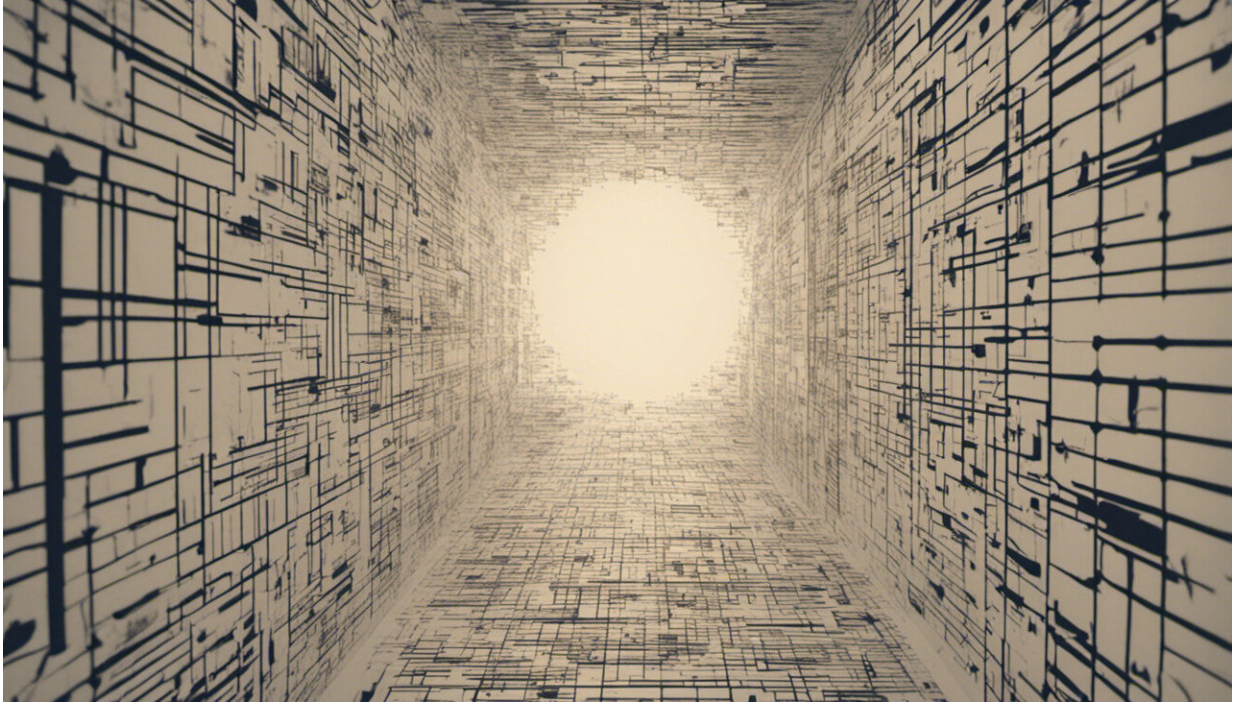


Are you ready for the jobs of the future?

August 2 2016, by Ron Johnston



Credit: AI-generated image ([disclaimer](#))

The flow of reports about the impact of automation, [mostly dire](#), continues. The latest is from [StartupAUS](#), Australia's national startup advocacy group.

This report follows the now familiar line captured in the phrase "exponential technologies": exponential improvements in computer power and advances in technology such as [artificial intelligence](#),

robotics, [big data](#), [cloud computing](#) and the internet of things will have a profound impact on future employment, with almost 5 million current jobs (that is 40% of the workforce) in Australia becoming obsolete by 2030.

This follows in the footsteps of a detailed [CEDA report](#) in 2015, which conducted the modelling used by StartupAUS.

Is this doomsday chatter? It is certainly true that technology has been at the heart of dramatic change and improvement in the economy over centuries. In the process, the nature of many jobs has changed dramatically. Some jobs have disappeared. Many new ones have been created.

Every change has involved some level of disruption, with some receiving an advantage and others falling on hard times. So economic advance has never been without pain for some.

The big question is whether we are facing more of the same, or whether the exponential technologies will usher in more dramatic changes. In considering forecasts of job losses, we need to bear in mind that they are almost always better publicised than job creation. The former tend to clump (as in the demise of the Australian car manufacturing industry), whereas the latter are more diffuse and system-generated.

In the [CEDA Report](#), Phil Ruthven has documented the loss of 146,800 jobs in the five years to June 2014, compared with the creation of 944,500 jobs over the same period.

According to Bernard Salt, [job creation](#) has outstripped job loss by 10:1 since 2000. So maybe our focus should shift to the skills and conditions required for future employment.

Going solo

The StartupAUS report makes two more important points. The first is that "independent work" is becoming increasingly important to our economic structure. It is changing what we think of as a job.

This is part of the trend away from workers being committed to one or few companies throughout their career. Instead, they are striking out independently as consultants, contractors, or in ad-hoc relationships with customers or clients.

The growth of specialisation in companies linked with the dramatically enhanced ability, via the internet, to identify and engage with specific individual skills, regardless of physical location, is allowing far more people to become self-employed. Think of the "tradie revolution", but applied to managers and administrators, indeed all suppliers of knowledge-based services.

What will the jobs of the future be like? There are regular competitions to imagine the strangest new job titles. Try [bot lobbiest](#), [productivity counsellor](#), [meme counsellor](#), [big data doctor](#) or [corporate disruptor](#).

But most of the job titles will be the same as today's. We will still have carpenters, nurses, road repairers, even teachers. But the nature of what they do and the skills they need will have changed, just as they have over the past 20 years.

The second claim is that "innovation hubs" designed to nurture and attract clusters of start-up companies are the key to addressing the threat posed by the digital technologies. Thus "developing a core of innovation jobs is critical to capturing and maximising the opportunities presented by digital transformation".

We can agree that the "start-up" phenomenon is an increasingly important part of our economy, that it is well suited as a vehicle of change via digital disruption, and that it provides a new and exciting tool to drive and achieve innovation.

But it is apparent that it does not have the reach or scale required for transformation of our post-mining economy. More and better-funded innovation hubs can make a useful contribution, but much more is needed.

I suggest two avenues for urgent action:

The first is reshaping our education systems towards the development of the skills required for the future. That is not just (or even) coding, although it may form an important part of digital literacy. STEM skills will also be crucial.

And broader skills like intuitive pattern recognition, flexibility and tolerance of ambiguity, information sifting and evaluation, and personal resilience and agility will be important.

Second is recognition by governments of their important role in preparing for and lubricating change. This could be building awareness, including new role models of work, further facilitation of new company formation and the design of a social safety net readily available to those caught up in the challenges of change.

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