Submission

Strategic ICT Advisory Service

April 2009
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1. Introduction

The Australian Council for Private Education and Training (ACPET) is the peak, national industry association for independent providers of post-compulsory education and training. ACPET represents more than 1,100 organisations, from schools to higher education institutes, delivering a full range of education, training and English language courses to both domestic and international students.

ACPET welcomes the opportunity to present a submission to the Strategic ICT Advisory Service (SICTAS) funded by the Australian Government’s Department of Education Employment and Workplace Relations (DEEWR).

ACPET supports the direction of the current government to boost productivity and workforce participation through a focus on education and training particularly in regards to the use of technology. It is important that Australia develops an internationally competitive education and training sector through significant reform and investment however reform of this sector must be underpinned by strong infrastructure including use of new technologies.

ACPET is committed to building an education and training system in Australia which helps all individuals to establish rewarding, social and economic lives that contribute to a productive and socially inclusive nation. Investment in human capital through education and training will help Australia’s future prosperity and the well-being of its people.

In developing this submission, ACPET has used an e-survey of members, 1:1 consultations with RTOs enrolled in the Victorian e-learning program facilitated by ACPET for the past several years and a significant amount of desktop research. The consultation questions were centred on the three themes of learning and learners, professional learning and educators, and infrastructure.

2. Key Messages

The world is changing and use of technologies is becoming more important as a characteristic of globally competitive, economically and socially relevant education and training systems. Two changes in particular are placing more emphasis on providers to improve their engagement with technology.

First, many learners are sophisticated users of digital technology in their lives within and outside education and training learning environments and demand a more tailored and personalised experience that is matched to their learning style and preferences\(^1\). To compete for a learner’s attention, education and training providers will need to provide a more stimulating learning experience.

\(^1\) NCVER (2006) *Quality is the key: critical issues in teaching, learning and assessment in vocational education and training*, p. 18
Secondly, industry is more demanding and employers now require much more than subject expertise from new employees. Employability skills, including technological fluency, communication skills using technology, collaboration and teamwork, leadership and creativity are now in demand and are increasingly viewed as important to economic development. To be successful, education and training providers need to engender these qualities.

ACPET supports the use of technology in developing a learning environment that engages more effectively with learners and industry, and contributes to the economy by equipping learners with work ready ICT skills. Effective use of technologies, particularly new and emerging technologies, can make training more accessible especially for individuals in geographically isolated communities and create opportunities for more interactive and learner driven training including the use of work-place based learning.

ACPET members are looking for the means by which to engage and utilise technology so that they can be more responsive to the needs to learners and industry. Effective investment such as through professional development for providers, can help drive a culture of lifelong learning by offering greater flexibility on when, where and how education and training is delivered. ACPET recommends a shift in emphasis away from investment in content items like Toolboxes towards investment with a diffusion component such as professional development.

This type of investment is largely under-represented in current ICT activities. Implementation through professional associations like ACPET and its professional development programs such as the Victorian E-learning program could provide a cost effective means to promote good practice and innovation. Professional development is critical because it:

- leverages investment in content, software and common arrangements;
- is the surest implementation path to integrate technology into training practice and improve skills and capabilities; and
- increases the diffusion of good practices within and across institutions.

Other suggested practical initiatives could include:

- a central repository of e-learning data, surveys, good practice and contacts available to the VET system;
- awards with appropriate criteria;

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2 Thornburg, D. (2004), *Education in the Communication Age*, The Thornburg Centre
3 Business Council of Australia New concepts in innovation – the keys to growing Australia, cited in OECD (2007), *OECD Thematic review of tertiary education country background report Australia*, prepared for DEEWR (then DEST)
self-assessment tools made available so that providers and individuals are able to plot their current status and identify opportunities for further development, including through collaboration within and beyond their own organisations; and

build on existing mechanisms and/or forums to bring practitioners together to share practices.

3. Response to Submission Questions

a. Implications - emerging technologies for learning and learners

What will learning look like in a student-centred demand driven model?

Learners need a seamless education and training system with multiple entry and exit points as the ideal, flexible and responsive type of learning environment. All clients (learners and employers) must have the opportunity to choose a provider who can develop a learning program suited to their needs and not be restricted in their choice by regulation, funding arrangements or access to learning environments including blended learning environments.

ACPET supports the introduction of student-centred funding models as this approach will enhance students’ learning. Indicators of need for reform of education provision linked to student choice include:

- productivity, economic and education policy directions;
- the need for innovative action in response to market signals; and
- that a range of education and training providers are now established and students warrant choice to suit their multiple needs and equivalent support from whatever provider they select.

It is vital that in the Council of Australian Government’s (COAG) focus on human capital and labour market efficiency and productivity that governments do not lose sight of the fundamental and inalienable right of individual learners and workers to be self-determining in a democratic market economy. This observation is reinforced by the OECD priority given to building personal attributes relevant to a Knowledge Economy where it is in fact the ‘people’ who are the repositories of knowledge (and skills). The Bradley Review of Australian Higher Education also argues:

that a (reconfigured) Tertiary Education Sector must shift its approach back to being demand driven by student choice (self-determination over what and where individuals choose to learn) if Australia is to have any hope of maintaining its current OECD position by retaining or increasing the level of engagement and participation of people in education and training that is necessary in a Knowledge Economy post 2010⁴.

⁴ Australian Higher Education Review – pg 7
No individual should be denied the opportunity to access quality education and training services to assist them to establish rewarding, social and economic lives and/or businesses. Therefore, it is vital that the nation is able to develop the infrastructure needed to support the integration of technologies into learning environments and that student-centred funding models enable this choice.

**What will learning environments look like?**

Changes to client-based demand will require that providers of education and training are able to develop a learning environment that is highly customised and individualised. This shift requires a new way of thinking about the business of teaching and learning that gives more responsibility to the learner and changes the role of the provider from one of predominantly being subject matter expert to one with an emphasis on facilitation, support, critical thinking, guidance and entrepreneurialism.

The continued growth of the private sector in meeting the needs of learners, even when a significant portion of this growth is from fee for service programs not underpinned by government funding, is indicative that it is the independent provider, which is not only meeting individual learners’ needs, but is also engaging with industry to deliver flexible, time responsive training.

Collation of responses from ACPET members indicates a learning environment that needs to be:

- cost realistic for users;
- involvement of relevant parties during development stage;
- ongoing relevance – content and context;
- ongoing feedback particularly during trials of new products;
- use of a blended delivery approach;
- access and support use with follow-up i.e.: from 7am to 11pm, 7 days through telephone, emails and forums; and
- part of the everyday learning experience i.e.: integrated skills.

Respondents also commented that students would be required to be competent in use of:

- most office programs i.e.: word, excel, power point;
- use a USB drive to store and update work;
- use email;
- access internet via computers in classrooms;
- use internet surfing for research;
- use iPods and phones;
- use online tutorials for additional resources;
- develop research skills in electronic resources through search engines and electronic databases of online journals through library services; and
- submit assignments electronically.
ACPET members also reinforced the need for providers to have access to the latest programs and services including items such as:

- access to computer labs with latest software like Adobe Creative Suite, 3ds Max, Virtools and Motion Capture;
- networked computers with data projectors;
- broadband internet connection;
- intranet for access data and curriculum materials;
- recording media such as digital videos;
- e-learning portal that provides all course information;
- electronic forum discussions;
- on-line catalogue system of library items and resources; and
- online study skills support available through e-learning portals.

Other information gathered from members included positive support for Learning Management Systems such as Blackboard and Webfuse and organisational websites with access to each study unit containing all the elements of study and integrated with assessment tools and support systems.

For learners with low level ICT skills, extensive supported workshops are needed and generally offered where learners complete the online component with a facilitator present. Content and assessment outlines need to be online. Students should be able download information to mobile devices. This approach needs to be complemented by face to face tutorials and work place experience. Sharing between learners online proves to be very valuable.

**ACPET member example**

*We use blended delivery with Moodle as the Learning Management System (LMS). Much of the material is now on the LMS and is placed on the system as a learning object, usually created through captivate, jing or metamorphosis. This allows a more interactive learning environment, rather than just a whole list of PDFs. Additionally we have set up WIKIs and forums for learners to communicate with each other, as well as their teacher/trainer. The use of SMS is again used to communicate. All newsletters are e-newsletters and communication is via email. Online attendance and roll marking is facilitated at the beginning of each session with photo id. We use the e-learning platform 'Moodle' to help administer our assessment and training strategies. Most of our assessment is assessed electronically and all results are posted in the students accounts. Student have access to documents, audio files, website links, some have video footage.*
What are the implications for curriculum and assessment?

With more use of technology in our daily lives including our work environment, it will be necessary that curriculum is flexible and time responsive to meet individual and industry needs. Assessment, as part of the learning environment, will need to cater for the different learning styles and preferences of the client i.e.: workplace learning. Evidence gathered as part of the assessment process will take a variety of forms.

The use of ICT in education and training should not be restricted by complex and prescriptive content which is currently the situation with a selection of Training Packages. This type of framework has stifled and depleted the Australia’s education and training system’s capacity for innovation, diversity and responsiveness. With the nation facing rapidly changing technological, disciplinary and economic circumstances, not to mention the shifting social, cultural and environmental challenges yet to be overcome, then the nation needs broader, flexible curriculum which allows for innovative course design.

There needs to be a broader definition of the purpose, outcomes and assessment strategies permitted in course design especially if the course is needed to meet the needs of the wide range of clients. Curriculum and developed courses must be based on ‘fit for purpose’, market relevance and alignment with policies, selectively addressing different aspects of government priority for local, regional, national and international application.

ACPET members are attempting to integrate technologies into course delivery despite restrictive curriculum by using approaches such as:

- intranet to put up class notes for the students and use of forums, blogs and Wiki’s;
- i-google to access training and assessment materials, including administration staff using i-google to manage version control of shared documents, students’ upload workplace assignments and proof of identity;
- CD ROMS to replace and/or enhance very expensive face to face delivery to remote locations;
- online conferences such as ‘live classroom’;
- hand held mobile video to demonstrate components of recognition of skill; and
- ‘Elluminate’ live virtual classroom to complement the LMS.

Good practice is being developed by a significant number of independent institutions (not government funded). Flexible delivery using support media, either to host learning material or to deliver content of courses is becoming more regularly used.

Institutions generally provide a comprehensive end-to-end service, from assessment of students’ competencies through to tailored solutions and management of the learning process. These providers also use ICT tools to better manage student administrative challenges. Teaching units are developed with the use of technologies in mind. Assessment items are carefully constructed and where possible
generally submitted online. However, smaller providers struggle to find the funds for this large infrastructure investment and have even more difficulty attempting to gain the skills needed to utilise the ICT.

**ACPET member example**

*In our distance learning programs we make heavy use of programs such as Skype. Skype and webcams are also used to replace face-to-face assessments for remote and distance students. We also send out digital audio recordings and use email, Skype and SMS to answer learner queries. Students also use digital video recording for submission of some evidence and we use digital video recording in practical assessments. We also make heavy use of MP3 players to record verbal responses to interviews in a wide range of assessment activities. Our next phase of learning materials development will be a 'halfway house' approach to e-learning whereby we distributed web site materials on CD and the student can send back assessments electronically. We do use some commercial e-learning sites, but by and large these are 'lowest common denominator' and rarely meet our exacting standards for training and assessment. Our assessment of most of these sites is that the Units are 'woefully deficient' and this also includes TVET and flexible learning toolboxes.*

**b. Implications - emerging technologies for professional learning and educators**

**What are the most appropriate professional learning models?**

ACPET strongly advocate for an education and training workforce that has the industry currency, knowledge and skills required to prepare learners for the modern labour market, as well as the ability and skill to engage a wide variety of learners across a range of mediums.

Education and training professionals need a learning model with assists them to integrate technology in their own practices plus keep abreast of new and emerging technologies. This learning must take particular note of industry specific application of these technologies and the impact on workplace practices i.e.: how the job gets done in the enterprise’s workplace.

ACPET supports a system to further develop these professionals including acknowledgement of the complexity of work demands faced by these individuals. It is essential that any processes put in place do not place additional regulatory burden on individuals but rather a process which is valued and rewards contribution to the education and training industry.

ACPET is currently developing a full program of professional development activities for professionals working in the education and training industry. A major program which has run over several years with funding support from the Victorian Government’s e-learning project funds is a professional
development program to support educators and trainers increase e-learning capability and therefore organisational capacity to provide quality e-learning solutions for clients. From the experience of managing this program, ACPET has developed a model of professional learning which is proving to be very effective particularly in regards to keeping abreast of new and emerging technologies.

**ACPET e-learning model**

![Diagram of ACPET e-learning model]

**ACPET's Aim:** To keep providers engaged and to provide opportunities to advance in knowledge and skills.

**How the ACPET e-learning model works?**

The model consists of three different mentoring streams (beginner, intermediate and advanced) which enables the individual professional to enter at their level of ability as well as deciding on the amount of time they can commit as each stream requires a signed agreement to contribute the required number of hours.

For those individuals not able to commit to the required hours or possibly not ready to enter the mentoring program, the *Open Stream Online and Face to Face Workshops* option is available. This stream is very important for individuals and organisations which also may have entered the mentoring stream in a previous year but due to a number of circumstances may not able to continue in the mentoring stream. The *Open Stream* provides the opportunity to remain engaged with the program.
The Mentoring Streams are designed to produce outcomes for the individual and his/her organisation by providing regular learning activities, contact, encouragement and advice to participants. ACPET provides a structured, mentored professional development program including an initial on-site consultation with each participating professional to ensure alignment with organisational priorities, followed by regular online meetings, goal setting, tasks and a final on-site consultation.

Each project team/individual is mentored through the process of researching, planning, designing, implementing and evaluating their chosen trial unit of study (beginner level) or other identified solution (intermediate level). The advanced stream has only been implemented this year and is focused on developing a network of experts.

In keeping with current best practice in e-learning professional development, the program is structured to provide both one-on-one and peer group mentoring opportunities for participants to experience e-learning both as a learner as well as a facilitator.

The Open Stream Series consists of a series of face-to-face and online workshops. All face-to-face workshops are held in an ACPET training room and online workshops are conducted through the ACPET Elluminate Room. The Open Face-to-Face and Online Workshop Series is provided to individuals on a ‘choose as required basis’.

ACPET member example

I have participated in the Beginner and now the Intermediate mentoring program offered through ACPET. This program has given excellent training and built my confidence - I recently created a family digital album and have set up my own Internet router and VoIP telephone adaptor.

How can policy makers and educational institutions best support educators to meet the challenges of new technologies?

ACPET supports an approach to increase the diffusion of good practices within and across institutions. Funding should be available to all organisations (public and private) so that funding is used to:

- deliver more comprehensive training to new trainers (and those coming from industry) on how to utilise technology in the classroom;
- develop a structured PD grants program that enables institutes and individual professionals to make decisions about what training is most appropriate; and
- focus on creating a critical mass of ‘super users’ of e-learning in institutes who can then disperse their knowledge and skills to others.
The ACPET e-learning model (pg. 9) is a ‘good practice model’ of effective use of public funds as well as commitment from participants and organisations. This model has been particularly effective in targeting smaller providers, a difficult to reach but high priority target, and has produced quality and measurable outcomes for a relatively modest investment. Although there is still more to be done, this program has helped providers to improve the e-learning skills and competencies of their individual professionals. It is essential that these types of models are able to access the required funds. ACPET is well-positioned to manage this approach particularly on behalf of small and medium enterprises.

From its collation of responses from members as part of this submission, ACPET can provide a list of specific items of what educators and trainers need to meet the challenges of new technologies. This list includes:

- access learning whenever possible and time to learn these technologies;
- share the cost of skill updates;
- e-learning team has regular meetings;
- researching particularly on what works effectively to enhance workplace performance;
- attend conferences, networking and RSS feeds;
- subscription to e-learning web sites and organisations;
- keep computers, equipment and software up to date;
- participate in industry skill sessions;
- constant use of learning technologies;
- flexible learning and personal tuition from peer support network;
- better broadband speed;
- awareness of available options and funding to invest in equipment;
- refresher training courses;
- USB drives to give to students;
- better cooperative arrangements with Software providers;
- more information on how others have developed ways of engaging students;
- industry links to ensure awareness of knowledge of changes; and
- free use of commercially available software (particularly those created by Adobe and other vendors) to create courseware and assessment techniques. For example, the use of e-books is spreading and some learning material can be organised in that fashion;
c. Implications - emerging technologies for infrastructure

How can policy and programs best be developed to provide supporting infrastructure for the education and training community?

Australia needs to investigate a range of policies i.e.: taxation for individuals and enterprises, and look at its infrastructure planning for the education and training community as a nation, especially as a country in competition with other countries in a global economy.

ACPET support policy and programs which will provide the supporting infrastructure needed to develop effective and customised learning environments to meet clients’ needs. The recent announcement by the Australian Government\(^5\) to build a national broadband network is welcomed.

In particular, the three critical areas that the Government may be able to assist in addressing infrastructure are through the country’s broadband speed, availability and cost.

Broadband speeds across the board and reliable broadband access in regional areas stand in the way of a fast and reliable internet network in Australia. With its sparse population and dispersed population, Australia should be a prime candidate for growth in distance learning using technology such as virtual classrooms. However, a faster take-up of on-line learning and virtual classrooms can only be achieved if broadband speed and reliability improves considerably.

ACPET, as a not-for-profit industry association has itself been frustrated in establishing an internet-based video conferencing system because of the unreliable internet speeds between our offices. The advertised speeds of most ISPs are rarely, if ever, reached. Australia internet services are also expensive, with additional high costs for exceeding capped plans.

A recent OECD survey\(^6\) showed Australia was the least densely populated country of the 30 OECD countries surveyed. Only Iceland and Canada have, like Australia, a population density of less than five inhabitants per square kilometre. Australia has the worst broadband penetration of the three at 22.7 people per 100 inhabitants. Canada's broadband penetration sits at 25 people per 100 inhabitants with Iceland's at 29.8. Half of Canada's population lives on 15.91 percent of the country's landmass -- making it geographically comparable to Australia. Canada ranked below Australia for both average advertised speeds and average price per MB, at 15th and 27th respectively.

According to the statistics, Australia is one of a diminishing group of countries which still offers broadband caps. The US, Sweden, Norway, the Netherlands, Korea, Japan, Italy, Germany, France, and

Finland no longer have plans offering caps. Of countries where caps are used, Australia has the fourth most expensive average charge per excess MB. The OECD survey released earlier this year shows Australia ranked second from bottom among its OECD peers by average speed.

### Average broadband speeds — worldwide

<table>
<thead>
<tr>
<th>Country</th>
<th>Megabits per second</th>
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<tbody>
<tr>
<td>Japan</td>
<td>61.0</td>
</tr>
<tr>
<td>Korea</td>
<td>45.6</td>
</tr>
<tr>
<td>Netherlands</td>
<td>21.7</td>
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<tr>
<td>Sweden</td>
<td>16.2</td>
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<tr>
<td>France</td>
<td>17.6</td>
</tr>
<tr>
<td>Canada</td>
<td>7.6</td>
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<tr>
<td>Poland</td>
<td>7.8</td>
</tr>
<tr>
<td>Germany</td>
<td>6.0</td>
</tr>
<tr>
<td>United States</td>
<td>4.8</td>
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<tr>
<td>UK</td>
<td>2.6</td>
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<tr>
<td>Greece</td>
<td>1.0</td>
</tr>
</tbody>
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Data source: Information Technology and Innovation Foundation

4. Conclusion

In conclusion, ACPET supports the use of technology in developing a learning environment that engages more effectively with learners and industry, and contributes to the economy by equipping learners with work ready ICT skills. Effective use of technologies, particularly new and emerging technologies, can make training more accessible especially for individuals in geographically isolated communities and create opportunities for more interactive and learner driven training including the use of work-place based learning.

5. Contact

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