Australian Government
Australian Taxation Office

Melbourne Law School Annual Tax Lecture

Rob Heferen, Commissioner of Taxation

Wednesday 18 September 2024

Taxation: digitalisation with the human touch

Check against delivery

Introduction

Thank you to Miranda and the Melbourne University Law School for inviting me to give the annual lecture.

I'd like to acknowledge the Wurundjeri, Woi-wurrung and Bunurong people as the traditional owners of this land, and pay my respects to Elders past and present. I would also like to extend my respects to any First Nations people in the room or online today.

Before I begin I will provide a bit of a disclaimer – I'm not an academic, nor am I a legal professional. BUT I consider my role as Commissioner to be one that considers all perspectives in tax administration, from those who know where the full stops are in the legislation, to those who just want to make sure they're paying their fair share.

So I hope I can provide you with some of those perspectives this evening.

I want to take this opportunity to talk about an area of particular interest to me, as I consider Australia's tax system into the future.

Automation and digitalisation continue to grow and strengthen the way we live and exist in this world, and more relevant to my role, how we administer that tax system and elements of the superannuation and some basic registry systems.

But, as automation and digitalisation entrenches, how do we ensure the system remains fair, taxpayer-centric, public service focussed, and done according to the law?

Before I delve further, let me introduce myself.

I hail from Tasmania, growing up in the idyllic Northern Midlands, in Deloraine. After attending Deloraine Primary and Deloraine High, I headed to Launceston Matric – in those days in Tassie after grade 10 you either got a job, got an apprenticeship, or went to Matric for the purpose of going to university.

My student counsellor in high school advised me that I should become a doctor or a lawyer. The Australian Public Service was never part of the discussion, and I suspect no one really knew what a Tax Commissioner was.

In any case, my main passion (after football, basketball, cricket, and Boags – though not in that order) was maths, and so I ended up going to Hobart to study maths and philosophy at the University of Tasmania.

As it turned out, maths fell by the wayside and philosophy became my passion. But remembering advice from my student-counsellor, I enrolled in law – after all I never really saw a lot of job openings for philosophy!

I didn't know it yet, but law would pave the path to where I am today.

So I worked towards a combined Arts/Law degree. I loved every minute of philosophy, but no doubt unlike many in this room, I simply endured the 12 subjects of law that I was required to complete.

My brain loved the abstract, but was not disciplined enough for the concrete.

Criminal law was interesting, mainly due to the facts of the famous cases; contract law, mercantile law and trusts and succession less so.

Land Law was a mystery to me then and remains so; Torts was at least interesting, although the lecturer made it especially challenging – after all, who *couldn't* make Donoghue v. Stevenson[i] or the Wagon Mound[ii] exciting?

I enjoyed Tax Law and Evidence, but Family Law seemed like another world.

But Constitutional Law and Administrative Law were different – both resonated with me, although I didn't really understand why at the time.

An honours year in philosophy studying Plato, Kant and some serious jurisprudence tied off a great experience, and, although I had my law degree under my belt, I decided practicing law would not be for me, so I headed up to Canberra to join the Australian Public Service and Australian Customs Service graduate program.

After a few months in practical work placement rotations I ended up in the legal branch at Customs. It was then a lot of the law I had learned about fell into place.

First came admin law, where the judicial review of administrative decisions now made sense, as did merits review by the then Administrative Appeals Tribunal. Ultra vires now had a grounding and delegated legislation didn't just take on a meaning, but as an instructing legislation officer, I saw and understood the power of the Governor General in council.

A key lesson for me was that for the Governor General in council to make a decision (for example, promulgate a regulation or some other piece of delegated legislation) we didn't need a Governor General or a council. Just three junior ministers would do, at least to make the regulation.

I took the advice of one of my colleagues (which I think emanated from her father, a former Deputy Secretary at AGD), "read the Constitution once a week, and the Acts Interpretation Act once a month." This started to prepare me for the roles I was stepping into.

Reading the Constitution was fascinating. Interesting to hear when so called "serious" commentators talk of the need to keep our Constitution sacrosanct, I wonder how many have actually read Section 59?

But then my work as a legislation officer drew out the significance of at least some of the provisions.

The long Senate deliberation of the 1993 Budget excise changes[iii] brought the meaning of Section 53 to life. The Senate can't amend a bill imposing taxation (including excise), it can only request the House to do so. But if the house refuses and the Senate wants to press the request, does it require majority to do so?

At 2:00 am on a Friday morning, the 1993 Federal Senate never finally had to make that call, but it was fascinating being in the Upper House, or the Red Chamber, in the advisor's box, while this debate was carried out.

The extent of Section 90's reach in making excises exclusively the domain of the Commonwealth was highlighted in Capital Duplicators[iv] with the High Court overturning the ACT's proposed license fees for X-rated videos and leaving the crumbs for its eventual decision in Ha[v] that overruled the way states raised tax from tobacco sales (and, by extension, fuel and alcoholic beverages).

And then, much later, the cases of Williams [vi], and Williams [No. 2][vii], radically reshaped the way the Commonwealth could exercise it spending powers - it could no longer bypass the states but needed to go through Section 96. Or have an explicit head of power in section 51.

The lessons I took from studying law, and then seeing some real-world application, were that the law compelled and then guided the way good administrators should operate. Constitutional validity was not a given. And good administrators need to ensure the law they are administering is supported. Simply because that's the way something had worked in past did not guarantee it for the future.

Even when powers granted by the legislature were within the Constitution and manifested in a public servant (and they could delegate), someone, somewhere in the system had to turn their mind to the issue at hand, and in making a decision, take into account all relevant factors, disregard irrelevant factors, and make sure the principles of natural justice are observed.

In short, a task that a human mind needs to be turned to consider.

The ATO's core role and recovering debt

The ATO exists first and foremost to collect the right amount of tax in accordance with the law in the most efficient way for the government and the taxpayer.

Being the nation's principal tax collector is not always an easy job but it's an important one. One that's fundamental to Australia's strong economy and society.

Without the ATO doing its role, the rest of the government suffers (both commonwealth and state), as does our wider society.

The broader debt book – that is, all the tax debt that is owed to the Government at the current point in time – is currently over $100 billion (compared to 2023-24 total revenue of around $600 billion). The largest it's ever been.

Half of that $100 billion is made up of collectable debt. That $50 billion is almost double the $26.5 billion of collectable debt owed in 2019. Again, it's the largest it's ever been, and it's money that could be benefitting all Australians.

This debt is not disputed, most of it has been self-reported, and it's largely made up of amounts that have been withheld from employees' wages, and collected from consumers as GST but not passed on to Government.

The community should hold the ATO to a high standard in ensuring that the tax that is owed under the law is collected.

And so we must do more to meet our obligation to recover debt. There is no question about that.

What there is always question about, is HOW we go about doing that in the most efficient and fairest way possible, that conforms to the law.

Tax time – the period between 1 July and around end October – is our Superbowl. The mammoth task of processing tax returns cannot be overstated.

For this tax time, in the past (almost) 12 weeks we have[1]:

a. processed over 8 million lodgments, and

b. paid over $17.6 billion in refunds.

To put this into perspective, let's look to the 80s, well before we had a computer on every desk, and just before self-assessment revolutionised the ATO.

In his 2010 book on the history of the ATO, Leigh Edmonds spoke to a former ATO employee who described the assessment process as "getting out of hand". The scrutineering process required an ATO employee to process 2,000 returns a day[viii].

In 1984-85 the ATO received 9 million income tax returns[ix]. Making some assumptions about working hours, we can estimate it took about 13.5 seconds to do one tax return – with *very* little scrutiny applied to most returns, mind you. And yet the system was still reeling from the schemes in the 70s and, indeed, the 'bottom of the harbour' fraud in the early 80s.

It is little wonder that former Commissioner Boucher pushed the ATO to adopt self-assessment. It was an exercise in survival.

[1] Figures current at time of delivery, September 2024

We have about 14 million individual taxpayers now – that is, not counting sole traders, businesses or corporates. 14 million individual tax returns, processed by humans alone, at 13.5 seconds each – just not feasible.

Once self-assessment came in during the mid-80s, assessors were replaced by clerks still providing only a cursory glance at each return, and data processing operators delivering 180 keystrokes a minute to keep up with required processing times[x].

In addition to this, we no doubt had to make some very generous assumptions about voluntary compliance during this period.

This is all to say, we know that it is not practical or sustainable for a human alone to process returns *and* ensure tax compliance. The computer is our vehicle, and the algorithms are helping us steer.

The evolution of digital tax systems

The way we deliver on our responsibilities has evolved over time, but what is constant is the need to continue to respond to our environment.

When we talk about the current digital environment for tax administration, there are *many* different areas to consider.

But what the community wants is a fast, seamless service that is light touch, but certain.

And what we've been able to do is utilise data at scale to make large strides into providing this service.

Take our ATO app. Hopefully you all are in the 2.5 million Australians who have this downloaded to your phone, and you've got a strong identity credential.

If you have, then you have stepped into a first class offering. You can view your tax information and lodge your income tax return, make payments, and view your super contributions in a secure environment.

How do we do this?

Well, we currently hold about 50 petabytes of data. The equivalent of about a billion tall filing cabinets that, stacked on top of each other, would easily take us to the moon and back, and perhaps around the world a few times as well.

Within these 'filing cabinets' are people's incomes, tax withheld, financial transactions, share market information, health fund information, childcare benefit payments, welfare payments, and a whole lot more.

The ATO has been using some forms of artificial intelligence – for example natural language processing – for some time to review large amounts of this structured and unstructured data to identify risk and ensure high-quality verifiable data.

Many of our analytical models also use these technologies to identify taxpayer populations to nudge or identify risks for further review. But importantly for tax returns, we can match income to a specific person to allow pre-fill. And we can rely on machines and algorithms to do precisely that.

We also use forms of AI to identify tax risks from large volumes of documents obtained from data leaks (for example, the Panama Papers[xi]), helping us in that case to raise more than $242 million in tax revenue.

We continue to keep abreast of emerging data and analytics technologies and techniques to identify those that may potentially provide value in administering the tax system.

But there are areas less obvious to the public, but equally as important to progress digital capability.

The layers of IT infrastructure at the ATO are deep, and I'm incredibly grateful that I have some great minds focussed on them every day.

But let's pull this out of the abstract and into the real world. Not my comfort area as I have noted, but bear with me.

But before I do, I'll outline our legislative basis for determining tax payable, and refunds owed.

Let's start with the Constitution. While s.90 makes excise and customs duties exclusively the domain of the Commonwealth, s.51(ii) provides the legislative authority for taxation. There is a separate imposition act for income tax[xii] (and several others for GST[xiii]) and the Excess non-concessional superannuation tax (ENCST)[xiv] so s.55 is satisfied.

Indeed, for those of you who follow this issue closely, s.55 specifies that laws imposing taxation "shall deal with the subject of taxation only". Resch's case[xv] made clear that income and capital gains fall within the one subject of tax.

So far so good – Constitutional tick of approval.

Now let's look at the legislative structure – and given the complexity I will be artificially brief.

a. Two Acts dealing with, but not imposing, income tax: the Income Tax Assessment Act 1936 and the Income Tax Assessment Act 1997.

b. Two set of regulations – one for each of the principal Acts, and

c. Income Tax Rates Act 1986 and the Income Tax Act 1986 which declare the rates applicable, and then impose the tax.

And then there's the Tax Administration Act 1953, and its regulations.

Under s.161 of the Income Tax Assessment Act 1936 the Commissioner issues a legislative instrument telling people to lodge a return, usually done annually in late May.

Then Division 388 of Schedule 1 of the Tax Administration Act 1953 provides the Commissioner with the power to specify what must be in the return, and when it must be provided. Division

255 of Schedule 1 allows the Commissioner to determine the payment time, and in particular section 255-15 permits payment by instalments.

When the payment is not made on time, then the General Interest Charge, or GIC, will apply. Then subsection 8AAG(5) of the Tax Administration Act 1953 allows the Commissioner to remit the charge, essentially, when it would be fair and reasonable to do so.

So now let's imagine a taxpayer with a simple tax situation, say a 30-something with no children[2].

They work as an Office Manager, have a little money each fortnight to put aside in savings and salary sacrifices some super, but aren't particularly interested in complicated investing or financial activities.

Come 2024 tax time, their tax return is easy – they wait until the third week in July for prefill, as requested by the ATO, when the ATO have loaded their income, bank interest and health insurance rebates into their return.

This taxpayer knows they're eligible to claim some working from home deductions, so they track work from home days, uses the ATO's fixed rate method[xvi] to claim that deduction, and hits 'submit' in the ATO app. All taken care of while they drink their morning coffee.

In this example there is a decision to be made – a 'check and submit' by the taxpayer, but there isn't really any judgement to be exercised. Not by the taxpayer, and the ATO has already made their judgments through their algorithms.

Where AI or automation can be obviously effective sometime in the future, in these 'simple' tax cases, is to fill gaps like work-related expenses. This is a gap we know which, in some cases, relies heavily on the judgement of the taxpayer or agent to consider deductions and make appropriate calculations within the ATO's guidelines.

But imagine if we could use the vast amount of data we have to estimate what your work-related expenses would be, and added that to your prefill? It's possible. Even likely.

We could estimate based on what you've claimed in past tax returns while in similar work and financial situations.

We could estimate based on what other people your age and gender in your profession are claiming. There is so much data we can use to make a good estimate for your deductions, and the AI capability exists to do so.

We could have an AI machine-dominated process that takes human decision making out of scope, but is this a future the community would want?

[2] Fictional individual, used for illustrative purposes only

The opportunities and challenges to automation in the tax system

In my view, one of the biggest challenges we face as tax administrators driving digital transformation is ensuring we take everyone with us.

Taxpayers expect us to be connected, for the digital experience to be seamless across government, and for data to be shared effectively and securely.

But there are many challenges we face in meeting these expectations.

This also requires us to turn our minds to the ethical and integrity challenges of using new technologies, and mitigating cyber security risks and data breaches to maintain trust and confidence in our system. We must put ethical decision-making at the top of the tree.

The Government – through the Department of Industry, Science and Resources –recently conducted public consultation[xvii] on proposed guardrails for the use of AI in high-risk settings. It's vital that we do work within agreed guardrails – we are working with the personal data of Australians, and must do so safely and ethically.

But let's be clear, a huge amount of automation is required: the question is how far can AI be used and in what circumstances?

Putting aside for one moment the law and what it requires, would using data and digital capability in this instance be appropriate? Would substituting AI for human judgements make for better decisions? There continues this fascinating debate in psychology and economics about what makes 'good' or 'rational' decisions.

Daniel Kahneman (jointly awarded the 2002 Nobel Memorial Prize in Economic Sciences) makes a persuasive argument (to many, but to be clear, not to me) that to get better decisions we should eliminate human judgement as much as possible[xviii]. I think his view is that human reasoning is flawed with so many cognitive biases, and if you use algorithms the decisions will improve. Don't use judgements, use algorithms. That is, the flaws in leaving decisions to people are many, and varied.

Kahneman would argue, I think, our inherent biases as human beings infiltrate everything, sometimes for the better and sometimes for the worse.

Yes, even law – as pure and objective as we like to think it – is littered with the biases of those who wrote it, those who interpret it, and those who apply it.

I can feel the energy radiating off those in the room who have studied or are studying AI or machine learning, itching to argue about how coding and algorithms carry less bias and prejudice than humans.

We hear that in the US rideshare and tech companies seem to be joining efforts to make great strides in the world of autonomous ridesharing – allowing self-driving cars to provide a safer journey for its passengers with top-of-the-line AI and tech.

I find self-driving cars to be an excellent case study to bring Kahneman's views to life.

Data from these companies seems to show impressively low collisions, and very few reported injuries. In fact, they're saying that most contact events are from being hit BY human-driven vehicles.

Sounds great. The data, assuming it's reliable, speaks for itself. It reinforces Kahneman's views. To get better decisions, to make better judgements, use algorithms and computers, not human minds.

In contrast, the German Psychologist Gerd Gigerenzer argued that humans successfully make decisions using heuristics, or their recognition of effective options based on past experiences – i.e. rules of thumb – to find effective solutions where information is limited[xix]. That is, human judgements, based on heuristics, are critical for good decision making. For what it's worth, I think Gigerenzer's view is more applicable to the judgement we make in the ATO.

Maybe Gigerenzer would take the view that the judgement needed for driving can be better done by machines. But I am sure he would argue that there are a range of judgements where the accumulated human wisdom will beat all.

In the 1970s the debate around Herbert Hart's legal positivism and Ronald Dworkin's rights-based thesis tried to get at the question of how judges ought to make decisions in those hard cases that come before them.

The contrast between Dworkin and Hart is that Dworkin argues that for a judge to make the right decision, their task is to make the decision that best fits the underlying legislative structure, case law and social mores. That is, the one that best fits the data. In contrast, Hart views it that the judge needs to use their accumulated wisdom and expertise to arrive at the decision which works.

In *Taking Rights Seriously*, Dworkin maps out in chapter 4, with the aid of his super-judge Hercules[xx], what a Kahneman-style judge might actually do.

Whereas I think Gigerenzer would be happy with Hart's approach, complete with errors of judgement.

With driverless cars, the sharp end lies with what happens after something goes wrong. And inevitably something will. And of course, nothing – even technology – is infallible.

I think when something goes wrong, we want to blame someone. We want to find out who is at fault, and, in many – most? – cases, seek retribution.

This audience is no doubt well versed in the philosophies of punishment (see C.S. Lewis' *God in the Dock* for a basic introduction), so this insight isn't new. But if we apply it to the example of automation and digitalised systems it becomes more complicated: if harm occurs and the fault lies with a glitch in an automated system, then who is to blame? Where do we place our desire for retribution?

It comes down to this: human judgment is flawed. BUT human judgment is important.

Automation and good administration

How would an increasingly automated system reconcile with good administration?

Let's go back to our taxpayer from earlier – a single, 30-something with no dependants – with one change that they have recently taken on responsibility of caring for their elderly father, who lives alone. The taxpayer needs a car now to be able to visit their dad on weekends, so takes on a second job in a café to pay for a car loan on top of rent and bills. Their regular job is well paid by community standards, but with the extra financial strain the second job will help them a lot.

Unfortunately, the taxpayer made a mistake and is unintentionally claiming the tax-free threshold from both employers. So, come tax time, they have a debt to the government, which they can't afford to pay in a lump sum.

What an automated system *would* see is an individual, with no dependants and two relatively well-paying jobs.

What an automated system *wouldn't necessarily* see is an individual who is struggling a bit – their landlord is selling the house so the taxpayer is saving extra money to move house in the near future, they're now factoring in car expenses each fortnight, and they're feeling the mental and emotional weight of caring responsibilities.

As I noted earlier, section 255-15 of the Tax Administration Act 1953 permits payments by instalments. However, the GIC is intended to provide an incentive for prompt payments. So this taxpayer needs the Commissioner to remit the GIC, at least down to the Shortfall Interest Charge (SIC) rate.

In an automated environment, the taxpayer would request a payment plan through the ATO app, and the automated system might determine from their income that their request for a 12-month payment plan is reasonable. But the GIC should apply.

So, this taxpayer needs the computer to factor in their specific circumstances to arrive at a decision of whether it would be fair and reasonable to remit, or waive, the GIC consistent with paragraph 8AAG(5)(a) of the TAA.

Surely all we need are the expert coders to be able to write the necessary algorithm to make this decision? I think the answer to this is 'no'.

And I doubt whether we will see a time when a machine can be used to exercise a judgement, an inherently human judgement, as to what is fair and reasonable in the special circumstances.

Now, our current self-service provides options for payment plans of two years, for those with reasonably good tax compliance, BUT as I said, the GIC should likely apply. And the algorithms won't take into consideration the impact of time on the taxpayers. As far as the algorithms know, the longer your payment plan, the more GIC will accrue.

But in an environment where human judgement can intervene, the taxpayer would call the ATO, explain to an ATO officer their situation, and together they would come up with an affordable

payment plan. A plan that is within a timeframe that reduces the GIC as much as possible, and doesn't put additional pressure on their financial, emotional, or mental state.

This is a simplified and very straightforward example, of course. There are so many factors that could lead someone to needing extra time to pay their tax debt.

Let's imagine this taxpayer had a very sudden and drastic change in financial circumstances – perhaps a separation from an abusive partner, or a chronic disease diagnosis that requires specialist treatment – the need for a conversation with a human being would be even greater.

Humans need to be involved in the process to ensure a fair tax system for everyone.[3]

Conclusion

Ultimately, the question I ponder as Commissioner of Taxation – whose goal is a fair and equitable tax system – is 'does digitalisation make the tax system fairer'?

What an automated system can do is enable us to do the process work so much faster. It can process in a flash, bring data together to pre-fill and estimate tax returns for the majority of taxpayers.

What it won't be able to do is be a substitute for human judgment – determining what constitutes fairness and reasonableness in those taxpayer circumstances where compassion and empathy are vital to making decisions **with** the taxpayer.

I don't think automation and human intervention are mutually exclusive in the tax world. Call me an optimist, but I think the system will settle on a happy medium.

I hope I've provided you some insights from my role as Commissioner of Taxation, and some food for thought on how far we CAN, and how far we SHOULD, consider removing the human touch from our tax system.

Thank you again for the invitation. Good evening.

[3] After I presented my lecture, the case of Pintarich v Deputy Commissioner of Taxation [2017] FCA 944 was drawn to my attention. The Magistrate's decision, I think, supports my proposition that to remit the GIC there needs to be both a mental process of reaching a conclusion on the application to remit GIC, as well as an overt act communicating the decision. However, the dissenting judgement of Derrington JJ is worth a read.

Reference List

Dworkin, R 1977, *Taking Rights Seriously*, Gerald Duckworth & Co. Ltd., London

Edmonds, L 2010, *Working for all Australians 1910–2010: A brief history of the Australian Taxation Office*, Australian Taxation Office, Canberra

Hart, H. L. A. 1961, *The Concept of Law*, Oxford University Press, London

---

[i] Donoghue v. Stevenson [1932] AC 562
[ii] The Wagon Mound (No 1) [1961] AC 388
[iii] Excise Tariff (Deficit Reduction) Bill 1993
[iv]Capital Duplicators Pty. Ltd. v. Australian Capital Territory (1992) 177 CLR 248
[v] Ha v. New South Wales (1997) 189 CLR 465
[vi] Williams v. Commonwealth (No 1) (2012) 248 CLR 156
[vii] Williams v. Commonwealth (No 2) (2014) 252 CLR 416
[viii] Edmonds, L 2010, Working for all Australians 1910–2010: A brief history of the Australian Taxation Office, Australian Taxation Office, Canberra, p. 181
[ix] Edmonds, L 2010, Working for all Australians 1910–2010: A brief history of the Australian Taxation Office, Australian Taxation Office, Canberra, p. 181
[x] Edmonds, L 2010, Working for all Australians 1910–2010: A brief history of the Australian Taxation Office, Australian Taxation Office, Canberra, p. 183
[xi] Intelligence the ATO have derived from data leaks such as the Panama Papers, Paradise Papers, and Pandora Papers has assisted us, and governments around the world, in identifying those involved in offshore tax evasion arrangements. Data leaks | Australian Taxation Office (ato.gov.au)
[xii] Income Tax Act 1986 s.5
[xiii] A New Tax System (Goods and Services Tax Imposition—General) Act 1999
[xiv] Superannuation (Excess Non-concessional Contributions Tax) Act 2007
[xv] Resch v. Federal Commissioner of Tax (1942) 66 CLR 198
[xvi] Fixed rate method – 67 cents | Australian Taxation Office (ato.gov.au)
[xvii] Introducing mandatory guardrails for AI in high-risk settings: proposals paper - Consult hub (industry.gov.au)
[xviii] The Joe Walker Podcast, 'Daniel Kahneman – Dyads, And Other Mysteries (#143)', 14 April 2023
[xix] The Joe Walker Podcast, 'Rational minds Part 5: Heuristics Make Us Smart – Gerd Gigerenzer', 21 December 2020
[xx] Dworkin, R 1977, Taking Rights Seriously, Gerald Duckworth & Co. Ltd., London, pp. 81-130