The Ferrari and the Arc of Technology: Will We Bend It, or Break It?

The Pearcey Oration — Delivered by Victor Dominello, Melbourne, 3 September

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Part 1 – The AI Ferrari

I know this is the Pearcey Oration, and you might be asking: what does a Ferrari have to do with ICT — and with tonight's speech?

Well, quite a lot.

AI is the Ferrari. Everyone is talking about it. It's fast. It's powerful. It's exciting. But driving a Ferrari on a dirt road is dangerous. Without a sealed road, the right key, and a licence, AI's speed and power become a liability, not an asset.

My message tonight is simple: if Australia wants AI-driven prosperity without social fracture, we must urgently build three pieces of digital public infrastructure — the road, the key, and the licence.

In this oration, I want to make the case that Australia must act with urgency and ambition.

There are three non-negotiable foundations we must lay — not in ten years, not in five, but now.

- First, an Australian Data Exchange — the sealed road.
- Second, an interoperable Digital Identity — the key that starts the engine and keeps malicious actors out.
- Third, a Skills Wallet of verifiable credentials — the licence that proves competency to drive.

Now, back to the Ferrari. Build the road. Turn the key. Issue the licence.

Productivity

There are only three levers to grow the pie: participation, population, and productivity.

- Participation is near its limit: unemployment is around 4.2% (July 2025), close to historic lows.

- Population growth depends heavily on immigration, because our fertility rate is 1.63 (2023), well below the 2.1 replacement rate. But surges put pressure on infrastructure, and when buses are full, communities push back.

- Productivity is the last P standing. It is the most sustainable, and the hardest to pull. Productivity growth in Australia has flatlined for more than a decade.

To their credit, the federal government has identified AI as a key driver. After all, productivity won't come from pen and paper, or from queues and wait times.

Productivity is the oxygen of prosperity. It's the difference between wages rising or stagnating, between businesses growing or closing. AI could be a supercharger — but only if we build the road, the key, and the licence to guide it safely.

But productivity is not abstract — it's people's jobs, their security, and their dignity. So what happens when AI collides with work?

AI and Work

AI will create new jobs, but it will also make many redundant.

Economists usually talk about two types of unemployment:

- **Cyclical** — in recessions, jobs disappear with confidence and return when confidence returns.

- **Structural** — when industries vanish due to technology, like typists after PCs or factory workers after automation.

AI combines both. It spreads wide and fast across the economy, and it cuts deep and long into specific industries, especially with robotics. Blue-collar and white-collar. Physical and cognitive. All parts of the labour market are touched.

The Hysteresis

In preparing this oration, I came across a third dynamic new to me: **hysteresis** — perhaps one of the most important concepts for the future of work.

Hysteresis is when a temporary shock becomes a permanent scar. Workers who fall out of employment don't always return, and when they do, it is often into roles that underuse their skills. It is the *Long COVID* of the labour market. Without recognition and reskilling at speed, disruption does not heal — it hardens into lasting damage. Hysteresis is the scar tissue of the labour market — preventable if we act at speed. [Source: Blanchard & Summers, 1986]

For Australia, the risk is sharper. Every worker lost to hysteresis is a bigger share of our national participation capacity. We cannot afford to waste precious human endeavour.

We already act against low-probability but high-impact risks. In NSW, about 4,500 residential fires occur each year, yet smoke alarms are mandated — because when fire strikes, the consequences are catastrophic.

Now apply that logic to jobs.

- **Optimists** say AI will create more jobs than it displaces.

- **Pessimists** warn it will wipe out most jobs and require universal basic income.

- **Realists** agree it will be disruptive, but the scale is unknown. What is clear is that disruption will be fast and uneven, leaving many unable to transition.

The Collision with Work

Let's look at real impacts.

Today, unemployment is about 4.2% — around 620,000 Australians. If AI disruption doubles it to 8%, that would be 1.2 million people unemployed. But if a national Skills Wallet could reduce the blast radius — from 8% to 7% — that's 60,000 more Australians in work. Sixty thousand jobs saved. Sixty thousand families with income, stability, and dignity intact.

So, let's go back to smoke alarms and risk.

Fires are local; AI is systemic.

That is why these three foundations matter, our national and state alarms for hysteresis: a Skills Wallet, connected to a Digital ID, running safely on an Australian Data Exchange.

If we do this, we can turn AI from a disruptive force into a driver of abundance and fairness.

So, the question is this: can governments build this future?

My answer is emphatic: yes. I know, because I've lived it.

So let me take you for a drive — up the challenging mountain road called the **Digital Driver Licence**.

Part 2 – The Rocky Road: Digital Driver Licence

When I was handed the Services portfolio in January 2017, one of the first questions I asked was simple: "*Where are we up to on the Digital Driver Licence?*"

It had been an election commitment two years earlier — one of the first in the world. But the answer I got wasn't progress. It was politics. Agencies were still arguing about ownership.

OneGov — the small team that had successfully built the FuelCheck app for me when I was Minister for Innovation and Regulation — wanted to run it. Service NSW, which had just come into my ministry, also wanted to build it.

At that time, the Service NSW app had under a million users. It was a garden-variety government app: functional but uninspiring. I made the call to back it anyway. Service NSW was already our physical front door. It needed to become our digital one too.

The Resistance

That decision was just the beginning of the battles.

Transport told me we should wait until they rebuilt DRIVES — their 1980s-era licence database. A system so old it still ran on green screens. I used to joke that it should have been called STALLS or REVERSE, because it certainly wasn't moving forward.

The police were equally sceptical. Their response was blunt and reasonable: "*This is a distraction. We've got murderers and kidnappers to catch.*"

Cabinet colleagues weren't lining up in support either. The ghost of LMBR — the billion-dollar Learning Management and Business Reform system in Education — haunted every conversation. Nobody wanted another tech wreck on their watch.

Sleepless Nights

There was a further complication. A Digital Driver Licence is, in effect, a digital ID. I still remember the Australia Card debates of the 1980s. Since then, identity reform had been toxic. Every attempt since was haunted by that backlash. If we stumbled now, the fog would return — and it could take another 30 years to lift.

That's why real-time feedback was critical. Not glossy reports months later, but live dashboards showing what customers were saying in the moment. It became a ritual — checking the numbers multiple times a day, then again at home late at night. It actually wasn't a ritual, it was an obsession. I wasn't sleeping much. The thought that kept me awake was simple: "If this fails, I'll be responsible for setting digital trust back a generation."

The Launch

Then came launch night. I can still picture it: a bunker, cardboard boxes, pizza, a few beers. The team huddled around screens as every news channel covered the story.

I was bracing for the inevitable crash when thousands tried to download all at once. The surge came. And we all held our breath.

But the system held. Feedback rapidly started flowing in — overwhelmingly positive.

It felt like Tony Stark in *Iron Man*, strapping into the suit for the first time. "*Yeah,*" he says, "*I can fly.*"

Chris Fechner — then Chief Digital and Product Officer at Service NSW, now CEO of the Digital Transformation Agency — was next to me and said something to the effect of: "We made it. We crossed the Rubicon."

I smiled, grabbed a scrap of paper, and started scribbling the next 10 projects. Because one of the most important words in transformation is momentum.

Adoption – Proof of Trust

That night proved something fundamental. People will trust government digital if it is useful and usable.

Trust is not built by glossy marketing or endless consultation. It is built by speed, reliability, and transparency.

People downloaded the licence. It worked. They used it. Within months, adoption was in the millions. As of last week, more than 5.2 million people — about 85% of drivers — in NSW had a digital licence, with a

customer satisfaction score of 93.6%. It became one of the most widely adopted government credentials in the country.

That was the turning point. Proof that government could build confidence at scale. Proof that the green screen era could end. Proof that real-time feedback could keep us honest.

The Digital Driver Licence was never just about a card on a phone. The bigger picture was about showing that even government can fly.

The Digital Driver Licence wasn't a one-trick wonder. It was part of a reform wave that proved government could deliver digital change at scale.

We built FuelCheck, giving drivers real-time transparency on petrol prices. We digitised conveyancing, so property settlements that once took weeks now happen almost instantly. We created the Strata Portal, opening up information that had been locked away in filing cabinets. We launched the Digital Seniors Card, making benefits easier to access for older Australians.

We reformed insurance with the CTP clawback mechanism at SIRA, using data to stop super-profits and return money to motorists. We built the Data Analytics Centre to give government a brain as well as a backbone. And we led in digital spatial services — from live transport feeds to the TWiS bushfire and hazard mapping system — showing how open data can literally save lives.

Part 3 – The Keys and the Licence: Digital ID and the Skills Wallet

Now, back to the Ferrari. To get into the car, you need a key. That's Digital Identity. Build the road. Turn the key. Issue the licence.

In Australia, we already have multiple digital IDs — myGovID, ConnectID, Australia Post, Service NSW (in production), and others. And that's not a weakness. Choice is a strength. Choice empowers citizens, drives competition, and sparks innovation.

The problem is our IDs don't talk to each other. They sit in silos. What we need is a connected ecosystem — one that puts the driver in control.

That's why the Digital ID Act, passed last year under Minister Gallagher's leadership, is such a critical milestone. It lays the foundation for interoperability and trust. But legislation is only the start. The real work is turning law into lived experience.

But keys alone aren't enough. To drive, you also need a licence. That's the Skills Wallet.

Why It Matters

Take two court translators. Both equally skilled. Both equally motivated. Both suddenly displaced by the arrival of real-time translation through smart glasses.

- Worker A has her qualifications in a Skills Wallet — hard credentials, soft credentials, and micro-credentials. Issued directly by her training providers, cryptographically signed, instantly verifiable. AI analyses her skills, scans the job market for new roles, and recommends targeted courses to upskill. Within weeks, she is back in work.

- Worker B has the same qualifications, but only on paper. A laminated card. A certificate in a drawer. Her path back is slower, clunkier, and full of friction. By the time the paperwork clears, the opportunity is gone.

The difference isn't skill. It isn't motivation. It's recognition and reskilling at speed.

The Scale of Disruption

And speed matters, because the scale of disruption is massive. Goldman Sachs estimates up to 300 million jobs globally could be displaced by AI. The World Economic Forum projects a net gain of 78 million jobs by 2030 — but not for the same people, with the same skills, in the same places. Without tools to reskill quickly, millions will be stranded.

That's the blast radius of hysteresis. A Skills Wallet won't stop disruption, but it can shrink that radius by making skills visible, verifiable, and portable.

Global Proof Points

Other nations are well on this journey:

- The EU's European Digital Identity Wallet will carry IDs, licences, and diplomas across 27 nations.
- Singapore's SkillsFuture Passport has reached over one million users, with more than 260,000 credits used in 2024, enabling lifelong learning and rapid redeployment.
- Canada's Pan-Canadian Trust Framework is aligning IDs and credentials across provinces.
- Here in NSW, we digitised trade licences, Working With Children Checks, and First Aid certificates — early proof that a broader Skills Wallet is possible.

The World Economic Forum estimates one billion workers worldwide will need reskilling by 2030. That's the size of the wave. If we don't act, many will fall out of jobs and never return.

The Next Horizon

And there is another reason for urgency. With the dawn of AI agents, every one of us is about to have a co-pilot — perhaps even a co-driver — sitting alongside us in the Ferrari. These agents will make decisions, transact, and act on our behalf. But unless they also carry trusted IDs and verifiable credentials, they could be reckless, even dangerous, in the car with us.

Building Digital Identity and a Skills Wallet isn't just about empowering people — it's about ensuring the AI systems that work beside us are held to the same standards of trust, safety, and accountability.

Part 4 – Building the National Track: ADEX as Digital Public Infrastructure

Now, back to the Ferrari. Build the road. Turn the key. Issue the licence.

AI needs a sealed road — secure and fit for purpose.

But right now, too many of our Australian dirt tracks erode into goat tracks — just one slip away from data swamps.

Why Australia Needs ADEX Now

I've seen firsthand how much time, money, and confidence we lose because data isn't trusted, portable, or machine-readable.

The Productivity Commission has been clear: data, digital, and AI are central to lifting productivity — but only if reforms unlock trustworthy data use while maintaining public confidence.

That is what ADEX does.

It makes high-value data machine-verifiable — not screenshots, not PDFs — but cryptographically signed, consented, and ready for automation.

What ADEX Is — and Isn't

What it is:

- Think of it as Australia's X-Road — a five-party trust framework (people, data holders, recipients, connectors, and autonomous agents) that turns key assertions — identity, attributes, licences, credentials, provenance — into cryptographically signed, verifiable credentials with consent and auditable logs.

What it isn't:

- It isn't another billion-dollar IT build. ADEX layers on top of what we already have — the Consumer Data Right (CDR), Digital Identity and the Document Verification Service (DVS), the New Payments

Platform (NPP), and the mobile driver licence (mDL). It stitches them together with open standards and conformance tests. Neutral. Standards-based. No vendor lock-in.

The Productivity Dividend

This isn't theory. The dividends are proven.

- In Estonia, digital signatures alone save about 2% of GDP every year. [Source: e-Estonia/Ministry of Economic Affairs]

- In Singapore, TradeNet cut customs approvals from days to minutes. [Source: Singapore MTI/Customs case study]

- In India, UPI processed nearly 19.5 billion (July 2025) transactions in a single month.

If we get ADEX right, early modelling suggests a dividend of 2–5% of GDP by Year 6. That's A$68–A$135 billion a year. Over six years, as much as A$400 billion. Nation-shaping.

And the mechanisms are clear:

- Less fraud & admin drag: cryptographic checks prevent misuse; manual verification falls away.

- Faster decisions & services: days become minutes when data is verifiable once and reused.

- Lower compliance costs: businesses prove controls with credentials and logs instead of repeating checks.

- Innovation & competition: open standards cut friction and unleash new products.

Australians Already Use These Standards

And Australians already live this model every day.

Tap your phone at the checkout — banks and merchants use common standards, cryptography, and secure wallets.

That is not one big centralised system. It's an ecosystem: competitors fighting hard, but all playing by the same rules.

ADEX extends that model beyond payments to every form of trusted data exchange. Because if we were to atomise or pixelate a digital ID, a qualification, or a licence or any other credential, it's all just data

The question is whether those data bits can be trusted, portable, and verifiable across the economy.

Australia's Digital Bradfield Moment

A century ago, John Bradfield built bridges, tunnels, and railways that became the backbone of a modern economy. They connected people, created confidence, and unlocked prosperity for generations.

ADEX is our chance to do the same in the digital age — to build the backbone that carries identity, credentials, and trust safely across the economy. Not just catching up. Leading. A century ago, Bradfield's Harbour Bridge spanned 503 metres and re-shaped Sydney. This decade, cryptography and consent can span an entire nation.

Operating Across the Ecosystem

ADEX operates across the entire ecosystem:

G2G: agencies share data securely with consent and audit, not duplicated forms.

G2B: compliance and licensing proven with credentials, not paperwork.

G2C: citizens tell government once, then reuse credentials everywhere.

B2B: companies prove compliance and provenance across supply chains.

B2C: customers know a licence, permit, or qualification is genuine.

One framework. Trust flowing across society.

Designing for the AI Era

Here's our advantage: we can design ADEX for the AI era from day one.

AI agents will soon be applying for permits, booking services, even negotiating contracts. They'll need digital IDs, verifiable credentials, and clear rules of engagement.

And we can go further: not just knowing who sent the data, but how good the data is. When it was issued. Whether it has been audited. Whether it's current or revoked.

In other words: not just trusted in origin but trusted in accuracy and currency. That is how you build an ecosystem citizens, businesses, and machines can all rely on.

Why This Matters

This isn't about government building a giant machine. It's about government doing what only government can do: setting the rules of the track so everyone can drive on it.

If banks can manage cryptography and wallets for millions of secure payments a day, we can extend the same principles to identity, credentials, and trust.

Do that, and we will have a trusted, interoperable ecosystem where citizens have choice, businesses have competition, and startups can move at speed.

Just as Bradfield's bridges carried Australians into the last century, ADEX can carry our data, our identities, and our skills into the next.

It is not just infrastructure. It is a legacy. ADEX isn't a system; it's a standard we can all trust.

Part 5 – From Silos to Systems: Government's Evolution

ADEX, Digital ID, and the Skills Wallet are not just digital projects. They are signals of a government model in transition — from isolated departments to systems that work as one.

The Evolution of Government

Think about the journey.

Government 0.0: Paper. Queues. Triplicate forms. Every transaction in person.

Government 1.0: Paper moved online. Portals, PDFs, early websites. Faster, but still one-way.

Government 2.0: Apps and online services. More interaction but still fragmented. Citizens forced to repeat themselves across silos.

Government 3.0: Connected. Services that join up. Credentials that can be reused across domains. Government that wraps around people, instead of people chasing government.

We saw this in New South Wales. During COVID, instead of building separate apps — Health for vaccine certificates, Transport for border passes, Police for QR check-ins, Treasury for vouchers — everything ran through the one Service NSW app. Satisfaction stayed at 95%. That was not a tech trick. It was a systems shift, visible in real time.

But most governments remain stuck in the backwaters of Government 2.0. A few are pushing into Government 3.0 — and they are the ones preparing for what comes next.

By the 2030s, AI agents, augmented reality, robotics, early general intelligence, and quantum will no longer be niche. They will be mainstream. That is Government 4.0 — intelligent government.

But intelligence without solid foundations is chaos. Data is the fuel. If the fuel is contaminated, the engine misfires. That is why we need infrastructure like ADEX: clean fuel lines for the age of intelligence.

The Human Cost of Silos

The stakes are not academic. They are personal.

During my time as Minister for Communities and Aboriginal Affairs, it looked like housing. But behind it was a chain reaction:

- Job loss. Retraining too slow.
- Unemployment to depression.
- Depression to substance abuse.
- Substance abuse to police contact.
- Eventually, gaol.

After release, many would end up on the streets.

That is not one department's problem. It is all of them, at once.

Yet the system still answered vertically. Housing had its forms. Centrelink had its queues. Health had its clinics. Justice had its paperwork. And the person — already struggling — was left to retell their story again and again. Exhausting. Dehumanising.

In NSW we tried a different path. We brought ServiceNSW, Housing, Communities, and Mental Health together — and critically, we worked with frontline charities who knew people on the street by name. That's how the By-Name List was created: a shared platform where everyone could see the same up-to-date information.

As Mission Australia's Stefan Mackenzie explained, the By-Name List became a vital mechanism for reducing duplication and strengthening coordination. It showed when a client was already being assisted, so support could be redirected rather than doubled up. More than a list, it created a common platform for practitioners to convene, coordinate, and act quickly — without relying on who happened to be on the right email chain.

Suddenly, ten disconnected doors became one joined-up pathway. With data driven technology, frontline workers had the tools to respond in real time. Street sleeping began to fall. Agencies and charities could work together instead of at cross-purposes.

It was more efficient, yes. But the real win was human. People stopped falling through the cracks. They were seen as people again, not case numbers.

The Gov 3.0 Imperative

Government 3.0 is not more apps — it's a system that bends with life's shocks instead of breaking under them.

This is the heart of Government 3.0. People. Not more apps — but connected systems that absorb shocks when life changes.

Picture that same worker in a joined-up world. Their redundancy drops into a Skills Wallet as a verifiable credential. With consent, it opens retraining opportunities. A GP connects a mental health plan. Centrelink sees their work history instantly. If they move interstate, qualifications are recognised the next day.

That is not convenience. It is resilience. Government acting as a shock absorber, not a maze.

And that is why ADEX, Digital ID, and the Skills Wallet matter. They are not technical exercises. They are the scaffolding of a new model of government — one able to cope with intelligent technologies because the rails and rules are already in place.

The choice is clear. Stay siloed, and people will keep falling through the cracks. Move to systems, and we build a society that bends with pressure rather than breaking under it.

Part 6 – The Horizon: Choosing Abundance

After 12 years as a minister, one truth stands out: technology gives us the chance to build a fairer society.

I saw how quickly scepticism can turn to confidence when people are treated with dignity. The Digital Driver Licence showed that almost overnight. And I learned that the hardest problems — homelessness, unemployment, mental health — only shift when government acts as one system, not a maze of silos.

That is the lesson tonight. Technology matters — but what matters more is what we choose to carry on it, and who we choose to serve.

The horizon will be fast and unpredictable. AI will accelerate it. Robotics will amplify it. Shocks will come without warning. In that world, governments have two choices: cling to the old ways and hope the ground doesn't move — or prepare citizens to thrive even when it does.

Preparation isn't about perfection. It's about foundations people can rely on: secure identities, portable skills, and data that can move safely and with consent.

The arc of technology is disruptive — but it bends towards abundance. And abundance must mean productivity gains and fairness. Fairness that protects people when they are vulnerable, and ensures no one is left behind as the world speeds up.

And so, I come back to the Ferrari.

AI is already here. The engine is revving — and getting louder.

- But without the ADEX sealed road, the ride will be dangerous.
- Without a Digital ID key, anyone — including malicious actors — can jump in and take it for a spin.
- Without a Skills Wallet licence, no one knows if the driver is truly competent.

Build them, and the AI Ferrari can run safely, at speed, for the benefit of all. Not just to lift productivity — but to deliver fairness. To make sure no worker, no family, no community is left stranded on the roadside as the world accelerates.

The time to decide is not tomorrow.

It is now.

- Build the road.
- Turn the key.
- Issue the licence.

And let the next generation drive further than we ever imagined.