Submission

to

Senate Employment, Workplace Relations and Education
References Committee

Inquiry into the progress and future direction of life-long learning

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Submission no: 47

Received: 22/02/2005

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14 February 2005

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by
Canberra Institute of Technology

to
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Inquiry into the progress and future direction of life-long learning

1. Definition and scope

The Canberra Institute of Technology submission to the Senate inquiry into the progress and future direction of life-long learning focuses on the impact education and training have on enabling the use of information and communications technology (ICT) in life-long learning.

For the purposes of this submission the definition Peter Kearns uses in his 1999 paper *Lifelong learning: implications for VET* has been adopted. This definition is from the World initiative on Life-long Learning 1995

> Life-long learning is a continuously supportive process which stimulates and empowers individuals to acquire all the knowledge, skills and understanding they will require through their lifetimes and to apply them with confidence, relativity and enjoyment in all roles, circumstances and environments (Kearns,1999,p.3).

A core OECD idea that underpins this submission, also from Kearn's paper, is everyone should be able, motivated and actively encouraged to learn throughout life (Kearns,1999).

Much of the literature on life-long learning addresses the value of learning beyond the industry driven agenda that characterises vocational education and training. While continual learning improves employment chances, measured by being able to keep or get a job, its value is also felt in improved individual knowledge, attitudes and skills that impact in social, political, environmental, cultural and economic terms. For example learning can result in citizens better able to:

- manage their health through preventative techniques
- understand their rights and responsibilities in a democratic society
- access information such as financial data for decision making purposes
- feel connected with their own and other social environments.

ANTA's consultations that developed the vision contained in *Shaping our future: Australia's National Strategy for vocational education and training 2004-2010* (ANTA,2003) acknowledges that while the paramount purpose of VET is to develop skills and knowledge

for work and enhance employability, a secondary purpose is to assist learning throughout life.

Therefore the broad view adopted for life-long learning in this submission is one that stresses the role of learning for employability, not just for earning, but also for general life skills.

While predominantly using formal education to enable students to develop competencies in relevant work place environments, as prescribed by the VET Training Package structure, the Canberra Institute of Technology has long embraced this wider agenda of the value of learning as empowerment for living.

2. Canberra Institute of Technology and life-long learning

As a leading provider of vocational education and training the Canberra Institute of Technology (CIT) is at the forefront of implementing strategies to encourage life-long learning. As defined in CIT's strategic plan 2005 to 2009 our mission is

> *To create a learning community providing practical, relevant and affordable post-secondary education and training, where students and staff can reach their full potential for education, work and life.*

In this mission statement it is important to note that the audience is both staff and students. This point will be returned to later in this submission in two places. Firstly, the predominantly mature aged staff at CIT are provided as an example under the terms of reference related to an ageing population where the workplace has injected deliberate strategies to equip its older workforce with ICT skills so they can effectively deliver their product ie training and education in the current climate. Secondly, in terms of students a range of examples are included, but one in particular is important under the terms of reference related to barriers and that is the barriers experienced by certain groups of young students to effectively accessing the systems that enable them to be students of CIT, those barriers are caused in some cases by lack of access to new technologies and by low competencies in ICT and they have been deliberately overcome through training setting these young learners on effective pathways toward life-long learning.

So while as a vocational education and training provider Canberra Institute of Technology focuses primarily on formal learning that enables learners to be assessed as competent in workplace environments its charter is not limited to work place competencies that are time and context dependent. CIT embraces the global agenda of facilitating ongoing adult learning where there is a commitment to learning for life for both staff and students.

In order to facilitate life-long learners CIT, like many leading vocational education and training providers, understands the impact of technology as both an enabler and blocker in equipping learners to reach their potential.

In so doing there has been strong recognition that the rapid change of technology is a pressure point that both forces and can prevent continual life-long learning for both work and general life outcomes.

3. Impact of the rapid change in technologies on life-long learning

Technological change is a key factor driving the need for continual learning. This occurs in both a work place context and in general life.

Industry requires workers who are competent at certain technologies, but more importantly industry wants workers who are flexible and able to learn and adapt to a changing environment. This means that there is an expectation that workers if they do not have the current technical competencies are in a position to be able to, with training, acquire them. Industry is expecting that workers will come with learning efficiencies to be able to acquire these skills and often this is measured in performance appraisals.

In today's environment the process of living necessitates that people are able to control technology and engage with it to access basic information and make transactions, such as banking. This is one example of the changing demand of communities, businesses and governments that are enforcing the adoption of ICT skills.

In 1999 ANTA employed a consortium led by the Albany Consulting group to construct a literature review on life-long learning. In that review the group stated that one of the trends in current thinking about life-long learning is the 'rapid and dramatic transformation of the global economy, driven primarily by fundamental shifts in technology and inexorable rise of the information or knowledge age' (ANTA,1999, p.11). These changes have produced vast quantities of information and increased the value of knowledge as an economically valuable commodity.

Therefore the process of being an effective life-long learner today has become one that is in part driven by ICT. As Candy writes in his DEST research fellowship published in August 2004 titled *Linking Thinking: Self-directed learning in the digital age*

> "one of the recurring motives in writing about digital and other technologies is that their ubiquity, combined with the speed of change creates a need for continuing learning. Whether in relation to the specific economic social and cultural domains in which people live and work or the technologies themselves, virtually no one can be thought to be always on top of the technologies that are invading their lives, and there is a need for constant learning. ... There is hardly anyone, however, who denies the need for continuing learning across the lifespan. While this might always have been true, the impacts of the digital era make it even more irresistible" (Candy, 2004, p.42).

Therefore, as Candy says, the impact of rapid technology change actually creates 'an imperative' that to maintain currency in employment it is no longer sufficient to just keep up to date with the content of the chosen field, but there is a need to also be familiar with the technologies used in that field.

Vocational education and training has responded to the demands of learning in the digital age through a number of initiatives. These initiatives aim to address two key goals:

- Developing staff into a skilled and current workforce
- Creating self-directed learners who can
    - adapt to workplace change
    - efficiently adopt new technologies
    - develop skills and attitudes that are valuable for life.

4. Vocational education and training's focus on ICT for life-long learning

In order to discuss the response by vocational education providers such as the Canberra Institute of Technology to the continual need for learning created by the knowledge era each of the specific terms of reference for this inquiry have been addressed in greater detail.

A strong emphasis in Canberra Institute of Technology's approach to learning is the development of learning to learn skills, which includes the skills to be a critical consumer of knowledge and information. This is often referred to as critical literacy skills. The rapid evolution of new technologies requires a corresponding development in critical literacy skills.

New information and communication technologies are continually changing our communication environment with, for example, greater convergence of communication and commercial transactions, expanding scope for personalised advertising and new and evolving communication forms. This evolution requires uses of information and communication technologies to be critical consumers whose critical literacy skills maintain pace with the changing ICT environment.

a) policies and strategies aimed at addressing the life-long learning needs of an ageing population

The impact of technology is felt very strongly by mature workers in particular in terms of their ability to respond to the Government demand to remain in the workforce for longer and to function as an effective member of a society dominated by ICT. To achieve both these ends requires that they have a commitment to continual learning as described by Candy so that they do not fall into the void that is the digital divide.

To address the needs of mature workers CIT has set in place some deliberate strategies. These will be discussed both as strategies impacting staff and strategies impacting students.

As a major vocational education and training provider a great deal of the work done by the Canberra Institute of Technology is to deliver accredited education and training for employability purposes. From a work performance perspective being up to date with technological changes is one of the drivers for continual learning.

CIT provides its mature students, a growing number of its student population, with opportunities for technological retraining and skills acquisition to remain current in the workforce. In the safe environment provided by a vocational education and training provider students are able to utilise ICT in the learning environment that will give them the technological skills that are necessary for life and workplace contexts (Darwin 2004).

While workplace learning is part of the mix offered by CIT the opportunity to learn and use technology away from the workplace in supported environments, where exposure to workplace performance appraisal processes is not occurring, is an attractive alternate proposition for an ageing population.

A policy which acknowledges the impact of technology on an ageing population must identify the importance of supportive processes that can break down the barriers created through

- A desire, but often lack of skill to be self-directing in the use of technology
- Lack of regular access to technology for those not in day-to-day workplaces where technology is commonly used
- Emotional states of fear and uncertainty that exist in older workers about being exposed as less than technologically competent.
- Lack of critical literacy skills to ensure that consumers are informed users of technology.

A second and important factor in addressing the needs of an ageing workforce is the policy direction adopted by CIT with its own staff. CIT's workforce itself is a microcosm of an ageing workforce. With a predominance of professional teachers in the over 45 age bracket CIT has supported the national vocational education and training agenda of creating a skilled workforce able to use new technologies by creating deliberate injections of learning and professional development opportunities to develop teachers use of ICT in delivering their service, ie there has been a deliberate strategy of building the capacity of teachers in e-learning.

This local activity at CIT is supported by national vocational education and training policy that is addressed in (c). However, it is important to note that effective implementation of this national policy has required local organisations such as CIT to support the initiative with matched or more funding.

As providers of education and training there has been recognition among teaching and training staff that no longer is competency in a discipline enough. As workplaces have changed rapidly so teaching staff have recognised the imperative for development of their own skills to:

- use the technologies for teaching
- equip students to have the skills to use the technologies
- respond to the demands that electronic support is integral to the teaching and learning process.

Therefore in returning to Candy's earlier quote, as providers of training for workplaces CIT teachers were confronted with the dual issues for all workers of discipline currency and technological currency. To address the technological currency issues staff have been involved in improving their ICT through self-directed pathways that are characterised by a mix of:

- Action learning
- Formal learning
- Informal learning– ie mentors who can provide technological guidance, a person sitting in the next seat who can answer the 'what if' ICT questions
- Workplace in situ learning.

The outcome is felt in staff previously not using technology, such as Childcare and English as a Second language teachers now integrating technology into the offer available to students. The self-directed nature of how these groups of staff have gone about this learning process is fundamental to the acquisition of skills for life-long learning.

This is supported by Candy (2004, p.4) when he states

> 'within the context of life-long learning, self directed learning is one key way in which people keep up with change and, since we are currently experiencing an unprecedented level and pace of change on a global scale, it is plausible to expect the demands of a changing world to lead to greater amounts of self-direct learning".

Therefore the deliberate strategies being adopted in vocational education and training to provide familiarity and competence for staff in ICT are strengthening the adoption of life-long learning.

Self directed learning and critical literacy skills are vital ingredients to be a life-long learner and life-long learners now must exist in and be part of the digital revolution.

b) ways in which technological developments, particularly the internet, have affected the nature and delivery of life-long learning since 1997

The place of ICT in life-long learning is now core. Technology is an increasingly important part of life and therefore in itself as discussed previously by Candy, it provides an ongoing incentive for continual learning and becomes the means through which so much other learning occurs, whether in formal or informal contexts.

Given that the vocational education and training sector, and CIT as one of its leading providers, is focused primarily on learning for work the findings conducted in the project managed by CIT for the Australian Flexible Learning Framework: *Your future: Your choice* at the end of 2003 identify some key ways in which technological developments have impacted learning:

- choice for learning and information is made possible through the internet
- the internet is a source of informal learning such as email and the world wide web

- technology improves flexibility and opportunities for learning
- e-learning is rapidly being adopted by workplaces and vocational education and training providers like CIT
- electronic communication enables group learning and ongoing contact with other learners not in the same geographical sphere
- e-learning addresses issues of equity for dispersed workforces eg regional staff are able to access training opportunities that were previously unavailable
- employers believe that to be an 'employer of choice' they will need to respond to growing expectations by employees for ongoing professional development and professional development that includes e-learning.

In terms of CIT there are now examples in every faculty and most courses where some of the delivery is by e-learning. While there are still only a few pure online courses it is apparent from this work done above that learners are looking for the blended approach. E-learning provides the opportunity for self-direction and when it is mixed with other forms is a great facilitator for developing competent life-long learners.

The rapidly increasing use of CIT's 'online campus' is testament to students' growing expectations of ready access to online resources and e-learning. Information literacy is thus a critical skill required for students and is now a core component of all CIT programs. A core component of CIT's approach to information literacy is to develop informed and critical use of information from the Internet.

The next trend facing the delivery of life-long learning is in the emerging use of mobile technologies to facilitate learning. While the internet will continue to be important there are a few examples where innovation using mobile technologies is increasing.

For all learners lack of access to these forms of technologies becomes an issue and this is discussed in more detail later.

However, along with lack of access there are also the marginalized groups who have low level ICT skills and are therefore unable to engage in the ICT facilitated life-long learning world and arguably are also disadvantaged as consumers of products and services.

At CIT students are required to change their address, check their enrolment and results etc all online. This is an important development in the overall discussion around life-long learning because of the assumed ICT competencies that students have to perform these tasks.

At CIT in 2004 a group of young male learners, involved in a traditional trade area were found to be lacking in the skills to interact successfully with the organization. That is, their ICT skills were of such a low level that they were unable to do these basic tasks of checking results etc. Therefore as part of its staff professional development processes CIT teachers of these students set out to develop not only the trade competencies these students needed but the technological skills they need to survive as a learner.

The trade teachers developed an online program to help the students gain skills to use the database. This is a significant example of the important first step that is needed in life-long learning that is more and more being assumed ie ICT skills.

CIT develops citizens who are able to understand learning beyond a vocational context driven by the educator or teacher to one where there is a self-directed empowerment controlled by the learner and which has multifaceted benefits beyond immediate workplace contexts.

c) adequacy of any structural and policy changes at Commonwealth and state or territory level which have been made in response to these technological developments.

There have been some significant initiatives in vocational education and training that have been implemented with support from national collaboration, state and territories and individual organisations such as Canberra Institute of Technology. The most important of these is the Australian Flexible Learning Framework 2000-2004.

The Australian Flexible Learning Framework 2000-2004 was a jointly funded and supported initiative designed to address the demands of the knowledge era. With its five goals including building staff capability and developing resources it successfully helped position Australian vocational education and training as a global leader in the use of new technologies for learning.

This policy initiative has been one of the significant factors in the rapid adoption by VET of new technologies and in transitioning the sector to be more client focused and responsive. ICT fosters individualised delivery and collaboration, creates market ready people and develops effective and efficient learning (Catts, 2004); fundamental attributes of a knowledge society.

The Australian Flexible Learning Framework has continued into 2005. The strategy will provide the nation's public, private and community training providers with greater access to cost-effective e-learning products and resources to support the development and delivery of learning that is innovative, widely accessible and tailored to meet a broad range of learning needs.

However it is important that complacency does not set in; there is a need for this national strategy to continue. A weakening of the investment in ICT for vocational education and training will hamper life-long learning.

A comprehensive national policy on life-long learning, such as exists in the UK, would provide a framework for locating the acquisition and maintenance of ICT skills within the broader life-long learning agenda. The ubiquity of ICT is a compelling argument for a national approach to life-long learning, especially where the role of ICT is increasingly part of common experiences such as:

- Use of health services
- Purchasing products and services
- Democratic participation
- Recreation
- Formal and informal education
- Telecommunications.

d) technological barriers to participation in life-long learning and adult and community education, and the ways and means by which these might be overcome

One of the strengths of the Australian Flexible Learning Framework was that it involved national collaboration and commitment from all states and territories. This led to consistent change across Australia; development was not felt more strongly on the Eastern seaboard with the smaller, regional and more isolated parts of Australia being left behind. In fact, it is the smaller states and territories and regional areas that have probably had the most benefit.

Understanding this development in terms of national policy in vocational education and training is important in reflecting upon the technological barriers that can exist. A national policy albeit in this case only encompassing vocational education and training has minimised the impact that might have been felt if there had not been a deliberate attempt to take all parts of Australian vocational education and training forward as one. It is timely therefore for there to be a more encompassing national policy on ICT.

So, what are the barriers? There are many barriers, including:

- A lack of connectivity.
  It is known that high connectivity is not the case for so many learners and that access to technology for both mature and younger learners is a problem.
- A lack of IT literacy.
  Again there are many assumptions about IT literacy and without a conscious effort to ensure all parts of Australia move together there will continue to be pockets that remain information technology illiterate. In the example cited about the young CIT trades students previously, there needs to be caution that we are not assuming all our young are IT literate.
- A lack of access to bandwidth.
  This is considered to be a significant barrier for e-learning in much of Australia.
- Attitudes such as fear and technophobia or lack of support.
  NCVER research into support for e-learners identifies techniques for minimising these areas of concern (NCVER, 2002).

Without command of and access to technology life-long learning in fact becomes a hope not a reality. With a society rapidly adopting greater and greater technology it is no longer a choice that can be made to exclude those with inadequate ICT literacy or poor access from being life-long learners.

Therefore the investment must be sustained at a national level into improving information literacy and access to e-learning.

e) The extent to which training, professional development and role of adult educators have kept pace with or been influenced by technological and online development since 1997

Funding and support have been injected into the sector at a national and state and territory level as part of the Australian Flexible Learning Framework 2000 – 2004 and now 2005. Through local support for projects such as LearnScope and Flexible Learning Leaders vocational educators have had the opportunity to develop ICT skills. Without these professional development projects to enable teachers and trainers to adopt new technologies for learning the sector would not have been able to respond to the demands of ICT.

Importantly it is not just national initiatives that have enabled adult educators to keep pace with ICT but additional vision by organisations such as CIT to create and develop virtual campuses and blended learning programs in mainstream courses. The push is now for all teachers to have some component that in some way uses ICT. This is a significant achievement, but it is still early days and there are many teachers still lacking the skills needed to use ICT effectively.

However, to ensure the energetic engagement generated by these national and local strategic professional development programs continues, significant Government commitment is needed. Ongoing support for teachers and trainers in vocational education and training will ensure that they:

- are equipped with current and critical teaching and learning skills
- emphasise the importance of learning both for technological competence and for life itself
- harness the power of informal learning that ICT facilitates as occurs in workplaces, social contexts, community
- understand the expectations of the young in relation to technology accessibility
- encourage older Australians to keep pace with technological changes

As a training provider CIT provides learners with the opportunity to acquire ICT skills. CIT also includes an e-learning environment where learners with both ICT and self-directed skills can continue to learn at CIT. These are important dimensions of the current discussion around life-long learning.

At the national level it is essential that strategic initiatives are continued and that innovation in ICT is rewarded. These strategic initiatives are not possible without ongoing investment in professional development.

f) re-training strategies as an element in life-long learning, especially for those living in rural and regional areas

The internet provides a powerful opportunity for regional areas as it reduces the impact of isolation. Once regional areas are connected and if they have broadband access, ICT brings them closer to the rest of the Australia and the world. However, the challenge is to ensure broadband exists in these areas.

Retraining using ICT then provides an effective link between the community, learning and work. In turn access to these technologies provides regional people with many opportunities.

4. Conclusion

What we do know is that a lack of ICT skills is a key barrier to life-long learning. What we have also shown is that training is having a significant impact on the use of ICT for life-long learning.

ICT must remain at the forefront of our political thinking if the broader Australian community is to engage in life-long learning. ICT must remain as a training focus if Australians are to be strong players in the knowledge age.

References

ANTA (2003) *Shaping our Future: Australia's National Strategy for Vocational Education and Training (VET) 2004-2010.* ANTA: Brisbane

ANTA (1999) *National Marketing Strategy for Skills and Lifelong Learning: Literature Review Final Report.* ANTA Brisbane

Candy, P (2004) *Linking Thinking: Self-directed learning in the digital age.* DEST: Canberra

Catts, R (2004) "Lifelong Learning and Higher Education Reflections and Prospects". 3rd *International Symposium for Lifelong learning conference.* Yeppoon

Darwin, S (2004) *Vocational teacher education: Bridging the teaching divide toward lifelong learning.* Canberra Institute of Technology

Flexible Learning Advisory Group (2004) *Your future: Your Choice: Flexible learning futures.* ANTA: Brisbane

Kearns, P (1999) *Lifelong Learning: Implications for VET.* NCVER: Adelaide

NCVER (2002) *Flexibility through online delivery: Research at a glance.* NCVER: Adelaide