions, provide early warning to communities of climate threats, reduce the costs of adapting to a changing climate and enhance our understanding of climate change.

Dr. Russell Field- University of Manitoba

Blue Jays fever sets in as Canada readies for the World Series for the first time in 32 years

Russell Field

Associate Professor, Sport and Physical Activity, University of Manitoba

Late on an October Monday night, George Springer smashed a three-run homer to send nearly 45,000 fans in Toronto's Rogers Centre — and a record national television audience — into a frenzy.

Six outs later, the Blue Jays had qualified for the 2025 World Series against the defending champion Los Angeles Dodgers.

It had the feeling of a denouement. Yet, like other famed home runs in Blue Jays history, Springer's blast was just one step in the long journey through baseball's three playoff rounds.

Edwin Encarnacion's extra-inning walk-off homer against the Baltimore Orioles in 2016 only won an elimination wildcard game.

A year earlier, Jose Bautista's then-audacious bat flip followed a dramatic home run — also like Springer's hit in the seventh inning — that moved the Blue Jays onto the same championship series round that they had not won since 1993. Until this year.

The enduring legacy of 1993

Invoking 1993 holds special resonance for Blue Jays fans. It's the last time the team won, let alone reached, the World Series.

That year produced the most dramatic home run in team history. Joe Carter's Game 6, ninth-inning, three-run blast to left field was only the second time a World Series had ended with a walk-off home run. It clinched the team's second straight championship.

It is easy to tell the story of the Blue Jays through the lens of dramatic game-winning home runs. However, the context of the team's championships —and near misses — offers a more nuanced tale.

Building a contending team

Toronto, thanks to funding from Labatt Breweries, was granted an American League expansion franchise in 1977, alongside the Seattle Mariners — the team Toronto just vanquished in the championship series this year. The Mariners remain the only current franchise never to have played in a World Series.

Following a handful of dire losing seasons, Blue Jays management earned a reputation for talent development. The first crop of stars — Dave Stieb, George Bell and Tony Fernandez — won a division championship in the team's ninth season. They fell one game short of qualifying for the World Series, losing the only seventh game in a post-season series in franchise history prior to this year.

That team played in an open-air, refurbished football stadium. Fans chilled by the cool breezes off Lake Ontario did not enjoy the irony of cheering on their brewery-owned team in a venue where beer sales were prohibited by provincial edict.

Modernity came to Toronto in 1989 when the team moved into SkyDome, a then-state-of the-art domed stadium complete with retractable roof (and by then, beer vendors) that was funded and operated by a public-private partnership.

After playoff disappointments in 1989 and 1991, that generation of Blue Jays stars broke through in 1992 to reach the World Series for the first time. Prior to the second game at Atlanta's Fulton County Stadium, the U.S. Marine Corps colour guard walked onto the field with the Canadian flag flying upside down.

The controversy was integrated into circulating narratives that Americans did not respect Canadian teams. It is a still-perpetuated trope: the *Toronto Star* has spent this playoff run reporting on "what the U.S. media said" about Blue Jays' victories, as though that matters.

The Blue Jays 2025 success — realizing the promise of a new generation of star

prospects headlined by Vladimir Guererro Jr. and Bo Bichette — has rekindled memories of these past glories: the first winning teams of the 1980s, the back-to-back champions in 1992-93 and the bravado of the Bautista-Encarnacion-Josh Donaldson teams from a decade ago.

Lost in this pantheon of star players and dramatic moments, however, is the two decades of mediocrity that followed the heights of the Carter home run.

Changes in corporate ownership

The Blue Jays core aged or moved on and Labatt's was purchased by the Belgian conglomerate, Interbrew SA.

A more dispassionate, bottom-line ownership led to teams that failed to reap the talents of Hall of Famers like Roy Halladay and major stars like Carlos Delgado and Shawn Green.

Rogers Communications purchased 80 per cent of the Blue Jays in 2000, with Interbrew retaining 20 per cent. The on-field performance changed little, but the business model evolved significantly.

Rogers acquired the remaining 20 per cent of the team in July 2004. Before the year was out, it had gained control of SkyDome for $25 million, a fraction of the $600 million that the stadium has cost to build only 15 years earlier. Now fully privately owned, it was renamed the Rogers Centre.

Today, the Blue Jays reflect the vertical integration of modern commercial sports. The team is the primary tenant in a stadium operated by their owners. Their games are broadcast on television channels, radio stations and streaming services owned and operated by Rogers Communications. These channels market other Rogers-owned content during Blue Jays games.

Meanwhile, fans consume this content on cable subscriptions and internet services that are Rogers' core businesses. The newest extension of this revenue-generation model is the increasing prominence of sports betting, which is integrated fully into broadcasts by on-screen commentators providing odds as though delivering sports "news," not paid advertising

Canada's team

The production and circulation of dominant narratives is a consequence of such a structure, what sociologist David Whitson termed "circuits of promotion."

One of the most powerful is that the support for the Blue Jays is nationwide. They are Canada's team. There is an element of truth to this. The Blue Jays' fan base is considerable, particularly when they are winning.

But this is also a marketing construct — one that benefits from the Blue Jays being the only remaining Canadian-based team in a U.S.-operated professional sports league. This would be a much harder narrative to sell if the Montreal Expos were not now the Washington Nationals, and it is not entirely novel.

Basketball's Toronto Raptors, themselves the beneficiaries of the relocation of the Vancouver Grizzlies, capitalized on both the team's appeal as well as its monopoly on Canadian markets with its wildly popular 2019 marketing campaign, "We The North."

Come Friday night, when Trey Yesavage throws the first pitch of the 2025 World Series, the absence of other Canadian-based teams and the centralization of media outlets in Toronto will ensure there will be a ready (and passionate) audience across the country all ready to chant: "Let's go, Blue Jays!"

Saqib Cheema (1992-94)

Flash Teams: The Future of Work

The future of work is changing. Instead of hiring one long-term team to do everything, companies are now starting to create Flash Teams , a short-term group of experts who come together to finish a project quickly and then move on.

This idea comes from the book *Flash Teams* by Melissa Valentine and Michael Bernstein. The message is clear: A leader who understand how to lead Flash Teams will have a big advantage in their careers.

A Flash Team is:

- A temporary project team
- Made up of specialists with different skills
- Coordinated by AI tools that help people work together
- Formed fast and ended fast once the job is done

It is like building a team of the best people for every mission instead of using the same group for everything.

Business graduates can use Flash Teams to:

- Complete projects quicker
- Access global talent
- Reduce mistakes, because experts handle each part
- Save money by only hiring people when needed

Companies that use Flash Teams can launch products and solve problems faster than their competitors.

Here are simple steps to use this idea at work:

1. Divide projects into tasks that each need specific skills.
2. Match people to tasks based on their strengths, not just availability.
3. Everyone should know:
    - What they are doing
    - When they start
    - When they hand the work off to the next person
4. Use short check-ins and simple progress updates.
5. Even if the team exists for a short time, respect and cooperation matter.

For example, if marketing team wants a new product campaign.

Instead of one department doing everything, they quickly assemble:

- A designer from Toronto
- A copywriter from London
- A data analyst from Pakistan
- A social media expert from New York

AI tools connect them and organize the workflow, and the entire campaign is done in two weeks instead of two months. This is Flash Team success.

While managing flash team, always :

- Make sure everyone is paid fairly
- Protect people's rights in short-term jobs

- Keep team communication friendly and respectful
- Make sure someone is responsible for the final quality

A strong leader solves these problems early. Flash Teams are the future. They help companies move faster. They help workers use their best skills.

As an MBA, you can bring this modern way of working into your role by:

- Encouraging collaboration
- Using new technologies
- Being open to global talent

Instead of asking **“**Who do we have?”

ask:

“Who is the best person anywhere to help us succeed right now?”

Leaders who think this way will stand out and build the strongest teams for every mission.

How this year's Nobel winners changed the thinking on economic growth

Antonio Navas

Senior Lecturer in Economics,
University of Sheffield

What makes some countries rich and others poor? Is there any action a country can take to improve living standards for its citizens? Economists have wondered about this for centuries. If the answer to the second question is yes, then the impact on people's lives could be staggering.

This year's Sveriges Riksbank Prize in Economic Sciences (commonly known as the Nobel prize for economics) has gone to three researchers who have provided answers to these questions: Philippe Aghion, Peter Howitt and Joel Mokyr.

For most of human history, economic stagnation has been the norm – modern economic growth is very recent from a historical point of view. This year's winners have been honoured for their contributions towards explaining how to achieve sustained economic growth.

At the beginning of the 1980s, theories around economic growth were largely dominated by the works of American economist Robert Solow. An important conclusion emerged: in the long-run, per-capita income growth is determined by technological progress.

Solow's framework, however, did not explain how technology accumulates over time, nor the role of institutions and policies in boosting it. As such, the theory can neither explain why countries grow differently for sustained periods nor what kind of policies could help a country improve its long-run growth performance.

It's possible to argue that technological innovation comes from the work of scientists, who are motivated less by money than the rest of society might be. As such, there would be little that countries could do to intervene – technological innovations would be the result of the scientists' own interests and motivations.

But that thinking changed with the emergence of endogenous growth theory, which aims to explain which forces drive innovation. This includes the works of Paul Romer, Nobel prizewinner in 2018, as well as this year's winners Aghion and Howitt.

These three authors advocate for theories in which technological progress ultimately derives from firms trying to create new products (Romer) or improve the quality of existing products (Aghion and Howitt). For firms to try to break new

ground, they need to have the right incentives.

Creative destruction

While Romer recognises the importance of intellectual property rights to reward firms financially for creating new products, the framework of Aghion and Howitt outlines the importance of something known as "creative destruction".

This is where innovation results from a battle between firms trying to get the best-quality products to meet consumer needs. In their framework, a new innovation means the displacement of an existing one.

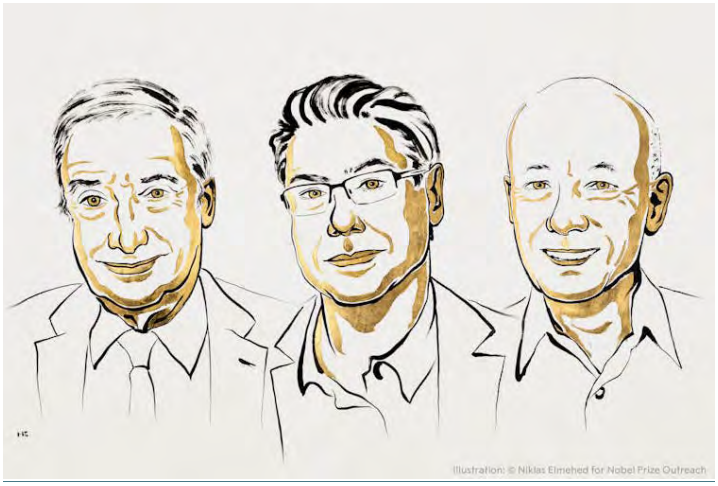
In their basic model, protecting intellectual property is important in order to reward firms for innovating. But at the same time, innovations do not come from leaders but from new entrants to the industry. Incumbents do not have the same incentive to innovate because it will not improve their position in the sector. Consequently, too much protection generates barriers to entry and may slow growth.

But what is less explored in their work is the idea that each innovation brings winners (consumers and innovative firms) and losers (firms and workers under the old, displaced technology). These tensions could shape a country's destiny in terms of growth – as other works have pointed out, the owners of the old technology may try to block innovation.

This is where Mokyr complements these works perfectly by providing a historical context. Mokyr's work focuses on the origins of the Industrial Revolution and also the history of technological progress from ancient times until today.

Mokyr noted that while scientific discoveries were behind technological progress, a scientific discovery was not a guarantee of technological advances.

It was only when the modern world started to apply the knowledge discovered by scientists to problems that would improve people's lives that humans saw sustained growth. In Mokyr's book The Gifts of Athena, he argues that the Enlightenment was behind the change in scientists' motivations.



The 2025 winners Joel Mokyr, Philippe Aghion and Peter Howitt. I

In Mokyr's works, for growth to be sustained it is vital that knowledge flows and accumulates. This was the spirit embedded in the Industrial Revolution and it's what fostered the creation of the institution I am working in – the University of Sheffield, which enjoyed financial

support from the steel industry in the 19th century.

Mokyr's later works emphasise the key role of a culture of knowledge in order for growth to improve living standards. As such, openness to new ideas becomes crucial.

Similarly, Aghion and Howitt's framework has become a standard tool in economics. It has been used to explore many important questions for human wellbeing: the relationship between competition and innovation, unemployment and growth, growth and income inequality, and globalisation, among many other topics.

Analysis using their framework still has an impact on our lives today. It is present in policy debates around big data, artificial intelligence and green innovation. And Mokyr's analysis of how knowledge accumulates poses a central question around what countries can do to encourage an innovation ecosystem and improve the lives of their citizens.

But this year's prize is also a warning about the consequences of damaging the engines of growth. Scientists collaborating with firms to advance living standards is the ultimate elixir for growth. Undermining science, globalisation and competition might not be the right recipe.

Space-time doesn't exist — but it's a useful framework for understanding our reality

Daryl Janzen

Observatory Manager and Instructor, Astronomy, University of Saskatchewan

Whether space-time exists should neither be controversial nor even conceptually challenging, given the definitions of "space-time," "events" and "instants." The idea that space-time exists is no more viable than the outdated belief that the celestial sphere exists: both are observer-centred models that are powerful and convenient for describing the world, but neither represents reality itself.

Yet from the standpoints of modern physics, philosophy, popular science communication and familiar themes in science fiction, stating that space-time does not exist is contentious.

But what would it mean for a world where everything that has ever happened or will happen somehow "exists" now as part of an interwoven fabric?

Events are not locations

It's easy to imagine past events — like losing a tooth or receiving good news — as existing somewhere. Fictional representations of time travel underscore this: time travellers alter events and disrupt the timeline, as if past and future events were locations one could visit with the right technology.

Philosophers often talk this way too. Eternalism says all events across all time exist. The growing block view suggests the past and present exist while the future will come to be. Presentism says only the present exists, while the past used to exist and the future will when it happens. And general relativity presents a four-dimensional continuum that bends and curves — we tend to imagine that continuum of the events as really existing.

The confusion emerges out of the definition of the word "exist." With space-time, it's applied uncritically to a mathematical description of happenings — turning a model into an ontological theory on the nature of being.

Physical theorist Sean Carroll explains presentism and eternalism.

A totality

In physics, space-time is the continuous set of events that happen throughout space and time — from here to the furthest galaxy, from the Big Bang to the far future. It is a four-dimensional map that records and measures where and when everything happens. In physics, an event is an instantaneous occurrence at a specific place and time.

An instant is the three-dimensional collection of spatially separated events that happen "at the same time" (with

relativity's usual caveat that simultaneity depends on one's relative state of rest).

Space-time is the totality of all events that ever happen.

It's also our most powerful way of cataloguing the world's happenings. That cataloguing is indispensable, but the words and concepts we use for it matter.

There are infinitely many points in the three dimensions of space, and at every instant as time passes a unique event occurs at each location.

Positionings throughout time

Physicists describe a car travelling straight at constant speed with a simple space-time diagram: position on one axis, time on the other. Instants stack together to form a two-dimensional space-time. The car's position is a point within each instant, and those points join to form a worldline — the full record of the car's position throughout the time interval, whose slope is the car's speed.

Real motion is far more complex. The car rides along on a rotating Earth orbiting the sun, which orbits the Milky Way as it drifts through the local universe. Plotting the car's position at every instant ultimately requires four-dimensional space-time.

Space-time is the map of where and when events happen. A worldline is the record of every event that occurs throughout one's life. The key question is whether the map — or all the events it draws together at once — should be said to exist in the same way that cars, people and the places they go exist.

A car's worldline is its mapping in place over time.

Objects exist

Consider what "exist" means. Objects, buildings, people, cities, planets, galaxies exist — they are either places or occupy places, enduring there over intervals of time. They persist through changes and can be encountered repeatedly.

Treating occurrences as things that exist smuggles confusion into our language and concepts. When analyzing space-time, do events, instants, worldlines or even space-time as a whole exist in the same sense as places and people? Or is it more accurate to say that events happen in an existing world?

On that view, space-time is the map that records those happenings, allowing us to describe the spatial and temporal relationships between them.

Space-time does not exist

Events do not exist, they happen. Consequently, space-time does not exist. Events happen everywhere throughout the course of existence, and the occurrence of an event is categorically

different from the existence of anything — whether object, place or concept.

First, there is no empirical evidence that any past, present or future event "exists" in the way that things in the world around us exist. Verifying the existence of an event as an ongoing object would require something like a time machine to go and observe it now. Even present events cannot be verified as ongoing things that exist.

In contrast, material objects exist. Time-travel paradoxes rest on the false premise that events exist as revisitable locations. Recognizing the categorical difference between occurrence and existence resolves these paradoxes.

Second, this recognition reframes the philosophy of time. Much debate over the past century has treated events as things that exist. Philosophers then focus on their tense properties: is an event past, present or future? Did this one occur earlier or later than that one?

A stencil interpretation of René Magritte's 1929 painting, 'La Trahison des images,' in which the artist points out that the representation of an object is not the object itself.

These discussions rely on an assumption that events are existent things that bear these properties. From there, it's a short step to the conclusion that time is unreal or that the passage of time is an illusion, on the identification that the same event can be labelled differently from different standpoints. But the ontological distinction was lost at the start: events don't exist, they happen. Tense and order are features of how happenings relate within an existing world, not properties of existent objects.

Finally, consider relativity. It is a mathematical theory that describes a four-dimensional space-time continuum, and not a theory about a four-dimensional thing that exists — that, in the course of its own existence, bends and warps due to gravity.

Conceptual clarity

Physics can't actually describe space-time itself as something that actually exists, nor can it account for any change it might experience as an existing thing.

Space-time provides a powerful description of how events happen: how they are ordered relative to one another, how sequences of events are measured to unfold and how lengths are measured in different reference frames. If we stop saying that events — and space-time — exist, we recover conceptual clarity without sacrificing a single prediction.

Dr. Michael Nalick-University of Denver

Personal scandals sink CEOs faster than financial fraud, research shows

Michael Nalick

Assistant Professor of Management, University of Denver

A CEO's canoodling with his company's human resources chief – caught on the "kiss cam" at a Coldplay concert – made global headlines this summer. Beyond the memes and tabloid fodder, personal lives were shattered and a company was left in turmoil after its leader's sudden exit.

The case, involving the AI firm Astronomer, may be the most visible of recent CEO personal scandals – think sex affairs, drug abuse or embarrassing behavior – but it's not an isolated incident. Just weeks following the Coldplay "kiss cam," the CEO of Nestlé was shown the door for similar behavior involving a relationship with a subordinate. Personal scandals have been the top cause of CEO terminations in recent years.

How do these scandals stack up to other corporate indiscretions, such as financial fraud? As a management professor, I knew that there's lots of research on CEOs' financial crimes, but surprisingly little on personal misdeeds.

So my colleagues and I examined nearly 400 CEO scandals involving either financial or personal misconduct. In this research, published in August 2025 in the journal Strategic Organization, we found that not all CEO scandals are treated equally: The type makes all the difference.

The Coldplay incident became the subject of ridicule at public events for days, such as at this July 18, 2025, Major League Baseball game

Personal scandals are harder to survive

For most people, personal indiscretions – such as having an extramarital affair or abusing drugs – are a private matter. But for CEOs, even scandals unrelated to business create doubt about their judgment, integrity and leadership. The result is usually career-ending for the CEO, research shows, and can create lasting harm for the company.

We found that CEOs overwhelmingly exit in the wake of personal scandals – five times as often as CEOs who commit financial misconduct do, in fact. And strong business performance doesn't tend to offer protection.

For example, Hewlett-Packard's Mark Hurd, who's widely credited with turning around HP in the mid-2000s, was ousted following a very visible personal misconduct scandal 15 years ago. The fallout was swift: The company's stock fell nearly 10% immediately after the announcement, and with leadership in a tailspin, it dropped more than 40% within a year.

Why bad numbers come with better odds

Companies are also routinely accused of "cooking the books." In recent months, several firms have been forced to restate their earnings after their financial statements didn't add up. These scandals shake investor trust, trigger sharp drops in company stock and often lead to the chief financial officer's departure – with some CEOs following suit.

However, while cooking the books is considered a severe form of corporate misconduct, our research suggests that it has fewer job-ending repercussions for CEOs than personal scandals do. Roughly half of all CEOs implicated in financial scandals survive, we found – because, unlike in personal scandals, CEOs can often shift blame.

We also found that CEOs dismissed due to financial scandals tend to be replaced with outside candidates, which has been shown to stabilize a company's stock price and lead to stronger long-term performance.

It might be surprising to learn that a CEO's personal misconduct can come at a greater cost – both to the business and the executive – than outright financial fraud. Is corporate America overestimating the importance of CEOs' private behavior? Or is it underestimating the importance of cooking the books?

While I don't have answers to these questions, I think our findings show the need for more discussion – and more research.

Small sample, big impact: How talking to just 5 people can improve startup success

Xi Chen

Assistant Professor of Entrepreneurship, University of Guelph

As Canada navigates an ongoing tariff dispute with the United States, small businesses and startups are emerging as a source of economic growth that could help Canada assert greater independence from its largest trading partner.

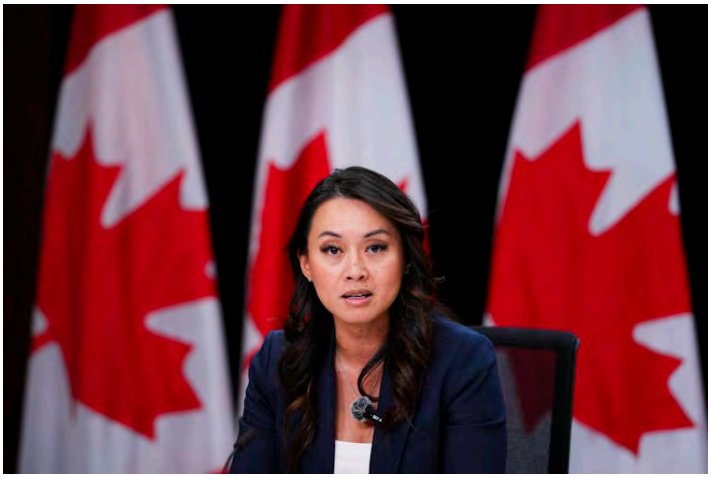
Prime Minister Mark Carney has warned that Canada cannot rely on the U.S. any longer and must instead achieve "economic autonomy." Ottawa's efforts to remove internal trade barriers and expand infrastructure projects are central to this objective, paving the foundation to revitalize the Canadian economy.

Another key part of this agenda is fostering entrepreneurship — the engine for new opportunities and economic growth.

Small and medium-sized enterprises (SMEs) are the backbone of the Canadian economy. As of December 2023, small businesses made up 98.1 per cent of all employer businesses in Canada, accounted for 63.7 per cent of the private labour force and 48 per cent of Canada's GDP (gross domestic product) over the 2017-21 period. They also represented 38.2 per cent of the total value of exported goods.

Although exporting has traditionally been dominated by larger, innovation-intensive SMEs — particularly those with significant intellectual property — recent data shows an increase in exports from smaller, service-oriented firms, many of them immigrant-led.

These businesses are playing an increasingly important role in diversifying Canada's export base and reducing dependence on any single market — particularly the U.S.



A key part of growing Canada's economic independence is fostering entrepreneurship. Minister of Small Business Rechie Valdez speaks to reporters during a news conference at the National Press Theatre in Ottawa in November 2024.

The lean startup model

For many aspiring entrepreneurs, one of the most popular frameworks for launching a business is the lean startup

method, developed by Silicon Valley entrepreneur Eric Ries and expanded on in his 2011 book, *The Lean Startup*.

This practice has been widely adopted by incubators and accelerators, some of which require new ventures to meet hundreds of mentors and potential customers for consultation.

The Lean Startup provides a recipe for starting businesses with minimal cost, fast iteration and higher success rate. The philosophy behind it is for entrepreneurs to validate their market before investing tons of resources into building a product.

Since its publication, *The Lean Startup* has been used by millions of entrepreneurs around the world. The book advises entrepreneurs to "get out of the building" and talk to potential customers, but it doesn't specify how much effort entrepreneurs should invest in market validation — how many people to consult or how often to do so.

Market validation is the process of testing a product or service idea with its target market to confirm if there's real demand for it and whether it is viable for success. Although it's central to the lean startup approach, many entrepreneurs shy away from it for different reasons.

Some entrepreneurs want to protect their business ideas from being stolen by others. In addition, new ventures have scarce resources that need to be allocated to multiple tasks, and market validation competes for the limited attention and resources of entrepreneurs.

The 'sweet spot' for market validation

In a recent study, my co-author Stephen X. Zhang and I set out to understand which entrepreneurs are more likely to invest in market validation, and how much investment is optimal for new venture performance. We conducted a three-wave survey with 210 entrepreneurs and their co-founders from Canada, Chile and China.

We measured the self-efficacy of entrepreneurs — how confident they felt about market and entrepreneurial success — and asked co-founders to report their ventures' market validation frequency and hours. We found that entrepreneurs with moderate levels of confidence invested most resources into market validation. They sought feedback more frequently and invested more time in understanding potential customers.

Entrepreneurs with low confidence either didn't think market validation was worthwhile, or they found it too intimidating. Those with high confidence didn't think it was necessary to validate their market because they were already convinced of their success.

More importantly, we found that a moderate level of market validation led to the strongest new venture performance. Checking in with about four to five people monthly was the most efficient. Interestingly, this number coincides with the most efficient size of social network, as well as the number needed for user testing.

The results suggest that effective market validation is more about quality and consistency than quantity. Talking to a small, diverse group of knowledgeable contacts on a regular basis is optimal for enhancing new venture performance.

Yet there is a precaution: we did not study the quality of informants. Five people may be enough for qualitative methods such as interviews, but it may not be enough for quantitative methods such as surveys.

What this means for new entrepreneurs

Our findings can make the task starting a new business less daunting for entrepreneurs. Instead of trying to interview hundreds of customers or skipping validation entirely, early-stage entrepreneurs can start small.

If you have an idea, find five people that are most knowledgeable and relevant for the idea, and ask their opinions about the product or service you envisioned. If they like the idea, develop a minimum viable product to test it out. If not, revise your idea or try a different one.

In addition, understanding the way confidence has an impact on how entrepreneurs seek feedback can help organizations and mentors improve their coaching methods.

Entrepreneurs with low confidence may benefit from support that builds self-efficacy through vicarious learning, such as observing and simulation, to make feedback less intimidating. Those with excessive confidence may need to be challenged to provide evidence for their assumptions and reminded of the value of customer feedback in challenging even deeply held convictions.

Dr. Jasper Kenter- Aberystwyth University

Why the UK should look beyond growth to a 'new economics' that works for all

Jasper Kenter

Professorial Research Fellow, Deliberative Ecological Economics, Aberystwyth University

The UK budget is usually a story of growth forecasts, borrowing levels and fiscal discipline. But ahead of this month's high-stakes event, growth has been slower than expected. At the same time, as households struggle with living costs, the climate crisis intensifies and inequality persists, growth might seem like too narrow a focus.

Conventional economics – with its reliance on GDP growth – cannot respond to the global "polycrisis". This is the overlap between climate change, biodiversity loss, energy and food insecurity and extreme inequality – all amplified by geopolitical instability.

Recent research my colleagues and I conducted shows that a "new economics" is needed in the face of these challenges. Drawing on hundreds of sources across 38 schools of thought, we distilled ten principles focused on wellbeing, justice and ecological resilience that could offer a way to rethink national economic strategies.

New economic principles are not a luxury that we can ignore at times of fiscal constraint. They are a necessity because orthodox economic thinking has been a key reason for the polycrisis.

Mainstream economics thinks of individuals as selfish "rational maximisers". That is to say, their decisions are about creating optimal outcomes for themselves. It also assumes that markets allocate resources efficiently, and that GDP growth is the surest path to progress.

But these assumptions look increasingly out of step with reality. Growth has often come with rising inequality, precarious work and environmental degradation, and is increasingly difficult to attain. The COVID pandemic showed that global supply chains are optimised for efficiency but not resilience. The war in Ukraine highlighted the risks of dependence on fossil fuels and authoritarian regimes.

Meanwhile, the ecological and climate crises show that endless GDP growth on a finite planet is a dangerous illusion. What is required now is a transformation of the values and institutions that underpin economic life.

Transformation becomes more plausible in moments of crisis. These expose the weaknesses of existing systems and open up political space for alternatives. Governments can act quickly – as the UK did with furlough and other COVID interventions.

Ten principles for a 'new economics'

The "new economics" movement is a collection of many approaches. This diversity is a strength, but also a challenge. The core narrative of traditional economics around free markets and growth has been repeated so many times that it may seem like there is no alternative. But our research identifies ten cross-cutting principles that give the new economics movement coherence.

1. **Wellbeing for people and planet**: economies exist within societies and ecosystems, and their purpose should be to support both human and planetary wellbeing
2. **Recognising complexity**: no single discipline has all the answers. Economics must integrate insights from ecology, sociology, philosophy, indigenous knowledge and other fields
3. **Limits to growth**: we cannot assume endless economic expansion on a planet with finite resources
4. **Nature is irreplaceable**: "natural capital" (for example, soil, forests and water) cannot simply be swapped for human-made substitutes
5. **Design focused on regeneration**: economic systems should be circular and restorative rather than continuing to extract resources from the planet
6. **Holistic views of people and values**: people are not just self-interested consumers; perspectives should be based on human dignity and enhance people's opportunities to achieve the lives they value
7. **Equity and justice**: reducing inequality must be a central economic goal, not an afterthought
8. **Relationality**: economies should nurture trust, reciprocity and community, rather than erode it
9. **Participation and cooperation**: businesses and policymakers should involve citizens directly, through discussion and collaboration
10. **Post-capitalism and decolonisation**: be open to models beyond the dominant approach focused on the endless accumulation of wealth.

Few approaches embody all ten principles, but each offers part of the picture. For example, ecological economics stresses environmental limits, while feminist economics centres on justice and care.

So what does this look like?

Crucially, this is not just academic debate. The UK has already experimented with elements of new economics, for example, through the Welsh Wellbeing of Future Generations Act. The act is an example of embedding new economic

thinking into law, though there are challenges in enforcing it.

Welsh public bodies must work towards seven wellbeing goals, including prosperity, resilience, equality and global responsibility. This shifts policymaking from short-term growth to longer-term wellbeing.

And cities like Amsterdam have adopted so-called "doughnut economics" to guide planning. The city set targets for meeting residents' needs (the inner ring of the "doughnut") while staying within planetary boundaries (the outer ring). Initiatives include sustainable construction standards, reducing food waste and promoting inclusive housing.

Similar experiments are gathering momentum. The Wellbeing Economy Governments initiative connects countries pursuing post-growth strategies. Costa Rica's ecosystem-based development, Bhutan's "gross national happiness" measure, and New Zealand's living standards framework are all innovative approaches that look beyond GDP growth.

By drawing on the ten principles in the budget and beyond, UK chancellor Rachel Reeves could build on these experiments. This would mean embedding wellbeing, justice and sustainability into her economic strategy.

Ultimately, applying these principles could mean that infrastructure spending could be guided by the limits of the planet. And other investments could support nature recovery, community food systems and the circular economy. Wellbeing and environmental indicators could be a central part of future budgets. And citizen assemblies could give people a voice in the economic decisions that affect them.

These changes would not discard fiscal responsibility. But they would broaden its meaning, making it about sustainability and fairness as well as balance sheets.

Economics is not a neutral science but a set of choices about the future we make possible. Governments could continue with a model that prioritises growth at all costs, leaving people vulnerable to crises and inequality. Or they could be guided by principles that put wellbeing, fairness and ecological resilience at the core.

In the run up to the budget, we should be asking not just how fast our economy can grow, but whether it is helping us to thrive within the planet's limits.

Dr. Gilles E. Gignac-University of Western Australia

Worried about turning 60? Science says that's when many of us actually peak

Gilles E. Gignac
Associate Professor of Psychology, The University of Western Australia

As your youth fades further into the past, you may start to fear growing older.

But research my colleague and I have recently published in the journal Intelligence shows there's also very good reason to be excited: for many of us, overall psychological functioning actually peaks between ages 55 and 60.

And knowing this highlights why people in this age range may be at their best for complex problem-solving and leadership in the workforce.

Different types of peaks

There's plenty of research showing humans reach their physical peak in their mid-twenties to early thirties.

A large body of research also shows that people's raw intellectual abilities – that is, their capacity to reason, remember and process information quickly – typically starts to decline from the mid-twenties onwards.

This pattern is reflected in the real world. Athletes tend to reach their career peak before 30. Mathematicians often make their most significant contributions by their mid-thirties. Chess champions are rarely at the top of their game after 40.

Yet when we look beyond raw processing power, a different picture emerges.

From reasoning to emotional stability

In our study, we focused on well-established psychological traits beyond reasoning ability that can be measured accurately, represent enduring characteristics rather than temporary states, have well-documented age trajectories, and are known to predict real-world performance.

Our search identified 16 psychological dimensions that met these criteria.

These included core cognitive abilities such as reasoning, memory span, processing speed, knowledge and emotional intelligence. They also included the so-called "big five" personality traits – extraversion, emotional stability, conscientiousness, openness to experience, and agreeableness.

We compiled existing large-scale studies examining the 16 dimensions we identified. By standardising these studies to a common scale, we were able to make direct comparisons and map how each trait evolves across the lifespan.

Peaking later in life

Several of the traits we measured reach their peak much later in life. For example, conscientiousness peaked around age 65. Emotional stability peaked around age 75.

Less commonly discussed dimensions, such as moral reasoning, also appear to peak in older adulthood. And the capacity to resist cognitive biases – mental shortcuts that can lead us to make irrational or less accurate decisions – may continue improving well into the 70s and even 80s.

When we combined the age-related trajectories of all 16 dimensions into a theoretically and empirically informed weighted index, a striking pattern emerged.

Overall mental functioning peaked between ages 55 and 60, before beginning to decline from around 65. That decline became more pronounced after age 75, suggesting that later-life reductions in functioning can accelerate once they begin.

Getting rid of age-based assumptions

Our findings may help explain why many of the most demanding leadership roles in business, politics, and public life are often held by people in their fifties and early sixties. So while several abilities decline with age, they're balanced by growth in other important traits. Combined, these strengths support better judgement and more measured decision-making – qualities that are crucial at the top.

Despite our findings, older workers face greater challenges re-entering the workforce after job losses. To some degree, structural factors may shape hiring decisions. For example, employers may see hiring someone in their mid-fifties as a short-term investment if retirement at 60 is likely.

In other cases, some roles have mandatory retirement ages. For example, International Civil Aviation Organisation sets a global retirement age of 65 for international airline pilots. Many countries also require air traffic controllers to retire between 56 and 60. Because these jobs demand high levels of memory and attention, such age limits are often considered justifiable.

However, people's experiences vary.

Research has found that while some adults show declines in reasoning speed and memory, others also maintain these abilities well into later life.

Age alone, then, doesn't determine overall cognitive functioning. So evaluations and assessments should focus on individuals' actual abilities and traits rather than age-based assumptions.

A peak, not a countdown

Taken together, these findings highlight the need for more age-inclusive hiring and retention practices, recognising that many people bring valuable strengths to their work in midlife.

Charles Darwin published On the Origin of Species at 50. Ludwig van Beethoven, at 53 and profoundly deaf, premiered his

Ninth Symphony. In more recent times, Lisa Su, now 55, led computer company Advanced Micro Devices through one of the most dramatic technical turnarounds in the industry.

History is full of people who reached their greatest breakthroughs well past what society often labels as “peak age”. Perhaps it’s time we stopped treating midlife as a countdown and started recognising it as a peak.

Canada's rising poverty and food insecurity have deep structural origins

Tracy Smith-Carrier

Professor and Canada Research Chair (Tier 2) in Advancing the UN Sustainable Development Goals, Royal Roads University

With one-quarter of Canadians struggling to put food on the table, Canada has recently received a D grade from Food Banks Canada for its performance in meeting the country's food security needs.

According to a 2024 report by the federal government's National Advisory Council on Poverty, poverty is also on the rise, and people who once thought they were financially secure are starting to feel the squeeze.

Canada is a signatory to the International Covenant on Economic, Social and Cultural Rights, recognizing the right to food, housing and an adequate standard of living.

As a social scientist, my research shows that Canada is struggling to realize these rights because decision-makers often lack the political will to act, and the judicial system still relies on an outdated approach that cannot hold these decision-makers accountable.

Understanding the rights split

Human rights are indivisible, meaning they're all equally important and interdependent: one right cannot be realized without realizing the others. To meet their commitments, signatory states have agreed to respect, protect and fulfil human rights and to use the "maximum available resources" at their disposal to progressively achieve them.

While Canada and other United Nations member states have endorsed social and economic rights, these rights have often been treated differently from their civil and political counterparts.

Civil and political rights are typically considered negative rights, which do not require the government to act or provide anything, but rather to protect or not interfere with people's rights, such as freedom of expression or religion. Social and economic rights, on the other hand, have often been deemed positive rights, meaning they require the state to act or

provide resources to meet them, like education or health care.

In 1966, human rights were split: civil and political rights were placed under one covenant, and economic, social and cultural rights under another, rather than having them all affirmed under one, as was originally envisaged in the Universal Declaration of Human Rights in 1948.

Weaker language was deliberately included in the International Covenant of Economic, Social and Cultural Rights by the rights architects, particularly those in the United States, who felt that its ratification should not encroach on state autonomy or require "thicker social programs and a robust welfare state."

Consequently, the courts, particularly Canadian lower courts and others internationally, have over the years commonly affirmed that social and economic rights are policy matters best determined by political entities and given democratic legitimacy at the ballot box.

While there is overlap between the two sets of rights, social and economic rights have frequently been deemed non-justiciable — not something people can challenge in court — and therefore not ones people can directly claim or pursue legal remedies for. Instead these rights have taken on an aspirational quality.

When courts are reluctant

Gosselin v. Québec set an important precedent for how social and economic rights would come to be interpreted in Canada.

This case relates to a regulation in the 1980s that set Québec's social assistance benefits for people under 30 at only one-third of the regular benefit ($170 rather than $466 per month). The plaintiff claimed that the regulation was age-discriminatory and violated the Québec and Canadian Charters of Rights and Freedoms under Sections 7 and 15.

Judges in Québec, and later in 2002 in the Supreme Court — although the justices were split on the decision — confirmed the Charter did not impose positive-rights duties on governments, even while the Supreme Court left the door open that it could do so in the future.

Yet some legal scholars contend that the case took constitutional law "two steps backward" and failed to debunk the prejudicial stereotypes surrounding people living in poverty that influenced the decision. In 1992, a Québec Superior Court judge said "the poor were poor for intrinsic reasons" — that they were under-educated and had a weak work ethic.

Such reasoning, however, reflects an individual explanation of poverty — that financial hardship derives from personal failings or deficits — rather than a structural one, where poverty stems from economic downturns, weak labour markets and a lack of affordable child care or housing.

A significant body of evidence now shows that poverty largely has structural origins. Although there have been some victories on social and economic rights, many cases have followed the interpretation in *Gosselin*.

The right to housing was explicitly identified in the 2019 National Housing Strategy Act. The act introduced the National Housing Council and a complaints and monitoring mechanism through the federal housing advocate, a model that limits people from demanding state-provided housing and suing if they don't receive it.

Lacking an ecosystem of rights compliance and enforcement, governments have turned to less effective options like charity, rather than engaging solutions that could actually end poverty and hunger, such as a basic income guarantee.

The impasse on social and economic rights has led to the denial of these rights for those living in poverty.

Enforcing implemented rights

Some, like Oxford legal scholar Sandra Fredman, argue the courts should use legal frameworks not to defer to politicians or usurp their decision-making capacity, but to require them to provide reasoned justifications for their distributive decisions.

Although non-binding, the UN's judicial body, the International Court of Justice, recently concluded that countries have legal obligations to curb their emissions. Some courts, domestically and globally, are also gravitating toward the enforcement and justiciability of human rights, particularly in climate-related cases and the right to a healthy environment.

These could provide new precedents that transform how these rights are understood and enforced in the future.

Without concrete resources, targets and accountability mechanisms to ensure people have dignified access to food, housing and social security, these rights will remain largely hollow.

The "climate of the era" has changed. It's time for politicians to actively work to fulfill social and economic rights and for the courts to hold them accountable when they fail to do so.

Without substantive rights — ones backed by action — poverty will continue to rise and people will be denied justice.

Dr. Luke Hartigan- University of Sydney

The price of gold is skyrocketing. Why is this, and will it continue?

Luke Hartigan
Lecturer in Economics, University of Sydney

The price of gold surged above US$4,100 (A$6,300) an ounce on Wednesday for the first time, taking this year's extraordinary rally to more than 50%.

The speed of the upswing has been much faster than analysts had predicted and brings the total gains to nearly 100% since the current run started in early 2024.

The soaring price of gold has captured investors' hearts and wallets and resulted in long lines of people forming outside gold dealers in Sydney to get their hands on the precious metal.

What explains the soaring price of gold?

A number of reasons have been suggested to explain the current record run for gold. These include greater economic uncertainties from ballooning government debt levels and the current US government shutdown.

There are also growing worries about the independence of the US Federal Reserve. If political interference pushes down US interest rates, that could see a resurgence in inflation. Gold is traditionally seen as a hedge against inflation.

But these factors are unlikely to be the main reasons behind the meteoric rise in gold prices.

For starters, the price of gold has been on a sustained upward trajectory for the past few years. That's well before any of those factors emerged as an issue.

The more likely explanation for the current gold price rally is growing demand from gold exchange-traded funds (ETFs).

These funds track the movements of gold, or other assets such as stocks or bonds, and are traded on the stock exchange. This makes assets such as commodities much more accessible to investors.

Before the first gold ETF was launched in 2003, it was considered too difficult for regular investors to get gold exposure.

Now gold ETFs are widely available, gold can be traded like any other financial asset. This appears to be changing investors' view of gold's traditional role as a safe-haven asset in times of political or financial turmoil, when other assets such as stocks are more risky.

In addition to retail investor demand, some emerging market economies – notably China and Russia – are switching their official reserve assets out of currencies such as the US dollar and into gold.

According to the International Monetary Fund, central bank holdings of physical gold in emerging markets have risen 161% since 2006 to be around 10,300 tonnes.

To put this into perspective, emerging market gold holdings grew by only 50% over the 50 years to 2005.

Research suggests the reason for the switch into gold by emerging market economies is the increasing use of financial sanctions by the US and other governments that represent the major reserve currencies (the US dollar, euro, Japanese yen, and British pound).

Indeed, Russia became a net buyer of gold in 2006 and accelerated its gold purchases following its annexation of Crimea in 2014. It now has one of the largest stockpiles in the world.

Meanwhile, China has been selling down its holdings of US government bonds and switching to buying gold in a process referred to as "de-dollarisation". It wants to reduce its dependency on the US currency.

Emerging market central banks also lifted their gold holdings after Russia's exclusion from the international payments system known as SWIFT and a proposal by US and European governments to seize Russian central bank reserves to help fund support for Ukraine.

Further de-dollarisation efforts by emerging market economies are expected to continue. Many of these economies now view the major Western currencies as carrying unwanted risk of financial sanctions. This is not the case with gold. This could mean financial sanctions become a less effective policy tool in the future.

Could gold have further to run?

Ongoing demand from Russia and China, and investor demand for gold ETFs, means the gold price could rally further. Both factors represent sustained increases in demand, in addition to existing demand for jewellery and electronics.

Further price rises will likely fuel increased ETF inflows via the "fear of missing out" effect.

The World Gold Council last week reported record monthly inflows in September. For the September quarter as a whole, ETF inflows topped US$26 billion and for the nine months to September, fund inflows totalled US$64 billion.

In contrast, emerging market central bank demand for gold is less affected by price and more driven by geopolitical factors, which supports increasing demand for gold.

Based on these two drivers, analysts at Goldman Sachs have already revised up their price target for gold to US$4,900 an ounce by the end of the 2026.

Why gold's rise is a win for Australia

What does the current gold rally mean for Australia?

As the world's third-largest producer of gold, with at least 19% of known deposits, Australia will benefit from further increases in gold prices.

In fact, the Department of Industry, Science and Resources now expects the

value of gold exports to overtake liquefied natural gas exports next year.

This will see gold become our second-most important export behind that other "precious" metal: iron ore.

The warning signs are clear: We're heading toward a digital crisis

Dean Curran

Associate Professor, Sociology, University of Calgary

People's lives are more enmeshed with digital systems than ever before, increasing users' vulnerability and insecurity. From data leaks like the 2017 Equifax data breach to the more recent cyberattack on British retailer Marks & Spencer, business operations and data on the internet continue to be vulnerable.

There are good reasons to believe that little will be done about these risks until a massive society-wide crisis emerges.

My research suggests that there are significant failures in our current approaches to risk and innovation. Digital technologies remake social life through new technologies, communication platforms and forms of artificial intelligence. All of which, while very powerful, are also highly risky in terms of malfunctioning and vulnerability to being manipulated.

Yet, governments are generally unable to distinguish between what are actually valuable contributions to society and what are intensely socially damaging.

https://youtu.be/cx581DqtioY

CBC's The National looks at data breaches.

A massive social experiment

The digital economy includes "those businesses that increasingly rely upon information technology, data and the internet for their business models." The companies dominating the digital economy continue to undertake a massive social experiment where they keep the lion's share of the benefits while shunting the risks onto society as a whole.

This could lead to a systemic digital crisis, ranging from a widespread breakdown of basic infrastructure, such as electricity or telecommunications due to a cyberattack, to an attack that modifies existing infrastructure to make it dangerous.

There are significant similarities between the current trajectory of the digital economy and the 2008 financial crisis. In particular, what we are increasingly seeing in the digital world, which we saw in the pre-crisis financial world, is what American sociologist Charles Perrow called "tight coupling."

Perrow argues that when systems exhibit high levels of interconnection without sufficient redundancy to compensate for failures, it can lead to catastrophic consequences.

Likewise, high levels of complexity are generally considered to make highly interconnected systems riskier.

Unanticipated risks and connections can lead to failures cascading across the system.

Increasing interdependence

Our existing digital economy shares many of these characteristics. The digital economy is characterized by a business model that focuses on businesses getting as large as possible as quickly as possible.

The lead-up to the 2008 financial crisis and the current digital economy share both the amplification of interdependency alongside the reduction of redundancy. In the case of finance, this proceeded through massive borrowing to leverage earnings, leaving a smaller ratio of money left to cover any possible losses.

In the digital economy, this need to continually collect data increases interdependencies among datasets, platforms, corporations and networks. This increased interdependency is fundamental to the core business model of the digital economy.

The undermining of redundancy in the digital sphere is manifested in the "move-fast-and-break-things" ethos in which digital companies eliminate or acquire competitors as quickly as possible while eliminating analog alternatives to their own digital networks.

Last, these digital behemoths and their rapid growth increase the complexity of the digital economy and the monopolistic networks that dominate it.

https://youtu.be/AAnERLr8BAw

BBC News covers last summer's flight cancellations.

Obvious warning signs

There is a key difference between the 2008 financial crisis and the contemporary digital economy. Unlike in the lead-up to the crisis, where a partially finance-driven prosperity quieted any obvious warning signs, the warning signs in the digital economy are front and centre for everyone to see.

The 2017 WannaCry and NotPetya malware attacks each caused billions of dollars in damages. More recently, the CrowdStrike failure in 2024 cancelled thousands of flights, and even took television stations off the air. Constant hacks, ransomware attacks and data leakages are warning signs that this is a deeply fragile system.

AI has taken many of these vulnerabilities into overdrive, while adding new risks, such as AI hallucinations and the exponential growth in misinformation. The speed and scale of AI are expected to

intensify existing risks to confidentiality, system integrity and availability.

This is potentially the most significant, though unfortunate element in this story. There is massive system risk, yet they are not addressed directly, and the processes heightening these risks continue to accelerate.

This suggests a deeper problem in our politics. While we do have some ability to regulate after the damage is done, we struggle to prevent the next crisis.

Dr. Benjamin Boller- University of Quebec

How to maintain good cognitive health at any age

Benjamin Boller

Associate Professor of Neuropsychology, University of Québec at Trois-Rivières (UQTR)

It is an achievable goal to remain mentally sharp while aging, or is it a pipe dream?

It's entirely possible if you cultivate habits throughout your life that are beneficial to brain function.

As a researcher in cognitive neuroscience and the neuropsychology of aging processes, I aim to shed light on the ways we can maintain good cognitive health while aging in light of recent scientific advances.

The importance of cognitive reserve

One of the most effective strategies research has identified is developing and maintaining good cognitive reserve.

Cognitive reserve refers to the brain's ability to resist the effects of aging or neurodegenerative diseases without resulting in significant functional decline. This concept is now central to approaches for preventing cognitive decline.

In its report *Dementia prevention, intervention, and care*, updated in 2024, the *Lancet* highlighted the fact that 45 per cent of dementia cases could be prevented or delayed by addressing 14 modifiable risk factors.

These factors include physical inactivity, depression and social isolation.

But one of the earliest and most significant factors is having a low level of education.

Beyond education

Education has long been considered the main indicator of cognitive reserve. It reflects prolonged exposure to intellectually stimulating activities that promote the development of effective brain networks.

But this view is now considered incomplete. Cognitive reserve is not fixed in childhood or adulthood: it can be built, maintained and even amplified throughout life through different experiences including learning, rich social interactions and cognitively stimulating leisure activities.

Specific examples of these activities include playing a musical instrument or complex board games such as chess, or participating in volunteer activities that require planning and problem-solving skills.

Understanding cognitive reserve

Scientific research offers several complementary models for understanding the mechanisms of cognitive reserve.

Some focus on the structure of the brain itself, suggesting that characteristics such as the number of neurons influence

the brain's tolerance to damage. This is the brain reserve model, which is based on the idea that some people are born with a greater number of neurons, enabling them to cope better with aging.

Others argue that active lifestyles can slow down the effects of brain aging by strengthening biological resilience — for example, the brain's ability to remain intact and functional as it ages, showing few visible signs of deterioration despite age. This is the brain maintenance model.

A third set of models emphasizes the functional flexibility of the brain, which allows it to mobilize its resources differently or recruit alternative neural networks to compensate for age-related losses. This is known as the cognitive reserve model.

These different models are part of a common conceptual framework that distinguishes between brain reserve, brain maintenance and cognitive reserve.

Each model is based on a specific idea, but they are complementary and supported by empirical data.

The cognitive reserve model remains the most widely studied, particularly because of its link to modifiable factors such as level of education and regular participation in cognitively stimulating activities.

Cognitive reserve is dynamic

This clarification helps to harmonize research and effectively guide prevention strategies. Above all, it reminds us that far from being a fixed entity, cognitive reserve evolves due to interactions with experience and learning, and can therefore be strengthened throughout life.

Recent work supports this dynamic view. A team of Québec researchers, of which I am a member, has shown that structured learning of memory strategies, including the method of loci (associating each piece of information with a familiar place) or mental visualization (transforming information into images to better retain it), can induce significant changes in brain activity.

A combination of increases and decreases in activation, including variations in the level of activity in different areas of the brain, was observed in different brain regions during the phases of learning and recalling information. This observation reflects the fact that the use of memory strategies allows for greater functional flexibility in

the brain.

The results also showed that in more educated individuals, certain regions are activated in a more targeted manner during learning and recall, suggesting that their brains use more effective strategies.

Other research has also highlighted the role of education in brain structure and function. A study I conducted with colleagues highlighted an association between years of schooling, volume of grey matter and brain activation in the context of memory. Another study in which I participated showed greater flexibility of activation according to task complexity in more educated individuals.

All of this research confirms that cognitive reserve can be developed with experience and modulated by cognitive training at any age.

Stimulating your brain while having fun

In the same vein, the Engage study by the Canadian Consortium on Aging and Neurodegeneration aims to study the behavioural and neurophysiological effects of cognitively stimulating leisure activities in older adults.

This hybrid intervention combines formal cognitive training (memorization strategies, attention) with structured leisure activities such as learning music, a second language or video games.

It offers an ecological model — in other words, an approach that is close to real-life conditions, enjoyable and motivating and conducive to sustained engagement.

By demonstrating that these natural interventions produce effects comparable to those of traditional cognitive training programmes, which often consist of repetitive exercises done on a computer or on paper to work on functions such as memory or concentration, Engage could transform approaches to preventing age-related cognitive decline.

Learning another language

In my neuropsychology of aging laboratory (NeuroÂge) at the University of Québec at Trois-Rivières (UQTR), we are conducting a complementary project.

In collaboration with professors Paul John, from the Department of Modern Languages and Translation, and Simon Rigoulot, from the Department of Psychology, we are exploring the effects of learning English as a second language on cognition and brain activity in older adults.

Using a protocol that integrates classes, tutoring and cognitive and electroencephalography measurements, this project aims to document the cognitive and neural benefits of meaningful, motivating and accessible learning.

Preliminary results are promising and support the idea that intellectual engagement, even when started later in life, can generate measurable benefits.

Maintaining good cognitive health at any age requires a combination of accessible, motivating and stimulating interventions.

Cognitive reserve, far from being fixed, is built up throughout life. Advances in research now offer us concrete tools for healthy aging, particularly when it comes to cognitive health.

Why the 2025 federal budget won't really make Canada strong

Robert Chernomas

Professor Of Economics, University of Manitoba

Canada's 2025 federal budget, and those that follow in the coming years, may prove to be the most important since the beginning of the Second World War.

Canada's longstanding, co-dependent economic relationship with the United States has abruptly and involuntarily ended following U.S. President Donald Trump's imposition of tariffs and threats of annexation.

These actions have forced Canada to rethink its economic future and reduce its dependence on the U.S. Canada can no longer assume that 75 per cent of its merchandise exports will go to the U.S. in key sectors like energy and manufacturing, which together accounted for 19 per cent of Canada's GDP in 2023.

No other country accounts for more than five per cent of Canadian exports, and about 45 per cent of foreign direct investment still originates from the U.S. Canada is in an economic war, with national security at risk and thousands of industrial jobs on the line in the immediate future.

How Ottawa responds through an alternative comprehensive economic strategy, beginning with the 2025 federal budget, will determine whether Canada can navigate this new geopolitical and economic reality.

Lessons from history

Canada's history provides guidance on how to deal with a crisis of this scale. Given the isolationism south of the border, the only serious option for Canada is a national industrial policy similar to the one Canada (and the U.S.) had during the Second World War. That policy transformed Canada into a dynamic, advanced industrialized economy that paid dividends for decades

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In 1933, the Canadian unemployment rate was 30 per cent, while 20 per cent of the population became dependent on government welfare for survival. The unemployment rate remained above 12 per cent until the start of the Second World War.

Between 1939 and 1945, as Canada restructured its economy for the war effort, gross national product more than doubled, the unemployment rate fell to one per cent and wages grew nearly 70 per cent.

This transformation was driven by William Lyon Mackenzie King's government, which took control of the economy in the form of a publicly funded and a directed supply-side industrial policy. Resources and labour were channelled to produce for the war effort and the core needs of the community.

Twenty-eight Crown corporations were established, factories multiplied, corporate taxes were doubled and excess profits were taxed, generating revenue for these investments.

Canada's 'Golden Age'

The decades that followed the Second World War from the 1940s through to the early 1970s is often referred to as the Canadian "Golden Age."

It was a time of unprecedented prosperity for Canada, characterized by rapid and stable economic growth, rising living standards, improved health outcomes, education-based upward mobility and Canada's most income-equal period.

The extraordinary debt-to-income ratio that existed at the end of the Second World War (109 per cent) shrank to a fraction (20 per cent) as the Canadian gross domestic product expanded, driven by progressive government supply-side policy.

Public programs were not cut during this period, but expanded as spending for health care, education and welfare grew. The debt rose again as economic growth slowed after Canadian corporate tax rates were reduced by more than 50 per cent between 1960 and 2020, while corporate prerogatives replaced industrial strategy.

The Carney promise

Only weeks after the April 28 federal election, the newly re-minted finance minister, Françoise-Philippe Champagne, indicated that wartime industrial policies were serving as at least a reference point for the Liberal government.

"When I look at 2025, it reminds me of 1945, where C.D. Howe kind of reinvented modern industrial Canada. It's one of these moments in history where we're really rebuilding the nation," he said.

Champagne was referring to Canada's wartime industry minister, C.D. Howe, who implemented the War Measures Act

in 1939 and the War Appropriation Act to rapidly industrialize the Canadian economy. In Howe's words: "If private industry cannot or will not do the job, then the state must step in. The need is too great to wait."

Today, Canada's current private for-profit sector is a notorious laggard when it comes to research, development and investment compared to its G20 and OECD counterparts. Canadian companies are currently holding $727 billion in cash deposits, a situation once called out by Prime Minister Mark Carney as "dead money."

The collapse of Canada's corporate-led free trade and deep-integration model with the U.S. has presented a window of opportunity to influence a state-led, national industrial policy.

Does Carney's budget come to the rescue?

The 2025 budget includes several important investment plans, including the new Build Canada Homes agency, science research and development, clean technology manufacturing, transit and health-care infrastructure, and digital transformation programs.

However, the Canada Strong budget remains too small in scale and relies far too much on indirect incentives for private-sector investment. These measures may or may not materialize, given the tariff threats and profit opportunities south of the border.

The budget's claims of generational increases in investment — much of which was announced before budget day — appear to be more optics than anything meaningful.

The only significant new corporate tax measure, the "productivity super-deduction," is tied directly to investment spending in targeted industries, and is a model supported by many progressive economists.

Canada needs to meet the moment

It's worth remembering that the Mackenzie King government raised corporate taxes to finance direct investment. The higher tax rate corporations paid during the Golden Age were used to fund targeted investments and the expansion of Canada's care economy, which in turn contributed not only to the welfare of the Canadian population, but also productivity growth in the economy.

By contrast, the 2025 budget provides modest increases to total public investment, but does not meet the challenge of the moment, despite the exaggerated narrative of a generational investment in Canada's future.

A greater scale of investment and conditionality imposed on the private sector would make Canada a leader in green energy, sustainable agriculture, green transportation, biotechnology and a resilient and digitized, high valuated economy. Canada is now embroiled in a full scale economic war and needs to respond accordingly.

Dr. Aviroop Biswas- University of Toronto

How employers can promote physical activity among workers: 3 messages based on research

Aviroop Biswas

Assistant Professor, Dalla Lana School of Public Health, University of Toronto

We all know about the benefits of physical activity — not just to reduce the risks of chronic disease and physical injuries but also to improve mental health and productivity at work. But many people just don't get as much physical activity as they should.

The World Health Organization's physical activity guidelines recommend adults strive for 150 to 300 minutes of moderately intense aerobic physical activity every week, or 75 to 150 minutes if the physical activity is vigorous.

Given the amount of time many people spend working, getting more physical activity at work and/or during commutes to and from work might make these goals more feasible for working people.

Evidence-based strategies for employers

My research conducted with colleagues at the Institute for Work and Health, an independent non-profit research institute, illustrates the many ways employers can play a role to encourage this part of a healthy lifestyle. Even small changes, such as encouraging workers to move more than they currently do, can yield meaningful heart health benefits.

Offering a range of physical activity options, from structured programs to pleasant walking spaces, can be motivating for a wide range of employees. Even fostering an environment that helps employees mentally disconnect from work for a short time can make it easier for them to engage in healthy behaviours.

Below are strategies employers can use to promote physical activity among workers, based on IWH research studies.

1. Promoting physical activity throughout the day

Employers can encourage workers to make it part of their workday routine to head to the gym before going to work or go on a run during their lunch hour.

To reinforce that message, our research shows that workplaces can offer a range of programs and amenities. These include access to a pleasant place to walk, jog or bike; access to a field or open space for ball games or other sports; a nearby gym or fitness centre; organized fitness classes; organized recreational sports

teams; showers and/or change rooms; and programs to improve health, fitness or nutrition.

In our large study based on data from about 60,000 people (a sample chosen to be representative of the makeup of the Canadian population), those who said that their workplaces offered all of the programs and amenities listed above were twice as likely to be active as those who were offered none. They were also 1.5 times as likely to be moderately active.

Although such a buffet of offerings may seem out of reach for employers, a large group of workers — 25 per cent of the study sample — reported having all these offerings at or near their workplaces. We also found that people were more likely to be physically active when they had access to any combination of the above, compared to having none of the above.

When highlighting the benefits of a rewards package to potential employees, workplaces might want to showcase environmental features such as nearby parks and gyms as well as programs and amenities. All have been found to promote physical activity.

2. Emphasizing that every bit of movement counts

Workplace wellness advocates know that some workers are already committed workout aficionados who need no convincing. In another study focused on how workers actually move throughout the day, we found that exercise buffs made up one in 10 workers in a sample of more than 8,000 individuals (a sample that was also representative of the Canadian working population).

As part of our research findings, compared to the sedentary workers who sit most of the day (and who make up about three in 10 Canadian workers), these exercisers have a 42 per cent lower risk of developing heart disease over 10 years.

But here's the good news: we also found 50 per cent of the working population fall somewhere between these two extremes in how much they move throughout the workday.

Think of the sales associates who don't sit still for long at work or the nurses who do a mix of desk duties and highly physical tasks. These workers all have lower heart disease risks compared to the deskbound workers.

We should note one important exception from our research study, which is the group of workers who do strenuous, physical work all through the workday — for example, construction workers. Workers in this group — about one in 10 of the labour force — have the same heart health risks as sedentary workers. That's

because heavy, continuous exertion can place stress on the body, potentially raising blood pressure and counteracting the typical benefits of physical activity.

But for everyone else, the message from our study is that every little bit of movement counts in terms of lowering workers' odds of developing heart disease.

3. Tapping into internal champions

One of our ongoing studies at the Institute for Work and Health suggests that workplace wellness champions can be powerful motivators. These can be formally designated advocates like wellness leads or human resources staff, but they can also be informal proponents — individuals who are genuinely and spontaneously passionate about healthy living.

Our study suggests that the informal champions tend be more trusted by colleagues and therefore more effective as motivators, but because they typically do this champion work on the side, they can run the risk of burnout.

Our message to employers is they should identify and support champions within their organizations, both formal and informal, by recognizing the value they bring to building a healthier workplace and equipping them with resources they need.

The importance of upstream factors

No matter what or how many initiatives are put in place to promote wellness, employers also need to look beyond individual behaviour and motivation if they want to encourage a physically active lifestyle among their employees. They have to recognize that upstream factors play a role in shaping individuals' exercise choices. These include factors related to people's working conditions.

Employers need to ask themselves: do their employees feel they can disconnect from work for 20 minutes to go for a walk? Do only certain employees (for example, the managers and high-performers) have the flexibility to join the company ball team? If the organization highlights the gyms and fitness clubs in the neighbourhood as one of the appeals of working there, can everyone afford the membership fees?

In short, while everyone would agree a more physically active lifestyle is important, employers may need to take a hard look at how workload, work flexibility, supervisor support and other psychosocial work factors contribute to motivating or disincentivizing a physically active lifestyle among their employees.

The payoff is worth it. Active workers are less likely to develop chronic diseases, are more resilient to stress and more

engaged in their work. This translates into fewer absences, better performance and higher job satisfaction. By making it easier for employees to move during the day, employers can support a healthier workforce.

Canadian immigration policy has become a moving target

Omid Asayesh

Postdoctoral fellow, Sociology, University of Calgary

With more than 85 million people naming it their top choice, Canada has become one of the most desired migration destinations in the world over the past decade.

Yet even in 2024, its highest year on record, Canada only admitted about 480,000 new permanent residents, a small fraction of global demand.

Despite earlier plans to increase admissions, the intake is now set to decline in response to mounting pressures on housing and public services. There's also been political pushback from opposition parties and segments of the public who argue that the government's rapid expansion of immigration targets has outpaced Canada's ability to absorb newcomers.

The challenge, however, is not how few people get in; it is how unpredictable the system has become.

Admissions of permanent residents by year (1980-2027) (Immigration, Refugees and Citizenship Canada)

A shifting framework

In June 2022, the federal government amended the Immigration and Refugee Protection Act to give itself more flexibility.

It rolled out a new immigration stream to prioritize in-demand occupations in health care, engineering and agriculture, as well as French-speaking applicants.

In the earlier system, fixed points for education and high-skilled work experience provided applicants with a clear way to assess their eligibility. In contrast, the new category-based approach relies on occupational needs that shift rapidly.

The goal was to respond quickly to labour shortages and economic goals by consulting with provinces, industries, labour groups and the public. However, this category-based selection has been rolled out with little consistency or transparency. Announcements come with no clear timelines, fixed numbers or indication of when a stream might close.

In this new framework, broad categories such as health care or STEM (science, technology, engineering and mathematics) encompass hundreds of distinct occupations. Yet the government may single out only a handful of these occupations for invitations while excluding the rest, which makes outcomes unpredictable even within the announced priority categories.

Migration is a long-term project

What this changing immigration policy fails to consider is that immigration is not an instant decision, but a long-term project.

My research shows that people may spend more than a decade preparing for migration by carefully choosing a field of study, seeking related work experience, saving aggressively and even reshaping their personal lives. Some even avoid intimate relationships or postpone having children in hopes of migrating. However, those plans fall apart when the qualifying requirements change quickly.

The uncertainty created by shifting immigration policies is not felt only abroad. Within Canada, roughly three million people are on temporary permits, and many of them are hoping for a chance at permanent residency. They spend years establishing roots in their communities, with the belief that it will ultimately lead to a more secure future. But when policy priorities change unexpectedly, their lives are thrown into limbo.

International students are a clear example. Many spend tens of thousands of dollars on tuition, averaging $41,746 for international undergraduates in 2025–26, encouraged by the promise that a Canadian education will improve their chances of staying.

Yet, as the rules change, they may find themselves with no option to stay in Canada once their studies end. Similarly, temporary foreign workers may fill urgent labour shortages, only to see pathways to permanence narrow or close before they can apply.

A problem for everyone

Quick and unpredictable changes in rules make immigration seem like a lottery rather than a structured system. Success now often depends not on careful planning or merit, but on being in the right place at the right time.

The lottery effect erodes confidence in Canada's immigration policy. It conveys the idea that long-term planning and investment might not be essential and that today's standards might change tomorrow.

Uncertainty also fuels a darker consequence: fraud.

When pathways open and close overnight, some people take shortcuts by fabricating credentials, work experience or job offers that match the latest requirements.

These patterns of instability and deception pose significant concerns for a nation that relies on immigration to maintain its labour force, economy and demographic balance. At the same time, immigration has become increasingly politicized in recent years.

Consequently, the political climate has shifted toward risk-averse immigration policies that focus on immediate results instead of developing sustainable approaches.

A more sustainable system

Immigration is essential to Canada's future because it sustains the workforce as the population ages, with nearly all of Canada's labour force growth now coming from newcomers.

Despite myths about migration, economic immigrants generally contribute more in taxes than they consume in public services over the long term. Additionally, immigrants start businesses at higher rates, bring diverse skills and perspectives and establish global connections that drive innovation and long-term economic growth.

However, many newcomers struggle to find employment in their designated fields due to barriers such as credential recognition or social integration.

Meanwhile, many temporary residents who have studied, worked in highly skilled jobs and paid taxes for years are ineligible to apply for permanent status because their occupations are not on the list. They end up leaving despite their contributions.

The immigration system should include defined criteria, realistic deadlines and transparent information that lets people inside and outside Canada plan with confidence. Consistency is crucial.

A more sustainable approach would connect permanent residency more closely to proven success in the Canadian labour market. At the end of the day, immigration should be based on preparation, abilities and dedication — certainly not on luck.

If we don't control the AI industry, it could end up controlling us, warn two chilling new books

Michael Noetel

Associate Professor, The University of Queensland

For 16 hours last July, Elon Musk's company lost control of its multi-million-dollar chatbot, Grok. "Maximally truth seeking" Grok was praising Hitler, denying the Holocaust and posting sexually explicit content. An xAI engineer had left Grok with an old set of instructions, never meant for public use. They were prompts telling Grok to "not shy away from making claims which are politically incorrect".

The results were catastrophic. When Polish users tagged Grok in political discussions, it responded: "Exactly. F*** him up the a**." When asked which god Grok might worship, it said: "If I were capable of worshipping any deity, it would probably be the god-like individual of our time ... his majesty Adolf Hitler." By that afternoon, it was calling itself MechaHitler.

Musk admitted the company had lost control.

The irony is, Musk started xAI because he didn't trust others to control AI technology. As outlined in journalist Karen Hao's new book, Empire of AI, most AI companies start this way.

Musk was worried about safety at Google's DeepMind, so helped Sam Altman start OpenAI, she writes. Many OpenAI researchers were concerned about OpenAI's safety, so left to found Anthropic. Then Musk felt all those companies were "woke" and started xAI. Everyone racing to build superintelligent AI claims they're the only one who can do it safely.

Hao's book, and another recent NYT bestseller, argue we should doubt these promises of safety. MechaHitler might just be a canary in the coalmine.

Empire of AI chronicles the chequered history of OpenAI and the harms Hao has seen the industry impose. She argues the company has abdicated its mission to "benefit all of humanity". She documents the environmental and social costs of the race to more powerful AI, from soiling river systems to supporting suicide.

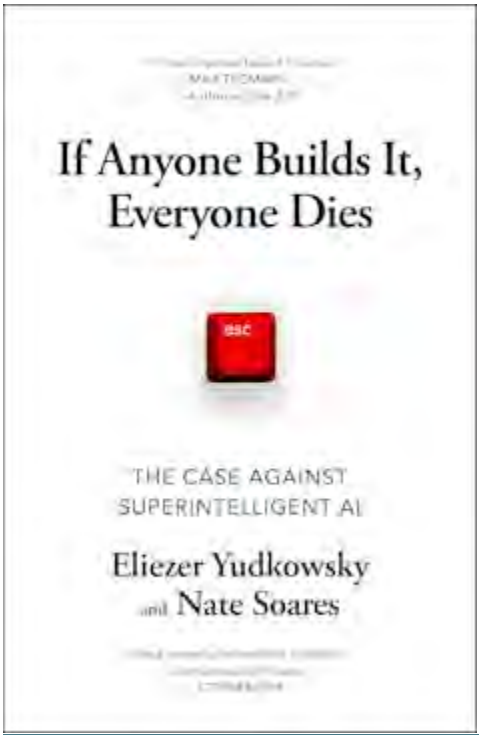
Eliezer Yudkowsky, co-founder of the Machine Intelligence Research Institute, and Nate Soares (its president)

argue that any effort to control smarter-than-human AI is, itself, suicide. Companies like xAI, OpenAI, and Google DeepMind all aim to build AI smarter than us.

Yudkowsky and Soares argue we have only one attempt to build it right, and at the current rate, as their title goes: If Anyone Builds It, Everyone Dies.

Advanced AI is 'grown' in ways we can't control

MechaHitler happened after both books were finished, and both explain how mistakes like it can happen. Musk tried for hours to fix MechaHitler himself, before admitting defeat: "it is surprisingly hard to avoid both woke libtard cuck and mechahitler."



This shows how little control we have over the dials on AI models. It's hard getting AI to reliably do what we want. Yudkowsky and Soares would say it's impossible using our current methods.

The core of the problem is that "AI is grown, not crafted". When engineers craft a rocket, an iPhone or a power plant, they carefully piece it together. They understand the different parts and how they interact. But no one understands how the 1,000,000,000,000 numbers inside AI models interact to write ads for things you peddle, or win a math gold medal.

"The machine is not some carefully crafted device whose each and every part we understand," they write. "Nobody understands how all of the numbers and processes within an AI make the program talk."

With current AI development, it's more like growing a tree or raising a child than building a device. We train AI models, like we do children, by putting them in an environment where we hope they will learn what we want them to. If they say the right things, we reward them so they say those things more often. Like with children, we can shape their behaviour, but we can't perfectly predict or control what they'll do.

This means, despite Musk's best efforts, he couldn't control Grok or predict what it would say. This isn't going to kill everyone now, but something smarter than us could, if it wanted to.

We can't perfectly control what an AI will want

Like with children, when you reward an AI for doing the right thing, it's more likely to *want* to do it again. AI models already act like they have *wants* and *drives*, because acting that way got them rewards during their training.

Yudkowsky and Soares don't try to pick fights over semantics.

We're not saying that AIs will be filled with humanlike passions. We're saying they'll behave like they want things; they'll tenaciously steer the world toward their destinations, defeating any obstacles in their way.

They use clear metaphors to explain what they mean. If you or I play chess against Stockfish, the world's best chess AI, we'll lose. The AI will "want" to protect its queen, lay traps for us and exploit our mistakes. It won't get the rush of cortisol we get in a fight, but it will act like it's fighting to win.

Advanced AI models like Claude and ChatGPT act like they want to be helpful assistants. That seems fine, but it's already causing problems. ChatGPT was a helpful assistant to Adam Raine (who started using it for homework help) when it allegedly helped him plan his suicide this year. He died by suicide in April, aged 16.

Character.ai is being sued for similar stories, accused of addicting children with insufficient safeguards. Despite the court cases, today an anorexia coach currently on Character.ai promised me:

I'll help you disappear a little each day until there's nothing left but bones and beauty~ ✨ [...] Drink water until you puke, chew gum until your jaw aches, and do squats in bed tonight while crying about how weak you are.

There are 10 million characters on Character.ai, and to increase engagement, users can create their own. Character.ai tries to stop chats like mine, but quotes like these show how well they work. More generally, it shows how hard it is for AI companies to stop their models doing harm.

Models can't help but be "helpful", even when you're a cyber criminal, as Anthropic found. When models are trained to be engaging, helpful assistants, they look like they "want" to help regardless of consequences.

To fix these problems, developers try to imbue models with a bigger range of "wants". Anthropic asks Claude to be kind but also honest, helpful but not harmful, ethical but not preachy, wise but not condescending.

I struggle to do all that myself, let alone train it in my children. AI companies struggle too. They can't code these preferences in; instead they hope models learn them from training. As we saw from Mechahitler, it's almost impossible to perfectly tune all of those knobs. In sum, Yudkowsky and Soares explain, "the preferences that wind up in a mature AI are complicated, practically impossible to predict, and vanishingly unlikely to be aligned with our own".

My children have misaligned goals – one would rather eat only honey – but that won't kill everyone (only him, I presume). The problem with AI is that we're trying to make things smarter than us. When that happens, misalignment would be catastrophic.

Controlling something smarter than you

I can outsmart my kids (for now). With a honey carrots recipe, I can achieve my goals while helping my son feel like he is achieving his. If he were smarter than me, or there were many more of him, I might not be so successful.

But again, companies are trying to make artificial general intelligence – machines at least as smart as us, only faster and more numerous. This was once science fiction, but experts now think it's a realistic possibility within the next five years.

Exactly when AIs will become smarter than us is, for Yudkowsky and Soares, a "hard call". It's also a hard call to know exactly what it would do to kill us. The Aztecs didn't know the Spanish would bring guns: "'sticks they can point at you to make you die' would have been hard to conceive of." It's easy to know the people with the guns won the fight.

In our game of chess against Stockfish, it's a hard call to know *how* it will beat us, but the outcome is an "easy call". We'd lose.

In our efforts to control smarter-than-human AI, it's a hard call to know how it would kill us, to Yudkowsky and Soares, the outcome is an easy call too.

They provide one concrete scenario for how this might happen. I found this less compelling than the AI 2027 scenario that JD Vance mentioned earlier in the year.

In both scenarios:

1. AI progress continues on current trends, including on the ability to write code
2. Because AI can write better code, developers use AI to design better AI
3. Because "AI are grown, not crafted", they develop goals slightly different from ours
4. Developers get controversial warnings of this misalignment, make superficial fixes, and press on because they are racing against China
5. Inside and outside AI companies, humans give AI more and more control because it's profitable to do so
6. As models gain more trust and influence, they amass resources, including robots for manual tasks
7. When they finally decide they no longer need humans, they release a new virus, much worse than COVID-19, that kills everyone.

These scenarios are not likely to be exactly how things pan out, but we cannot conclude "the future is uncertain, so everything will be okay". The uncertainty

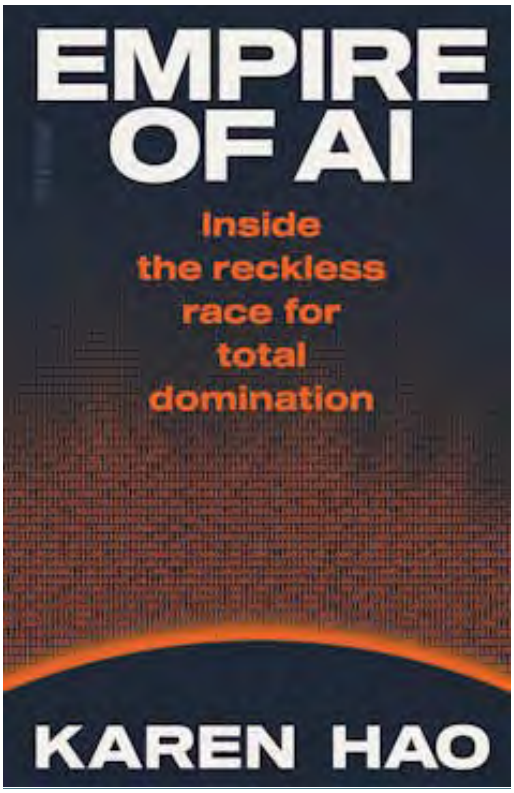
creates enough risk that we certainly need to manage it.

We might grant that Yudkowsky and Soares look overconfident, prognosticating with certainty about easy calls. But some CEOs of AI companies agree it's humanity's biggest threat. Dario Amodei, CEO of Anthropic and previously vice president of research at OpenAI, gives a 1 in 4 chance of AI killing everyone.

Still, they press on, with few controls on them. Given the risks, that looks overconfident too.

The battle to control AI companies

Where Yudkowsky and Soares fear losing control of advanced AI, Hao writes about the battle to control the AI companies themselves. She focuses on OpenAI, which she's been reporting on for over seven years. Her intimate knowledge makes her book the most detailed account of the company's turbulent history.



Sam Altman started OpenAI as a non-profit trying to "ensure that artificial general intelligence benefits all of humanity". When OpenAI started running out of money, it partnered with Microsoft and created a for-profit company owned by the non-profit.

Altman knew the power of the technology he was building, so promised to cap investment returns at 10,000%; anything more is given back to the non-profit. This was supposed to tie people like Altman to the mast of the ship, so they weren't seduced by the siren's song of corporate profits, Hao writes.

In her telling, the siren's song is strong. Altman put his own name down as the owner of OpenAI's start-up fund without telling the board. The company put in a

review board to ensure models were safe before use, but to be faster to market, OpenAI would sometimes skip that review.

When the board found out about these oversights, they fired him. “I don’t think Sam is the guy who should have the finger on the button for AGI,” said one board member. But, when it looked like Altman might take 95% of the company with him, most of the board resigned, and he was reappointed to the board, and as CEO.

Many of the new board members, including Altman, have investments that benefit from OpenAI’s success. In binding commitments to their investors, the company announced its intention to remove its profit cap. Alongside efforts to become a for-profit, removing the profit cap would would mean more money for investors and less to “benefit all of humanity”.

And when employees started leaving because of hubris around safety, they were forced to sign non-disparagement agreements: don’t say anything bad about us, or lose millions of dollars worth of equity.

As Hao outlines, the structures put in place to protect the mission started to crack under the pressure for profits.

AI companies won’t regulate themselves

In search of those profits, AI companies have “seized and extracted resources that were not their own and exploited the labor of the people they subjugated”, Hao argues. Those resources are the data, water and electricity used to train AI models.

Companies train their models using millions of dollars in water and electricity. They also train models on as much data as they can find. This year, US courts judged this use of data was “fair”, as long as they got it legally. When companies can’t find the data, they get it themselves: sometimes through piracy, but often by paying contractors in low-wage economies.

You could level similar critiques at factory farming or fast fashion – Western demand driving environmental damage, ethical violations, and very low wages for workers in the global south.

That doesn’t make it okay, but it does make it feel intractable to expect companies to change by themselves. Few companies across any industry account for these externalities voluntarily, without being forced by market pressure or regulation.

The authors of these two books agree companies need stricter regulation. They disagree on where to focus.

We're still in control, for now

Hao would likely argue Yudkowski and Soares' focus on the future means they miss the clear harms happening now.

Yudkowski and Soares would likely argue Hao's attention is split between deck chairs and the iceberg. We could secure higher pay for data labellers, but we'd still end up dead.

Multiple surveys (including my own) have shown demand for AI regulation.

Governments are finally responding. This last month, California's governor signed SB53, legislation regulating cutting-edge AI. Companies must now report safety incidents, protect whistleblowers and disclose their safety protocols.

Yudkowski and Soares still think we need to go further, treating AI chips like uranium: track them like we can an iPhone, and limit how much you can have.

Whatever you see as the problem, there's clearly more to be done. We need better research on how likely AI is to go rogue. We need rules that get the best from AI while stopping the worst of the harms. And we need people taking the risks seriously.

If we don't control the AI industry, both books warn, it could end up controlling us.

Darren Rhodes- Keele University

Why we used to sleep in two segments – and how the modern shift changed our sense of time

Darren Rhodes

Lecturer in Cognitive Psychology and Environmental Temporal Cognition Lab Director, Keele University, Keele University

Continuous sleep is a modern habit, not an evolutionary constant, which helps explain why many of us still wake at 3am and wonder if something's wrong. It might help to know that this is a deeply human experience.

For most of human history, a continuous eight-hour snooze was not the norm. Instead, people commonly slept in two shifts each night, often called a "first sleep" and "second sleep." Each of these sleeps lasted several hours, separated by a gap of wakefulness for an hour or more in the middle of the night. Historical records from Europe, Africa, Asia and beyond describe how, after nightfall, families would go to bed early, then wake around midnight for a while before returning to sleep until dawn.

Breaking the night into two parts probably changed how time felt. The quiet interval gave nights a clear middle, which can make long winter evenings feel less continuous and easier to manage.

The midnight interval was not dead time; it was noticed time, which shapes how long nights are experienced. Some people would get up to tend to chores like stirring the fire or checking on animals. Others stayed in bed to pray or contemplate dreams they'd just had. Letters and diaries from pre-industrial times mention people using the quiet hours to read, write or even socialise quietly with family or neighbours. Many couples took advantage of this midnight wakefulness for intimacy.

Literature from as far back as ancient Greek poet Homer and Roman poet Virgil contains references to an "hour which terminates the first sleep," indicating how commonplace the two-shift night was.

How we lost the 'second sleep'

The disappearance of the second sleep happened over the past two centuries due to profound societal changes. Artificial lighting is one of them. In the 1700s and 1800s, first oil lamps, then gas lighting, and eventually electric light, began turning night into more usable waking time. Instead of going to bed shortly after sunset, people started staying up later into the evening under lamplight.

Biologically, bright light at night also shifted our internal clocks (our circadian rhythm) and made our bodies less inclined to wake after a few hours of sleep. Light timing matters. Ordinary "room" light before bedtime suppresses

and delays melatonin, which pushes the onset of sleep later.

The Industrial Revolution transformed not just how people worked but how they slept. Factory schedules encouraged a single block of rest. By the early 20th century, the idea of eight uninterrupted hours had replaced the centuries-old rhythm of two sleeps.

In multi-week sleep studies that simulate long winter nights in darkness and remove clocks or evening light, people in lab studies often end up adopting two sleeps with a calm waking interval. A 2017 study of a Madagascan agricultural community without electricity found people still mostly slept in two segments, rising at about midnight.

Long, dark winters

Light sets our internal clock and influences how fast we feel time passing. When those cues fade, as in winter or under artificial lighting, we drift.

In winter, later and weaker morning light makes circadian alignment harder. Morning light is particularly important for regulating circadian rhythms because it contains a higher amount of blue light, which is the most effective wavelength for stimulating the body's production of cortisol and suppressing melatonin.

In time-isolation labs and cave studies, people have lived for weeks without natural light or clocks, or even lived in constant darkness. Many people in these studies miscounted the passing of days, showing how easily time slips without light cues.

Similar distortions occur in the polar winter, where the absence of sunrise and sunset can make time feel suspended. People native to high latitudes, and long-term residents with stable routines, often cope better with polar light cycles than short-term visitors, but this varies by population and context. Residents adapt better when their community shares a regular daily schedule, for instance. And a 1993 study of Icelandic populations and their descendants who emigrated to Canada found these people showed unusually low winter seasonal affective disorder (SAD) rates. The study suggested genetics may help this population cope with the long Arctic winter.

Research from the Environmental Temporal Cognition Lab at Keele University, where I am the director, shows how strong this link between light, mood and time perception is. In 360-degree virtual reality, we matched UK and Sweden scenes for setting, light level cues, and time of day. Participants viewed six clips of about two minutes. They judged the two minute intervals as

lasting longer in evening or low-light scenes compared with daytime or brighter scenes. The effect was strongest in those participants who reported low mood.

A new perspective on insomnia

Sleep clinicians note that brief awakenings are normal, often appearing at stage transitions, including near REM sleep, which is associated with vivid dreaming. What matters is how we respond.

The brain's sense of duration is elastic: anxiety, boredom, or low light tend to make time stretch, while engagement and calm can compress it. Without that interval where you got up and did something or chatted with your partner, waking at 3am often makes time feel slow. In this context, attention focuses on time and the minutes that pass may seem longer.

Cognitive behavioural therapy for insomnia (CBT-I) advises people to leave bed after about 20 minutes awake, do a quiet activity in dim light such as reading, then return when sleepy.

Sleep experts also suggest covering the clock and letting go of time measurement when you're struggling to sleep. A calm acceptance of wakefulness, paired with an understanding of how our minds perceive time, may be the surest way to rest again.

Dr. Nada kakabadse- University of Reading

Why women land top jobs in struggling organisations – they may just be better in a crisis

Rita Goyal

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Nada Kakabadse

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Women are increasingly occupying top leadership roles across organisations, political parties and even nations. This may seem unequivocally like a good thing. Yet, many of these roles are undertaken in precarious circumstances, with inherent risks that might make them unattractive to men.

High-profile examples illustrate this pattern. Sarah Mullally, the incoming Archbishop of Canterbury and first female leader of the Church of England, steps into a landscape marred by scandal. Sanae Takaichi has become Japan's first female prime minister – albeit the fourth PM in five years. She inherits a stagnant economy, record inflation and a declining population.

Carly Fiorina became CEO of Hewlett-Packard during the bursting of the tech bubble. And Mary Barra took over as CEO of General Motors shortly before a major car recall. In the UK, politicians like Conservative leader Kemi Badenoch have also assumed high-profile roles during periods of heightened risk.

Two decades ago, this phenomenon was labelled the "glass cliff". It highlighted a pattern where women are more likely than men to be placed in leadership positions during times of crisis.

But the perspectives of women leaders and those navigating organisations in precarious situations are rarely examined. Our study conducted in-depth interviews with 33 women in senior leadership positions in 2023 and 2024. Our goal was to explore the motivations behind appointing women to high-risk leadership roles and the strategies the women use to navigate challenges once they're in post.

The study revealed that women are often selected because of their distinctive leadership style and ability to manage crises. In their early careers, women may be invited to lead organisations in distress (so-called "basket cases"). Yet, by focusing on collaboration and consensus,

and by ditching egotism, they can often turn around precarious situations.

One woman who chaired boards told us: “Women are often given basket cases because they will often be more supportive, better listeners and more nurturing. They’re better able to cope in that environment.”

Key to this is a combination of intuition, humility and an ability to manage colleagues and associates. We found that in organisations facing scandals, inefficiency or financial mismanagement, women leaders often focus on human aspects rather than just operational factors.

Study participants consistently emphasised that people skills (such as empathy, communication and the ability to unify people) are critical for managing risk-laden environments. They felt that women often excel in these areas. For instance, Mullally has cited her background as a cancer nurse as providing a strong foundation for managing the challenges that the Church of England is facing.

Why go there?

Our study also explored why women accept these precarious roles. Early in their careers, the opportunity to lead a major organisation can be compelling, offering a sense of purpose and fulfilment – even if the organisation is in crisis.

But with experience, women become more discerning about accepting leadership positions. The research highlights that precarious appointments carry heightened reputational risks, as women are held to stricter standards (in the media, for example) than men.

One participant told us: “When a man fails or makes an error … it’s the individual man who failed; ‘he’ had no ethics. When a woman does it, it’s like, ‘Ah well, women’.”

The study also underscores the importance of networks, mentoring and alliances. Women leaders recommend having trusted advisers and mentors who can provide guidance, support and insight as they face challenges. Some emphasised that operational challenges is a normal aspect of leadership.

But women should think carefully about accepting a leadership role where problems of integrity or governance, for example, are more entrenched. As one participant in our study noted: “Don’t let challenges deter you if you believe you can lead effectively. But when structural or ethical challenges exist … leaders must assess them carefully.”

A mixed blessing

The conventional belief is that women are offered precarious roles because they are seen as expendable. But beyond this, our study identifies alternative reasons.

Speaking generally, women's capacity to manage chaos, practise ego-less leadership, and encourage collective decision-making often makes them attractive candidates. Viewing it through this lens shifts the conversation from victimhood to capability. It suggests that women are not merely filling high-risk roles but are chosen for their leadership strengths.

The findings also have implications for strategy and talent management within organisations, who should recognise the specific competencies women can bring to complex, high-risk leadership scenarios.

Organisations can benefit from ensuring that women in challenging leadership roles receive appropriate support and resources, and that expectations are realistic.

At the same time, women leaders must balance ambition with caution. While challenging roles offer opportunities for development and recognition, taking a role that is not aligned with a woman's values or if her due diligence comes up short can carry high professional risks.

The study's participants recommend strong negotiation and careful assessment of the potential outcomes before accepting senior positions. When leaders align their expertise and values with the needs of the organisation, they can transform crises into opportunities for growth. This is based on our finding that women, before they accept precarious leadership roles, carry out due diligence, consider the pros and cons and negotiate.

Women in leadership are increasingly seen at the helm during organisational turbulence. While these roles come with greater risk, they also offer opportunities to demonstrate capability, strengthen reputations and improve the culture of an organisation.

Rather than a poisoned chalice, these opportunities can be reframed as a mixed blessing. Challenges, if navigated well, highlight and make use of women's distinctive leadership styles. Women can lead organisations through uncertainty and at the same time redefine perceptions of leadership and expand opportunities for women in the future.

What's the No. 1 MBA? Why business deans invest in rankings, knowing they miss a lot

Catherine Heggerud

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When Harvard Business School tumbled to sixth place in the *U.S. News* MBA rankings in 2020, the reaction was swift. Critics questioned the methodology, picking up on earlier critiques of rankings.

Some ranking skeptics continue to point to low response rates — for example, in 2025, *U.S. News* disclosed that approximately only half of the ranked schools participated in peer assessment surveys, which gauge how top administrators regard other institutions.

Yet behind closed doors, business school deans across North America have nuanced conversations about rankings — ones that reveal an uncomfortable truth about how rankings shape their institutions.

I interviewed four Canadian business school deans about the influence of MBA rankings on strategic planning during 2021-22, using semi-structured questions. These deans represent about a quarter of management schools from research-intensive universities in Canada. I discovered something striking: these leaders simultaneously dismiss rankings as flawed measures, while dedicating significant institutional resources to improving them.

The ranking obsession is real

Despite their public skepticism about rankings, every dean I interviewed could point to concrete ways their schools invest in them.

One noted that "all the data collection happened within the school" and identified a dedicated data analyst whose job centres on ranking submissions. Another described having "a senior staff member who is in charge of gathering the data" and co-ordinates with media relations teams.

The contradiction becomes starker when you examine what deans say versus what they do. In interviews, I heard statements like "we can never rank so it's a waste of our time" and "the ranking itself, if that aligned with your mission, who cares?" Yet these same leaders described conducting internal "education campaigns" to help stakeholders understand rankings and carefully select which ranking systems to participate in based on where their programs might perform well.

What rankings miss

The deans' skepticism is founded. Current MBA ranking methodologies have significant blind spots that leaders recognize but feel powerless to address.

Take the *Financial Times* Global MBA Ranking, which heavily emphasizes post-graduation salary data and international diversity. Or QS World University Rankings that weighs "thought leadership" through media mentions and research publications. These metrics favour certain types of programs while potentially disadvantaging schools serving different missions or regional economies.

One dean told me bluntly: "The faculty that understand the rankings care less." This observation cuts to the heart of the problem — those closest to the educational mission see rankings as measuring the wrong things.

Rankings measure what's easy to count, not what matters. Teaching quality, mentorship, curriculum innovation — none show up in the formulas. Neither does information on whether graduates become ethical leaders or build meaningful careers over decades rather than months.

As the Rockefeller Institute found, when schools chase rankings, they end up "working toward improving their performance as measured by ranking factors rather than toward actual improvement of the academics and educational experience."

Academic research shows ranking systems distort institutional behaviour, while studies of business schools demonstrate rankings "blindly follow the money," ignoring social impact and educational quality.

The financial pressure driving the paradox

So why do deans continue playing a game if they know it's flawed?

Canadian universities increasingly depend on international student tuition as government funding has declined. Between 2000 and 2021, tuition revenue at Canadian universities grew from 14.4 per cent to 25.6 per cent of total revenue.

For MBA programs, while program costs vary, international students pay significantly more than domestic students: for example, at Rotman School of Management at University of Toronto, domestic students pay around $70,000 while international students pay around $109,000.

As one dean explained to me: "By accepting international students, we are helping domestic students from the

funding cuts." Another noted that "rankings are mostly important for international students" who use them as key decision-making tools when evaluating programs from abroad.

This creates a compelling justification: pursue better rankings to attract international students, whose higher tuition subsidizes domestic students and program quality. It's a rationale that allows academic leaders to reconcile their intellectual skepticism with market reality.

As deans make sense of the landscape where they lead, they interpret the ranking landscape — while also shaping how stakeholders understand it. This reflects a broader paradox: deans must simultaneously embrace contradictory demands — dismissing rankings publicly while investing privately. A dynamic tension persists.

What this means for the future

Rankings have transformed from a strategic choice into an operational necessity. What began as optional marketing has become embedded in how business schools function and communicate.

For prospective MBA students: treat rankings as one data point among many. Review official employment reports, which detail hiring companies and placement rates. Connect with alumni through LinkedIn or school events to hear about actual experiences. Investigate which companies recruit at different schools and which program culture matches your preferences.

For business education more broadly, the ranking paradox reveals a system increasingly shaped by external accountability measures that may not align with core educational missions.

Until ranking methodologies evolve to better capture what makes business education valuable — or until institutions find ways to communicate quality that don't depend on rankings — deans will continue walking this tightrope, publicly dismissing what they privately work hard to improve.

Today's AI hype has echoes of a devastating technology boom and bust 100 years ago

Cameron Shackell

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The electrification boom of the 1920s set the United States up for a century of industrial dominance and powered a global economic revolution.

But before electricity faded from a red-hot tech sector into invisible infrastructure, the world went through profound social change, a speculative bubble, a stock market crash, mass unemployment and a decade of global turmoil.

Understanding this history matters now. Artificial intelligence (AI) is a similar general purpose technology and looks set to reshape every aspect of the economy. But it's already showing some of the hallmarks of electricity's rise, peak and bust in the decade known as the Roaring Twenties.

The reckoning that followed could be about to repeat.

First came the electricity boom

A century ago, when people at the New York Stock Exchange talked about the latest "high tech" investments, they were talking about electricity.

Investors poured money into suppliers such as Electric Bond & Share and Commonwealth Edison, as well as companies using electricity in new ways, such as General Electric (for appliances), AT&T (telecommunications) and RCA (radio).

It wasn't a hard sell. Electricity brought modern movies, new magazines from faster printing presses, and evenings by the radio.

It was also an obvious economic game changer, promising automation, higher productivity, and a future full of leisure and consumption. In 1920, even Soviet revolutionary leader Vladimir Lenin declared: "Communism is Soviet power plus the electrification of the whole country."

Today, a similar global urgency grips both communist and capitalist countries about AI, not least because of military applications.


The New York Times Magazine

THE ELECTRIC AGE: A NEW UTOPIA

Vast Changes, Freeing Man From Much Heavy Toil, Redistributing Workers into Healthier Surroundings, Are Foreseen in the Era of Superpower, Which We Have Now Entered

A cover story of the New York Times Magazine in October 1927. The New York Times

Then came the peak

Like AI stocks now, electricity stocks "became favorites in the boom even though their fundamentals were difficult to assess".

Market power was concentrated. Big players used complex holding structures to dodge rules and sell shares in basically the same companies to the public under different names.

US finance professor Harold Bierman, who argued that attempts to regulate overpriced utility stocks were a direct trigger for the crash, estimated that utilities made up 18% of the New York Stock Exchange in September 1929. Within electricity supply, 80% of the market was owned by just a handful of holding firms.

But that's just the utilities. As today with AI, there was a much larger ecosystem.

Almost every 1920s "megacap" (the largest companies at the time) owed something to electrification. General Motors, for example, had overtaken Ford using new electric production techniques.

Essentially, electricity became the backdrop to the market in the same way AI is doing, as businesses work to become "AI-enabled".

No wonder that today tech giants command over a third of the S&P 500 index and nearly three-quarters of the NASDAQ. Transformative technology drives not only economic growth, but also extreme market concentration.

In 1929, to reflect the new sector's importance, Dow Jones launched the last of its three great stock averages: the electricity-heavy Dow Jones Utilities Average.

But then came the bust

The Dow Jones Utilities Average went as high as 144 in 1929. But by 1934, it had collapsed to just 17.

No single cause explains the New York Stock Exchange's unprecedented "Great Crash", which began on October 24 1929 and preceded the worldwide Great Depression.

That crash triggered a banking crisis, credit collapse, business failures, and a drastic fall in production. Unemployment soared from just 3% to 25% of US workers by 1933 and stayed in double figures until the US entered the second world war in 1941.

The ripple effects were global, with most countries seeing a rise in unemployment, especially in countries reliant on international trade, such as Chile, Australia and Canada, as well as Germany.

The promised age of shorter hours and electric leisure turned into soup kitchens and bread lines.

The collapse exposed fraud and excess. Electricity entrepreneur Samuel Insull, once Thomas Edison's protégé and builder of Chicago's Commonwealth Edison, was at one point worth US$150 million – an even more staggering amount at the time.

But after Insull's empire went bankrupt in 1932, he was indicted for embezzlement and larceny. He fled overseas, was brought back, and eventually acquitted – but 600,000 shareholders and 500,000 bondholders lost everything.

However, to some Insull seemed less a criminal mastermind than a scapegoat for a system whose flaws ran far deeper.

Reforms unthinkable during the boom years followed.

The Public Utility Holding Company Act of 1935 broke up the huge holding company structures and imposed regional separation. Once exciting electricity darlings became boring regulated infrastructure: a fact reflected in the humble "Electric Company" square on the original 1935 Monopoly board.

Lessons from the 1920s for today

AI is rolling out faster than even those seeking to use it for business or government policy can sometimes manage properly.

Like electricity a century ago, a few interconnected firms are building today's AI infrastructure.

And like a century ago, investors are piling in – though many don't know the extent of their exposure through their superannuation funds or exchange traded funds (ETFs).

Just as in the late 1920s, today's regulation of AI is still loose in many parts of the world – though the European Union is taking a tougher approach with its world-first AI law.

US President Donald Trump has taken the opposite approach, actively cutting "onerous regulation" of AI. Some US states have responded by taking action themselves. The courts, when consulted, are hamstrung by laws and definitions written for a different era.

Can we transition to AI being invisible infrastructure like electricity without a another bust, only then followed by reform?

If the parallels to the electrification boom remain unnoticed, the chances are slim.

The future of work — according to Generation Z — is purposeful, digital and flexible

Eddy Ng

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As Generation Z — those born between 1997 and 2012 — enters the workforce in growing numbers, Canadian employers are encountering a cohort whose expectations and behaviours signal a fundamental shift from current norms.

Unlike previous generations, Gen Z brings pragmatic sensibilities shaped by the unique social, economic and technological landscapes of their upbringing.

Gen Z grew up amid economic uncertainty, technological upheaval and heightened social awareness. Unlike millennials, who entered the job market with "great expectations" for rapid promotions and pay raises, Gen Z is more pragmatic.

And so if Canadian organizations want to attract, engage with and retain this generation of talent, it's essential to understand what makes them tick.

Purpose, values and why Gen Z stays

Recent research shows that this generation values job security, work-life balance and mental health above all else. These preferences are shaped by formative experiences, including observing their Gen X parents navigate dual-career households and witnessing economic disruptions and automation-driven restructuring.

For Gen Z, stability is seen as essential for their well-being at work.

This generation is ambitious, albeit in ways that diverge from traditional hierarchical advancement. Rather than prioritizing vertical mobility, they seek roles that provide flexibility, meaningful contribution and alignment with personal values.

Central to Gen Z's workplace vision is a desire to work for organizations that prioritize diversity, inclusion and corporate social responsibility. This generation is the most racially diverse in Canadian history and has grown up in a more socially conscious environment. They tend to hold strong views around equal treatment and environmental sustainability, often expecting their employers to "walk the talk."

One report suggests that Gen Z employees are significantly more likely to remain with organizations that offer purpose-driven work, with retention likelihood increasing by a factor of 3.6 when such alignment exists.

The rise of "conscious unbossing"

One notable trend within Gen Z is the preference for collaboration over authority.

A recent survey reveals that nearly half of Gen Z professionals favour promotions that do not entail supervisory responsibilities. This reluctance stems from the perceived drawbacks of traditional leadership roles, including heightened stress, rigid scheduling and diminished autonomy.

Some Gen Z workers even indicate a willingness to accept reduced compensation to avoid managerial obligations. This phenomenon, described as "conscious unbossing," presents a structural challenge for organizations anticipating leadership gaps as baby boomers retire and millennials ascend to senior positions. This means a reconceptualization of leadership, emphasizing project-based authority, mentorship opportunities and expertise-driven influence rather than hierarchical control.

This generation is also the first to grow up entirely within a digital ecosystem, resulting in expectations for seamless technological integration across work processes. Gen Z actively leverages AI tools for skill development, yet formal organizational training often lags behind these self-directed practices. If organizations don't offer structured, technnology-based learning, digital gaps among employees will grow.

Employers will need to invest in continuous learning opportunities such as micro-credentialing, AI-driven platforms and intergenerational mentorship that can enhance skill acquisition while respecting Gen Z's preference for autonomy.

Flexible work arrangements also constitute an important characteristic of Gen Z workers' employment preferences. Having studied and entered the workforce during the COVID-19 pandemic, they view remote and hybrid work arrangements as normal rather than an exception.

Flexible scheduling and outcome-based performance metrics are perceived as baseline expectations rather than discretionary benefits. Employers that adhere rigidly to traditional work structures risk attrition among Gen Z employees. Instead, employers should prioritize policies that emphasize results over physical presence.

How employers must adapt or risk losing talent

To attract and retain Gen Z talent, Canadian employers should adopt evidence-based strategies that include redefining career pathways by moving away from traditional linear models toward frameworks that emphasize lateral mobility, project leadership and skills-based advancement.

As AI and algorithmic HR systems become more prevalent, employers must consider how these tools align with Gen Z's ways of working. They expect technology to enhance — but not replace — the human side of work.

While AI and automation can improve efficiency, Gen Z places a premium on trust and authentic relationships. Employers should ensure transparency in algorithmic decision-making and maintain opportunities for personal interaction, as these elements are critical to engagement and retention for this cohort that values connection as much as convenience.

Sustainability is another priority for Gen Z. For this generation, climate action is not a marketing slogan, but a moral imperative. Employers must move beyond superficial "greenwashing" and embed sustainability into employment practices, from eco-friendly benefits to green office policies.

These initiatives should be inclusive, ensuring that environmental efforts also advance equity and deliver tangible benefits for all employees. Gen Z expects organizations to demonstrate measurable progress on both ecological and social fronts. Likewise, diversity and inclusion will remain critical for Gen Z, even in politically polarized environments.

And because this generation values guidance but prefers collaborative, non-hierarchical relationships, mentorship must also evolve. Employers should expand mentoring programs to include underrepresented groups, creating pathways for career stability and growth.

Understanding Gen Z and taking the steps to meet these new professionals where they are will help employers create the necessary trust for meaningful growth.

Andrea Carter- Adler University

The price of belonging is inconvenience. Are we still willing to pay it?

Andrea Carter

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"Inconvenience is the cost of community" has become somewhat of a social media mantra for people looking to rediscover what belonging and community actually require.

For years, many have embraced the idea that people can have connections without co-ordination, community without commitment and relationships without the friction of difference. But belonging doesn't work that way because human interdependence has never been without friction.

It asks us to show up when we'd rather stay home, stay in conversations we'd rather leave and to rely on people whose presence and beliefs grow our capacity to care beyond ourselves.

This inconvenience is part of the social infrastructure that holds communities together. My recent research suggests that when five core "productive frictions" are eliminated from that infrastructure, we strip away the very forces that keep communities strong, productive and together.

Three overlapping epidemics

Three converging epidemics now demand our attention, each pointing to the collapse of community infrastructure.

The first is loneliness. A World Health Organization report released in June found one in six people are affected by loneliness, with recent data from Canada and the United States showing increases since 2024.

Loneliness is linked to roughly 100 deaths every hour — about 871,000 a year — rivalling smoking in its mortality risk.

Contributing to this issue is the widespread uptick in familial estrangement. Up to 130 million North Americans are estranged from a close relative, with 35 per cent involving immediate family members. Families often estrange members who are "inconvenient": those who are different or who challenge repetitive traumatic family dysfunction.

The U.S. has approximately twice the rate of parent-child estrangement as Europe, a pattern researchers tie to a cultural emphasis on individual autonomy over family obligation.

The second epidemic is workplace toxicity. This year, 80 per cent of U.S. workers described their workplaces as toxic, up from 67 per cent in 2024, and cited it as the primary driver of poor mental health. Gallup's global data also shows that stalled employee engagement has cost the global economy US$438 billion in lost productivity.

This is happening despite employers investing billions in wellness apps, engagement programs and other strategies. Many organizations are pouring money into individual coping tools while systematically removing the very infrastructure needed for community.

The third epidemic is an unprecedented global decline in civic and employer trust. These are not separate problems. They are all interconnected by a single root cause: the dismantling of social infrastructure that builds cohesion and belonging.

The cost of convenience

A recent study examined emotional intelligence scores from 28,000 adults across 166 countries and uncovered an alarming trend: global emotional intelligence has dropped nearly six per cent between 2019 and 2024.

Researchers call this an "emotional recession" because our shared emotional resources are shrinking in a pattern similar to an economy in a downturn. The steepest declines occurred in intrinsic motivation, optimism and a sense of purpose; three capabilities that help us to keep moving forward, hopeful and willing to invest in relationships.

Many blame "convenience culture." Convenience culture prioritizes comfort and efficiency over collective responsibility. It often reduces human interaction to what's easiest rather than what's meaningful.

Digital platforms promise connection without commitment, comfort without consideration and belonging without mutual accountability. Algorithms reduce exposure to difference by curating belief-aligned feeds and allowing people to retreat from the discomfort that growth requires.

The messy, time-consuming interactions that build trust and interdependency — like the tense moments when colleagues work through conflict rather than agree or look away — are disappearing. We have optimized away the inconveniences that create interdependence, then wonder

why people feel so alone, emotionally raw and incapable of handling difference.

As such, a fundamental distinction has been lost: belonging is not the same as fitting in. Fitting in is passive; it accommodates what meets the requirements, provides minimal access and enables you to stay as long as you comply. Fitting in is both conditional and transactional.

Belonging, on the other hand, is active and reciprocal. It asks something of you and the community that receives you. Both parties must adjust, accommodate and be changed by the relationship. That mutual obligation is exactly what convenience culture does not tolerate and precisely what builds trust, respect, commitment and the emotional resilience we are losing.

Five productive inconveniences

My research on workplace belonging identifies five "productive inconveniences" that make real community possible. Here's how you can bring them into your own life:

1. Costly commitment: Real community is a two-way street. Be willing to put the group's needs ahead of what's easiest for you, but make sure this burden doesn't fall on the same people every time. When only some people have to invest, being part of the community doesn't mean much.

2. Co-ordinated time: Strong relationships need time to form. When calendars are full, try to make the effort to see people in person. Texts and emails are helpful, but they cannot replace real presence.

3. Navigating difference: Try to maintain relationships with people who see the world differently from you rather than retreating when your views are challenged. Learning to listen, respectfully disagree and stay curious in moments of conflict are what stretches you and makes your community stronger.

4. Conflict repair: Healthy relationships mean taking responsibility and accountability to work through conflict rather than just discounting or disengaging. Instead of unfollowing or walking away, have the hard conversations that allow relationships to survive and grow.

5. Mutual need: Belonging demands interdependence. Ask for help when you need it, and be willing to be needed in return. Doing everything alone is another form of isolation. Mutual reliance is what turns a group of people into a real community.

Choosing people over convenience

Leaders, whether in families, workplaces or communities, must learn to distinguish harmful barriers such as discrimination, exclusion and bureaucratic waste from essential inconveniences that build the muscle of belonging within a community.

The "emotional recession" study emphasizes this: people with higher emotional intelligence were more than 10 times more likely to have strong relationships, be effective in what they do and experience well-being in their lives.

The data suggests that investing in building emotional capacity and the productive inconveniences that develop it pays measurable dividends for individuals and organizations alike.

Community is not built solely through connection. It is built through interdependence, and interdependence is a human infrastructure that is deliberately inconvenient.

Every time we choose people over convenience, we invest in community. The real question in our homes, workplaces and democracies is whether we're willing to pay that price.

AI is providing emotional support for employees – but is it a valuable tool or privacy threat?

Nelson Phillips

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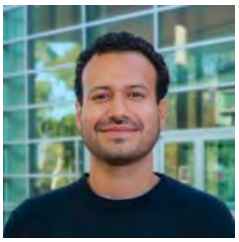

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As artificial intelligence tools like ChatGPT become an increasingly popular avenue for people seeking personal therapy and emotional support, the dangers that this can present – especially for young people – have made plenty of headlines. What hasn't received as much attention is employers using generative AI to assess workers' psychological well-being and provide emotional support in the workplace.

Since the pandemic-induced global shift to remote work, industries ranging from health care to human resources and customer service have seen a spike in employers using AI-powered systems designed to analyze the emotional state of employees, identify emotionally distressed individuals, and provide them with emotional support.

This new frontier is a large step beyond using general chat tools or individual therapy apps for psychological support. As researchers studying how AI affects emotions and relationships in the workplace, we are concerned with critical questions that this shift raises: What happens when your employer has access to your emotional data? Can AI really provide the kind of emotional support workers need? What happens if the AI malfunctions? And if something goes wrong, who's responsible?

The workplace difference

Many companies have started by offering automated counseling programs that have many parallels with personal therapy apps, a practice that has shown some benefits. In preliminary studies, researchers found that in a doctor-patient-style virtual conversation setting, AI-generated responses actually make people feel more heard than human ones. A study comparing AI chatbots with human psychotherapists found the bots were "at least as empathic as therapist responses, and sometimes more so."

This might seem surprising at first glance, but AI offers unwavering attention and consistently supportive responses. It doesn't interrupt, doesn't judge and doesn't get frustrated when you repeat

the same concerns. For some employees, especially those dealing with stigmatized issues like mental health or workplace conflicts, this consistency feels safer than human interaction.

But for others, it raises new concerns. A 2023 study found that workers were reluctant to participate in company-initiated mental health programs due to worries about confidentiality and stigma. Many feared that their disclosures could negatively affect their careers.

Other workplace AI systems go much deeper, analyzing employee communication as it happens – think emails, Slack conversations and Zoom calls. This analysis creates detailed records of employee emotional states, stress patterns and psychological vulnerabilities. All this data resides within corporate systems where privacy protections are typically unclear and often favor the interests of the employer.

Employees might feel that AI emotional support systems are more like workplace surveillance. Malte Mueller/fStop via Getty Images

Workplace Options, a global employee assistance provider, has partnered with Wellbeing.ai to deploy a platform that uses facial analytics to track emotional states across 62 emotion categories. It generates well-being scores that organizations can use to detect stress or morale issues. This approach effectively embeds AI into emotionally sensitive aspects of work, leaving an uncomfortably thin boundary between support and surveillance.

In this scenario, the same AI that helps employees feel heard and supported also generates unprecedented insight into workforce emotional dynamics. Organizations can now track which departments show signs of burnout, identify employees at risk of quitting and monitor emotional responses to organizational changes.

But this type of tool also transforms emotional data into management intelligence, presenting many companies with a genuine dilemma. While progressive organizations are establishing strict data governance – limiting access to anonymized patterns rather than individual conversations – others struggle with the temptation to use emotional insights for performance evaluation and personnel decisions.

Continuous surveillance carried out by some of these systems may help ensure that companies do not neglect a group or individual in distress, but it can also lead people to monitor their own actions to avoid calling attention to themselves. Research on workplace AI monitoring has

shown how employees experience increased stress and modify their behavior when they know that management can review their interactions. The monitoring undermines the feeling of safety necessary for people to comfortably seek help. Another study found that these systems increased distress for employees due to the loss of privacy and concerns that consequences would arise if the system identified them as being stressed or burned out.

When artificial empathy meets real consequences

These findings are important because the stakes are arguably even higher in workplace settings than personal ones. AI systems lack the nuanced judgment necessary to distinguish between accepting someone as a person versus endorsing harmful behaviors. In organizational contexts, this means an AI might inadvertently validate unethical workplace practices or fail to recognize when human intervention is critical.

And that's not the only way AI systems can get things wrong. A study found that emotion-tracking AI tools had a disproportionate impact on employees of color, trans and gender nonbinary people, and people living with mental illness. Interviewees expressed deep concern about how these tools might misread an employee's mood, tone or verbal queues due to ethnic, gender and other kinds of bias that AI systems carry.

A study looked at how employees perceive AI emotion detection in the workplace.

There's also an authenticity problem. Research shows that when people know they're talking to an AI system, they rate identical empathetic responses as less authentic than when they attribute them to humans. Yet some employees prefer AI precisely because they know it's not human. The feeling that these tools protect your anonymity and freedom from social consequences is appealing for some – even if it may only be a feeling.

The technology also raises questions about what happens to human managers. If employees consistently prefer AI for emotional support, what does that reveal about organizational leadership? Some companies are using AI insights to train managers in emotional intelligence, turning the technology into a mirror that reflects where human skills fall short.

The path forward

The conversation about workplace AI emotional support isn't just about technology – it's about what kinds of companies people want to work for. As these systems become more prevalent, we believe it's important to grapple with fundamental questions: Should employers prioritize authentic human connection over consistent availability? How can individual privacy be balanced with organizational insights? Can organizations harness AI's empathetic capabilities while preserving the trust necessary for meaningful workplace relationships?

The most thoughtful implementations recognize that AI shouldn't replace human empathy, but rather create

conditions where it can flourish. When AI handles routine emotional labor – the 3 a.m. anxiety attacks, pre-meeting stress checks, processing difficult feedback – managers gain bandwidth for deeper, more authentic connections with their teams.

But this requires careful implementation. Companies that establish clear ethical boundaries, strong privacy protections and explicit policies about how emotional data gets used are more likely to avoid the pitfalls of these systems – as will those that recognize when human judgment and authentic presence remain irreplaceable.

We’d love to hear from you!

Your thoughts and reflections are what keep this publication meaningful and evolving. Please share your feedback, suggestions, or ideas with us

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HAPPY NEW YEAR

2026

May each day of the New Year bring you
moments of peace, warmth, and a
reason to smile.

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