

## Five more years and ... the boom becomes an echo

Jim Mienczakowski

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*"Fire is a good servant but a poor master."*

Thomas Adams 1615

*Much argument, angst and blame-placing has been spawned over generational succession in recent years. This chapter seeks to refocus concern on more urgent and important considerations for the future of Australia's younger generations and their wellbeing. It discusses systemic failures in schooling and AI and defines a range of issues and broad priorities for consideration.*

### Find the 'Big Picture'

By 2030 the much extolled (*and oft maligned*) Baby Boomer generation will no longer be a majority that matters in the world of work. They will have become an echo. Will this improve working life opportunities for Gen X, Millennials and other rising generations?

There are, naturally, a few caveats that could wrinkle this '*Boomer to distant echo*' scenario. For example, mandatory retirement ages are set to continue to creep higher and higher across the western world – theoretically reducing financial pressure on those huge government and private pension funds which would be heavily impacted by mass Baby Boomer retirement withdrawals.

Now edging 69 years for retirement in parts of Europe (with aged 71 mooted in the future for the UK) the longer wait until retirement trend is likely to continue to edge higher.

If you are not a Boomer, you may be thinking of the impost that a swag of retiring 70-year-olds represents for all of you who are still working, paying taxes and thus sustaining public health and social support systems. If you are a Boomer, you'll probably contemplate your many decades of tax contributions in helping to grow the public education, health and welfare systems needed to raise and educate the various generations following you. You'll certainly remember the mandatory pension contributions you also made.

None of the debate about which generations had an easier innings helps solve the realities of an ever-ageing population that now lives much longer than once anticipated.

- *Within 5 years the average Boomer will be in their mid-70s though their overall numbers will be declining. (Statista.com 7<sup>th</sup> Nov) 2024.*
- *By 2030 the vast bulk of Australia's population will be in their 40s and they will have to plan to remain gainfully employed until they too reach 70 or perhaps 75 years of age.*

Consequently, it will be Gen X and Millennials who will soon totally dominate the workplace in what seems set to become a significantly more complex environment for employment opportunities. *So, forget the Boomer Generation and Millennials arguments. They are a distraction from the Bigger Picture!*

### **The Big Picture: Unemployability**

The Committee of Economic Development Australia (CEDA) has raised concerns over growing job and skills shortages across one-third of all Australian occupations whilst also emphasising that *tertiary education is not, as yet, providing the skills and graduates needed for the currently changing work environment* (CEDA 2024). CEDA has also identified a current lack of data and research approaches capable of determining Australia's exact future training and skills needs.

To better understand the massive shortages of trained and skilled workers and graduates now needed we must first turn to the issues facing schooling in Australia.

#### *Schooling – 1. Public v Private Schooling Choices*

The ABS (2024) reports that 36% of Australian children are involved in private non-government schooling – which is one of the largest percentages of any western nation according to the OECD. This percentage of children from wealthier backgrounds attending private schooling is increasing annually. In comparison, in the UK around only 6% opt out of government schools in preference for private schooling.

With such a large percentage of children attending private schools in Australia it means that there is less government intervention in how these schools operate – but also much more fee-paid funding for those studying and working in the private systems.

Emphatically, it also reflects a significant lack of confidence in the capacities and teaching provided across the public system.

#### *Schooling - 2. Declining Standards*

Notwithstanding more than a century of compulsory schooling in Europe there remains a significant and (in some parts) growing number of school leavers who are neither literate nor numerate. Sciences, at the tertiary level, are insufficiently subscribed and the public schooling sector in many urban areas is in crisis.

Despite increases in funding, Australia's educational outcomes are also declining in quality. In 2023 NAPLAN school testing results reported that one-in-three children did not meet the minimum academic standards appropriate to their age and stage of study (NAPLAN 2023).

Moreover, as stated in a 2024 Productivity Commission report, high school completion rates (those completing Year 13) have fallen from 82.0% in 2019 to 78.7% in the 2023 academic year. Whilst, according to Julie Hare in the Australian Financial Review (5<sup>th</sup> Feb 2024)

*'attendance rates for those in years 7 -10 have also declined dramatically, particularly in government schools.'*

There are observable take-home issues to consider here:

Dropout rates and low academic standards are very much an outcome in public, particularly regional, schooling. This has strong implications for the life-chances of those negatively impacted.

If AI is now removing mundane, repetitive activities from administrative and customer service occupations – what work will be available/suitable in the future for the 22% of children who do not thrive or achieve above minimum standards at school? What will their future roles in tomorrow's economy be? How will they maintain viable employment throughout their working lives?

*Whilst many future school leavers might find opportunities in various labour-intensive areas what will be the long-term prospects for them in 5 – 10 years?*

*How will technology continue to impact the functions and work of say, manual labourers? Healthcare attendants? Semi-skilled tradies?*

Given the speed in which AI is integrating with various industries and economies, are those who do not thrive in school destined to become ***the unemployable in an age of technology?***

### **Priority 1 for the Next 5 Years**

So, priority number 1 for the post Boomer generations should be to fix what the Boomers were also promised – an education system to be proud of which serves all Australians. Alas, public provision is patchy at best and access to tertiary provision is variable. Sadly, it is doubtful that the next 5 years will see the political will and investment necessary to do things better. Moreover, if schooling standards are raised – the tertiary sector must also improve the perceived value and worth of their (expensive) offerings.

### *What Planning Should be Developed for the Age of AI?*

Currently, as Generative AI technologies are now progressively being integrated into workplaces, and are precipitously evolving and extending their capabilities, *gaining clarity on the specific skills, education and training matters needed for the future is both important and urgent.*

The swift evolution of AI Technologies has taken most government administrations, universities and education systems by surprise. That shouldn't have been the case, but, to date, academe and many governments are bewildered as to how to effectively govern and control the application of Generative AI as a tool for students and academics alike.

In the UK, an '*AI Opportunities Action Plan*' is being government funded in which leading tech companies are looking at ways in which AI could be used to solve community problems and also create thousands of job opportunities in AI related activities (Liv McMahon et al. BBC.com 13 Jan 2025).

AI related job growth would be welcome, but the underpinning educational attainment of school leavers necessary for achieving a viable career in AI development is also an issue for Australia – particularly in public schooling systems which are far from adequate in some regions.

## **Priority 2 for the Next 5 Years**

More research (in partnership with western governments facing similar challenges across the OECD / UNESCO) should be used to determine how Australia can effectively also develop task force capacities to help guide future investment in understanding the potentials and risks of new technologies (including AI) over the next 5 years.

### ***Tertiary Education: Will AI Enhance Education or Replace Employees?***

Now AI has become the first major technological development to strongly threaten *knowledge workers* in that it can replace both their services and reduce costs associated with *human knowledge-worker* employment. It is the latest spike in a series of *people displacing* economic productivity revolutions.

Although fears over the introduction of computers (some 40 years ago) anticipated potential employer savings in secretarial and administrative staff numbers- academic teachers and researchers were never under threat. AI and Generative AI are changing that.

Effectively, most undergraduate degrees could already be fully delivered via Generative AI enhanced and aligned approaches -without involving tutors, lecturers, marking assistants or administrators to any great extent.

Universities are already engaged in using AI to detect plagiarism such as- [Proctorio](#), [Invigilator Plus](#) and [Respondus Monitor](#) - applications which all *manage* academic integrity. However, adaptive learning system platforms such as [Smart Sparrow](#) or [DreamBox](#) - *interact* with student performance creating curated content and optimising and tracking student progress and outcomes.

(Isn't that what teachers once did?)

[James Yoonil Auh](#) (UWN 11 December 2024) points to algorithmic decision making in AI simplifying administrative processes, course scheduling and resource allocations using 'predictable data driven outcomes.'

(No need for administrators then?)

From law to architecture, medicine, arts and the sciences, AI is almost certain to reduce the need for human employees in tertiary settings. In simple economic, business terms – AI reduces potential salary costs. That equals *more profit*.

*Over the coming five years we are likely to see:*

1. Sandstone, wealthy and elite universities which will likely still brandish their prowess by marketing their research status, facilities and the possession of high-status research staff as exemplars of their strengths – though they will continue do so at a very high consumer price.
2. Elite institutions will, increasingly, become more elite and accessible for mainly those who have the means to pay for, not simply the tuition fees, but the associated costs and services embedded in attending an edificial institution.
3. As our major sandstone entities are also those most reliant upon international student fees – they will retain face-to-face teaching *as long as it continues to be a visa condition for prospective international students to study in Australia*.
4. Poorer public entities (particularly those less able to attract significant international student patronage) will, piece by piece, undoubtedly all begin to offer their degrees (AI provided or supported) through more accessible and cheaper technologies within the coming 5 to 10 years. Online, off campus, electronically and AI proctored and assessed examinations with AI generated lecturers and tutors will be the new norm. Campuses will shrink. Public universities will be early adopters of technological and structural changes to their operating models.
5. AI will enhance higher education's capacities, but it will also reduce and replace operations currently performed by human employees. If AI can perform tasks more efficiently, faster and with higher levels of system integration than a human employee can – it has the likelihood to effectively generate human redundancy.

## **Necessity and Ethics**

Rapid AI evolution, of course, is out pacing tertiary education's abilities to respond to the changes implied for workplaces and higher education preparatory courses. The introduction of AI has been so swift that regulatory frameworks are still embryonic. For example, whilst industries and businesses are now able to interact with the general public and potential commercial clients via AI interfaces – including chatbots and human voice simulating capacities – *there is no legal requirement for disclosure*.

Effectively, enterprises in Australia, as yet, do not need to inform customers that their enquiries, claims or business matters are being dealt with through AI or allied simulated human response technologies.

Then there is a much bigger question concerning human interaction and engagement. Every time a phone call is responded to by an AI simulated human there could have equally been a real human employed to provide that specific service.

You might argue, *“Isn’t that the point? AI can replace, more cost effectively, humans in routine workplace transactions”*.

Here I think we need to raise the joint spectres of *necessity* and *ethicality*.

The big questions to consider are:

1. Is it unavoidably necessary to replace humans in the workplace with AI alternatives?
2. Is it ethical to replace human workers with AI alternatives?

With a quarter of the current century already behind us, the World is, once more, entering a daunting phase of *extreme* political and fiscal volatility. The coming decade is already heralded to be one of contentiously redefined national, economic and migratory boundaries, trade and military wars and further rapid technological changes to how we work and live. Higher education, its delivery and deliverables, accessibility, costs and perceived returns on investment are, naturally, also vulnerable to reconsideration at this moment in time.

As Generative AI is not going to disappear, Academe needs to embrace its potentials and adapt to its impacts more adroitly than it is currently doing. Guèye et al. (UWN 2025 10<sup>th</sup> Jan.) point to the need for (amongst other things) *“... AI that is ethically consistent, human-centred...”* and of quality. The consideration of ethicality is, perhaps, the most important factor here. UNESCO started this discussion in 2021 in its report ‘[UNESCO’s Recommendations on the Ethics of Artificial Intelligence](#)’ which *‘emphasises the importance of inclusivity, equity and ethical oversight in the deployment of AI in educational settings’*. Regulatory approaches are fundamental to ensuring acceptable and sustainable engagement with AI as an element of tertiary education and to answering some of the big issues being raised.

In Australia we have a welfare net to help support our unemployed. Some countries, including America, have far less generous welfare and medical insurance approaches -so Australians are far better off in this respect. However, where people become unemployed due to the introduction and finessing of AI or other technologies, etc. they represent *potential costs to taxpayers who are supporting them*. On the other hand, introducing AI technologies represents *salary savings and cost advantages for employers* – why else would they use it!

Ethically, should employers be obliged to financially offset AI related staff reductions and the replacement of human services by paying high tax penalties? Their AI related staff savings

have direct cost implications to the state (taxpayers.) Higher taxation for reducing human participation in workplaces?

### **Priority 3 for the Next 5 Years**

Ethical and needs based regulatory controls governing how AI may be used in workplaces are urgent. To embed AI technologies across the entire spectrum of human work without examining possible unwanted outcomes and instituting safeguards would be akin to 'playing with fire'.

### **Conclusion**

*The potentially crushing future costs of increased numbers of unemployed/ unemployable people requiring health and welfare services in the coming decades are likely to be the result of unmediated AI and allied technological developments – not simply a spike in Boomer welfare retirement costs.*

*That said, AI, used ethically and where needed in the workplace, has major potential to improve the quality and experience of educational services and administration in general. However, it also has the potential to exclude those who have not gained necessary skills or met the increased standards required for modern life from finding a productive niche in the economy.*

*The Boomer generation may well be thankful for reaching retiring just as the latest technologies revolutionising not just workplaces but the nature of work and human engagement for interactional and commercial purposes arrives. AI has vast positive potential, but it will require considerable care in its workplace integration. Various social media platforms, for example, have become commercially gigantic but also socially harmful. They were released without too much consideration over their potentials to disrupt, harm, negatively influence and dominate means of communication.*

*The coming 5 years are critical in determining how the schooling and higher education sectors can respond productively to the changes emerging technologies represent. AI is a game changer but without appropriate ethical and regulatory controls it may become a far reaching social and economic burden.*

## References

ABS 2024 Census Results. <https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release>

CEDA 2024. 'Learning curve: Why Australia needs a training boost' (2024) © CEDA 2024  
ISBN: 0 85801 364 9

**James Yoonil Auh** 11 December 2024 'The McDonaldisation of higher education in the age of AI' University World News

**Lamine Guèye**, **Dolly Seow-Ganesan**, **Luca Lantero** and **Gonzalo Baroni Boces**, 10 January 2025 'AI use in qualifications recognition: five key factors', University World News

Julie Hare 5 Feb 2024, Australian Financial Review. <https://www.afr.com/work-and-careers/education/the-rate-of-teens-finishing-year-12-is-falling-20240205-p5f2e3>

Liv McMahon, Zoe Kleinman & Charlotte Edwards, 14 Jan 2025. PM plans to 'unleash AI' across UK to boost growth. BBC.com. <https://bbc.com/news/articles/crr05jykhkxo>

Statista.Com. Research Department, Population Distribution by Age, 2024. 7<sup>th</sup> Nov 2024 (<https://www.statista.com/statistics/608088/australia-age-distribution/#:~:text=In%20June%202022%2C%20it%20was,people%20over%2065%20years%20old.>)

UNESCO 2021 '[UNESCO's Recommendations on the Ethics of Artificial Intelligence](https://unesdoc.unesco.org/ark:/48223/pf0000380455)' (<https://unesdoc.unesco.org/ark:/48223/pf0000380455>)

**Emeritus Professor Jim Mienczakowski** is a Higher Education Consultant who has over four decades served as the Executive Director of Higher Education, Abu Dhabi and as a Dean, PVC, DVC, VC & CEO in universities in Australia, UAE and Asia.