Australians have a general idea that most jobs are in the service industries these days, yet often worry that the nation may suffer with the decline and loss of jobs in the traditional sectors. But it has long been that way, as the first chart reminds us. This chart shows the relative importance of industries over the past two centuries and on to the middle of this century.

Long gone is the dominance of the primary sector, despite the current mining boom. Also long gone is the dominance of the secondary sector. The tertiary sector has been the most consistent, despite never being dominant. However, it is the quaternary sector that has risen to a level of dominance in this new age, matching the dominance of the primary sector in the 1820s (approximately half the nation's GDP). This is now joined by the quinary sector (especially health and social assistance) as we move towards 2050, when these two sectors are likely to account for two-thirds of the economy.

Through these turbulent changes, our standard of living (SOL) has risen, not fallen. During the Industrial Age (1865-1964) our SOL quadrupled, meaning that our population was four times better off by the mid-1960s. By the end of this decade, only 55 years into the new Infotronics Age, our SOL will have trebled. It will probably have quintupled by the middle of this century.
So, while nostalgia is important to individuals and society at large, it can be dangerous to forward planning and progress.

And for those worried about job losses, it is important to know that we created six times more jobs (945,000) than we lost (147,000) over the five years through 2014, albeit in new industries, as illustrated above. It is likely that this will be repeated between now and 2020. Stopping the world to get off is not an option.

This article will focus on the relative importance of our major industries through the ANZSIC divisions that house the 509 individual classes of industry in which we work or invest. And we do this using four different measures: value added (i.e. wealth created by labour, depreciation and profit), employment, revenue and investment. All but one of these measures are calculated based on their forecast position as at June 2015. The last one, investment, is calculated based on its value as at June 2014.

The first two charts show Australia’s industry mix as a share of GDP (i.e. the value-added measure) and as a share of total employment.
Yes, there are differences, but the overall picture is of an economy dominated by service industries, and the quaternary and quinary sectors in particular. The inclusion of the imputed value of home ownership in the first chart, treated by the ABS as a de facto industry (with household owners being imputed renters to themselves), expands the quaternary sector somewhat. Mining stands out as a significantly smaller employer than its importance as a wealth generator might indicate.

The next two charts show the breakdown of Australia’s industries by revenue and investment (i.e. capital expenditure).
Australia’s Industry Mix
Shares of revenue, 2014-15

Revenue: $4.8 trillion
(current prices)

6.6% Primary
Agriculture 1.5%
Mining 5.1%

18.0% Secondary
Manufacturing 8.4%
Utilities 2.7%
Construction 6.9%

23.3% Tertiary
Wholesaling 9.3%
Retailing 10.2%
Transport 3.8%

7.8% Quinary
Hospitality 1.7%
Health 4.0%
Arts & Recreation 0.7%
Other 1.4%
Services

44.3% Quaternary
Info Media & Communications 2.6%
Finance & Ins 17.8%
Rental & Real Estate 3.0%
O’Ship Dwellls 2.7%
Prof. & Tech Serv 3.6%
Admin. & Support Services 1.2%
Public Admin/ Safety 11.1%
Education 2.3%

4.1% Quinary
Hospitality 0.9%
Health 3.2%
Arts & Recreation 1.3%
Other 0.7%
Services

38.7% Quaternary
Info Media & Communications 4.2%
Finance & Ins 2.4%
Rental & Real Estate 4.3%
O’Ship Dwellls 19.5%
Prof. & Tech Serv 2.0%
Admin. & Support Services 0.5%
Public Admin/ Safety 3.1%
Education 2.7%

30.7% Primary
Agriculture 4.1%
Mining 26.6%

10.3% Secondary
Manufacturing 4.4%
Utilities 4.1%
Construction 1.8%

14.2% Tertiary
Wholesaling 1.5%
Retailing 1.7%
Transport 11.0%

Total: $410 billion
(current prices)

SOURCE: IBISWORLD 03/02/2015
With revenue, the importance of the new-age sectors – the quaternary and quinary sectors – is exaggerated due to the substantial revenue generated by the Finance & Insurance and Public Administration & Safety divisions.

In the case of the investment chart, the distortions are even greater. This is due to the enormous capital intensity of the Mining, Transport (infrastructure) and Dwellings divisions. All of these produce less wealth per dollar of investment than the new service industries, which, by and large, are less capital-intensive.

This is another reason to embrace the new age: Intellectual property is proving to have much greater leverage in wealth creation than physical (so-called ‘hard’) assets, and is less capital-hungry. Another case of brains beating brawn?

Well, not quite. We are humans and we like our own homes, be they owned or leased. We are good at mining, which currently generates half our exports, and transport infrastructure is critical to the efficient movement of both goods and people around our huge island-continent.

But, it is encouraging to know that these days, more jobs can be created with proportionally less capital than was possible in the Industrial Age. Another reason to look forwards, not backwards.