Vision 2020

Innovations in learning

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1. Drivers of innovation

Our whole history is one of innovation and the uses of innovation. But the focus on innovation in our economies is clearly becoming even more intensive, for several reasons that overlap and combine.

Underlying them is the evolution of technologies, but it is the interaction of technology with other factors, like culture, geography, institutions, the environment and demographic change that creates the important questions and opportunities for innovation.

Our focus on innovation is becoming more intensive because of the growth of knowledge and connections, and the way that technology is supporting the cheaper, faster spread of knowledge and connections across the world. So the long term decline of transport and communications costs, for example through bulk shipping, air travel, the internet and mobile phone networks, supports the growth of trade and commercial exchange, the movement of people around the world and proliferation of people to people networks.

The evolution of the world economy drives this interconnectedness even further, leading to new markets, new competitive pressures, and the reorganisation of economic production across the regions of the world.

This reorganisation in turn pushes ‘advanced economies’, like Australia, further towards knowledge and innovation as sources of new value and comparative advantage. The production of goods and services takes place increasingly through integrated chains of production and supply that run across national borders and across regions.

The rise of the Asia-Pacific region as the world’s centre of economic gravity and a growing strategic power is another huge part of this change.

Economic activities that compete on price and volume are increasingly relocated to places where costs are low and volumes are huge.

Australia keeps many of its comparative advantages - both the natural resources and attractions of our location and landscape, and the advantages built up through our workforce, institutions, our cities and capabilities.

But our ability to sustain employment and income from these advantages depends more and more using innovation to add new value to products, services, knowledge and connections.

An innovation economy is about using higher levels of knowledge and information to create new products, but even more it is about the ability to create new value and reconfigure whole fields of activity, and to build on what is already distinctive and valuable in what Australia (or any country) does.

2. Crisis, adversity and innovation

Innovation, nonetheless, is most often spurred by good old fashioned adversity - when resources are constrained or conditions change they force a change in behaviour. For people, institutions or
whole societies that run in a well-established groove, innovation is likely to be marginal unless the conditions and demand for it have been carefully built up over decades.

But crises that put new constraints on our resources - environmental crisis, financial crisis, or even crisis of confidence, will often prompt innovative responses.

Cultures and nations that perform highly in innovation are often those that face an ongoing threat or source of insecurity.

Many argue that the pressure of market competition creates the same kind of force to the providers of goods and services.

But competition and a diversity of players are only one part of understanding innovation. Successful innovation systems rely just as much on collaboration, on the sharing and pooling of common resources, and on public investment and institutions to help to create what competition cannot.

3. Innovations in learning and education

The discussion of innovations in learning, in all sectors, tends to focus on new information technology applications

on new organisational providers of learning

and on new ‘breakthrough’ insights and knowledge about how people learn

The three broad technological issues currently dominating educational innovation are:

- open access learning provided online at low or no cost
- ‘personalisation’ of learning through modules, pathways and assessment that reflects the individual
- new networked and collaborative patterns of learning underpinned by social media

all three of these have great potential and have been predicted and debated for many years.

But all three depend on more than technology and consumer markets to fully realise their potential.

4. Institutional and market design

One reason why new technology and new ideas to not spontaneously form into successful new innovations is that institutions and markets take very specific and limited forms; they do not adapt automatically or successfully to their changing environments - they rely on intentional processes of design and institution-building.

This is especially important in TAFE, VET and tertiary education, because there is such a mix of different institutions and types of provision, and where it is clear that recent policy and funding reforms have driven change, but much of it has been damaging. The market innovations or competitions that contestable funding have encouraged are not linked to learning innovations or higher quality learning outcomes.

The immediate responses of many public institutions have been driven by cost and price pressure.

5. In thinking about how to pursue innovations in learning and to harness some of the newer forces to the service of learning, it is worth thinking about, and learning to build, innovation systems and cycles.
Innovation systems are specific institutional arrangements - sets of relationships and activities between multiple players, which enable those participating to collective create new value from new ideas and practices.

Innovation systems vary widely in the form they take, but they always perform five broad functions:

- identifying opportunities
- creating and spreading knowledge and skills
- developing new organisations that can act as producers of new goods and services
- investing in essential infrastructure
- spreading and managing risk

It is worth thinking about how these functions are covered in the world of TAFE and VET, and how they could be strengthened.

In doing that, it is also worth understanding how innovations tend to go through a cycle which is not the classic R&D or product development process, but something more like:

- Idea, prompt, or need
- Proposal
- Prototype
- Sustaining and replicating
- Scaling
- System change

Valuable innovations can come from anywhere - from within and beyond our current institutions and learning providers.

Understanding how our specific efforts and projects might fit into a more systemic and strategic framework for developing innovation is one way that we can get more value from them, and learn who to work together across education sectors to link innovation more clearly to educational, social and public goals.