

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 BY THE DEPARTMENT OF COMMUNICATIONS,
INFORMATION TECHNOLOGY AND THE ARTS TO THE
SENATE INQUIRY INTO THE PROGRESS AND FUTURE
DIRECTION OF LIFE-LONG LEARNING**

Synopsis of submission

This response emphasises the importance of ICT literacy across the Australian community within the context of life-long learning. The submission identifies major challenges to life-long learning and the potential role of information and communication technologies (ICT) in addressing the life-long learning needs of the ageing population.

Basic ICT access and ICT literacy have been identified as major issues across the workforce and wider community. The submission identifies the following as key issues.

1. Proficiency in information and communication technologies (ICT) is about everyone having the ability and subsequently the choice to participate in the information economy and take advantage of its economic and social benefits.
2. As well as being technologically literate, individuals need to be information literate in order to undertake the challenges of the information economy. Without these skills, they are at risk of being marginalised.
3. Investment in human capital and in skill development is aligned with national economic viability. A low level of literacy in significant areas of the population, therefore, is likely to have a negative impact on the economy, society and individual well-being.
4. In order to progress the future directions of life-long learning it is imperative that the technological barriers to participation in adult and community education are identified and addressed.

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Introduction

The International Academy of Education Task Force¹ states that, “Life-long learning generally defines a broad set of beliefs, aims and strategies around the central tenet that learning opportunities available over the whole lifespan and accessible on a widespread basis should be key attributes of modern societies”. In a similar vein the OECD refers to life-long learning as being ‘life-long’ and ‘lifewide’. This infers that learning and development can and does occur throughout life and that it occurs across a range of settings and experiences. These settings are seen to include the formal, non formal and informal.

The OECD states that there are five discourses that are imperatives in the move to a life-long learning culture. One of these, the “speed of change” argument, indicates that the speed of technological development and ubiquity of technology requires a learning response to keep up. Technology is therefore seen as a key theme in the consideration of life-long learning and an impetus for overcoming barriers. Longworth² extends this to the development of learning cities by the effective use of new learning technologies and considers learning about technology as a foundation for future learning.

Fundamentally, proficiency in information and communication technologies (ICT) is about everyone having the ability, and subsequently the choice, to participate in the information economy and take advantage of its economic and social benefits. As well as being technologically literate, individuals need to be information literate in order to undertake the challenges of the information economy. Changes to the way people do their shopping, pay accounts, do their banking, make reservations, study, acquire information or communicate with others means that without these skills they are at risk of being marginalised.

It is widely accepted that investment in human capital and skill development is aligned with national economic viability. A low level of literacy in significant areas of the population, therefore, is likely to have a negative impact on the economy, society and individual well-being. In order to progress the future directions of life-long learning it is imperative that the technological barriers to participation in adult and community education are identified and addressed.

Specific comments by the Department of Communications, Information Technology and the Arts against the terms of reference for the inquiry follow below.

¹ Tuijnman, 1999, p. 6

² Longworth, N., Learning Communities for a Learning Century p.611 in D Aspin, Lifelong Learning, Vol II, pp 591-617, Kluwen Academic Publishers, Dordecht, The Netherlands, 2001

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

Role of ICT in addressing life-long learning needs

People need to be informed and supported as they make transitions through each phase of their life. The different life stages of many adult learners are likely to include transitions from one job to another, from employment to retirement and from paid work to volunteer work. ICT has an impact on the provision of information as people make these life transitions. ICT also have the potential to assist people, as they leave their workplace, to remain connected to the community or to reconnect to the community and to manage their daily life.

Older people have been identified as a disadvantaged group in the information economy through not having had the same opportunities as their younger counterparts to become information literate. Ability to use ICT effectively is a major factor in whether older adult learners are included in the digital world.

Research undertaken by the Australian Council for Adult Literacy, 2001³, has shown that many Australians over the age of 45 do not have the foundation skills necessary for the 21st century. For example, one in five Australians do not have the necessary literacy skills to participate effectively in daily life and only half of all Australians over 45 have literacy skills of a sufficient standard that would enable them to cope with the material they would be confronted with daily.

ICT is an important component of workplace inclusiveness. The Australian Government's policies on encouraging older people to remain in the workforce require this group to be equipped to meet current and future workplace demands and hence older people need to increase their ICT skills to maintain their workforce attachment. It can also ensure that older people are well-informed when making key life decisions in their transitions from work to retirement or a mid-life career change and assessing the potential impacts on their financial and personal circumstances.

Older people in retirement can also benefit significantly from being effective online users both in terms of accessing online services and products (for example online health, entertainment, financial and government services) and as a means of maintaining and making social connections. The NOIE publication *Save@Home* provides research on how retirees are using the Internet at home for social and financial purposes.

³ Gelade, S., Catts, R & Gerber. R., (c2003) *Securing Success: Good practice in training people aged 45 and over who are disadvantaged in the labour market*, The Workplace Education Research Consortium, University of New England, Armidale for the department of Education, Science and Training, Canberra, page 29

As well as Australian Government initiatives [see comments on (d) below], there have been a number of important community-based organisations and initiatives which are seeking to address the ICT learning needs of older people. Such organisations include U3A Online and the Australian Seniors Computer Clubs Association (ASCCA). While these have received some support from government, they continue to operate primarily on the basis of voluntary support and can therefore address only a proportion of the ICT needs of seniors across Australia.

One of the major challenges facing adult learners, especially older adults, is to eliminate barriers inhibiting their return to learning. Lack of confidence in their ability to learn and fear of using ICT are some of the major barriers facing adults as they return to education and training after a long absence from formal education systems. Recognition of prior learning, including recognition of existing skills is an important consideration in training programs as older people frequently have skills that can be transferred to new training.

Research indicates that older workers are less likely to be given opportunities to retrain and therefore learning opportunities are limited. Other negative aspects affecting the retraining and transition of mature age people can involve a lack of motivation and a decrease in workplace efficiency, whether real or perceived by employers.

Life-long learning in the cultural sector

The Department of Communications, Information Technology and the Arts has portfolio responsibility for most of Australia's National Collecting Institutions (NCIs), including the National Library of Australia, the National Archives of Australia, the National Museum of Australia, the National Portrait Gallery, the National Gallery of Australia and the Australian National Maritime Museum. The Minister for the Arts and Sport has responsibility for the overall direction of these NCIs.

Approximately 82% of people aged over 65 visit museums, with 47% of this group attending special activities at museums⁴. A number of studies have investigated this group of older visitors to museums as a key audience for the collecting sector in Australia. The most recent study *Energised, engaged, everywhere: Older Australians and Museums* report⁵ synthesises previous studies and recognises that most major museums in Australia are generally attentive to the learning objectives of older visitors to museums when developing exhibitions, orientation and programs. The experience of older people in museums was examined in the broader context of health, accessibility, cost of visiting a museum, the museum and exhibition environment and other factors impacting on visitation and the experience of older people in museums. The report found that older visitors are stimulated by special programs including talks and demonstrations and recommended that museums should provide areas within exhibition spaces to allow for reflection. The topic of an exhibition was found to be the single strongest factor in attracting older people to museums to participate in the learning opportunities offered.

⁴ *Energised, engaged, everywhere: Older Australians and Museums* report
<http://www.amonline.net.au/amarc/pdf/research/fullreport.pdf>

⁵ *ibid*

In addition, a large proportion of volunteers managing and working with small to medium sized collecting organisations (SMCs) in regional rural and remote Australia, are older Australians⁶. A study into *The Key Needs of Collecting Institutions in the Heritage Sector* suggests that older people working in small museums experience difficulties adopting new technologies. According to this study, surveyed respondents in small museums felt that to overcome this difficulty and make more rapid progress in documenting collections, the museum should have its own computer(s) with Internet and email access. This response implies that the presence of technology in the workplace may improve the comfort of older people in adopting it. Broader issues relating to training and use of technology may rely on mechanisms outside of the museum.

The redevelopment of *The Cultural Ministers Council Australian Museums and Galleries Online (AMOL)* initiative over 2004 will focus on bringing SMCs into the online environment by providing centralised online collection management tools, web page support and communication tools for SMCs. Recognising the perceived barriers to new technologies that may exist for SMCs with older staff, AMOL's redevelopers are working closely with trainers in the education sector and collecting sector support agencies, such as the national state and major regional collecting agencies and collecting sector training providers, to effectively deliver training opportunities.

Life-long learning and volunteers in the cultural sector

Volunteers are an important factor in the cultural sector workforce. The Australian Bureau of Statistics tells us that in June 2000 approximately 80% of people working in Australian museums, for example, were volunteers. The Department of Communications, Information Technology and the Arts through the Cultural Ministers Council is managing a series of life-long learning initiatives to provide the infrastructure and tools for ongoing professional development for cultural sector staff, including volunteers, particularly in regional and remote Australia. The Regional Hubs project aims to assist regions to build on their existing networks to support outreach staff. In addition, training materials to support publications that deal with core issues in the cultural sector are available online on the AMOL website (<http://www.amol.org.au>).

Evaluating Learning in Cultural Institutions

The Department of Communications Information Technology and the Arts is undertaking a study, in collaboration with the National Science and Technology Centre, to evaluate the impact of learning that occurs when people are presented with a physical exhibition and an exhibition online. The aim of the study is to evaluate learning in these modes in order to provide cultural institutions with data to support further research into the area of information design. The study report is expected to be available in late June 2004.

⁶ *A Study into the Key Needs of Collecting Institutions in the Heritage Sector*
<http://www.amol.org.au/craft/publications/keyneeds/keyneeds.PDF>

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

Infrastructure

It should be acknowledged that the Internet and ICT in general have had a radical effect on the range and form of delivery options for education and training. Most recently, the provision of broadband connectivity has further expanded the range and capacity of education delivery options.

Australian Government initiatives contained within the National Broadband Strategy will accelerate improved broadband infrastructure and services for the education sector.

In particular, the \$23.7 million Coordinated Communications Infrastructure Fund (CCIF) provides funding for broadband infrastructure projects in regional areas. The main emphasis of the program is on the provision of health, education and government services and community connectivity more broadly.

The CCIF program builds on the Australian Government's \$50 million National Communications Fund which supports significant communications projects in the education and health sectors in regional Australia.

Learning in the online environment and copyright

Australia's copyright laws aim to provide a balance between owner and user rights in the digital environment, creating incentives for the production of educational material and assisting with flexible and reasonable access to such material to facilitate learning.

Australia's copyright law was updated to take into account the rapid developments in digital technology, in particular the internet, by the Government's Digital Agenda copyright reforms, which commenced in 2001. These amendments are currently being reviewed by the Government to ensure that they are operating effectively. The *Copyright Act 1968* contains exceptions which, as amended by the Digital agenda reforms, are designed to facilitate access to copyright material for a number of purposes, including research and study. Existing exceptions to enable libraries, archives and galleries to provide reasonable access to copyright material were extended to include material in electronic form. The statutory licence for educational institutions was also extended to apply to digital reproductions and communications of copyright material.

Access to the internet has resulted in greater exposure and access to copyright material. It is therefore important that Australia continue to have appropriate copyright exceptions and statutory licences to facilitate learning in the online environment, and to allow people to continue to make innovative and efficient use of information technology and the internet.

(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.

Access to adequate ICT equipment and connectivity (bandwidth) is an imperative for adult learners seeking to use technology for work, education or lifestyle purposes. As noted above, however, effective use of ICT is only possible where ICT skills and knowledge are possessed by the user.

When considering the technological barriers to lifelong learning, there is a need to draw a distinction between the issues of learning about ICT (developing ICT skills) and learning with ICT (the application of ICT skills to a wide variety of learning).

ICT Skills

Fundamentally, ICT proficiency is about everyone having the ability and subsequently the choice to participate in the information economy and take advantage of its economic and social benefits. Given the emphasis on the delivery of government services online as well as the increasing shift to online commercial services such as online banking and online shopping, there are considerable economic and social consequences if a significant percentage of the Australian population are not skilled online users.

The World Summit on the Information Society (WSIS) highlighted ICT literacy as an essential element in its Declaration of Principles and Plan of Action, released at the first WSIS Summit in Geneva in December 2003:

“Awareness and literacy in ICTs are an essential foundation for employability and help people benefit from the new opportunities offered by ICTs for traditional jobs, self-employment and new professions.”

This is confirmed in the UK Department for Education and Skills (DfES) White Paper, *21st Century Skills, Realising our Potential*. This paper outlines the need for ICT to become embedded in adult learning and makes a commitment to help all adults in the UK gain ICT skills as a third skill for life alongside literacy and numeracy. The aim is to promote ICT literacy as an essential element in the individual’s quality of life, their employability, job mobility and participation in society.

The International ICT Literacy Panel⁷ views ICT literacy as a continuum of skills and abilities ranging from simple to complex tasks. This panel defines *literacy as a continuum allowing measurement of various aspects of literacy from daily life skills to the transformative benefits of ICT proficiency*. The Panel considers that the higher levels of ICT literacy have the potential not only to transform the lives of individuals who develop the requisite skills and knowledge but also society as a whole.

⁷ *Digital Transformation A Framework for ICT Literacy*, Educational Testing Service, Canada, 2001
<http://www.ets.org/research/ictliteracy/ictreport.pdf>

In the acquisition of basic ICT skills by adult learners, a number of factors need to be considered, such as:

- the different life-stage of the learner and their needs;
- the ICT knowledge and capability of the training provider;
- the cultural competency of trainers;
- an understanding of the pace in which the training is delivered;
- the varied learning styles of the adult learners;
- the other essential skill needs of adult learners, for example English literacy skills for some, particularly remote area, Indigenous learners; and
- the need for the training to be delivered flexibly and for course content to be appropriate to adult needs and interests.

Included in what would be regarded as higher levels of ICT skills is the idea of information literacy. This refers to the skills necessary to effectively find information, critically appraise its value (and veracity) and to act on that information (effectively perform online transactions and communication). The report 'Feasibility Study for the Development of a National Coalition for Information Literacy Advocacy' (March 2002) highlighted information literacy as an essential skill for students, workers, consumers, clients of government services and programs and citizens generally in all aspects of life

The Australian Government has responded to meeting the basic ICT access and skill needs of adult learners across Australia through such measures as:

- the recently announced \$8.8 million IT Training and Technical Support Program for people and organisations located in very remote areas of Australia;
- \$1.7m in funding to Learning Network Queensland extended and improved Internet access to regional, rural and remote areas throughout Queensland to link 45 community learning centres to local Internet Service Providers;
- From 1997-2004, the Networking the Nation (NTN) program has provided approximately \$61 million to contribute to the establishment and support of more than 1700 online access centres (OACs) and public Internet access points across Australia. The centres can range from public access facilities in libraries, adult education centres and schools, large stand-alone centres providing a full range of communication services, training and access to government services through to statewide networks of OACs supported by a central support unit for technical and training issues;
- NTN Program funding helped establish such online access centres as the NSW Community Technology Centres (\$8.25 million), Victoria's 'access@schools' initiative (\$2.5 million), Tasmanian Online Access Centres (\$7.7 million), WA Telecentres (\$1 million); and
- substantial funding towards State based ICT skills initiatives such as the Victorian government's *Skills.net* program (\$1.6 million through the NTN program), which provides funding to help community organisations such as neighbourhood houses, community centres and public libraries provided Internet training courses, \$4.3

million for the SA Networks for You project and \$3.4 million for the BridgIT project run by the QLD Rural Women's Network.

The Application of ICT to Learning

Research has indicated that adults undertaking learning need it to be flexible and appropriate to their needs in terms of access and flexibility in mode, time and place. The development of appropriate and accessible online courses for formal and non formal education sectors and strategic use of ICT will allow such flexibility to be available. However to realise the full potential of the opportunities offered by ICT, adults learners will require basic foundation skills in literacy, numeracy and technology.

Attention must also be paid to those individuals who do not have home computer or Internet connections. Therefore to encourage the use of ICT for learning across the population, public access points must be conducive to learning and concentration and be in non-traditional and non-threatening environments. This aids in breaking down barriers to, and increases the opportunity for, participation in life-long learning and adult and community education.

A limitation to the capacity of ICT to become a dominant mode for adult learning is that most people prefer to learn with others rather than in isolation. This is evident in that, even though many post secondary programs are being made available online, much of the ICT training for adults is delivered in a regular classroom.

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

Rural and regional communities are finding that strong ICT skills and knowledge capabilities are an essential platform for the growth of local industries and businesses, the ability to access wider markets for local products and the improved delivery of online services by all sectors.

High levels of connectivity can generate a wide variety of economic benefits for all sections of the community. Connectivity can reduce the cost of transactions and increase efficiencies of services. Businesses, community organisations and individuals can access wider or new markets and client groups, more diverse information and improved communications.

With the decline of services such as banking and health in rural and regional areas many people are now having to access these facilities in other ways. Farmers, in particular the older generation, now need to access ICT to become acquainted with more modern management and accounting packages and to access up-to-date information online (eg weather forecasts, crop trading reports).

Many people in rural and regional Australia are having to be innovative and resourceful in order to keep their jobs and maintain their businesses due to the changing nature of their local industries and growing competition and pressures in a global economy. This requires up-skilling and often retraining of their ICT skills to adapt to the changes that have taken place regarding banking, bookkeeping, management and to access up-to-date information.

In order to increase the level of social capital and regional development in the rural and regional areas of Australia, the issues confronting these communities will need to be addressed and the people constantly skilled in appropriate and innovative ways. This will require communities to work together to find viable training solutions that are customised for their local conditions. Already considerable resources are directed towards the provision of ICT at a community level. However better coordination and affordability of training still need to be addressed.

It is important that education and training providers offer courses that are appropriate to the specific needs and demands of each community. This is particularly important in rural and regional areas where many of the learners would have to travel some distance to attend. Access to and effective use of online technologies have the potential to empower consumers and citizens by giving them more diverse sources of information and knowledge. Adequate technical training and information support post-initial access is also an important factor in more sophisticated uses of ICT by consumers and citizens.

Highly networked communities are finding that local social capital and economic development work in tandem. As the technological and skill base grows, it provides support for local industries and a stimulus for developing new applications and services. Strong regional information economies will be those that enhance their level of community connectivity and networking capability and have the skills and knowledge to exploit its potential economic and social benefits, and take advantage of new employment opportunities and forms of working (eg telecommuting).

Online access centres which provide public Internet access to people living in regional, rural and remote communities across Australia have been playing an important role in providing basic ICT skills training and familiarity.

Geographically separated communities can also collaborate to form a learning community, particularly when they share a common culture or set of interests. A community of practice (a 'virtual community') can form around individuals or groups that may be physically separate but become linked online through their shared professional, social, scientific or cultural interests and activities.

These learning (or smart) communities can be broadly defined as:

“Neighbourhoods, villages, towns, cities and regions that use lifelong learning as an organising principle and social goal in order to promote collaboration of their civic, economic, public, voluntary and education sectors to enhance social, economic and environmental conditions on a sustainable, inclusive basis”⁸.

Australian communities are transforming themselves through their adoption of these best practices. They are working together to develop approaches and use new technologies in programs that best suit their needs. Cities, regions and remote areas alike are displaying a willingness to experiment, to learn and to change. Detailed profiles of seven selected Australian smart communities can be found in the NOIE publication *Australian Communities Online* and also online at:

http://www.noie.gov.au/projects/access/Communities_Online/Aust_Communities_Online.htm .

⁸ Learning Communities Catalyst: <http://www.lcc.edu.au/lcc/go/pid/10>