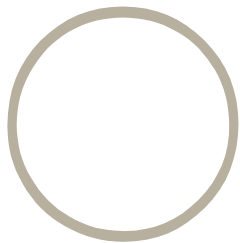




INNOVATION & BUSINESS SKILLS AUSTRALIA



SCOPING STUDY –

IDENTIFYING DIGITAL LITERACY SKILLS



cybercitizen and e-employee in the 21st century



April 2010



For further information about this report or any other work being undertaken by Innovation & Business Skills Australia Ltd, please visit www.ibsa.org.au

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IBSA wishes to acknowledge theshinyshinyworld Pty Ltd who have undertaken this scoping study.

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Executive Summary

Innovation and Business Industry Skills Council (IBSA) commissioned theshinyshinyworld pty ltd to conduct a scoping study into Digital Literacy Foundation Skills.

Digital literacy is one critical aspect enabling people to become “cybercitizens”, with the skills to operate effectively in the digital world, which will be especially important once the National Broadband Network (NBN) is completed. This report also looks at the digital literacy needs of “e-employees”.

IBSA’s focus is on identifying competencies to facilitate digital literacy across all age groups and environments and providing skills to function effectively in a digital economy. IBSA will consider how the six Industry Training Packages under its responsibility can be expanded to recognise and incorporate digital literacy.

The Australian Communications and Media Authority (ACMA) has undertaken extensive community research on digital literacy which it defines as - “the skills and capabilities needed for effective participation in the digital economy.”¹ ACMA has responsibilities for consumer protection and education but has not considered the vocational issues that have been covered in this study.

ACMA’s comprehensive research into digital literacy has been acknowledged and used extensively in this report.

The areas to be considered in digital literacy include:

- *Access* – to devices; an ability to have reasonable volume and breadth of use; and information literacy skills to use the technology to locate and find content and services
- *Understanding/interpretation* - ability to understand, evaluate and control aspects of media content; trust in media forms; ability to judge quality and authority of sources
- *Participation/creation* – ability to participate in social networking; ability to contribute in a creative sense (user generated content) – post a contribution to a blog, forum, upload content
- *Consumer protection/security* – understanding the security risks e.g. phishing, Nigerian emails; understanding the importance of maintaining regular security checks e.g how to judge the legitimacy of security certificates when passing on credit card details over the internet.

The project was conducted in two stages:

¹ ACMA Cybersmart – Explaining the Cybercitizen profiles
<http://www.cybersmart.gov.au/Schools/What%20are%20students%20doing%20online/Explaining%20the%20Cybercitizen%20profile.aspx>

1. (a) Identifying units of competency available or suitable for packaging into skill set(s) for digital literacy and surveying key stakeholders
(b) Identifying required skills for digital literacy and surveying key stakeholders; and
2. Validation of key findings and recommendations and the research and analysis with key stakeholders (industry participants, ICT associations, governments, public and private providers, including schools, Vocational Education and Training (VET), Australian College of Educators (ACE) and Higher Education (HE)).

The digital economy and the cybercitizen and e-employee

The world of the 21st century citizen is more multilayered with on-line existences and real world life connecting for everyday tasks such as bill paying, booking tickets or an on-line persona communicating with others, for example on customer service questions. Through the NBN and connected digital technologies, people will be engaged in new ways in areas of life that include on-line health, education, government services (for example tax, car registrations), commerce (for example banking and retail services) and interactive communications and services for remote communities.

Digital literacy is one critical aspect enabling people to become “cybercitizens”, with the skills to operate effectively in the digital world, which will be especially important once the National Broadband Network (NBN) is completed. This report also looks at the digital literacy needs of “e-employees” in digital workplaces that are being created.

Senator Conroy, Minister for Broadband, Communications and the Digital Economy stated the key elements of success for Australia's digital economy are:

- a digitally aware and enabling government that lays the foundations for world-class digital infrastructure, that facilitates innovation and sets a conducive regulatory framework.
- a digitally-confident and innovative industry which includes the tech industry that is the engine room to build our digital skills and grow our digital capabilities. It includes the broader industry that will adopt smart technology and develop sustainable online content models.
- a digitally-empowered and literate community with strong digital confidence and digital media literacy. It is a community that enjoys inclusive digital participation and benefits through online engagement.²

² “Australia's Digital Economy: Future Directions”, Minister for Broadband, Communications and the Digital Economy, Senator Stephen Conroy, 23 October 2009

Summary of the Key Skills identified for Digital Literacy (Assumes Access to ICT)

These are the skills identified as needed to become an effective and confident cybercitizen and e-employee in a digital economy.

	Cybercitizen	E-employee				
		Introductory Certificate I	Business Transactions Certificate II	Interaction & Innovation Certificate III		
				Administrative	Creative	Professional Technical
Access to Devices	<ul style="list-style-type: none"> Operate hardware devices (fixed, mobile and multimedia) including basic trouble shooting and basic security Maintain computer hardware Ability to transfer data from one medium to another (such as DVDs, USB keys, Memory cards) Understand what a network is Understand what the internet is and how to connect to it Ability to understand Internet Service Provider pricing and services Learn how to use the operating 	<ul style="list-style-type: none"> Operate hardware devices (fixed, mobile and multimedia) including basic trouble shooting Understand how to synchronize mobile devices with fixed equipment Use mobile devices to communicate in business 		<ul style="list-style-type: none"> Set up on-line users Migrate to new technology 	<ul style="list-style-type: none"> Ability to create and duplicate CDs, DVDs and other portable media Ability to use scanners and other connective tools such as digital cameras; palm diary devices; sound recorders; USB keys Migrate to new technology 	<ul style="list-style-type: none"> Install new hardware Provide product security, tracking and monitoring procedures and systems Support, maintain and troubleshoot, update and secure mobile devices Migrate to new technology

	systems on appropriate devices including security requirements					
Understanding/interpretation (transactions)	<ul style="list-style-type: none"> • Ability to use email ie, mail, calendar, contacts, tasks, file attachments • Ability to appropriately and responsibly use communication tools for instant messaging, videoconferencing , web mail • Ability to use search engines and a web browser • Use the internet to conduct secure transactions • Desktop productivity tools, including word processing, spreadsheets, presentation package • Ability to use the internet to securely conduct on-line transactions including banking, 	<ul style="list-style-type: none"> • Intermediate skills in desktop productivity tools including word processing, spreadsheet, presentation and database package; • Locate and use relevant information in a business context using web searching • Using a search engine and critical analysis of results • Business problem solving using on-line sites • Using on-line applications and tools such as file management, favourites; • Send and retrieve 	<ul style="list-style-type: none"> • Using on-line etiquette in business transactions • Use collaborative tools to communicate effectively with groups and individuals, co-ordinate schedules and facilitate meetings, for example, shared electronic diaries, instant messaging • Use video-conferencing equipment, webcams and other multimedia devices to communicate in business • Access video on-line • Retrieving business information on-line using podcasts/vodcasts • Access social 	<ul style="list-style-type: none"> • Identify and evaluate commercial providers and pricing packages • Administer collaborative tools (eg shared electronic diaries, instant messaging) • Set up and administer email accounts, mail boxes, internet browser connections • Ability to transfer data via File Transfer Protocol or similar tools 	<ul style="list-style-type: none"> • Use correct connection protocols to update websites and transfer data 	<ul style="list-style-type: none"> • Ability to set up and administer on-line shopping carts and merchant facilities • Implement workplace policies on communications tools including live messaging • Evaluate services, performance, pricing options and technical specifications of ISPs • Basic problem solving for accessing and using social networking sites • Use correct connection protocols to update websites and transfer data

	<p>shopping, travel bookings, government services (such as car registrations, tax, health transactions)</p> <ul style="list-style-type: none"> • Ability to use tagging and aggregators • Ability to retrieve on-line information such as downloads, podcasts/vodcasts , printing, saving, copying • Understand the protocols of digital communications devices and programs • Understand the rules and regulations regarding the appropriate use of e communications in the business world, for example the anti-spam laws. 	<p>information using email and downloads</p> <ul style="list-style-type: none"> • Use the internet to conduct secure business transactions; • Using a search engine and conducting a critical analysis of results • Using tagging and aggregators to collect market intelligence and market products and services 	<p>networking for basic business information</p>			
Participation/creation content	<ul style="list-style-type: none"> • Graphics, video and audio software tools with a basic understanding of formats, image 	;	<ul style="list-style-type: none"> • Creating an on-line presence for business purposes • Problem solving 		<ul style="list-style-type: none"> • Creating active on-line presence in key social networking sites for 	<ul style="list-style-type: none"> • Providing advice on basic content creation for social networking

	<p>manipulation, sound and video recording and editing</p> <ul style="list-style-type: none"> • Contribute to or participate in wikis, on-line forums, blogs, virtual games and videos • Create a personal on-line presence • Understand and appropriately use Web 2.0 including social networking and gaming sites • Ability to understand intellectual property and copyright matters and to act accordingly • Ability to publish online content using multiple tools, for example blogs, wikis, photo sharing tools 		<p>using on-line sites</p> <ul style="list-style-type: none"> • Communicate with business communities of interest through social networking 		<p>business uses</p> <ul style="list-style-type: none"> • Create media for mobile devices • Use multimedia devices to create on-line content including video, audio, graphics, animations etc to support e-business • Basic skills in creative media applications, that is, Adobe creative suite • Create and maintain blogs, wikis, and other web 2.0 tools for business purposes • Comply with legal issues for content creation including copyright and defamation • Develop and extend critical and creative thinking skills 	<ul style="list-style-type: none"> • Understanding and advising on freeware and shareware to develop basic images and information for use online. • Creating active on-line presence in key social networking sites for business uses
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					<ul style="list-style-type: none"> • Use an avatar in a virtual world • Understanding the potential business applications by using alternate reality gaming sites 	
Consumer protection/ security	<ul style="list-style-type: none"> • Use internet end user security • Practice personal security • Analyse online content to ensure it is from a trustworthy source • Identify on-line fraud, identity theft, scams and rorts • Understand the legal and social consequences on negative online behaviours such as cyberbullying • Understanding the 'digital footprint' and the importance of managing one's digital image. 	<ul style="list-style-type: none"> • Comply with company security provisions for digital equipment usage and ability to recognise and report suspicious on-line activity 	<ul style="list-style-type: none"> • Comply with company policy on security issues for on-line transactions by using procedures to maximise security • Understanding what is a fraud or a scam and report suspicious activity • Use operating system to add and remove software and ensure device is secure 	<ul style="list-style-type: none"> • Implement workplace on-line security provisions and report any breaches • Monitor and report security compliance and breaches • Establish policy frameworks and ensure staff security, legal and policy compliance for appropriate internet use • Train staff in on-line security procedures and help them recognise and report suspicious activity 	<ul style="list-style-type: none"> • Complying with company security policies to protect your business on-line identity • Understanding the legal issues in the social networking, for example, copyright and defamation 	

Introduction

Digital Literacy learning and testing for the 21st century cybercitizen and employee

There are many references throughout contemporary education for testing the shifts in the demands for everyday life of a successful citizen. The frameworks for many life education programs aim to demonstrate an understanding of knowledge content, specific skills, expertise and literacy with a core thematic to understand the historic and social framework of contemporary life.

This series of IBSA Training Packages will be expanded to recognise and incorporate Digital Literacy. Like many types of literacies it is not intuitive and has ongoing demands for basic day-to-day living and the development of skills and understandings in the 21st century workplace, especially with the roll out of the National Broadband Network over the next eight years.

The very newness of the skills and understandings in the 21st century means that innovative teaching and learning practices need to be adapted to setup online and real-world situations. Digital Literacy is the tool needed now for a range of everyday tasks in a person's professional and private life. There is a need to integrate these tools and skills as core within areas of problem solving, critical thinking and communication. The demands of Digital Literacy will expand dramatically with shifting technology and a global landscape typical of the digital economy.

Literacy tests given for schools in Australia, the European Union and the United States were once based on multiple-choice low-level skills in maths and reading as well as the ability to recall data. In the 1990s tests for literacy included everyday life situations including developing the skills to read a map, interpret a timetable and navigate one's way to a destination.

The world of the 21st century citizen is more multilayered with online existences and real world life connecting for everyday tasks such as bill paying, booking tickets and finding out information for simple tasks. However, there will also be a dramatic shift in the skills required in the contemporary digital workplace. The use of video as the pervasive form of communication is approaching. The rise of social networking as a new paradigm for doing business transactions is beginning. Both citizen and worker will need to be digitally literate for the digital economy to work effectively.

A knowledge-based economy requires a higher level of understanding as the 21st century social and economic value is placed in innovation and creativity. This dramatically shifts the demands of learning and testing away from rote learning (as digital technology enables the instant recall of data) to the solving of multi-faceted problems. People must have basic digital literacy to begin development of these skills for the 21st century.

Senator Conroy, Minister for Broadband, Communications and the Digital Economy stated the key elements of success for Australia's digital economy are:

- a digitally aware and enabling government that lays the foundations for world-class digital infrastructure, that facilitates innovation and sets a conducive regulatory framework.
- a digitally-confident and innovative industry which includes the tech industry that is the engine room to build our digital skills and grow our digital capabilities. It includes the broader industry that will adopt smart technology and develop sustainable online content models.
- a digitally-empowered and literate community with strong digital confidence and digital media literacy. It is a community that enjoys inclusive digital participation and benefits through online engagement.³

The majority of the media attention given to digital literacy to date has been about the needs of school children/young adults who are able to use the technology but may not understand the potential dangers of living on-line. The other main area of focus has been the adult groups who will be seriously limited in leading their lives because of their lack of digital skills or lack of access to technology to assist in developing these skills.

The focus of this report is both the personal and professional skill needs in the digital economy. The identified digital literacy competencies outline a variety of skills - including higher-order thinking, creative abilities and technology literacy - essential for preparing people for a operating effectively in a digital economy. The key skills required have been identified as part of Recommendation 1 – Adoption of Key Skills for Digital Literacy.

Through the NBN and connected digital technologies, people will be engaged in new ways in areas of life that include on-line health, education, government services (for example tax, car registrations), commerce (banking and retail services) and interactive communications and services for remote communities.

The community and interaction of our 21st century social and work-life is now based within both the real world and the online community and the identified Foundation Skills that allow the learner technical skill access to engage as a safe and responsible “cybercitizen”. The Australian Communications and Media Authority (ACMA) has coined this name for people who can operate effectively in today’s economy and in a global environment where responsible behaviour, community engagement, competency and creativity are rewarded and valued. The workplace skills – becoming an “e-employee” - needed are changing substantially with the rise of everyday use of social networking (or social media or social operating systems), video usage (with ubiquitous cameras) and the rise of the digital mobile device. “Video is becoming like air”⁴ as it is becoming the dominant communication mode. Mobile phones are also becoming the prominent device for accessing information and on-line services, viewing video, carrying out transactions and creating content.

³ “Australia’s Digital Economy: Future Directions”, Minister for Broadband, Communications and the Digital Economy, Senator Stephen Conroy, 23 October 2009

³ Neeraj Roy, MD & CEO Hungama Digital Media Enterprises, x-media lab, November 27, 2009

Chris Anderson's landmark book "The Long Tail" explained "why fast-evolving technologies, particularly the internet, have caused production and distribution costs in many sectors to plummet" and looked at the new business models that arise in the world of almost zero costs of the digital world.⁵

The world that is being created is the "long tail live"⁶ with the proliferation of cameras everywhere that are instantly recording and sending images out into the digital world. Video is becoming the dominant form of communication.

The kinds of applications and new business practices for the near future in a digital economy include:

- Corporate blogging and wikis
- Social networking analysis
- Web 2.0 applications
- Use of e-book readers for accessing material in text and video form
- Use of "surface" computers using cloud computing and forging a new relationship between the physical and digital worlds
- Speech2speech language translation capability
- Voice recognition search techniques
- Monitoring patients' health and transmitting medical records
- Peer2peer training
- Profiles of affinity groups on social networking participation will allow important business information on customer preference; likely voting patterns; how media is received; provide strong ideas for entertainment preferences

The private and professional skills needed to function effectively in this digital economy are very different from the current ones.

⁵ "The Long Tail", Chris Anderson, quote from back cover of sequel "Free: The Future of a radical Price" by Chris Anderson, Random House Business Books 2009

⁶ Neeraj Roy, op cit.

Recommendation 1

Adoption of Key Skills for Digital Literacy

These are the skills identified to become an effective and confident cybercitizen in a digital economy.

Being connected

- Operate hardware devices (fixed, mobile and multimedia) including basic trouble shooting and basic security
- Maintain computer hardware
- Ability to transfer data from one medium to another such as DVDs, USBs, Memory cards
- Understand what a network is
- Understand what the internet is and how to connect to it
- Ability to understand Internet Service Provider pricing and services
- Use internet end user security
- Understand the protocols of digital communications devices and programs.

Communications Skills

- Graphics, video and audio software tools with a basic understanding of formats, image manipulation, sound and video recording and editing
- Desktop productivity tools, including word processing, spreadsheets, presentation package
- Learn how to use the operating systems on appropriate devices including security requirements
- Ability to use email ie, mail, calendar, contacts, tasks, file attachments
- Ability to use communication tools for instant messaging, videoconferencing, web mail
- Ability to use search engines and a web browser
- Ability to understand intellectual property and copyright matters and to act accordingly
- Understand the legal and social consequences of negative online behaviours such as cyberbullying
- Understand the rules and regulations regarding the appropriate use of e communications in the business world, for example the anti-spam laws.

Having an on-line life - e-life

- Understand and appropriately use Web 2.0 including social networking and gaming sites
- Contribute to or participate in wikis, on-line forums, blogs, virtual games and videos
- Create a personal on-line presence
- Understand the 'digital footprint' and the importance of managing one's digital image.
- Practice personal security

- Ability to use the internet to securely conduct on-line transactions including banking, shopping, travel bookings, government services (such as car registrations, tax, health transactions)
- Identify on-line fraud, identity theft, scams and rorts
- Ability to use tagging and aggregators
- Ability to retrieve on-line information such as downloads, podcasts/vodcasts, printing, saving, copying⁷
- Ability to publish online content using multiple tools, for example blogs, wikis, photo sharing tools
- Analyse online content to ensure that it is from a trustworthy source.

Skills needed to become an effective and confident e-employee in a digital economy

Certificate I – Introductory Level

This qualification provides the skills and knowledge for an individual to function at a basic digital literacy level in a workplace in the digital economy. It will enable a person to undertake basic tasks using digital media and communications technology and to engage in fundamental on-line activities.

Certificate I in Digital Literacy

Essential Skills

- Operate, maintain and carry out basic trouble shooting on digital equipment
- Use mobile devices to communicate in business
- Use intermediate skills in desktop productivity tools including word processing, spreadsheet, presentation and database packages
- Comply with company security provisions for digital equipment usage and an ability to recognise and report suspicious on-line activity.

Desirable skills

- Using web browsers and email to send and retrieve information;
- Using a search engine and conducting a critical analysis of results;
- Using tagging and aggregators to collect market intelligence and market products and services;
- Using on-line applications and tools such as file management, favourites; or
- Understand how to synchronize mobile devices with fixed equipment.

Certificate II – Intermediate level (Business Transactions)

This qualification provides foundation digital literacy skills and knowledge for an individual to be an effective employee in a workplace in the digital economy.

This qualification introduces workplace handling of basic on-line transactions for business and using social networking for basic business information gathering.

⁷ “Digital Literacy Pathway” ICCentral Pty Ltd 2009

Certificate II in Digital Literacy

Essential skills

- Use the internet to conduct secure business transactions
- Use collaborative tools to communicate effectively with groups and individuals, co-ordinate schedules and facilitate meetings, for example, shared electronic diaries, instant messaging
- Creating an on-line presence for business purposes
- Understanding what is a fraud or a scam such as phishing, hoax emails and reporting suspicious activity
- Comply with company policy on security issues for on-line transactions by using procedures to maximise organisational security.

Desirable Skills

- Use webcams, videoconference and other multimedia devices to communicate in business
- Business problem solving using on-line sites
- Access video on-line
- Using on-line etiquette in business transactions;
- Use operating system to add and remove software and ensure device is secure
- Retrieving business information on-line using podcasts/vodcasts
- Access social networking for basic business information
- Communicate with business communities of interest through social networking.

Certificate III –Interaction & Innovation

This qualification provides skills and knowledge for an individual to be competent in introductory digital literacy “content creator” functions and is designed to support new business activities in a digital economy environment.

It has a choice of 3 specialist streams with direct relevance to workplace roles:

1. Administrative (Office and management)
2. Creative (content creation, online participation, marketing using social media)
3. Professional Technical (ICT support for business)

Certificate III in Digital Literacy

Essential Skills

- Creating an active on-line presence in key social networking sites for business uses
- Implement workplace on-line security provisions and report any breaches
- Access and analyse social networking for business purposes, particularly marketing.

Essential Skills - Administrative

- Identify and evaluate commercial providers and pricing packages
- Set up on-line users

- Monitor and report security compliance and breaches
- Administer collaborative tools (for example, shared electronic diaries, instant messaging)
- Establish policy frameworks and ensure staff security, legal and policy compliance for appropriate internet use
- Set up and administer email accounts, mail boxes, and internet browser connections
- Ability to transfer data via File Transfer Protocol or similar tools
- Train staff in on-line security procedures and help them recognise and report suspicious activity.

Essential Skills - Creative

- Create media for mobile devices
- Use multimedia devices to create on-line content including video, audio, graphics, animations etc to support e-business
- Ability to create and duplicate CDs, DVDs, and other portable media
- Ability to use scanners and other connective tools such as a digital cameras; palm diary devices; sound recorders; USB keys
- Basic skills in creative media applications, that is, Adobe creative suite
- Comply with legal issues for content creation including copyright and defamation
- Create and maintain blogs, wikis, and other web 2.0 tools for business purposes
- Develop and extend critical and creative thinking skills.

Essential Skills - Professional Technical

- Ensure security, legal compliance, data integrity, backups, data recovery and risk management
- Understand and use appropriate devices to provide network security
- Install new hardware
- Provide product security, tracking and monitoring procedures and systems
- Support, maintain and troubleshoot, update and secure mobile devices
- Ability to set up and administer on-line shopping carts and merchant facilities
- Implement workplace policies on communications tools including live messaging
- Evaluate services, performance, pricing options and technical specifications of Internet Service Providers
- Basic problem solving for accessing and using social networking sites
- Providing advice to workers on basic content creation for social networking
- Understanding and advising on freeware and shareware to develop basic images and information for use online.

Desirable Skills - Common

- Use an avatar in a virtual world
- Understanding the potential business applications by using alternate reality gaming sites

- Use correct connection protocols to update websites and transfer data
- Migrate to new technology.

Recommendation 2

1. IBSA to use the identified Digital Literacy Skills to develop units of competency to meet the needs of the cybercitizen and e-employee.
2. IBSA to work with ATUG to develop training that addresses the digital literacy needs of the cybercitizen and e-employee.
3. IBSA to work in collaboration with the ACMA to share insights on digital literacy research, and through the ACMA's work on cyber-safety and cyber-security ensure that IBSA's proposals reflect the latest in consumer protection.

Identify units of competency in current IBSA Training Packages to address Digital Literacy

IBSA works in partnership with industry and key stakeholders in the vocational education and training (VET) sector to develop the business and innovation skills that are critical to the success of Australian industries, enterprises and their workforce.

IBSA has a special focus on innovation and creativity to improve business performance through nationally recognised skills and training for six industry sectors:

- Business services
- Cultural industries
- Education
- Financial services
- Information and communications technologies, and
- Printing and graphic arts

The focus of this activity was to identify units of competency from the six IBSA Training Packages that could provide the basis of learning in a structured environment to facilitate digital literacy for those needing these skills to function effectively in a digital economy.

In analysing the six IBSA training packages, units of competency that are currently focused on business, arts and administrative competencies but had some elements required for digital literacy were selected.

It is intended that the identified units of competency will allow the learner to understand the internet, use digital technology and use and interact with the online community for business reasons and to then have a pathway to one of the following streams at Certificate III level:

1. Administrative (Office and management)
2. Creative (Web development, game design work, film and photo work)
3. Professional Technical (ICT support for business)

The following units of competency identified will require revision to address Digital Literacy Skills for the digital economy and e-employee needs (reference to the relevant Digital Literacy Skill is included in the bracket at the end of the unit):

Competencies suitable for **digital literacy** units

ICA05 – Information and Communications Technology Training Package

Certificate I

ICAU1128B – operate a personal computer (*part of essential skill 1*)

ICAU1129B – operate a word processing application (*part of essential skill 2*)

ICAU1133B – send and retrieve information using web browsers and email (*elective 1*)

ICAU1204B – locate and use relevant on-line information (*part of desirable skill 2*)

ICAU2005B – operate computer hardware (*part of essential skill 1*)

ICAU2007B – maintain equipment and consumables (*part of essential skill 1*)

Certificate II

ICAU2006B – operate computing packages (*part of essential skill 3*)

ICAU1215B – use personal productivity tool (*part of essential skill 2*)

ICAU1213B – conduct on-line transactions (*part of essential skill 1*)

Certificate III

ICAS5203B – evaluate and select a web hosting service (*Professional Technical stream, essential skill 8*)

ICAU3019B – migrate to new technology (*desirable skill 4*)

ICAU4205B – select and employ software and hardware tools. (*Professional Technical stream, essential skill 3*)

ICAD4209D – write content for web pages (*Creative stream, part module 2*)

ICAI4249A – implement and evaluate data security (*Professional Technical stream, essential skill 1*)

The following units of competency primarily deal with getting started in terms of computing and some basic functions. The units need to be revised to take into account new digital equipment and applications, new internet services, and business participation through social networking.

ICA05 – Information and Communications Technology Training Package

Certificate I

ICAS5202B – ensure privacy for users (*part of essential skill 3*)

ICAS3234B – care for computer hardware (*part of essential skill 1*)

ICAS1193B – connect a workstation to the internet (*part of essential skill 1*)

UCAU2231B – use computer operating system (*part of essential skill 1*)

Certificate II

ICAS3024B – provide basic system administration (*part of essential skill 5*)

ICPMM32B – capture a digital image (*part of essential skill 3*)

ICPMM263B – access and use the internet (*part of essential skill 1*)

Certificate III

ICAT4195B – ensure basic website security (*Professional Technical stream, part of essential skill 1*)

ICAT4159B - ensure dynamic website security (*Professional Technical stream, essential skill 1*)

ICAS2243B – detect and protect from spam and destructive software (*part of essential skill 2*)

ICAS2248A – detect and secure information assets (*Professional Technical stream, part of essential skill 1*)

ICAS4142B – monitor and administer network security (*Professional Technical stream, part of essential skill 1*)

ICAS3115B – maintain equipment and software in working order (*Professional Technical stream, part of essential skill 5*)

CUF07 – Screen and Media Training Package

Certificate II

CULLB307C – use multimedia (*essential skill 3*)

Certificate III

All of these competencies relate in part to the Creative stream essential skill 2

CUFCAM201A – assist with a basic camera shoot

CUFDIG201A – maintain interactive content

CUFDIG301A – prepare video assets

CUFPOS201A - perform basic vision and sound editing

CUFDIG303A – produce & prepare photo images

CUFDIG304A – create visual design components

CUFCAM201A – basic camera shoot

CUFCM301A – implement copyright arrangements

CUFANM301A – create 2D animation

CUFANM302A – create 3D animation

CUFANM303A – create 3D digital models

CUFANM402A – create digital visual effects

CUFANM403A – create titles for screen productions

CUFDIG302A – author interactive sequence

CUFDIG401A – author interactive media

CUFWRT301A – write content for a range of media

CUS09 - Music Training Package

Certificate I

BSBITU201A – produce simple word processed documents (*part of essential skill 1*)

BSBITU202A – create and use spreadsheets (*part of essential skill 3*)

BSBITU203A – communicate electronically (*part of desirable skill 1*)

Certificate III

CUSMCP303A – develop simple musical pieces using electronic media (*Creative stream, part of essential skill 2*)

CUSSOU302A – record & mix a basic music demo (*Creative stream, part of*

essential skill 2)

BSBCRT301A – develop and extend critical and creative thinking skills (*Creative stream, essential skill 8*)

CUV03 – Visual Arts, Craft & Design

Certificate III

All of these competencies relate in part to the Creative stream essential skill 2

CUVDSP078 – research & apply techniques for graphic design

CUVDSP11B - research & apply techniques for illustrative work

CUVVSP11B – apply techniques to produce digital images

CUVVSP12B – produce digital images

Other suitable units of competency

There is little material in the vocational area that targets Digital Literacy. However there are some courses registered in various States that address personal usage and introductory digital literacy.

The following National TAFE registered qualifications that include some based on superseded Training Packages may contain State/Territory based modules and competencies that could be selected to expand and fill the gaps for Digital Literacy:

Qualification	Certificate III (NRT)	Certificate II (NRT)	Certificate IV (NRT)	Certificate I (NRT)	Certificate II (NRT)
Training Package	BSB01 - Business Services	CUF01 - Film, TV, Radio and Multimedia	FNS04 - Financial Services	ICA05 - Information and Communication Technology	ICA05 - Information and Communication Technology
National Code	BSB30601	CUF20601	FNS40207	ICA10105	ICA20105
Course No.	9742	7833	17778	19000	19001

These programs appear to have some content (not available for download) that may be suitable as guidelines for development of units of competency and cover some of the identified gaps in Digital Literacy outlined that include:

- identity on line;
- providing security on line;
- occupational health and safety for this area;
- creation of basic content;
- connectivity tools;
- basic account keeping; setup of folders and administrative systems;
- basic computer operations for an office or home environment;
- setting up and using a basic data base for home or small office use;
- connectivity specifically digital television and relay systems.

Note: Existing Training Package qualifications will in the main need revision to be up to date with new technology, new styles of delivery and some new units of competency need to be developed as we have noted.

Conclusion

There is a growing awareness about the importance of Digital Literacy, particularly for children and teenagers driven by their extensive use of the social networking and the importance of understanding the short and long term implications of online interactions. There is a justified urgency about teaching them, their parents and teachers about how to inhabit this world safely and education resources have been developed to assist primary and secondary schools to implement relevant education.⁸ Various state and federal government agencies have commenced some digital literacy skills training which are outlined later in the report.

IBSA has identified the need for a similar education focus within vocational training and has been strategic in commissioning this scoping study about the vocational needs for Digital Literacy. This study appears to have been groundbreaking in this field.

This study has provided an opportunity for a range of key stakeholders in the digital space to contribute to this study but also to understand the important role that IBSA has in the national skill development debate.

All the stakeholders' responses were positive and the main comment was about describing the skills and technologies in a way that will not date them almost immediately. The recommendations reflect this.

The success of the new digital economy will depend not just on workplace skills but also the digital skills in the general population. Consequently, there is an important imperative to educate the general population, and to address the barriers to digital literacy identified in the ACMA's recent study. Also we believe that there is work to be undertaken in the professional ICT area to reflect the important changes occurring in the digital economy.

Validation Process

A draft executive summary was circulated to 60 industry representatives.

Responses were received from the following people:

- Harry Halliday - Alcatel
- Peter Kell - Deputy Chair, Australian Competition and Consumer Commission
- Lesley Osborne - Manager, Strategic Research, ACMA
- Rosemary Sinclair - MD, ATUG
- Elizabeth Lawler - ATUG
- Trish Curtis – Executive Officer, Community Colleges Victoria
- Colin Griffith - Chief Information Officer, NSW Government
- Sue McCreadie – NSW Department of Innovation and Investment

⁸ For example, Cybersmart.gov.au/schools.aspx

- Carolyn Anderson – Director, Information Economy, South Australian Government
- Richard Gordon - ICCentral Pty Ltd
- Antony Lawes – MD, ICCentral Pty Ltd
- Clem Doherty – former global board member McKinseys and current Chair of Roar Films (doing digital literacy programs in the UK)
- Tom Kennedy - Head of Digital, Ombilab Media
- Jenny Field - PrimeLearning
- Deb Verhoven RMIT Associate Professor, Screen Studies and Deputy Chair, National Film and Sound Archives
- Mike Cowap - Screen Australia

Follow up phone conversations were held with the following people:

- Lesley Osborne - Manager, Strategic Research, ACMA
- Rosemary Sinclair - MD, ATUG
- Clem Doherty - ex global board member McKinseys and Chair, Roar Films
- Richard Gordon IC Central Pty Ltd
- Antony Lawes – MD, IC Central Pty Ltd

We would particularly like to thank Richard Gordon, Antony Lawes and Rosemary Sinclair for their contribution.

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Screen and Media Training Package CU07, IBSA

“Simplified tool sheet for transmedia storytellers” by Gary Hayes 2008 www.lamp.edu.au

Telecommunications Training Package ICT02, IBSA

“The right advice to get ready for digital TV” Minister for Broadband, Communications and Digital Economy, Senator Stephen Conroy, October 14, 2009

Appendix

Current Research

The Australian Communications and Media Authority (ACMA)

The ACMA has done extensive work on digital literacy, referred to as digital media literacy, and identifying the level and nature of use across in the general community in Australia. Their report of June 2009 gives a comprehensive view of the situation in other key countries (UK, USA, Canada, NZ and Ireland) and the European Commission. This report and the sources it cites, provide an important base to work from.

The 2009 UK Office of Communications' definition the of digital literacy is useful - "the ability to use, understand and create digital media and communications"

However, ACMA's definition is more effective - "the skills and capabilities needed for effective participation in the digital economy." This reflects the shift to the digital use divide now that there are high levels of basic connectivity to the internet.

Digital literacy covers two main aspects – the critical understanding and ability to use the services in the on-demand environment of the digital economy but also having a consumer base that is able to manage their protection by dealing with security issues in a digital world.

While Australians are seen as early adopters of technology they tend to use the technology in a limited way. For example, 40% of Australians used the internet to read a blog or used a social networking site. However, of 20% who reported belonging to an online community, only 10% had written a blog or uploaded content⁹.

With the exception of younger age groups, usage tends to be transactional – paying bills, internet banking, buying on-line, finding information, communicating. There is little active participation in terms of user generated content through posting blogs, uploading content etc.

Digital literacy is influenced by factors of age, gender, employment status, income levels and geography (although the national broadband network will go some way to addressing this). The over 65 year olds are particularly disadvantaged in a digital economy, both in terms of access and usage. Social networking usage is used extensively up to age 30 but then drops away. In 2008, for the over 65 year old age group, only 4% reported social networking usage in the last 12 months compared to 91% for 14-17 year olds.¹⁰

The ACMA undertook qualitative research amongst non-users and low users of the

⁹ *Digital media literacy in Australia: Key indicators and research sources*, June 2009, ACMA p. 17

¹⁰ *Sweeney Research as reported in AMCA's digital literacy research*, p. 14

internet and mobile phones, and identified attitudinal barriers and drivers for digital literacy. A summary of findings can be found at **Attachment A**. Suggestions for engaging with these various low user groups is at **Attachment B**.¹¹

ACMA is also playing an important role in raising awareness and educating users about issues relating to digital literacy in the areas of online safety and security.

ACMA's Cybersafety Program

The ACMA's Cybersmart website¹² provides activities, practical advice and resources for young people and parents and materials for schools and materials for library staff. To be a cybercitizen, ACMA considers that there are four capabilities required – digital media literacy, positive online behaviour, safety and e-security.

The Cybersmart Schools Gateway offers a wide range of flexible resources for teachers, to address current cybersafety issues within schools. The Cybersmart Schools Gateway resources are underpinned by its cybercitizen profiles which are informed by the ACMA's research into what children are doing online. Separate age based are divided into four key capabilities covering: Digital media literacy, Positive online behaviour, Peer and personal safety and e-Security.

The ACMA also offers a Cybersafety Outreach program in metropolitan and regional centres across Australia, which complements the cybersafety education resources. It is run nationally and has 2 components:

- A 1 day professional development workshop for teachers about confidently using technology and understanding the issues with their duty of care role – legal issues such as copyright, defamation
- A 1 hour general awareness presentation (which is a cut down version of the professional development workshop) for parents, teachers (including librarians) and students. 70,000 people have been trained across Australia.

Content of the professional development workshop includes:

- Technology Overview
- Profile of a modern student
- Creating a cybercitizen
- Digital Literacy
- Positive Online behaviour
- Personal and peer safety
- e-security
- Duty of care
- Overview of ACMA resources

¹¹ http://www.acma.gov.au/WEB/STANDARD/pc=PC_311473, adult media literacy needs (August 2009) Executive Summary pages 4-8

¹² *More information about the ACMA's Cybersafety programs can be found at www.cybersmart.gov.au/schools.aspx*

The Cybersafety Outreach program will be extended over 2010-2011 to provide eLearning modules to assist teachers who are unable to attend Professional Development sessions.

A pilot was conducted for teacher trainees in their last year of study using the professional development workshop. This will be delivered nationally in 2010.

Libraries and librarians have an important role to play in digital literacy. ACMA sent out over 200,000 cybersafety library packs last year.

The ACMA's website also provides cybersafety and e-security information for the broader community to raise awareness of cybersafety issues and to help guide the public with decisions around digital communications. Plain language guidance is available in a number of languages on a range of key topics which are updated regularly. For example, the ACMA currently provides guidance for those looking to sign up with an ISP, provides a Mobile phone child safety checklist for parents, provides guidance for safe social networking and online dating and provides information about e-security measures that can mitigate risks to computer software and hardware.

The ACMA does not deliver training programs aimed at addressing general digital literacy skills for the broad community or for specific groups that have been identified as having low digital literacy skills.

Massachusetts Institute of Technology (MIT)

MIT has a world class reputation for investigating science and technology and the challenges of the 21st century. They have been undertaking cutting edge research for decades.

New Media Consortium's *Horizon Project* centers on the applications of emerging technologies to teaching, learning, and creative expression. The *MIT Horizon Report December 2008* deals with six emerging technologies or practices that will likely enter mainstream use in learning-focused organizations over the next one to five years.

Key Emerging Technologies

Grassroots Video.

Virtually anyone can capture, edit, and share short video clips, using inexpensive equipment (such as a cell phone) and free or nearly free software. Video sharing sites continue to grow at some of the most prodigious rates on the Internet; it is very common now to find news clips, tutorials and informative videos listed alongside the music videos and the raft of personal content that dominated these sites when they first appeared. What used to be difficult and expensive, and often required special servers and content distribution networks, now has become something anyone can do easily for almost nothing. Hosting services handle encoding, infrastructure, searching, and more, leaving only the content for the producer to worry about.

Custom branding has allowed institutions to even have their own special presence within these networks, and will fuel rapid growth among learning-focused organizations who want their content to be where the viewers are.

Collaboration Webs.

Collaboration no longer calls for expensive equipment and specialized expertise. The newest tools for collaborative work are small, flexible and free, and require no installation. Colleagues simply open their web browsers and they are able to edit group documents, hold online meetings, swap information and data, and collaborate in any number of ways without ever leaving their desks. Open programming interfaces allow users to author tools that they need and easily tailor them to their requirements, then share them with others.

Mobile Broadband.

Each year, more than a billion new mobile devices are manufactured— or a new phone for every six people on the planet. In this market, innovation is unfolding at an unprecedented pace. Capabilities are increasing rapidly, and prices are becoming ever more affordable. Indeed, mobiles are quickly becoming the most affordable portable platform for staying networked on the go. New displays and interfaces make it possible to use mobiles to access almost any Internet content—content that can be delivered over either a broadband cellular network or a local wireless network.

Data Mashups.

Mashups—custom applications where combinations of data from different sources are “mashed up” into a single tool— offer new ways to look at and interact with datasets. The availability of large amounts of data (from search patterns, say, or real estate sales or Flickr photo tags) is converging with the development of open programming interfaces for social networking, mapping, and other tools. This in turn is opening the doors to hundreds of data mashups that will transform the way we understand and represent information.

Collective Intelligence.

The kind of knowledge and understanding that emerges from large groups of people is collective intelligence. In the coming years, we will see educational applications for both explicit collective intelligence—evidenced in projects like the Wikipedia and in community tagging—and implicit collective intelligence, or data gathered from the repeated activities of numbers of people, including search patterns, cell phone locations over time, geocoded digital photographs, and other data that are passively obtained. Data mashups will tap into information generated by collective intelligence to expand our understanding of ourselves and the technologically-mediated world we inhabit.

Social Operating Systems.

The essential ingredient of next generation social networking, social operating systems, is that they will base the organization of the network around people, rather than around content. This simple conceptual shift promises profound implications for the academy, and for the ways in which we think about knowledge and learning.

Social operating systems will support whole new categories of applications that weave through the implicit connections and clues we leave everywhere as we go about our lives, and use them to organize our work and our thinking around the people we know.

Grassroots video has been singled out this year because it has emerged as a distinct set of technologies in common use that has broad application to teaching, learning, and creative expression. increased access to web content taking these devices by storm. The expectation is that advances in technology over the next twelve to eighteen months will remove the last barriers to access and bring mobiles truly into the mainstream for education for personal and professional uses.¹³

Digital Britain Report

Adopts the term 'Digital Life Skills' to identify a set of basic ICT skills an adult requires to take their first steps online – using a computer to safely enter, access and communicate information.

Reiterates the importance of the role that Digital Life Skills play in the health and wellbeing of UK citizens and the wider UK economy. In summary, Digital Life Skills have an impact on an adult's equality of access to information and services, employability, social inclusion, engagement in further learning, and also on wider business productivity.

Capability is about ensuring that all citizens have the opportunity to enjoy the direct benefits of digital technology by equipping people with the skills, motivation and confidence to enhance the quality of their lives.

The route to engaging people with the new technologies – and empowering them with the skills, knowledge and confidence they need – starts at school. The Government has accepted the review of the primary curriculum recommendation that ICT join English and Math as the centrepiece of the new primary curriculum. Also that understanding English, communication and languages underpin success across the curriculum and embrace key skills including viewing, broadcasting, and evaluating. The secondary curriculum also embraces functional skills of English, mathematics and ICT, built comprehensively into the curriculum. The importance of the skills for staying safe, have also been included in the personal development strand of the curriculum. Engaging parents is another aspect of the modernised curriculum. It is essential to support child safety policies, but also provides an opportunity to engage parents with the online world.

We believe digital life skills are essential for all citizens. Government therefore welcomes the recommendations of the independent review of ICT user skills for adults, including the proposals in relation to:

- Working towards a basic digital life skills entitlement for all adults;
- Clearer progression routes to IT user qualifications;

¹³ *Horizon Report*, 2008, Massachusetts Institute of Technology, pps 3-4

- Encouraging more provision of training for IT user qualifications; and
- Ensuring skills provision underpins the strategy for digital media literacy.

In 2008 the Prime Minister appointed the first Minister for Digital Inclusion. His task was to co-ordinate action across Government in delivering the benefits of digital technology to address the needs of those who are not currently benefiting. The issues being tackled include broadband access, focusing particularly on the more disadvantaged groups and communities.

A Digital Inclusion Strategy set out some of the key priorities to bring these social and economic advantages, including:

- Increasing employability;
- Building skills and capacities;
- Better public services;
- Empowerment of disadvantaged communities;
- Access to advice and information; and
- Promoting independent living and tackling social isolation.

We are implementing a ‘demand-led’ skills system that delivers what employers and individuals need. That demand-led approach is increasingly effective in meeting today’s skills needs; in particular, Train to Gain is successfully delivering high-quality work-based training for employers and learners.

However, if we are to rise to the challenges and seize the opportunities of the new global economy, the skills system must not only respond to current demand but also anticipate and respond to the skills needs associated with the future growth in the economy in areas such as Digital Britain.

The new Skills Funding Agency (SFA), which becomes operational later this year, will ensure that the skills system has the capacity and the funding available to respond to the skills needs identified in sectors, such as digital technology and digital content, which will be key for future growth.¹⁴

¹⁴ Digital Britain Report <http://interactive.bis.gov.uk/digitalbritain/report>

KEY AREAS OF ACTIVITY IN A DIGITAL ENVIRONMENT

The project brief for this study nominated a number of areas that will be significantly impacted by the new digital technology and its applications. In this section we have picked 3 key areas, outlined key issues and given one example in each area by way of illustration.

The Government's *Realising our Broadband Future Conference* that was held in Sydney on December 10-11, 2009, recognises the importance of the recent phenomenon of on-line communities and the new business models that come from this, both for delivery of government services and for the private sector.

E-Communities are groups of people with common interests that use the online environment to interact and deliver services. These virtual communities may use social networking websites or add comments to a blog, message board or wiki. Participation in e-Communities assists digital literacy skills, promotes social inclusion through online engagement and improves digital confidence. In the future e-Community has the potential to enhance knowledge and understanding and enable community organisations to deliver services at significantly reduced costs resulting in a better informed and more collaborative society.

E-Business is the automation of business processes over digital or online networks. These can streamline internal business processes, processes between companies, or processes between businesses and customers. e-Business opportunities are enhanced by the ability of business to use the latest collaborative online technology to engage with consumers in Australia and globally. The National Broadband Network presents Australian businesses with a once in a lifetime opportunity to grasp a long-term advantage over their global competition".¹⁵

One of the areas that will have great impact but is still to be rolled out in any scale is using digital technology and good bandwidth to improve the delivery of health care services.

E-Health is a means of delivering health information and services in a secure electronic form for the purpose of optimising the quality and efficiency of health care. Services such as electronic clinical messaging (discharge, referrals, pathology, and prescriptions) and remote diagnosis and monitoring can revolutionise the way we access health care. This will be essential as our population ages to reduce the costs of health care, improve quality of life and sustain regional communities.¹⁶

The definition of e-health is the use of information technology (IT) in health care to improve the quality of service; to make the health care system more efficient; and to have more equitable access of services in regional and remote areas.

National Health and Hospital Reform Commission Report June 2009

¹⁵ "Realising our Broadband Future", Conference, <http://broadbandfuture.gov.au>

¹⁶ Ibid

made a recommendation about “person controlled medical records” - the patient will have some level of control over what is recorded and who accesses the information.

“The introduction of a person-controlled electronic health record for each Australian is one of the most important systemic opportunities to improve the quality and safety of health care, reduce waste and inefficiency, and improve continuity and health outcomes for patients. Giving people better access to their own health information through a person-controlled electronic health record is also essential to promoting consumer participation, and supporting self-management and informed decision-making.

We want the Commonwealth Government to legislate to ensure the privacy and security of a person’s electronic health data. Making the patient the locus around which health information flows is critical and will require a major investment in the broader e-health environment. Electronic health information and health care advice will increasingly be delivered over the internet. Broadband and telecommunication networks must be available for all Australians if we are to fulfil the real promise of e-health.”¹⁷

The NBN is seen as crucial to e-health because of the connectivity it will offer to the health care system and the patient population. It will enable people living in regional, remote and indigenous communities to have access to service to the equivalent to that of the metropolitan population.

A smart system is to be established to allow patient information to be used in different parts of the health care system. The sharing of information will allow access to patient records anywhere in the country. This will improve the decisions made about individual patients. This is particularly relevant for the chronic (i.e ongoing health issues) care part of the health care system that currently accounts for 70% of cost and some \$70 billion worth of costs per annum. It will also help people manage their health by reminding them of appointments or the need to get a blood test.¹⁸

The Mater hospital in Brisbane has just released smart hospital strategy.

Queensland not-for-profit hospital group Mater Health Services is forging ahead with a comprehensive e-health initiative dubbed its ‘smart hospital’ strategy. The group has deployed an ever-growing suite of applications through seven hospital campuses across a medical-grade network built by Cisco – and is adding its own impetus to the eventual move towards standardised electronic health records (EHR).

Mater Health Services CIO Malcolm Thatcher and chief medical information officer Dr. Paul Devenish-Meares demonstrated a range of the services underpinned by the network, including ubiquitous wireless access at point of care and single-point

¹⁷ *National Health and Hospital Reform Commission Report*, June 2009, Executive Summary, p. 14

¹⁸ *National Interest*, ABC Radio National, Professor Geogeff, Monash University, 11/09/09

access to patient care information via the Verdi system. Cisco supplies both a secure wireless Ethernet and a gigabit wired Ethernet to support virtualized server and storage capabilities, more than 700 on-campus wireless access points and a multitude of collaboration devices from mobile computing terminals to smartphones.

Future planned applications include electronic request forms, digital recording of labour and birth details and foetal heart information, and a portal to allow parents access to updates on their babies' progress via the BadgerNet system; Mater is also looking at the possibility of moving to a virtual desktop solution in the near future.

"Mater's Smart Hospital strategy needed to be underpinned by a reliable and pervasive IP delivery platform," said Thatcher. "The Cisco medical-grade network is a key enabler of our strategy." Nevertheless, given the huge complexity and volume of medical information, he does not expect to move to an entirely 'paperless hospital' in the foreseeable future. And although a strong advocate of the transition to EHR, he warns that this will only work if effected at the national level – a shift which poses significant challenges.

"I think the National E-Health Transition Authority has made some tremendous progress in the last twelve to eighteen months... they signed us as an early adopter, the only private company to be signed," he noted. "[But] the consumer has to be engaged; you're not going to get value out of an EHR without consumer engagement. The industry has to step up as well," he said. "I think it also needs the federal government to take a leadership role in that."¹⁹

These comments and this application stress the importance of digital literacy skills across the population.

e-security

While resources are available for children and young people within primary and secondary schools, this area is often overlooked in adequately training people how to operate effectively in the digital world. It is important not to provide confidential information about your business accounts and log in details and not being drawn in by fraudulent schemes and scams. It require users to know what to look out for and to reguarly update virus software.

"In Australia, organisations and individuals regularly communicate and store items of great value in electronic form. Our identities, financial details, private communications, corporate and government secrets, and our creative and academic efforts all now reside within and travel through our ICT systems. Unfortunately, as the quantity and value of the content has increased so too have the efforts of criminals and other malicious actors, who have begun to turn to the Internet as a more anonymous, convenient and profitable way of carrying out their activities. It is also a fact that attacks on critical computer systems in both the government and private sectors are being contemplated as an alternative way of conducting warfare

¹⁹ "Mater paves the way for e-health", COMMUNICATIONS DAY, October 2009

and a way for criminals, terrorist groups and hostile intelligence agencies to damage national interests.”

The Australian Government considers that a new approach to e-security is required which considers Australia’s readiness to deal with changing circumstances, such as:

- an increasingly hostile online security environment and emerging threats, which do not respect traditional jurisdictional boundaries; and
- the rapid and ongoing evolution of Australia’s information and communications environment, including the forthcoming rollout of the National Broadband Network.

These relate to capabilities that shape and influence the e-security environment, and may apply differently to each of the sectors. They include:

- Secure and safe online behaviour
- Secure information exchange
- Assurance of products and systems
- Threat awareness, detection and mitigation
- Prevention, investigation and prosecution of cyber-crime
- Crisis management and coordination²⁰

Fraud and scams

Types of fraud have become prolific with the new on-line world of transactions. It is important that users know what to look for and how to deal with the various bogus emails and software scams.

Phishing

Phishing (pronounced fishing) is the fraudulent process of attempting to acquire sensitive information such as usernames, passwords and credit card details by masquerading as a trustworthy entity in an electronic communication. Phishing can be by email, over the phone or by SMS on your mobile.

Malicious software (Malware)

Malware is malicious software inserted into a computer system for the purpose of causing harm, such as stealing personal and financial information.

Spyware

Spyware gathers information about a user and relays it to another party over the Internet. Fraudsters use it to monitor keystrokes, scan files and emails and gather confidential data such as passwords.

Trojans

Some trojan viruses contain software that can capture a user's keystrokes.

²⁰ 2008 report AG/BCDE e-security review paper, <http://www.ag.gov.au/www/agd/agd.nsf>

Fake job advertisements

Sometimes called 'mule recruiting', this is a rapidly growing scam.

Scams

Scams come in many forms - mail, email, phone, online and door-to-door. They're designed to trick you into giving away your money, passwords and/or personal details.²¹

Cyber Security

The Australian Government's cyber security policy is contained in its Cyber Security Strategy.

The Strategy was launched on 23 November 2009 and articulates the overall aim and objectives of the Australian Government's cyber security policy and sets out the strategic priorities that the Australian Government will pursue to achieve these objectives. The Strategy also describes the key actions and measures that will be undertaken through a comprehensive body of work across the Australian Government to achieve these strategic priorities.

The Strategy was a key outcome of the E-Security Review 2008. The Review examined the Australian Government's cyber security policy, programs and capabilities with the aim of developing a new Australian Government policy framework for cyber security – the Strategy.

The Australian Government defines cyber security as:

Measures relating to the confidentiality, availability and integrity of information that is processed, stored and communicated by electronic or similar means.

The aim of the Australian Government's cyber security policy is:

The maintenance of a secure, resilient and trusted electronic operating environment that supports Australia's national security and maximises the benefits of the digital economy.

<http://www.ag.gov.au/cybersecurity#h2strategy>

e-learning

The digital education revolution is a key policy focus of the current Federal Government. The Government also has a vision for the future of Australia in terms of both skills and technological capability with the National Broadband Network providing fast connections to the home.

“Digital education includes technologies which will enable schools, vocational education and training institutions and universities to publish material online, students and teachers to collaborate online, students to participate in remote learning and researchers to access vast quantities of information in an instant.

²¹ Westpac electronic banking site, www.westpac.com

These technologies are playing an increasing role in the learning environment. The Australian Government's Digital Education Revolution, combined with the National Broadband Network, can make Australia a global leader in research and learning."²²

Cross-training, re-training, career transition/revision are the new order and so education and industry have to be structured in ways that support this non-linearity and lateral progress and change. Significant to this is validating the lived experience and the importance of point-of-view as a contributor to greater knowledge and insight – qualities that come into their own in a connected environment where diversity of ideas is highly valued. One of the emerging advantages of democratisation of knowledge and opportunity is the valuing of contribution and the development of expertise through engagement.²³

The state government and federal government programs are outlined later in the report from the recent ACMA audit report of state and national government programs.²⁴ See **ATTACHMENT C**.

Another interesting development is a company in Tasmania that is providing major e-learning and digital literacy programs for school children in the UK.

Tasmanian based company, ROAR FILMS, is in partnership with the London Learning Grid. They have been responsible for a major digital campaign for school children in the United Kingdom. See **ATTACHMENT D**.

REVIEW OF CURRENT STATE AND NATIONAL GOVERNMENT DIGITAL LITERACY PROGRAMS²⁵

The authors of this report used the ACMA audit as the basis for this analysis. They also followed up the website links cited in the report to inform this analysis. (The information for the ACMA audit report was provided by the States and Territories.)

Analysis of the current programs offered by the States and Federal governments highlights a number of areas that need attention. As you would expect, there is a variance of scope of programs and access amongst the States. The specific areas outlined in the brief are outlined below:

Access - programs have been implemented to some level in each State.

Understanding/interpretation - there are a range of programs that cover various aspects of this criteria but mainly focused on schools and marginalised groups in terms of socioeconomic status.

²² "Realising our Broadband Future" Conference, <http://broadbandfuture.gov.au>

²³ "Re-sourcing School- re-thinking education in a connected world" Shilo T. McLean 2008

²⁴ "Audit of Australian digital media literacy programs" ACMA, July 2009

²⁵ "Audit of Australian digital media literacy programs" ACMA, July 2009.

http://www.acma.gov.au/webwr/_assets/main/lib310665/audit_of_aust_digital_media_literacy_programs.doc

Participation/creation - this is an area that is under-represented in the current programs. As this is really the set of skills that allows someone to be a cybercitizen, this area should be a priority.

Security - is an issue that is not being addressed comprehensively. A number of digital literacy programs dealing with security are aimed at school children. There are many areas that need to be addressed for adults.

NEW SOUTH WALES

<i>access</i>	CTCs interactive classrooms bandwidth enhancement laptops for learning
<i>understanding/interpretation</i>	learning tools the blog trial basic ICT training on-line government - telehealth, telelaw, work for Dole
<i>participation/creation</i>	laptops for learning create videos, edit photos, make presentations for class projects projects videoconferencing to collaborate on assignments wiki for content collaboration delicious social book to share resources state library training learning 2.0
<i>consumer protection/security</i>	

VICTORIA

<i>access</i>	connecting communities: second wave access and use of the internet delivering basic skills to groups with barriers Pubic Internet Access Program PIAP - for disadvantaged computer for every child CFEC-grade3,4,5 w.suburbs CALD Ultranet - connects students, teachers and parents
<i>understanding/interpretation</i>	skills.net Roadshow Program - mobile internet training free introductory internet classes in community centres for beginners - unemployed, over 55, NESB, indigenous my connected community = MC2 set up website, publish on-line, network to members Culturally & Linguistically Diverse (CALD) senior surfers how to use the internet internet training for people with a disability Vicnet - broadband and dial up internet, email access, domain and website hosting
<i>participation/creation</i>	MC2 - publish on-line Vicnet – website design & development RTO for community groups

*consumer protection/
security*

scams - how to protect yourself
community education - consumer rights, avoiding scams
how to use internet and phones safely

WEST AUSTRALIA

access

community resource network - ICT access

understanding/interpretation

community resource network - ICT eg broadband training,
e-government, web portals,

participation/creation

consumer protection/security

QUEENSLAND

access

smart classrooms - streamline admin with schools
partnerships with everyone to improve outcome students
access to safe eSpaces for parents & community
Learning Centres - 36 - webconferencing, video and tele-

understanding/interpretation

e-learning from schools for parents & community
build workforce capacity through alignment with smart
classrooms professional development program
Back to Work - employment training over 40s, regional
Certificate 1 in IT - word processing, using computer,
email, using browsers
blogs, wikis and feeds, Library 2.0, Podcasts, vodcasts,
MP3s, emerging technology - state library

participation/creation

e-learning Principal Program - non-teaching Principals
- composing music, script writing, story dev, spatial arts
e-Learning Model Schools Project - 7 innovative schools case
studies
blogging, photo-editing, second life – state library

consumer protection/security

TASMANIA

access

NBN roll out as pilot
Tasmanian Communities Online(TCO)

understanding/interpretation

e-Connect for Tourism Tasmania
TCO network - training for on-line learning, e-government

participation/creation

consumer protection/security

SOUTH AUSTRALIA

access

Outback Connect
web access for people with disabilities
smart state PC donation program - to community groups

understanding/interpretation

Outback connect- intro to computing, using internet,
email, skype, facebook, myspace, blogs, podcasts
Information economy website - resources, hardware

options, ICT jargon,
broadband for seniors
digital literacy training for new arrival communities,
aboriginal communities

participation/creation

Legendary Tales - digital art exhibition
Outback Connect - on-line photo albums, making movies
using powerpoint

consumer protection/security

AUSTRALIAN CAPITAL TERRITORY

access

community IT access plan -community technology centres
smart schools: smart students - IT infrastructure for schools,
mobile library - internet

understanding/interpretation

Every Chance to Learn P-10 Education Curriculum Frame-
work - email, internet, search engines, web logs, wikis
mobile library - small group training IT skills, interactive
self learning internet based computer training

participation/creation

Smart Students - digital learning tools for public schools
Every Chance to Learn P-10 wikis, multimedia, publishing,
interactive software

consumer protection/security

NORTHERN TERRITORY

access

laptops for teachers
one laptop per child trial -regional & remote communities
ICT strategic plan template for schools - develop ICT plan

understanding/interpretation

advanced training program - IT skills for remote
indigenous communities - use internet, banking, online
training, information and research
ABRACADABRA trial - multimedia for early childhood
teachers to teach literacy skills (not specifically digital literacy)

participation/creation

consumer protection/security

NATIONAL AGENCIES

access

Indigenous Communications DBCDE - 2013/14
fixed and mobile telephony, internet access
digital education revolution - ICT equipment in schools
years 9-12, high-speed broadband connections

understanding/interpretation

Indigenous Communications DBCDE - computer training
e-health, digital education, emergency and disaster
response improved
digital education revolution - DEEWR
training in use of ICT, parents to participate in child's
education thru online learning and access
webcasting councils mtgs - ALGA

participation/creation

council chat rooms - online, social networking sites

*consumer
protection/security*

ACMA cybersafety focus on children's usage, and what parents and teachers need to know; awareness campaigns for e-security and mobiles

Attachment A

Adult digital media literacy needs – August 2009 (AMCA Report)

In August 2009 the ACMA released qualitative research focusing on non-use and limited use of internet and mobile phones by adult Australians. It provides an understanding of explaining factors such as lack of skills, motivation or economic circumstances, and how the digital media literacy of these groups might be increased.

There are two key factors that affect people's attitudes and behavior in relation to increasing their digital media literacy. These are their existing competencies with using digital media and their level of motivation to become more digital media literate.²⁶

Their comparatively low level of competencies can be explained by the fact that many of these people have not been required to use technology on a day-to-day basis. As a result, they have not had the chance to familiarise themselves, and experiment, with the internet and/or mobile phones. Findings suggest that having the ability to experiment is a useful, informal means learning which can often increase a person's confidence.

People's perceived motivation to become more engaged with digital media also affects their attitudes and behaviors. It is an individual's own motivation to want to use the technology that is the key driver to increasing their digital media literacy. For a limited user to start using the technology there had to be a compelling reason for them to want to access the internet or a particular feature on their mobile phone. People had to be able to see that the benefit would outweigh the effort.

Barriers relating to the low usage patterns of digital media

Because of their limited and/ or irregular use of digital media, participants in the research had not been able to develop an understanding of the underlying assumptions about how digital media work, or the associated commonplace language that has developed among regular users of this type of technology. This means that low level users tend not to have a broad vision of how the internet works and do not pick up transferable skills. Instead, they learn and memorise individual steps, in a method that is similar to rote learning. In effect, they do not have the ability to apply their learning to new situations.

The research indicated that these transferable skills included the ability to use a search engine, navigate around a website, purchase goods on the internet and use features, such as a camera, on a mobile phone. It was also clear that many people did not have a clear understanding of the security measures in place for internet banking as they were extremely hesitant about making these and other transactions online. They were concerned about the security and protection of the personal details and information they would need to provide to make these transactions.

²⁶ "Adult Digital Media Literacy Needs: Qualitative Research Report" ACMA, August 2009, p5-8

In addition, the lack of comprehension of the basic commonplace language and terminology associated with digital media made it more difficult for them to understand something or remember it.

Attitudinal segmentation

Five attitudinal segments in relation to digital media were identified: 'Resistors' 'Defensive', 'Thirsty', 'Potential Transitioners' and 'Economisers'.

'Resistors'

The 'Resistors' had no desire to use digital media and as a result they showed no interest in changing this situation by either purchasing technology or by increasing their interest and confidence in using digital media.

They were more likely to be at the older-family, post-family and recent retirees life stages. With regard to geographical locations, they were more likely to live in regional areas, perhaps because they have less exposure to new technologies. They came from predominantly blue collar backgrounds and were not using technology in their jobs at all.

They were the most likely to be non-users or extremely limited users of the internet or mobile phones. These individuals strongly rejected the idea of learning and would have actively avoided any situations to learn about digital media. "Resistors" claimed they were making an active choice not to use technology. They believed that "old fashioned" ways work well, so questioned the relevance of beginning to use digital media.

"Defensive"

This is a group of people who are afraid to admit they would like to learn more about digital media. Essentially, they recognized that there is a range of benefits to using technologies, however, they lacked the confidence to admit they did not have the skills to take advantage of these benefits. This group had a limited understanding of the underlying assumptions about how digital media works and the associated commonplace language.

This segment comprised a range of ages including individuals who sat within the pre-family, younger family, older family and post-family life stages. It tended to include men as opposed to women, and they appeared less prepared to admit their lack of skills. This segment is more likely to be blue-collar workers.

They would use specific website which they had been shown how to use and basic calling and texting functions on their mobile phones.

Being surrounded by more digitally competent friends and family appeared to make this segment even more defensive. They claimed it often became too stressful for them to ask for help with technology from their family. Thus, despite having easy access to the internet and mobile phones, their pride, some reluctance to acknowledge their unmet needs and fear prevent this segment from using technologies.

'Thirsty'

The 'Thirsty' had the strongest motivation to learn about digital media. They had begun conducting some activities online but were still being held back to some degree by a lack of understanding of the underlying assumptions about how digital media work, and knowledge of the associated language. They ranged in terms of their current competencies from very low through to medium. They were willing to admit they wanted to overcome their fears, such as disrupting other family members' work, and 'breaking or causing problems on the computer, as well as their fears about internet security including internet banking and cybersafety for their children

This segment comprised people from the older-families, post-families and retirees life stages. It included males and females, as well as white and blue collar workers.

The 'Thirsty' were more interested in learning about the internet than mobile phones. They were open to learning about a broad range of activities, from using transactional and information websites through to using emails and Skype. However, this segment was more open to learning about advanced mobile phone functions than other segments.

These people may have taken some steps to participate in courses. Several of them had attended training courses within the community such as those at their community college, TAFE, local library or senior citizens group. The majority of people who had attended these had found them helpful, clear and inexpensive. Yet for others, these courses sound intimidating and they learnt the basics from friends and family. Some taught themselves by experimenting with the internet in their spare time.

'Potential Transitioners'

'Potential Transitioners' were people who had taken the first step in using digital media, but only used it when they could see there were clear benefits. They regarded technology as a 'means to an end', as opposed to something they use for entertainment or enjoyment, and were reluctant to experiment further. They were only happy to use services they felt comfortable with, such as websites they were familiar with, sending emails or using Skype. They were reluctant to experiment further as they claimed they preferred the traditional methods. This segment also lacked the conceptual understanding of, and knowledge of the commonplace language associated with, digital media.

This segment included people with younger families who claimed that in future they would like to learn more to about cybersafety for the sake of their children, post-family individuals, retirees who have the time to take advantage of the benefits that come from using the technology, and people in rural areas who can see that the benefits of using digital media outweigh the difficulties. People in this segment included white and blue-collar workers, and were more likely to be women.

'Potential Transitioners' drew the line at conducting transactions, banking and paying bills online, claiming that they thought it may be unsafe and that they preferred to retain some face-to-face contacts. However, these may be post-rationalisations that illustrate their lack of confidence in using these websites.

'Economisers'

'Economisers' were people who had a positive relationship with technology. The costs of acquiring and maintaining digital media were the key factors influencing why this segment was not currently using digital technology. For some people the actual costs were off-putting and they could not afford to purchase particular technologies. For others, purchasing the technology was not a high enough priority for them to justify the costs. It is likely that most 'Economisers' will choose to re-engage with digital media when they believe the benefits outweigh the costs or when they have greater disposable income.

The 'Economisers' were more likely to be from younger life stages and included those at the pre-family and younger-family life stages. They included a range of people including students, those who had recently moved out of home, single parent families and one-income families. They were more likely to come from blue-collar backgrounds.

Some 'Economisers' had access to the internet at work or at their friends' or families houses. However, they did not regard access to the internet as a necessity. This segment tended to purchase a cheap, basic mobile phone which they only used for essential calls and in emergencies. Some explained that they preferred text messaging to calling because it was cheaper. They perceived the newer mobile functions, such as sending picture messages and using the internet, as being extremely costly and therefore avoided using these features.

None of the members of the segments in this study appeared to be making an active choice not to use digital media. The 'Resistors' and 'Defensive', and to some degree the 'Potential Transitioners', claimed to be making an active choice. However, in reality they seemed to be making excuses to cover up their lack of competence. The 'Thirsty' were open to admitting they face barriers to further usage, which included their lack of competence, fears and insecurities. The "Economisers" identified costs as the major barrier to digital media usage.²⁷

Suggested ways of encouraging each segment to engage with digital media

Overview

On the basis of the findings of this research, the researchers propose the following suggestions about possible ways of increasing the engagement of non- and limited users of digital media with digital media.

Communicating the possible benefits of using digital media is likely to be a useful way to help encourage non- and limited-users to become more engaged with digital media. For example, it could be helpful to highlight that becoming more digital media literate would allow people to be less reliant on other people to use the media for them, and that they would no longer feel left behind, or less capable than others around them.

²⁷ *ibid*, pages 36-39

For some audiences, it is also likely to be helpful to highlight that digital media increases people's options rather than requiring them to give up their 'traditional' ways of doing things.

Because many non- and low users of the internet were defensive or embarrassed about their skill levels, it is likely to be important to express this message in a positive tone. Using real people with stories that illustrate the benefits of using digital media, such as the story about the lady living in a rural area who found her partner over the internet, is likely to be engaging. Findings suggest creating a memorable image in people's minds of the benefits of keeping up to speed with digital media and not getting left behind could also help to achieve this.

As we know from previous research, informal learning is often how people learn about using computers and the internet. One possible strategy to motivate people to be more engaged with digital media therefore could be to encourage family and friends to help people to become more confident with the technology. Other people might benefit from working through information on an interactive DVD or CD ROM, and more confident users might appreciate working through material on a website. Finally, some individuals are likely to benefit from attending a continuous learning course.

Specific communication needs of each segment

'Resistors' and 'Defensive'

The 'Resistors' and the 'Defensive' are likely to be extremely difficult to influence, but they need to be persuaded of the importance of understanding and using technology as to be able to fully participate in society in the future. These two segments bottom rung of the hierarchy of skills and consequently they need to gain an understanding of the underlying assumptions about how digital media works and commonplace digital media language so that they can acquire transferable skills.

Ideally, communications directed at these people would help to promote the benefits that they would gain by using digital media technology. The message may also need highlight why they should not be left behind. Several participants spontaneously mentioned that they believed that these users would benefit from a communications campaign portraying a positive message about using digital media. Strategies should make them feel confident enough to try using digital media, and should not make them feel embarrassed in any way. The ideal would be to shift the mindsets of the 'Resistors and the 'Defensive' to become 'Thirsty', although it is recognised that this would be time and resource intensive. If time and resources are limited, it may be more efficient and effective to target the 'Thirsty' and the 'Potential Transitioners'.

'Thirsty'

The 'Thirsty' will inevitably be the easiest segment to influence and they will be keen to develop their skills, knowledge and understanding of digital media. As they sit at the lower to middle rungs of the hierarchy of skills, reinforcing their knowledge of the underlying assumptions about how digital media works and the commonplace digital media language will help them to develop their digital media literacy.

Given their motivation to learn more about digital media, a number of strategies are likely to be successful for the 'Thirsty' segment.

Firstly, some would benefit from learning from their friends or family. One possible suggestion is that online tutorials and information are produced for people to work through together. However, this is only likely to be effective where there are adult children, as several respondents explained that their teenage children are too impatient to help them learn. Some less confident individuals would appreciate learning from an interactive DVD or CD ROM which they could work through at home, with or without family. This would allow them to participate in this activity at a time which is convenient to them. This type of resource would be less daunting for some people than working through information on a specific website which they might not be competent or confident enough to access by themselves.

Although the content of a DVD or CD ROM was not explored thoroughly in this research it is likely that people would benefit from information on topics such as how to navigate websites and avoid simple mistakes (for example, not sending emails to everyone by pressing the 'reply all' button). The DVD or CD ROM resource might be more attractive to men because the research findings suggest that some men are reluctant to admit wanting help.

Other people in the 'Thirsty' segment would appreciate the opportunity to attend a continuous learning course. There may be a gap in the market for a course which teaches basic transferable digital media skills and the commonplace language associated with digital media. Some of the courses that the respondents had attended had been step-by-step tuition on particular activities, such as how to use eBay, while others focused on computer use and Microsoft applications.

Although people can be motivated by learning about a specific task, it is essential that they have a broader understanding of how digital media work before they focus on a specific topic. If they don't have the basic knowledge, they are less likely to remember the information in a course about a specific topic.

Respondents often found short or one-off courses to be too short, resulting in knowledge being quite easily forgotten. They were also not able to build on the skills they had learnt in the courses because they didn't get enough practice at home. For people to be able to build understanding and confidence, they must be able to engage in a process of ongoing learning about digital media and regularly using the media.

There is also a need to promote the existence of learning opportunities. Although some people had attended courses within the community, several were unaware that courses aimed at people like them were available. There was a perception that current courses are largely offered to retirees or those on family benefits, as opposed to stay-at-home mums or middle-aged working people. A better promotion of existing courses to the Thirsty would improve their potential to attract a broader audience. People were asked to explain what they thought would be the most appropriate learning environment to allow them to become more digital media literate. Their responses indicated that the first priority is that the course should involve a hands-on experience, as this is regarded as the best way to learn and understand. People explained they do not want to simply observe someone else working through the processes on the computer.

Don't show me, let me do it —it's the only way you learn

An informal learning environment where individuals would feel safe and relaxed was also regarded as essential for effective learning. Ideally people would be taught one-on-one or in small groups. The course leader would need to be very patient and not patronising in any way. They would need to be considerate and recognise that people only have a basic level of understanding and skills. The attendees must not be made to feel humiliated.

They have to realise we aren't stupid but we need time to let it sink in

The course leaders would need to use language that people understand and not feel intimidated by. However, it is crucial that some of the commonplace digital media language is introduced, such as instructions for usage and specific terminology such as 'search engine' or 'hard drive'. It may also help to equate computer terminology with real-life objects, for example explaining that the hard drive is like the computer's brain where information is stored.

The 'Thirsty' felt there were also opportunities for mobile phone providers to help encourage usage. They felt they may benefit if mobile phone providers offered to spend more time with the customer at the point of sale to show them how to use various features and how the system works.

You want them to take you through the menu to figure out how to use it

Finally, a few people believed a DVD would be more helpful than the mobile phone manuals currently provided, which many saw as being too long and containing too much "tech heavy" language, which they found extremely off-putting.

'Potential Transitioners'

The 'Potential Transitioners' must not allow their existing knowledge to diminish. There a danger that they may slip into the 'Defensive' and 'Resistors' segments if they remain reliant on the 'old' way of doing things. Although this segment has a better understanding of the digital media basics than the 'Thirsty' segment, this familiarity with technology needs to be maintained in the face of rapid and continuous technological change.

Attachment B

Dealing with the non or limited users identified by the recent ACMA research into adult digital media literacy needs²⁸

This section is the authors' summary of the findings in the ACMA report.

Resistors and Defensive

- hardest to influence
- need to gain an understanding of the underlying assumptions about how digital media works and commonplace media language
- need to highlight the positive benefits to be gained from using digital media
- aim to shift to Thirsty – will require substantial time and resources

Thirsty

- easiest to influence, keen to develop their skills, knowledge and understanding of digital media
- lower to middle rungs of hierarchy of skills
- options include learning from friends and family; on-line tutorials and information if adult children to assist; DVD or CD ROM to work through at home (particularly for men)
- topics – how to navigate websites and avoid simple mistakes (e.g if you press “reply all” and email will go to everyone)
- short courses or one-off tended to be too short so knowledge is easily forgotten
- need on-going learning and regular use
- course must be very practical – hands-on experience
- taught one-on-one or in small groups
- perception that available courses not for them but for retirees or people on family benefits
- commonplace digital media language to be introduced – use correlations to real-life objects e.g hard drive like the computer's brain
- mobile phone is also a possible platform but more information needed to be provided about features and applications

Potential Transitioners

- potential to lose existing knowledge in face of rapid technology change
- tend to remain reliant on the “old” way of doing things
- better understanding of digital media basics than the “Thirsty” segment
- middle of hierarchy of skills
- likely to respond positively to learning from family and friends
- having a level of competency means that seeking help from others is less stressful
- may also welcome DVD/CR – Rom and working at their own pace

²⁸ “Adult digital media literacy needs: Qualitative research report”, ACMA, August 2009

Economisers

- need to keep up-to-date with benefits of technology so when their circumstances change they can engage again
- need to be told of benefits of investing in digital media and having access to technologies at home, particularly when they have children
- need to be given strategies to minimise costs of digital media such as most appropriate internet or mobile plans
- provide information on existing government subsidies such as the Education Tax Refund that is available to families

Attachment C

ACMA Report – Audit of Australian digital media literacy programs²⁹.
http://www.acma.gov.au/webwr/assets/main/lib310665/audit_of_aust_digital_media_literacy_programs.doc.

New South Wales

Summary of players and programs at state level

Various New South Wales Government departments and agencies have developed programs and initiatives to ensure the State is in a position to take advantage of the benefits of the digital economy.

The **Department of Education and Training** has two programs in place to ensure NSW schools have access to digital educational resources and interactive technologies for learning and teaching.

The **Department of Commerce**, with funding from the Australian Government's Networking the Nation grants program, ran the CTC@NSW program in 2001—05 to establish Community Technology Centres. The Centres were designed to bridge the digital divide by providing small communities in regional NSW with access to information and communication technologies. Following on from this program, the **Community Technology Centres Association** has formed to assist and support these centres in their ongoing operations.

Tourism NSW and the **State Library of NSW** have programs in place for tourism operators and public library staff respectively which promote and encourage the use of web technologies for changing the way they do business.

Key players

- New South Wales Department of Education and Training
- Community Technology Centres Association
- Tourism New South Wales
- State Library of New South Wales

Key programs

- Connected Classrooms Program
- Laptops for Learning Program
- Community Technology Centres
- Get Connected
- New South Wales Public Libraries Learning 2.0

²⁹ "Audit of Australian digital media literacy programs" ACMA, July 2009, pp 4-36

Target groups

- NSW public schools
- Senior secondary students and their teachers
- Rural and regional New South Wales community members
- NSW tourism operators
- Public library staff

Detailed information on players and programs in New South Wales

Department of Education and Training (DET)

www.det.nsw.edu.au

Key objectives

The Department of Education and Training (DET) is responsible for the delivery of high quality, internationally competitive public education and training from early childhood (pre-school), through to the compulsory years of schooling (Kindergarten to Year 10), and senior secondary education leading to the award of the NSW Higher School Certificate (in Years 11 and 12).

Description of involvement in DML

DET Office of Schools Plan (2009—11) identifies 'Connected Learning' as a priority area for NSW public education to achieve:

- enhanced state-wide access to digital educational resources for learning and teaching and for teacher professional learning
- innovation in the use of interactive technologies for learning, teaching and for teacher professional learning
- broader curriculum options for every student through ICTs and communities of schools.

Digital media literacy-related programs

- **Connected Classrooms – individual programs**

The Connected Classrooms Program will deliver a set of tools to meet the needs of today's learners in their school environment that can also be accessed in other environments.

Connected Classrooms is comprised of three projects:

- ***Interactive Classrooms***

The project will equip every NSW public school with Interactive Classroom facilities (interactive whiteboard, video conferencing facility and data collaboration).

- ***Learning Tools***

The project will provide tools that support the ability to create, store, edit,

reuse, manage, view and deliver digital learning content from collections and repositories to staff and students across NSW. It will deliver the latest Web 2.0 technologies to staff and students as required to enable and enrich teaching and learning practices.

Learning Tools Project (LTP)

The blog

The blog was trialed in Term 2 by teachers from different schools and TAFE Institutes across the state.

Trial participants were selected through a variety of means but all were users of collaborative tools and use blogs for teaching and learning.

During Terms 3 and 4 trial participants together with additional teachers from some of trial schools and TAFE Institutes are testing these enhancements as well as support services and resources, which include:

- Video tutorials for teachers and for students
- Guides that can be printed
- A 'Help?' button
- FAQs
- List of relevant links

An interim support desk so that the DET ICT Service Desk can understand **the blog** and the issues which blog users are likely to require help.

Principals in the trial schools and Head Teachers in TAFE Institutes are also testing the process for enabling teachers to use **the blog**.

The number of teachers with access to the blog will be increased during Term 4 2009, with the aim of it being more widely available in the future.³⁰

- Network Bandwidth Enhancement

The project will provide enhanced, authenticated and filtered internet browsing services, increased bandwidth and speed and network upgrades to support the delivery of the Interactive Classrooms and Learning Tools projects.

The Connected Classrooms Program offers the following benefits for students, their parents, and the community by enabling:

- greater student engagement through the use of interactive whiteboards and video conferencing

³⁰ www.det.nsw.edu.au/strat_direction/schools/ccp/aboutccp/index/htm

- student access to a personalised online workspace with 'when and where they require' access to appropriate resources, resulting in increased efficiency
- online access for parents to their children's student reports
- greater control in relation to the appropriateness of the electronic content the students are exposed to due to filtered browsing.

www.det.nsw.edu.au/strat_direction/schools/ccp/aboutccp/index.htm

• Laptops for Learning

The Laptops for Learning Program will supply laptops to NSW senior secondary public school students and their teachers.

The Commonwealth and NSW Governments are working together to provide a wireless enabled specialist educational laptop to every student in years 9 to 12 in NSW public schools by June 2012. DET is also investing in wireless networking and technical support for all secondary schools as well as professional learning for teachers.

The laptops come with Microsoft and Adobe software. The laptops are secure, with filters to block inappropriate material and encoding to ensure they aren't a target of theft.

The Commonwealth contribution comes from the National Secondary School Computer Fund, which is part of the Australian Government's Digital Education Revolution Program.

www.schools.nsw.edu.au/news/announcements/yr2009/apr/laptops.php

"Using Adobe software, students will be able to create videos, edit photos and make presentations for class assignments and projects."

"Students and teachers will also be able to set up video conferencing and collaborate on assignments using the built in web cameras and software within the department's secure network."³¹

Target groups

- NSW public schools
- Senior secondary students and their teachers

Community Technology Centres Association

www.ctca.net.au

Key objectives

The Community Technology Centres Association seeks to support and be the voice of Community Technology Centres (CTCs). The objectives of the Association are to:

³¹ "The Digital Education Revolution is here" NSW Premier's Press release, 1 April 2009,

- provide information and resources relevant to the running of the CTCs
- advance and promotes standards, accreditation, branding and marketing of the CTCs
- develop business opportunities and partnerships and provide a central point of contact for users of CTC network services
- develop and provide educational and networking opportunities to assist in the running of CTCs
- advocate on behalf of the interests of members.

Description of involvement in DML

The Community Technology Centres Association Inc was established in 2005 to assist Community Technology Centre (CTC) members with business planning, growth, marketing and sustainability. The Association is a member-based peak organisation for CTCs. It manages network-wide activities and supports individual CTC activities with resources and access to mutual aid.

The CTC Association acts as a project manager and co-coordinator for all the CTCs, managing program implementation, quality control and reporting, and financial management and reporting, to guarantee quality service and delivery.

Digital media literacy-related programs

- **Community Technology Centres (CTCs)**

Community Technology Centres (CTCs) are computer enabled community resource, technology and information centres designed to bridge the digital divide for communities with populations under 3000 in NSW.

CTCs serve as community centres using technology as a platform for many community events, projects and training programs. The CTC network currently includes approximately 80 member organisations spanning regional NSW from the Northern Rivers to the Far West to the Riverina.

Among the services CTCs provide are:

- communication services—dialup and broadband Internet, email, fax, videoconferencing, webcasts, podcasts and other online services and information
- education and training services—basic ICT training, accredited training courses, TAFE and vocational training, industry and business training, online training facilitation and support
- IT services such as technical support, computer maintenance, website development, and desktop publishing
- online government and e-government solutions for all tiers of government including labour/work participation schemes such as Work for the Dole, telehealth and telelaw.

e-learning is provided using on-line means to deliver course content,

<p>including forums, chat room, quizzes, and assignments.</p> <ul style="list-style-type: none"> • Wiki for content collaboration • delicious Social Book marking to share resources • Eluminate and DiscoverE web conferencing.³² <p>CTCs were established as part of the CTC@NSW program administered by the NSW Department of Commerce. CTC@NSW was \$15 million State/Commonwealth initiatives to assist regional communities develop sustainable IT facilities and services between 2001 and 2005. The Commonwealth Government, through its Networking the Nation Program, provided seed funding for CTC establishment. CTC@NSW managed the funding program and development work with communities through New South Wales Government funding.</p> <p>Following on from 2005, CTCs are community owned and operated and often have partnerships or affiliations with their local government, Neighbourhood Centres, RTOs, Job Network agencies, Centrelink, etc.</p>
<p>Target groups</p> <ul style="list-style-type: none"> • Rural and regional New South Wales community members

<p>Tourism NSW</p> <p>http://corporate.tourism.nsw.gov.au/</p>
<p>Key objectives</p> <p>Tourism NSW promotes and supports the development of sustainable tourist destinations and experiences.</p>
<p>Description of involvement in DML</p> <p>Tourism NSW, in partnership with the Australian Tourism Data Warehouse (ATDW) and all the Australian State and Territory Tourism Offices, developed the Tourism e-Kit. The e-Kit tutorials are intended to provide tourism operators access to a range of information about how to maximise online marketing opportunities.</p> <p>As well as providing access to the e-Kit, Tourism NSW has developed associated initiatives to further encourage NSW tourism operators to get online.</p>
<p>Digital media literacy-related programs</p> <ul style="list-style-type: none"> • Get Connected <p>Get Connected is Tourism NSW's website membership program. It is free to register and is open to all tourism operators within New South Wales.</p> <p>Get Connected gives tourism operators the opportunity to showcase their tourism products online to potential customers, both domestic and international. Participating tourism business operators must be located and/or</p>

³² www.ctca.net.au

operate their services within New South Wales.

http://corporate.tourism.nsw.gov.au/Get_Connected_p582.aspx

Target groups

- NSW tourism operators

State Library of New South Wales

<http://www.sl.nsw.gov.au/>

Key objectives

The State Library of New South Wales aims to strengthen the community by being the trusted provider of quality information services by:

- providing equitable access to contemporary and historical knowledge
- collecting and preserving Australia's heritage
- promoting our role as a cultural destination
- collaborating with the NSW public library network.

Description of involvement in DML

The Public Library Services division of the State Library of NSW provides advisory services, strategic leadership, information and advice on all aspects of public library provision, control and management to New South Wales local authorities and public libraries. This includes managing state-wide, cross-sectoral projects for public libraries and local authorities, managing a professional development program for public library staff to support the development of the network and contributing to the development of library services that are delivered either directly to public libraries, or to the public through public libraries.

NSW public libraries have an important role in addressing equity issues related to the digital divide through providing access to computers and the internet on-site and providing ICT training courses.

Digital media literacy-related programs

- **NSW Public Libraries Learning 2.0**

Learning 2.0 is an online self-paced training program to allow public library staff across NSW to learn more about emerging technologies on the web that are changing the way people, society and libraries access information and communicate with each other. These tools can be used by libraries to deliver better services to their communities.

Library staff are encouraged to work together with others in their libraries or region and share with each other their discoveries, techniques and "how to" both in person and through their blogs. The NSW Public Libraries Learning 2.0 team is available to answer questions and provide comments on

participants' blogs.

Learning 2.0 is an online program to learn more about emerging technologies on the web that are changing the way people, society and libraries access information and communicate with each other.

[Week #1](#) – Introduction to NSW Public Libraries Learning 2.0; lifelong learning; 71/2 Habits of a Lifelong Learner

[Week #2](#) – Introductions to Blogs; Definition and examples of blogs; Blogging etiquette; Create your own blog

[Week #3](#) – Explore Flickr, tagging and Creative Commons; Post pictures to Flickr

[Week #4](#) – RSS; Use an RSS aggregator to connect to 5 RSS feeds

[Week #5](#) – Explore Wikipedia and wikis; Contribute to a wiki

[Week #6](#) – Video online; Youtube and Google video

[Week #7](#) – Tagging, folksonomies, delicious and LibraryThing

[Week #8](#) – Answer boards and social searching

[Week #9](#) – Podcasts and audio

[Week #10](#) – Mashups

[Week #11](#) – Online applications and tools

[Week #12](#) – Wrap up; social networks and catch up

Source: <http://nswpubliclibrarieslearning2.blogspot.com>

Target groups

- Public library staff

Victoria

Summary of players and programs at state level

The Victorian Government plays an active role in ensuring all Victorians can access the opportunities being generated by digital media technologies, such as the internet. It also promotes technology as a means for creating and strengthening communities.

Six key programs promoting ICT and digital media literacy skills have been identified in Victoria and are part of a single framework, *Connecting Communities: Second Wave* which is being coordinated by the **Department of Planning and Community Development (DPCD)**. The Victorian Government has committed more than \$9 million over four years from 2004/05 to these programs. The framework builds on previous wave of programs - *Connecting Communities (2001—04)*.

- The *Connecting Communities 2001-2004* framework focused on helping communities to overcome the variety of barriers to increased Internet uptake by improving access to Internet technology, developing the skills needed to use the technology and generating relevant and useful Internet content.
- *Connecting Communities: the second wave (2005 — on-going)* is an acknowledgement that there is still an important role for government in assisting these Victorians to access and use the Internet. The programs are focused on providing continuing support for existing public Internet access infrastructure; ensuring basic skills can be acquired by groups facing particular barriers; and encouraging the development of more relevant and useful content for these groups.

Three additional programs supporting the use of digital media are running in Victoria.

Consumer Affairs Victoria (CAV) provides two educational programs aimed at helping Victorians using digital media technologies safely and avoiding falling victim to scams, including online scams.

The Department of Education and Early Childhood Development (DEECD) has an initiative which integrates digital media by providing students with an online learning environment.

Target groups for programs in Victoria are mainly disadvantaged and vulnerable Victorians. Disadvantaged Victorians include senior Victorians (including from non-English speaking backgrounds), recent migrants, unemployed Victorians and those outside the education system and workforce (including disadvantaged youth), disadvantaged families, and people with a disability. The Department of Education and Early Childhood Development more specifically targets students, parents and teachers.

Key players

- Department of Planning and Community Development
- Victorian Department of Education and Early Childhood Development

- Consumers Affairs Victoria

Key programs

- Public Internet Access Program (PIAP)
- Skills.net Roadshow Program
- My Connected Community (MC²)
- Computer for Every Child (CFEC)
- Culturally and Linguistically Diverse (CALD) Senior Surfers
- Internet Training for People with a Disability
- Ultranet
- Scams Program
- Community Education Program

Target groups

- Disadvantaged Victorians
- Senior Victorians
- Senior Victorians from non-English speaking backgrounds
- Unemployed Victorians
- Victorians outside the education system and workforce (including disadvantaged youth)
- Recent migrants
- Victorians with disability
- Disadvantaged families (with children in Grade 3-5 in primary schools)
- Community based groups (i.e. special interest groups such as sporting clubs or hobby groups, support groups, not-for-profit organisations, local government entities and peak bodies)
- Students, teachers, parents
- Vulnerable, disadvantaged consumers

Detailed information on players and programs in Victoria

Department of Planning and Community Development (DPCD)

<http://www.dvc.vic.gov.au/>

Key objectives

The Department of Planning and Community Development (DPCD) was established in August 2007 to support the development of liveable communities.

Description of involvement in DML

DPCD supports the ongoing provision of public internet access across Victoria and the provision of introductory internet skills where most needed. It also encourages more relevant and useful content to be developed by and for communities and seeks new and creative partnerships to enhance community outcomes.

Digital media literacy-related programs

The Department of Planning and Community Development coordinates current initiatives of *Connecting Communities: The Second Wave*. Some of these programs are delivered in partnership with other players. These are outlined in bold in description of the programs.

In particular, **Vicnet** Division of Victoria State Library plays an active role in the administration; coordination and delivery of a number of programs described below.

- **Public Internet Access Program (PIAP)**

Public Internet Access Program (PIAP) aims to ensure that community-based free or affordable public Internet access continues to be provided to disadvantaged Victorians that would not otherwise have such access.

PIAP provides funding for not-for-profit / community organisations, local government authorities and similar bodies for the provision of public Internet access. Organisations are provided with technical support for two years and be required to provide a minimum number of public Internet access hours per week to identified target groups.

Target groups include senior Victorians (including from non-English speaking backgrounds), recent migrants, unemployed Victorians and those outside the education system and workforce (including disadvantaged youth) and people with a disability.

PIAP is funded by the Victorian Government. The program is administered by the **Department of Planning and Community Development** and is coordinated by **Vicnet**, a division of the **State Library of Victoria** which is governed by the Library Board of Victoria.

To date, over \$1.9 million of grant funding has been allocated and 297 organisations have been funded to set up public internet access venues under the PIAP. The program has provided for more than 386,000 hours of public internet access.

www.internet-access.vic.gov.au/content.asp?Document_ID=1

- **Skills.net Roadshow Program**

Skills.net Roadshow program is a mobile Internet training facility which provides introductory internet training to disadvantaged Victorians and pathways for ongoing Internet access in local communities.

The program is administered via **Vicnet**, a division of the **State Library of Victoria**. Trainers from the Skills.net Roadshow utilise laptop computers in conjunction with local community organisations. **Telstra Country Wide** is a

project partner providing Next G wireless broadband to the mobile classroom. The Skills.net Roadshow is an integral part of the Victorian Government's *Connecting Communities: the second wave*.

Trainers from the Skills.net Roadshow utilise laptop computers in conjunction with local community organisations to provide beginner level training to people who do not possess the skills to use the internet.

Travelling around Victoria, the Trainers conduct a range of free introductory internet sessions. No minimum computer skills are required.

Eligible Victorians (see below) are shown how to access, use and navigate around the World Wide Web; find information on the internet; and use web-based email to stay in contact with family and friends all over the world.

The Skills.net Roadshow seeks to assist those beginners who:

- are unemployed
- have a disability
- are over 55 years of age
- are from Non-English speaking backgrounds or recent migrants (arrival within the last 2 years)
- are Indigenous Australians or
- have not gained internet skills at school or work

To date, this program has provided introductory internet training to more than 17,000 Victorians.

www.roadshow.skills.net.au/

- **My Connected Community (MC²)**

My Connected Community (MC²) is a social networking web application and grants program which aims to stimulate the development of online groups of interest within Victoria.

Community groups are provided with support and tools to establish a website, publish online, network to members, extend their membership and activities, and communicate with other communities of interest. More than 3,500 groups and 70,000 users are currently active on MC².

Target populations are community based groups. Community based groups include special interest groups such as sporting clubs or hobby groups, support groups, not-for-profit organisations, local government entities, state government agencies and peak bodies.

It is funded by the Victorian Government through the **Department of Planning and Community Development** and coordinated by **Vicnet**.

<http://mc2.vicnet.net.au>

- **Computer for Every Child (CFEC)**

Computer for Every Child (CFEC) is a pilot project to test a model for the

provision of computers, internet access, training, and technical support to 400 disadvantaged families for use in their home.

Eligible families have children enrolled in Grades 3, 4 and 5 in Government Primary Schools located primarily in Melbourne's Western suburbs.

The home based computer supports students with their school work and, at the same time, provides access for family members to internet services and programs which might be beneficial for future education and employment opportunities.

The objective of the CFEC project is to address digital inclusion through access to technology in the home of disadvantaged families, with the aim to stimulate education and social outcomes for primary school aged children and their families.

The program is administered by **Technology Access for Social Development Australia**. Partners for this project include: **Microsoft Australia, Gandel Charitable Trust, Myer Foundation**.

<http://cfec.org.au/>

- **Culturally and Linguistically Diverse (CALD) Senior Surfers**

Culturally and Linguistically Diverse (CALD) Senior Surfers program aims to provide introductory internet training to CALD seniors in their own language.

Community-based organisations receive funding for public internet access, so CALD seniors can use computers and the internet in a convenient and comfortable community setting. Translated training materials have been developed for participants and other community groups. Volunteers from community based organisations are given 'train-the-trainer' sessions, so they can train CALD seniors how to use the internet.

Target groups are senior Victorians—and particularly those from non-English speaking backgrounds—as they face significant barriers and are disadvantaged in regard to access and use of the internet.

The project is a joint initiative of **Community ICT** and the **Office of Seniors Victorians (OSV), Department of Planning and Community Development**.

Vicnet is the project deliverer in charge of providing the training and support to the volunteer trainers and technical support to the organisations involved.

To date, ten community-based organisations have benefited from this program

- **Internet Training for People with a Disability**

Internet Training for People with a Disability provides opportunities for people with a disability to get online.

Organisations are funded to purchase adaptive equipment so people with a disability can use computers and the internet at an accessible community setting. Volunteers from each of the organisations undertake 'train-the-trainer'

sessions so they can provide introductory internet training for people with a disability. A range of training materials is also developed.

This program is being delivered by **Vicnet**.

To date, six organisations have benefited from this program.

Target groups

- Disadvantaged Victorians
- Senior Victorians
- Senior Victorians from non-English speaking backgrounds
- Unemployed Victorians
- Victorians outside the education system and workforce (including disadvantaged youth)
- Recent migrants
- Victorians with disability
- Disadvantaged families (with children in Grade 3-5 in primary schools)
- Community based groups (i.e. special interest groups such as sporting clubs or hobby groups, support groups, not-for-profit organisations, local government entities and peak bodies)

Department of Education and Early Childhood Development (DEECD)

www.education.vic.gov.au

Key objectives

The Department of Education and Early Childhood Development (DEECD) is committed to ensuring that every young Victorian thrives, learns and grows, enjoying every opportunity to realise a rewarding and fulfilling life.

Description of involvement in DML

The Department's initiatives and programs play an important role in achieving the Department's overall goal of improving outcomes for all Victorian children.

Digital media literacy-related programs

One of the key strategic areas for the Department for the next five years is technology and information systems improvement.

- **Ultrahet**

Ultrahet is a student centred electronic learning environment that supports high quality learning and teaching, connects students, teachers and parents and enables efficient knowledge transfer.

The objectives of the program are to improve responsiveness to individual

learning needs; provide better information to parents, the school system and Government; improve efficiency of the learning environment and school administration; adopt an enterprise approach to intranet development; and exploit previous ICT investments.

www.education.vic.gov.au/management/ultranet/default.htm

Target groups

- Students
- Parents
- Teachers

Consumer Affairs Victoria (CAV)

www.consumer.vic.gov.au/

Key objectives

The role of Consumer Affairs Victoria (CAV) is to protect and promote the interests of consumers.

Description of involvement in DML

CAV aims to reduce the number of Victorians falling victim to online, phone, mail and other scams. It tries to achieve this by raising awareness of scams (Scams program) and improving consumers' knowledge and skills (Community Education Program).

Digital media literacy-related programs

- **Scams**

Scams Program aims to raise awareness of scams and scammers' tactics, and provide consumers with the knowledge and skills to protect themselves against scams and fraud. Awareness-raising is undertaken through a suite of initiatives through different channels: media, CAV Community Education Program sessions, advertising, CAV website, and special events.

- **Community Education**

Community Education Program aims to help people acquire the knowledge and skills needed to become an informed consumer, with particular support being provided to the vulnerable and disadvantaged.

Information in consumer education/information sessions cover the full range of consumer rights, including advice about using computers, the Internet, and phones safely and smartly, avoiding scams, and who to approach should things go wrong.

The program delivers to communities. Sessions may take place at schools, at retirement villages, or at community events. Information is tailored to address the different needs of different audiences.

Target groups

- Vulnerable
- Disadvantaged

Vicnet Division of the State Victoria Library (Vicnet)

www.slv.vic.gov.au/about/organisation/divisions/vicnet.html

Key objectives

Vicnet is a division of the State Library of Victoria focused on community-based technology business.

Description of involvement in DML

Vicnet delivers information and communication technologies, and support services which aim to strengthen Victorian communities.

Digital media literacy-related programs or initiatives

• ICT project management

Vicnet provides project management for a range of government projects and activities. Some of the projects currently being delivered are the Public Internet Access project (PIAP), IT for Kindergartens, My Connected Community and Skills.net Roadshow (refer to programs listed under Department of Planning and Community Development for more detail).

• Internet services for the community

Vicnet provides a range of internet services to community groups and libraries, including broadband and dial-up internet and email access, website & domain hosting, and website design and development.

• Vicnet community information portal

Vicnet portal is a website where Victorians can access and share community information. It has approximately 10,000 links to Victorian organisations, and hosts nearly 5000 community websites.

• Training

As a registered training organisation (RTO), Vicnet provides ICT and internet training to a broad range of Victorian community groups, including seniors and multilingual groups.

Target groups

- Community groups
- Seniors
- Multilingual Victorians

Queensland

Summary of players and programs at state level

The Queensland Government has established a number of programs to promote ICT and digital media literacy skills as part of its Smart State Strategy 2005-15.

Smart State is the name given to Queensland Government's vision of a state where knowledge, creativity and innovation drive economic growth to improve prosperity and quality of life for all Queenslanders. Smart State is for all Queenslanders, and the Government is helping people to participate in the knowledge economy by ensuring equity of access to broadband telecommunications and basic ICT skills.

The two key programs – the Community Skills Development Program in Information and Communication Technology and the Technology Survival Skills Program -, have now been completed. They provided funding to community organisations to deliver ICT training to people who are disadvantaged in their access, including rural, regional and remote communities.

The **State Library** and **Learning Network Queensland (LNQ)** have an ongoing role to play in providing access and training in computer skills, including staff training. Their programs are delivered through the state-wide public library system and Learning Centres in rural, regional and remote communities.

The **Queensland Department of Education and Training** is administering the Smart Classrooms program and initiatives into Queensland's education system. These initiatives will be a significant driver in the fulfilment of the Smart State vision, with its commitment to providing ICT rich learning environments in Queensland state schools.

The **Queensland Department of Employment, Economic Development and Innovation** promotes the use and benefits of information technology to business through its website and online tools.

Target groups for programs in Queensland are diverse and differ depending on the organisations and programs involved. While the State Library's programs are generally aimed at all Queenslanders, other state departments and agencies have a more targeted focus. Learning Network Queensland aims at rural, regional and remote communities. Department of Education and Training is focused on students, teachers, parents and guardians. Department of Employment, Economic Development and Innovation is focused on businesses.

Key players

- Department of Education and Training (DET)
- Learning Network Queensland (LNQ)
- Queensland State Library
- Department of Employment, Economic Development and Innovation (DEEDI)

Key programs

- Smart Classrooms
- The Learning Place
- Back to Work
- Library Training and Information Sessions
- Online Public Access in Libraries Training (OPAL)
- Doing Business Online Diagnostic Tools

Target groups

- Rural, regional and remote Queensland community members
- Mature Queenslanders seeking to enter or re-enter the workforce
- Students
- Teachers
- Parents and guardians
- Businesses

Detailed information on players and programs in Queensland

Department of Education and Training (DET)

<http://education.qld.gov.au/>

Key objectives

Queensland Department of Education and Training (DET) aims to engage Queenslanders in life-long education and training to enrich the lives of Queenslanders.

Description of involvement in DML

A key strategy within the Information and Knowledge Strategic Plan 2007—11 is to transform learning experiences through providing secure access to learning from anywhere at any time and using eLearning to bridge the engagement divide and enrich traditional delivery.

Digital media literacy-related programs

- **Smart Classrooms—overarching strategy**

The Smart Classrooms strategy establishes Information and Communication Technologies (ICTs) as the foundation of 21st century schools. It aims, through technologies, to enable greater interaction between students, teachers, parents and guardians.

Smart Classrooms aims to :

- automate and streamline administration within schools
- develop stronger partnerships between everyone who can make a difference to the educational outcomes of students
- roll out superior technical support and reengineering ICT systems
- provide more teachers with a tool-of-trade that most knowledge workers have had for years
- help schools to engage the digital generation.

- **Smart Classroom—individual programs**

Smart Classrooms is comprised of a number of initiatives/programs, four of which are further detailed below:

- ***eLearning Communities at Schools***

The eLearning Communities in Schools program extends the work of Community Access to ICT initiative that developed from the 2002—05 ICTs for Learning Strategy.

This program aims to foster school community involvement in supporting student learning with ICT. Schools are supported to create digital literacy programs for parents and community members utilising a range of digital resources available to all state schools. Regional facilitators will develop regional action learning plans and materials to support schools that choose to be involved in the program.

The program seeks to develop ICT skills with parents and community members to support student learning; promote access to safe eSpaces; nurture school-community relationships and partnerships; and build workforce capacity through alignment with the Smart Classrooms Professional Development Framework.

<http://education.qld.gov.au/smartclassrooms/strategy/dp/communities.html>

- ***eLearning Principal Program***

The eLearning Principal Program is designed to support Band 7–11 non-teaching Principals in delivering 21st eLearning opportunities for their students.

Principals will develop a greater knowledge and understanding of current eLearning strategies and factors for creating and maintaining innovative 21st Century learning environments; receive professional development and support in relation to implementing eLearning in a school context; address school based issues and goals in relation to curriculum delivery; and share successes, issues, and solutions relating to ICT with colleagues.

The eLearning Principal Program is a three-day program and Principals are nominated to participate by their Regional Executive Director.

Two cohorts of approximately 60 Principals each were held in 2008. So far, a further two are planned for 2009.

<http://education.qld.gov.au/smartclassrooms/strategy/dp/nt-principals.html>

- Games in Learning

The Games in Learning project focuses on how game play, game study, game development and game innovation of digital games can be used to improve student learning outcomes.

The project includes workshops, practicums, a conference and research and development. Purposefully selected games blended with carefully constructed learning experiences have been shown to improve student learning outcomes and provide them with skills in programming and designing and developing games.

They can improve student learning because they:

- open up opportunities that would be otherwise unavailable or too costly or too dangerous to make available to students
- require students to exhibit behaviours such as self-monitoring, pattern recognition, problem recognition and problem solving at a deep level, principled decision-making, qualitative thinking and superior short-term and long-term memory
- engage students.

The best games engage students by being:

- challenging, complex and scaffolded
- immersive - they provide an interactive virtual play environment
- goal-oriented (eg. Make the world a better place, be a hero)
- fast-paced
- able to offer immediate feedback
- story-based
- customisable - students can make it their own a way to connect with people.

Significant student learning can also take place through designing and developing games. Designing and developing games can:

- build students' story telling skills
- encourage cooperative learning
- engage students in problem solving and higher order thinking
- encourage planning and reflection
- be a multi-disciplinary exercise - developing a good game can involve composing music, script writing, story development, physics, visual arts, spatial arts and much, much more
- introduce students to programming (Programming is a key skill necessary for the 21st century. To prepare students for 21st century lives, we must extend their programming abilities)
- encourage students to consider a career in the games development industry (The Australian games development industry is growing at a fast rate. It is amounting to revenues of \$110 million. 37 per cent of Australia's digital games industry permanent employees are based in Queensland.)

<http://education.qld.gov.au/smartclassrooms/strategy/dp/games.html>

- eLearning Model Schools Project

The eLearning Model Schools Project involves seven innovative schools across the state. In embracing the creation of digital content, digital pedagogies and eLearning infrastructures, these schools are adopting different models for eLearning implementation.

The project is supporting these schools while documenting the various models in case studies. This research will inform further strategic directions and provide guidance for new schools working towards a whole school approach to eLearning.

<http://education.qld.gov.au/smartclassrooms/strategy/dp/schoolsproject.html>

Target groups

- Students
- Teachers
- Parents and guardians

Learning Network Queensland (LNQ)

<http://www.lnq.net.au/>

Key objectives

Learning Network Queensland (LNQ) is committed to empowering Queenslanders in rural and remote communities with educational opportunities.

Description of involvement in DML

LNQ is the first state-wide system that was set up in regional Australia to harness new learning technologies and to be a driving force behind access to learning opportunities for people in regional and remote Queensland.

Digital media literacy-related programs

• **Back to Work**

The Back to Work program is an employment training program that aims to support mature Queenslanders seeking to enter or re-enter the workforce. Conditions are to be 40 years or over; currently unemployed; and looking for work for a period of three months or more.

The program consists of face to face training in job seeking skills and accredited computing skills. The computer skills include the first three units of the Certificate I in IT—covering operating a word processing application, operating a personal computer and sending and retrieving information over the Internet using browsers and email. Successful completion leads to a Statement of Attainment.

Back to Work is delivered across rural, regional and remote Queensland only, and is not available for the southeast corner.

It is fully funded under the Queensland Government's *Skilling Queenslanders for Work Initiative* and is delivered by Learning Network Queensland through its Learning Centres located across Queensland.

www.lnq.net.au/BTW.aspx

- **Learning centres**

There are 36 Learning Network Queensland centres throughout Queensland.

These centres are linked and supported by a sophisticated technological network and supervised by local co-ordinators.

Centres vary in the services they offer. Most provide :

- training and communication facilities for community members, distance education students, local, state and national businesses and organisations
- information, availability and enrolment procedures for LNQ courses
- examination supervision
- facilities for quiet study, web conferencing, video and teleconferencing
- information on courses available through Australian educational institutions
- internet and printing access
- non-academic mentor for centre users.

Target groups

- Rural, regional and remote Queensland community members
- Men and women aged 40 or over seeking to enter or re-enter the workforce

State Library of Queensland

www.slq.qld.gov.au/

Key objectives

The State Library of Queensland is committed to the belief that an empowered and progressive society depends on creative thinking and the sharing of knowledge.

The State Library's vision *Enriching the lives of Queenslanders* is focused on delivering three outcomes: Learning for all; Queensland memory: today for tomorrow; Community connections

Description of involvement in DML

The State Library of Queensland is committed to embracing changes to service

delivery to meet the changing needs and expectations of its clients.

In particular, the rapid evolution of internet service and information technology provides enhanced ability to :

- deliver library services to a wider audience
- make global and local knowledge accessible.

Digital media literacy-related programs

- **Training and information sessions**

Training and information sessions mainly focus on using computers and other digital technologies, and developing library research skills needed for accessing resources—many of which are digital.

Courses include Internet safety, Second Life, Blogging, Photo-editing and using Skype. The courses range in cost, with some being offered for free.

www.slq.qld.gov.au/whats-on/events/training

- **Online Public Access in Libraries Training (OPAL)**

OPAL is funded by the Queensland Government and managed by the State Library of Queensland to allocate resources to various projects that contribute to building Queensland content on the web and to fostering 'information rich' communities.

One of the major goals of OPAL is to empower and support the development of online skills and knowledge in the Queensland public library community. The State Library achieves this by providing training to public library staff throughout Queensland and access to online training resources.

These courses train Queensland public library staff in how to deliver training and search the Internet effectively.

The training covers such topics as Library 2.0: Blogs, wikis and feeds, Library 2.0: Podcasts, vodcasts and MP3s, Emerging technology, together with a range of courses in using the Internet to find resources. In addition, an OPAL Training Blog aims to keep librarians up-to-date with new and emerging web technologies.

www.slq.qld.gov.au/info/publib/libs/opal

Target groups

- All Queenslanders
- Queensland public library staff

Western Australia

Summary of players and programs at state level

Community Resource Network is Western Australia's key program for providing ICT access and training. It is coordinated by the Department of Local Government and Rural Development and targets Western Australians living in rural and remote communities across the State.

This Network was initially established as WA Telecentre Network using funds from the Commonwealth Government's former *Networking the Nation* grants program. Funds from the Western Australian Government initiative *Royalties for Regions* have been allocated to the continuation and transformation of the Network into the Community Resource Network.

Royalties for Regions initiative announced in 2008 will be redistributing 25 per cent of the State's annual mining and resources royalties revenue in regional communities every year. Funding is available under this scheme to improve economic and community infrastructure and services in the region. Priority is given to projects that will assist in attracting investment and increasing jobs or help to improve the quality of life in the region.

Key player

- Department of Local Government and Rural Development

Key program

- Community Resource Network

Target group

- Small rural and remote communities across Western Australia

Detailed information on players and programs in Western Australia

Department of Local Government and Regional Development (DLGRD)

<http://rdl.wa.gov.au/>

Key objectives

The Department of Local Government and Regional Development (DLGRD) is an active partner in the development of policy and strategies aimed at improving services to regional communities.

It provides advice, financial and other assistance and information to regional communities throughout Western Australia to enhance their economic and social development. It also provides communications and information services to regional communities.

Description of involvement in DML

The Department manages the State Government's **Telecentre Support Program**

through the provision of funding and ongoing support and development services to centres that form part of the network.

Development support includes access to training, information, advice and referral services, assistance in developing and attracting business opportunities and grants, and helping to establish local capacity building projects.

Digital media literacy-related programs

- **Community Resource Network (formally WA Telecentre Network)**

The Community Resource Network is a network of community owned and operated Telecentre facilities. It aims to provide local access to technology such as video conferencing facilities, information, training and other services in small rural and remote communities across Western Australia.

The role for Telecentres is to provide:

- ICT Upskilling Programs
- access to leading edge ICT technologies, including broadband
- access to Government information and service delivery, most notably e-government and other online services

and to:

- facilitate and manage community web portals
- enable skills transfer, training and life-long learning
- assist with the ongoing development of communities.

The network currently serves an approximate population of just over 10,000 people across 82 local governments involving:

- 99 standard Telecentre sites
- eight Telecentres in remote indigenous communities
- seven Modular Interactive Telecommunications Environments
- 20 Additional Community Resource Centres

Established by the **Department of Local Government and Regional Development** in partnership with the **WA Local Government Association**, this program involves a number of players, including commonwealth, state and local government and agencies, formal and informal education, industry peak bodies, consumer and community organisations, research and academia and industry organisations.

In February 2009, Regional Development Minister Brendon Grylls announced support for the program will be available under Royalties for Regions funding. The Liberal-National Government will invest \$40 million over the next four years (2009 – 2013) to help the Community Resource Centres enhance the delivery and diversity of important community services, including capacity building and access to government and commercial services. These expanded facilities will have a key role in supporting growth and prosperity in

regional Western Australia.

www.dlgrd.wa.gov.au/RegionDev/Telecentres.asp

Target groups

- Small rural and remote communities across Western Australia

South Australia

The South Australian (SA) Government have released an Information Economy Agenda 2009-2014 – Delivering our digital future.

It is based around the Three C's - connectivity, capability and content. The digital literacy section recognises the for all citizens to have the access and skills to engage with the information economy.

Digital literacy should be considered as a core competency along with language and numeric skills. It is important to identify the value of digital literacy for consumers by making relevant content readily available, by providing pathways for people to become producers and suppliers in the digital economy, and by identifying opportunities for e-commerce. (Page 15)

This report has a series of priorities that include:

- Increase digital literacy across the board for users and potential users
- Adapt and build on existing industry and training models to create grassroots whole-of-community digital capability and build community capacity
- Increase digital confidence by ensuring awareness of on-line safety, security and privacy issues (page16)

Some of the activities and programs that are being undertaken to support Digital Literacy include:

Outback Connect Extension (OCX)

OCX provides free online basic computer training via 'virtual' classrooms for eligible participants (rural and remote South Australian's). The project aims to develop participant's computer capabilities and is comprised of a range of core topics such as Introduction to Computers, Getting Started on the Internet, Your PC: Printers, Networks, Viruses and Spyware and special interest and slightly more advanced topics such as Advanced Blogging and Organising your Music with I-Tunes. For more details please go to: http://www.informationeconomy.sa.gov.au/digital_engagement/outbackConnect.

School / Library and Community Information Sessions – Cyber Safety

A comprehensive speaking kit including fact sheets and PowerPoint presentations has been developed and delivered in person to a range of schools (students, teachers and parents), community groups and libraries. The sessions aim to improve awareness of and generate discussion around online safety and security.

'Untangling the Web' Sessions

These face to face sessions provide residents of regional and remote areas an opportunity to receive one on one advice regarding connecting to the internet and how to safely and effectively using the internet. The sessions also include information sessions on a range of topics including – Safe Social Networking, Buying and Selling on eBay and blogging.

Health in All Policies (HiAP)

This project is collaboration between The Department of Health, Department of Further Education Employment, Science and Technology and Flinders University and applies a health lens to SA Strategic Plan target 4.8 - Broadband Usage, to assist DFEEST in achieving this target whilst also supporting improved population health.

As part of the process, Flinders University undertook research on the topic of 'Digital Access as a 21st Century Health Determinant' to investigate ways in which access to, and usage of, digital technologies can be seen as determinants of health and wellbeing for low socio-economic groups in South Australia. As part of the study, various focus groups were conducted with different community groups in lower-socio economic areas of Adelaide to ascertain barriers and enablers to uptake.

Initial findings from the research confirmed that for low socio-economic groups, mobile phone use is higher than broadband use. Combined with the current trend and future predictions that access to the internet via mobile phones will increase, the project group as a result in phase two of the project are focusing on one digital technology, specifically mobile phones. The project is now undertaking further research on factors such as content, digital literacy, support and industry structure that may support people from low SES populations to more fully engage in economic, social, health and education settings using their mobile phones, as the medium for exchanging information, accessing goods, services and advice and other value added transactions.

Culturally and Linguistically Diverse Seniors Research

Research is being undertaken into the factors affecting the use of Information Technology by seniors from CALD communities in metropolitan and regional areas.

Summary of players and programs at state level

The South Australian Government has established key focus areas and specific programs to ensure South Australia is well placed to embrace the information economy and digital media technologies.

These programs fall within the responsibility of the *Information Economy Directorate*, a business unit within the South Australian Department of Further Education, Employment, Science and Technology. The Directorate's role is to provide a coordinated, whole-of-government approach to the development and implementation of strategic policy for the information economy to foster developments within the government, business, industry and community sectors. Its core responsibility is creating online opportunity for South Australia which it aims to achieve through its various initiatives and programs.

The programs identified are focused on different target segments of the South Australian population and cater to the specific needs of each of these groups.

Outback Connect offers free online training and support to people living in rural, regional and remote SA communities. Legendary Tales encourages young people

(5–25 years) to develop the necessary skills to participate in a digital art exhibition. Web Accessibility for People Disability educates South Australian government web designers on accessible web design. Smart State PC Donation Program provides refurbished state government computers to community organisations who are committed to using the computers to the benefit of disadvantaged South Australians. Programs which support the needs of specific community groups, including seniors, new arrival communities, Aboriginal people and those with low levels of literacy are also implemented.

Key players

- Information Economy Directorate of Department of Further Education Employment, Science and Technology

Key programs

- Information Economy website
- Outback Connect
- Legendary Tales
- Web Accessibility for People with a Disability
- Smart State PC Donation Program
- Seniors Use of Technology
- Digital literacy-related research

Target groups

- Regional and remote areas
- Young South Australians (under 25 years old)
- Rural and disadvantaged schools
- Indigenous groups
- People with disability
- Seniors

Detailed information on players and programs in South Australia

Department of Further Education, Employment, Science and Technology (DFEEST)

www.dfeest.sa.gov.au/

Key objectives

The Department of Further Education, Employment, Science and Technology (DFEEST) is an agency that provides services to:

- build skills for South Australia through workforce planning and skills development programs
- provide high quality public vocational education and training through

TAFE SA

- increase the workforce development and planning culture in South Australian workplaces
- foster innovation through science and information to develop the economy of the state.

Description of involvement in DML

The Information Economy Directorate, a business unit of DFEEST, provides a coordinated, whole-of-government approach to the development and implementation of strategic policy for the information economy to foster developments within the government, business, industry and community sectors.

Its core responsibility is creating online opportunity for South Australia which it aims to achieve through various initiatives and programs.

Digital media literacy-related programs

- **Information Economy website**

This website provides definitions of information economy and commonly used technology jargon, information on topics such as digital copyright and a range of resources and tools to assist South Australians to get online, including links to low cost computer and computer recycling providers.

www.informationeconomy.sa.gov.au/home_public

- **Outback Connect/ Outback Connect Extension**

Outback Connect is a South Australian government initiative supporting the use of computers and the internet, with a focus on regional and remote areas and specific needs groups. Outback Connect Extension is an extension of the previous Outback Connect Digital Literacy program which ran from 2000—07. Outback Connect Extension extends the implementation of this program in terms of time and its reach to all of regional and outback South Australia.

Outback Connect offers free, online basic computer training in a virtual classroom to eligible participants, who live outside the Adelaide metropolitan area and have left secondary school. The sessions are delivered live over the internet using software called CENTRA. Participants log into the virtual classroom via Centra, interacting with the trainer and other participants. A computer with a sound card, a headset with microphone (provided by Outback Connect) and an internet connection are required. Telephone support is available to participants.

Free online training covers topics such as introduction to computing, using MS Word, using MS Excel, using email and using the internet. Elective topics such as the use of Skype, Facebook, myspace, blogs, podcasts, online photo albums, making movies and using powerpoint are also offered.

Participants have the opportunity to gain formal recognition for their training by undertaking assessments and gain a Certificate I in Information Technology.

www.outbackconnect.sa.gov.au/

- **Legendary Tales**

Legendary Tales is a digital art exhibition and competition held annually in South Australia since 2007.

For the purpose of this program, digital art is defined as art that requires a computer to be created. Entries can be in the form of a digital photo, a short video, a manipulated image, a digital story, or an animation. The theme of the exhibition and competition in 2009 is stories of customs, beliefs and imaginings.

Groups and organisations are invited to apply for grants of up to \$500 to purchase equipment to participate in the exhibition. All South Australian aged 5 to 25 years old are invited to submit a piece of digital art to the exhibition. 18–25 year olds are also eligible to enter a competition to win \$1000.

The purpose of the grant is to enable eligible organisations to purchase equipment (e.g. digital camera, large screen computer monitor, digital art or drawing software, computer hardware) or to attend a digital art workshop to facilitate the creation of digital art for the Legendary Tales Exhibition.

Legendary Tales is an exhibition inspired by David Unaipon. The David Unaipon Awards is a reconciliation initiative of DFEEST which is co-ordinated by the Digital Bridge Unit in the Information Economy Directorate.

www.legendarytales.sa.gov.au

- **Web Accessibility for People with a Disability**

This program focuses on improving awareness of accessible web design policies and practices by providing information and training opportunities for SA Government web workers.

Some website designs can inadvertently create barriers to access for people who use assistive technologies or rely on the keyboard rather than the mouse to navigate a website and thus need to be avoided.

An online forum dedicated to Web Accessibility enables web workers within government and community sectors to share knowledge, solve common problems and exchange insights relating to accessible web design thus building their skills and knowledge.

Accessible Web Design Workshops are also held in partnership with Vision Australia.

- **Smart State PC Donation**

The Smart State PC Donation Program is a South Australian Government initiative that provides refurbished state government computers to South Australian community organisations and State Government community programs, including community programs, rural and disadvantaged schools and indigenous groups.

Computers are used to benefit the community. Projects include : training and education, allowing members to research and explore via the Internet,

reporting and data collection, to produce publications promoting the organisation, engaging the elderly and people with disabilities in social activities, assisting children to develop the necessary skills prior to commencing schooling, allowing social and sporting clubs to promote themselves and to provide information to members and to generally provide an additional resource to an organisation.

- **Seniors**

Funding has been provided for research into the use of digital technology by seniors from culturally and linguistically diverse backgrounds (CALD). Customer surveys conducted by the Outback Connect Extension program have indicated a strong demand and participation by seniors in basic training.

The Information Economy Directorate aims to increase the participation rate of seniors through ongoing liaison and program development with Community and Neighbourhood Houses, the Seniors Information Service, and the Broadband for Seniors program, to develop appropriate training programs and identify delivery mechanisms which will engage this population sector.

- **Digital Literacy-Related Research**

Research and projects have been initiated to explore the role of technology in literacy development and to identify the requirements of digital literacy. The use of technology for literacy and numeracy development in new arrival communities has been researched, with recommendations including the development of community mentoring programs, increased focus on digital literacy training and the adaptation of training tools to meet the needs of adults from an oral language tradition.

For Aboriginal communities, the use of virtual communication tools to develop literacy levels was demonstrated, through the agency of a community issue to motivate the use of digital technology. Other projects have explored the role of appropriate drivers and outcomes, such as tourism development, in developing digital literacy as well as providing economic benefit.

Research into the ways in which South Australians are using new technologies in their everyday lives is being carried out by Dr Genevieve Bell, an Adelaide *Thinker in Residence* during 2008–09. Her work 'SA Connects: The many futures of our digital lives' will help shed light on new opportunities for broadband and associated communication technologies in South Australia and beyond. She will identify opportunities, spaces and barriers for further uptake of technologies for economic and social development, considering a cross-section of the population.

www.sastories.com/

Target groups

- Regional and remote areas
- Young South Australians (under 25 years old)

- Rural and disadvantaged schools
- Indigenous groups
- People with disability
- Seniors

Tasmania

Summary of players and programs at state level

Two key programs have been identified which promote the uptake of digital media technologies in Tasmania.

The Tasmanian Government through the **Department of Economic Development and Tourism** and the **Department of Education** is developing policy and programs to ensure that all Tasmanians can participate in the digital economy. The two key programs currently in place specifically target tourism business operators and rural/regional communities. The programs aim to assist these groups to get online and benefit from using digital communications.

Telecommunications and ICT are recognised by the Tasmanian Government as increasingly important. The Premier recently announced an Industry Round Table on Telecommunications. This process has been established to provide significant input into the formation of a 10 year vision on how telecommunications and ICT can be utilised to build a clever, kind and connected future for Tasmania.

The outcomes of the Australian Government's National Broadband Network (NBN) initiative, the development of the government's headline economic strategies (Skills, Infrastructure and Innovation) and the formation of a complimentary digital economic strategy for Tasmania will contribute alongside to the Round Table to the Premier's 10 year vision and existing programs.

Key players

- Tasmanian Department of Economic Development and Tourism (DEDT)
- Tasmanian Department of Education (DET)
- Digital Tasmania

Key programs

- Tas e-Connect Digital Distribution Initiative
- Tasmanian Communities Online

Target groups

- Tourism Operators
- Rural, regional and remote Tasmanian community members

Detailed information on players and programs for Tasmania

Department of Economic Development and Tourism (DEDT)

<http://www.development.tas.gov.au/>

Key objectives

Tasmanian Department of Economic Development and Tourism (DEDT) leads economic and industry development in Tasmania.

Description of involvement in DML

The Department works with businesses to deliver marketing and development programs that drive benefits for Tasmania from national and international tourism. It develops and implements projects, programs and policies which aim to expand e-business and online tourism services.

Digital media literacy-related programs

- **Tas e-Connect Digital Distribution Initiative**

Tas e-Connect is an initiative of Tourism Tasmania aimed at creating more opportunities for consumers to purchase Tasmanian tourism products online, in real time.

The program aims to increase the number of distribution channels for Tasmanian tourism products and increase the number of tourism businesses accessing these channels. It is helping the Tasmanian tourism industry get their tourism products to the online market through the open booking exchange gateway— connecting them to more distributors and more consumers online.

A wide range of tools and resources are available to help Tasmania's tourism industry take advantage of the many benefits available through Tas e-Connect:

- a website is available which is designed to introduce Tasmanian tourism operators to Tas e-Connect and the benefits of the open booking exchange
- the Tas e-Connect Learning Program comprised of a range of tutorials for operators interested in a hands-on learning program delivered in person or online
- Tas e-Connect Help Desk to obtain information on learning and development opportunities or ask questions
- Tourism E-Kit.

The Tasmanian Department of Economic Development and Tourism has partnered with the Australian Tourism Data Warehouse, V3 Leisure and Tourism Exchange Australia for this initiative.

www.tourismtasmania.com.au/taseconnect

Target groups

- Tourism operators

Department of Education

www.education.tas.gov.au

Key objectives

The Department of Education is responsible for providing public education, vocational education and training, adult and community education, and library and archive services throughout Tasmania.

Description of involvement in DML

The Department sponsors the Tasmanian Communities Online initiative.

Digital media literacy-related programs

- **Tasmanian Communities Online**

The Tasmanian Communities Online (TCO) network is made up of sixty-six online access centres across rural and regional Tasmania.

The Centres provide low-cost access to computers and the internet as well as one-to-one assistance and training in their use for online learning, finding online government information and supporting local community development initiatives.

The TCO network was initially established in 1998 with funding from the Australian Government's *Networking the Nation* program. The program is managed by the Department of Education through the State Library's TCO Centre Support Unit.

www.education.tas.gov.au/ace/tco

Target groups

- Rural, regional and remote Tasmanian community members

Australian Capital Territory

Summary of players and programs at state level

Over the period 2001 to 2005, the ACT implemented a large suite of initiatives which were very successful in closing the digital divide in the Territory, with the ACT now having connectivity rates of 87 per cent.

While the Digital Divide program has now concluded, a number of these initiatives have been self sustaining and continue to have lasting, positive effects in promoting participation in the digital economy and social inclusion.

ACT government developed a strategic framework for providing equitable access to IT and the internet: *Community IT Access Plan*. Programs which continue to promote digital literacy in ACT include: Community Technology Centres, expansion of IT access in ACT through Public Libraries and the PC Reuse Scheme.

As the focus of these programs is to provide equitable access to ICT, the target population is typically low income status and disadvantaged persons.

Additionally, the ACT has a strong focus on ICT competency through its Every Chance to Learn ACT P-10 Education Curriculum Framework. The ACT's Smart Schools: Smart Students initiative provides the necessary infrastructure to support digital learning and ICT competency.

Key players

- ACT Government
- ACT Department of Education and Training
- ACT Library

Key programs

- Community Technology Centres
- ACT PC Reuse Scheme
- Public Access to IT through ACT Libraries and Community Centres
- Smart Schools: Smart Students
- *Every Chance to Learn* ACT P-10 Education Curriculum Framework

Target groups

- Low income
- Retirees
- Remote locations
- Australians with disabilities

- Senior citizens
- Non-English speaking background Australians
- ACT school students and their parents
- ACT public education teachers

Detailed information on players and programs for ACT

ACT Government

www.act.gov.au

Key objectives

The ACT Government developed a large suite of initiatives to improve participation in ACT as part of its *Digital Divide Program* (2001—05).

Description of involvement in DML

The *Digital Divide Program* provided initial grants to 19 community organisations to provide free access to IT and the internet, establishing the Community IT Advisory Group and developing the *Community IT Access Plan*, a strategic framework for providing equitable access to IT and the Internet.

Digital media literacy-related programs

Programs in the *Community IT Access Plan* still in operation:

- **ACT Community Technology Centres**

A Community Technology Centre (CTC) was established in six community organisations, providing access and training in information and communications technologies.

While the CTC initiative was finalised in early 2005, this program continues to have lasting, positive effects in promoting participation in the digital economy and social inclusion.

- **ACT PC Reuse Scheme**

The ACT Government provided funds to **Infochange Australia** to establish an ACT PC Reuse Scheme. In addition to computer recycling, through Green PC ACT, Infochange provides a range of community based services, including developing community group websites and providing IT installation and support services.

As part of the program, Charity Computers also received funding to enable them to continue to provide affordable PCs to low income clients.

Target groups

- Low income

ACT Department of Education and Training

www.det.act.gov.au/

Key objectives

The ACT Department of Education and Training's vision is to deliver a sustainable world class education and training system that will significantly add to the economic, social and cultural wellbeing of the people in the ACT.

For 2006–09, ACT Department of Education and Training will focus on the following key strategic goals:

- provide high quality education and training that meets the needs of the 21st century
- shape and lead education and training
- build communication, collaboration and partnerships
- strengthen organisational capacity.

Description of involvement in DML

The Department strives to create an education system that effectively equips ACT students for the 21st century. As part of this undertaking, ACT schools IT infrastructure is being upgraded to ensure that students can enjoy all the opportunities that state-of-the-art access to the internet and cutting edge technology can provide.

Digital media literacy-related programs

- **Smart Schools: Smart Students**

This program is improving the access of ACT public school students and their parents to information and communication technology.

Through the 2006–07 Budget, the ACT Government invested \$20 million over four years to improve ACT public school ICT infrastructure. Further resources were allocated to this program through the 2009–10 Budget.

The program has already seen the provision of IT infrastructure, development of a virtual learning environment and digital learning tools for ACT public schools.

- ***Every Chance to Learn* ACT P-10 Education Curriculum Framework**

This framework seeks to integrate ICT learning into the curriculum for all ACT school students in years P-10.

The Essential Learning Achievements (6) of the framework seeks that '*the student uses Information and communication technologies effectively*'. This Essential Learning Achievement focuses on students learning how to use a range of ICT to support their thinking, learning and communication.

It involves understanding the function and range of available technologies and then selecting, combining and using the appropriate hardware, software

and digital systems for the intended purpose and audience. Underpinning the capacity to perform these actions are technical skills in the use of applications, such as word processing, publishing, spreadsheets, databases, multimedia, email, interactive software, intranet, the Internet, search engines, web logs and wikis.

All ACT Public School Students in Year 10 receive a formal ICT competency certificate.

Target groups

- ACT school students and their parents
- ACT public education teachers

ACT Library

www.library.act.gov.au

Key objectives

ACT Library strives to create an operating environment which enables services to be provided which meet the information needs of the community.

Description of involvement in DML

ACT Library aims to facilitate access to close the digital divide in the ACT.

Digital media literacy-related programs

- **Mobile Library**

Mobile Library visits retirement villages, nursing homes and remote locations on a fortnightly basis throughout Canberra. The mobile library has books in standard print, books in large print, books on audio cassette and CD, captioned and standard videos, compact discs and DVDs and the internet. Any member of the ACT Public Library may use the Mobile Library at any stop and new members are welcome to join on the Mobile.

- **Public Access to IT through ACT Libraries and Community Centres**

An on-going initiative of the Community IT Access Plan is provision of public access to IT through ACT Libraries:

- extra large screen monitors and specialist software have also been installed to assist access by those with disabilities.
- ESL computers are available for those wanting to learn English or improve their English Language skills.
- free internet access and professional media stations are also available, with some terminals targeted towards use by specific user groups such as senior citizens.
- free small group training sessions, as well as interactive self-paced

internet based computer training (Learningfast), are offered to develop a suite of IT skills. Learningfirst can be accessed by members of the library online from any computer. It is comprised of two different programs:

- ICT Skills Benchmark is aimed at the novice computer user and teaches 8 fundamental IT learning competencies, including IT concepts, functions of a PC, word processing, searching the internet, etc.
- Teach Me is a collection of 100s of fully interactive online computer tutorials covering topics such as Microsoft Office (word, excel, powerpoint), MYOB, creating web pages, searching web, Lotus Notes. Each tutorial is supported by full text, searchable and printable online manuals.

Target groups

- Retirees
- Remote locations
- Australians with disabilities
- Senior citizens
- Non-English speaking background Australians

Northern Territory

Summary of players and programs at state level

Three key programs and two trial programs have been identified in the Northern Territory for advancing ICT and digital media literacy skills in the State.

The Northern Territory **Department of Business and Employment** ran a train-the-trainer program in 2007-08. Upon completion of the program the participants are now in a position to share the acquired skills within their communities, as per the purpose of the program. The communities targeted were remote indigenous communities.

The Northern Territory **Department of Education and Training** is undertaking two trial programs aimed at improving children's learning outcomes through digital media technologies in communities with large indigenous populations. The Northern Territory One Laptop per Child Trial targets school aged children in regional and remote communities, while the ABRACADABRA trial targets early childhood classrooms in urban and remote NT. If these trials are evaluated to be successful, they will be rolled out on a larger scale in the NT.

The Department of Education and Training has also created a template for schools to assist in their development of an ICT Strategic Plan that is aligned with the requirements for receiving support from the National Secondary School Computer Fund. It has also established the Laptops for Teachers program to encourage teachers to integrate the use of learning technologies into the classroom. The programs are funded through partnerships with the Commonwealth Government as well as the Telstra Foundation and Collier Charitable Funds.

Commonwealth funds are available to support programs to bridge the technology gap between indigenous and non-indigenous NT communities. The Federal Government committed \$1.3 billion over four years from 2007–08 to the NT Intervention, *Closing the Gap of Indigenous Disadvantage - A Generational Plan of Action*. This Plan sets ambitious targets at five, 10, and 20 years to overcome Indigenous disadvantage across areas including education, health, housing, employment and community safety.

Key players

- Northern Territory Department of Business and Employment
- Northern Territory Department of Education and Training

Key programs

- Northern Territory Advanced Training Program
- Northern Territory One Laptop per Child Trial
- Northern Territory Abracadabra Trial
- ICT Strategic Plan Template for Schools
- Laptops for Teachers

Target groups

- Remote indigenous community members
- Students from regional and remote Northern Territory schools
- Early childhood classrooms
- Northern Territory secondary schools and teaching staff

Detailed information on players and programs in Northern Territory

Department of Business and Employment

<http://www.nt.gov.au/dbe/>

Key objectives

The Department of Business and Employment seeks to secure substantial and lasting economic benefits for business and the broader Northern Territory community.

Description of involvement in DML

The Department has a strong focus on ensuring business has an adequate workforce through providing support for Indigenous employment programs and ensuring they understand current and emerging needs of business and industry and feed this information into the development of training programs.

The Department is involved in developing strategies with business and the community to improve e-government initiatives across all sectors to make it easier for people and business to engage with government and to improve delivery of core government services in regional and remote areas.

Digital media literacy-related programs or initiatives

- **Northern Territory Advanced Training Program**

The Advanced Training Program was a train- the trainer which ran from 2007 to 2008.

The program's key objective was to impart IT skills to people residing in remote indigenous communities that would increase the available skills base in the community and possibly lead to employment opportunities. The project also sought to encourage and develop commercial access to broadband telecommunications services in remote localities.

Sixty participants from seventeen communities took part in the program which covered subjects such as:

- hardware and software problem resolution
- how to build a PC
- utilisation of internet, banking, online training, information and research

- training tools and methods.

The program was fully funded by the Australian Government.

Target groups

- Remote indigenous community members

Department of Education and Training (DET)

www.det.nt.gov.au/

Key objectives

The Department of Education (DET) strives to provide and promote quality education and training for all Northern Territorians, whether they are young children or adults, so that they can experience the best possible life and job opportunities.

Description of involvement in DML

The Department supports and implements various initiatives aimed at ensuring all schools integrate information and communication technologies into their operations to improve student learning, to offer flexible learning opportunities and to improve the efficiency of their business practices.

Technology Information and Planning Services has been established within the Department to manage the provision of information, communication and learning technology architectures and develop and deliver technology strategies and project initiatives in NT schools.

Digital media literacy-related programs

- **ICT Strategic Plan Template for Schools**

The ICT Strategic Plan Template is designed to assist schools in the development of an ICT school plan. An ICT Strategic Plan is a requirement for all schools participating in Round Two Applications for the National Secondary School Computer Fund.

The Template links the elements from the Digital Education – Making Change Happen Framework to the Key Result Areas that schools are required to report against in the DET Accountability and Performance Improvement Framework (APIF).

www.ict.schools.nt.gov.au/computers_networks/index.shtml

- **Laptops for Teachers**

The Laptops for Teachers Program is aimed at encouraging principals and teachers to effectively integrate the use of learning technologies into the classroom and administrative practices of schools. All principals, assistant principals and teachers with 50 per cent or greater teaching load are eligible.

The primary objectives of the initiative are to:

- provide tools for teachers so they can consolidate their professional

development and improve their skills and confidence level in relation to Information, Communications and Technology

- support and encourage principals and teachers to effectively integrate the use of learning technologies into classroom and administrative practices
- reward and provide an incentive for teachers undertaking significant professional development in the use of learning technologies
- enhance the professional status of teachers.

www.ict.schools.nt.gov.au/laptops/index.shtml

- **Northern Territory One Laptop per Child (Trial program)**

Under this trial, children from three regional and remote Northern Territory schools are being provided with a purpose-built educational tool, the XO Laptop.

The classes of students will use the laptops during 2009 and the Department will assess the learning benefits and identify the associated teaching strategies and resources required for use.

The Department is particularly interested in how the laptops can be used to extend the already substantial computer and network resources installed in remote schools into the homes and lives of indigenous students.

- **Northern Territory Abracadabra (Trial program)**

ABRACADABRA! (ABRA) is being trialled in NT schools by the School for Social and Policy Research. ABRA is a multimedia software program that helps early childhood teachers reinforce foundation literacy skills among emerging learners. ABRA is based on the research available on the science of learning acquisition, brain development and foundations of literacy in early childhood.

In mid-2008, ABRA was trialled over a 10-week period in three urban and remote NT schools that had a high proportion of Indigenous students.

In 2009, an 'Australianised' version of ABRA is being trialled in six urban and remote NT schools that also have a large Indigenous cohort. If the students continue to show positive results, an experimental study will be undertaken involving twelve NT schools in 2010.

ABRACADABRA! in Australia is made possible by the support of the Telstra Foundation, who have committed \$750,000 over a three year period to 2010, and the Collier Charitable Fund.

<http://www.cdu.edu.au/sspr/abracadabra.html>

Target groups

- Students from regional and remote Northern Territory schools
- Early childhood classrooms
- Northern Territory secondary schools and teaching staff

Examples of National players and programs

This section provides information on programs from the **Department of Broadband, Communications and the Digital Economy (DBCDE)** and the **Department of Education, Employment and Workplace Relations (DEEWR)** and the **Australian Local Government Association (ALGA)** promoting digital media and communication skills and technologies at national level.

Department of Broadband, Communications and the Digital Economy (DBCDE)

DBCDE

www.dbcde.gov.au/

Key objectives

Department of Broadband, Communications and the Digital Economy (DBCDE) is working with others to develop a vibrant, sustainable and internationally competitive broadband and communications sector which promotes the digital economy for the benefit of all Australians.

Description of involvement in DML

Key priorities for the DBCDE include implementation of the National Broadband Network (NBN); digital television switchover; development of the digital economy; and implementation of the Government's response to the Regional Telecommunications Review.

Digital media literacy-related programs

- **Indigenous Communications**

The objective of the Indigenous Communications program is to improve essential telecommunications services, basic public internet access facilities and computer training for remote Indigenous communities.

The program will deliver by 2013–14:

- a fixed or mobile community telephone to around 300 remote Indigenous communities that do not currently have access to a public telephone
- ongoing monitoring and maintenance of these 300 new phones and 250 existing phones, and
- in collaboration with state and territory governments, the installation of public internet access facilities and delivery of computer training in up to 120 remote Indigenous communities that have limited or no public access internet facilities.

- **Digital Regions Initiative**

The Digital Regions Initiative (2009–10 to 2013–14) co-funds digital enablement applications to improve services in the key sectors of health, education and emergency services in regional, rural and remote communities

across Australia in partnership with state, territory and local governments.

The Digital Regions Initiative will support projects which will deliver innovative and sustainable services such as those that will:

- boost innovation in healthcare by enabling services such as remote consultation, diagnosis and treatment in areas where there are specialist skills shortages
- extend digital education services to enable more regional, rural and remote communities to access improved educational opportunities; and
- increase the use of digital technologies to improve emergency and disaster response both within and across state and territory borders.

Target groups

- Remote indigenous communities
- All Australians

Department of Education, Employment and Workplace Relations (DEEWR)

DEEWR

www.deewr.gov.au/

Key objectives

The Department of Education, Employment and Workplace Relations (DEEWR) is the lead government agency providing national leadership in education and workplace training, transition to work and conditions and values in the workplace.

The Department's objectives are to:

- educate and build socially inclusive communities where all Australians have the opportunity to reach their full potential and to actively participate in a rewarding economic and social life
- build and promote individual development through equitable and accessible education from early childhood services to skills training and higher education
- increase workforce participation and promote fair and productive work practices
- develop national economic potential and capability that builds future economic prosperity and international competitiveness through skills development and employment growth
- actively engage with clients and stakeholders to ensure services, advice and resources respond to the needs of these groups; and to
- look for efficiencies and innovative, targeted and effective solutions in developing national economic potential.

Description of involvement in DML

The role of DEEWR is to equip people with the knowledge and skills to meet the challenges of the 21st century with confidence. It has two programs, the Digital Education Revolution and the Framework for Open Learning, which support and promote the adoption of information and communication technologies across the education and training sectors.

Digital media literacy-related programs

- **Digital Education Revolution**

The aim of the Digital Education Revolution is to contribute sustainable and meaningful change to teaching and learning in Australian schools that will prepare students for further education, training and to live and work in a digital world.

Through this program, the Government is providing \$2.2 billion over from 2007 to 2013 to:

- provide for new information and communication technology (ICT) equipment for all secondary schools with students in years 9–12 through the National Secondary Schools Computer Fund
- support the deployment of high speed broadband connections to Australian schools
- collaborate with states and territories and Deans of Education to ensure new and continuing teachers have access to training in the use of ICT that enables them to enrich student learning
- provide for online curriculum tools and resources that support the national curriculum and specialist subjects such as languages
- enable parents to participate in their child's education through online learning and access
- support mechanisms to provide vital assistance for schools in the deployment of ICT.

- **Framework for Open Learning (FOLP)**

The FOLP is a small grants program which supports national cross-sectoral projects and activities that enhance learning outcomes, encourage learning throughout life and provide educational benefits for the effective and efficient use of ICT across Australian education and training sectors.

It fosters collaboration and innovation in the educational use of ICT, and promotes national and international engagement in such innovation. Priorities are in accordance with the Joint Ministerial Statement for ICT in Australian Education (2008–11).

Target groups

- Students

- Teachers
- School and education leaders

Australian Local Government Association (ALGA)

ALGA

www.alga.asn.au

Key objectives

The Australian Local Government Association (ALGA) is the national voice of local government, representing more than 560 councils across the country.

ALGA's strategic priorities are:

- strengthening local government finances
- sustaining local roads, transport and other infrastructure
- improving natural and built environmental outcomes
- enhancing regional equity and regional development
- building capacity and sustainability in local communities
- connecting member associations and the local government sector
- engaging effectively in national government processes

Description of involvement in DML

Local government is a key consumer of digital media and communications technology. Its use of digital technology is helping to improve government service delivery, increase transparency and participation in decision-making, and foster community engagement. Local government is also a key funder of local public libraries, many of which run programs for local community members to engage in digital media.

ALGA is a member of the Online and Communications Council and through this role, helps to promote awareness of local government innovations and initiatives in the digital economy generally.

Examples of local governments using digital media

- **Webcasting of council meetings and proceedings**

Over recent years, numerous local councils have implemented webcasting technologies to give more people in their local and regional communities the opportunity to access council meetings.

Webcasting allows individuals and groups to view proceedings from a PC without the need to attend the meeting in person. Webcasting used by local councils provides the community and interested stakeholders with greater ability to 'attend' council meetings, effectively eliminating geographic and other barriers that sometimes mean members of the public cannot attend

council meetings 'in person'.

Associations of local government have also assisted in moves to promote webcasting by councils. For example, the Municipal Association of Victoria played a key role in promoting the use of webcasting by councils through such things as the running of information sessions for councils.

- **Council 'chat rooms' through Bangthetable.com**

Bangthetable.com is an independently moderated space for discussing public policy. It hosts discussions for organisations (including councils) that recognise the value of community input to their decisions. Decision-makers can use the information gathered to judge the currency of issues being debated, and the concerns that might be at issue in the community.

Numerous NSW councils are adopting this consultation tool to provide residents with an opportunity to have their say on planning, services and other decisions using the internet.

www.bangthetable.com

- **Online panels on local government issues**

A pilot program to trial the success of online panels as a community engagement tool on local government issues was undertaken in South Australia. The cities of Burnside, Tea Tree Gully, Unley and Whyalla and the District of Coorong participated in the trial in partnership with the South Australian Local Government Association and the University of South Australia.

The concept of the online community panels is that residents who join the panels help councils to gauge their local community's responses to issues (e.g., customer satisfaction with council services) through a series of brief electronic surveys and consultations. These results are then used by council to assist in all types of council decisions and strategic planning, from budget allocations to environmental issues.

Panels trialled in the cities of Burnside, Tea Tree Gully and Unley were successful, but the participation rates in Whyalla and Coorong were not high enough to establish operational panels in these municipalities at this stage.

It is intended to roll out the online community panels to other councils in South Australia from April 2009, with many local governments expressing interest in using online community panels.

- **Social networking sites**

A number of councils have recently taken up social networking sites, including Twitter and Facebook, to ensure local community residents can follow developments in council and stay engaged in their local communities.

In 2008, Mosman Council (NSW) was the first local government in Australia to sign up to Twitter and the move has received an overwhelming response from residents. Its aim is to inform constituents of what's happening in

Mosman.

Twitter is used by Mosman Council to:

- supplement the information it publishes on its website
- remind community members of important events and late-breaking news
- provide links to interesting and useful information about Mosman published by others.

Target groups

- Local governments
- Local communities

Attachment D

ROAR FILMS and the London Learning Grid

Tasmanian based company, ROAR FILMS, is in partnership with the London Learning Grid. They have been responsible for a major campaign for school children in the United Kingdom.

It is for the Child Exploitation and On-line Protection Centre (CEOP) at www.thinkuknow.co.uk.

From the information I was able to access, it is a very sophisticated campaign. They have passed their target of training 4,500,000 children in the UK by July 09.

There are 3 stages:

- Stage 1 – 5-7 year olds
- Stage 2 – 8-10 year olds
- Stage 3 – 11-16 year olds

In addition to lesson plans and resources and training days for teachers, there are posters, videos, films, YouTube pieces, a Safer Internet Day campaign, specific material for parents, .

Stage 1

Cartoons based material - Hector's World – covering

- on-line piracy,
- welcome to the carnival
- it's a serious game
- the Info Gang
- Heroes

Additional material includes a poster, sticker sheets, a World song sheet and videos on internet safety and Where's Klaus?

Stage 2 Lesson plans

Cartoon based material – more sophisticated than stage 1. Topics covered include:

- Using technology to communicate
- Introducing THINKUKNOW Cybercafe website
- Communication and information
- Using email safely
- Responsible use of the internet

- Chatting with care
- Using text & picture messaging
- Behaving responsibly
- Social networking - safe profiling

Parents are given fact sheets, a web cast and a power point to help them educate their children.

Videos used include Jigsaw (which use analogies to portray the risks of posting details on-line for everyone to see) and Where's Klaus?

Stage 3 is mainly video based training based on case studies of different teenager's stories:

- Claire thought she knew
- Tom's story
- Matt thought he knew
- Where's Klaus?

Presentation about THINKUKNOW

A film, Consequences, deals with the issues that young people face with on-line usage and demonstrates common offender behaviour.

Leaflets, brochures, parent's presentation and information sheets are also part of the campaign.³³

³³ www.thinkuknow.co.uk