

NEW GENERATION TECHNOLOGIES FOR LEARNING



VET Teacher E-learning Toolkit

Essential Functions for Teachers Standard Operating Environments

E-standards for Training
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1 What is the Toolkit?

This VET Teacher E-learning Toolkit (toolkit) specifies the minimum web and desktop-based functionality requirements needed to support e-learning in the national training system. This functionality has been endorsed by each state and territory via the National Senior Officials Committee (NSOC).

The toolkit was developed by the National VET E-learning Strategy (Strategy), through the E-standards for Training business activity¹ incorporating New Generation Technologies for Learning.

2 How do I use the Toolkit?

The information in this toolkit should be used to inform the development of Standard Operating Environments (SOE) to support the e-learning functionality required by teachers and trainers. Vocational education and training (VET) organisations may provide this functionality through the use of any tool that meets the needs of their learners and teachers. Example tools are provided for each functional requirement as a guide only.

Where possible, software tools selected for use by teachers and trainers should be compliant with the VET sector's e-standards:

http://e-standards.flexiblelearning.net.au/technical_standards/index.php

3 Companion Document

A companion document, Commonly-used e-learning applications and tools in VET², contains a list of software tools that are commonly used by teachers and trainers, based on a survey and stakeholder consultations undertaken by the Strategy in 2012.

The following tables outline the minimum web and desktop-based functionality requirements needed to support e-learning in the national training system. There are three licence types referred to in the tables:

- C = Commercial
- CNC = Commercial No Cost
- F = Freeware, Open-source, Free for use in Education

¹ The E-standards for Training business activity develops national standards to underpin essential e-learning infrastructure, conducting research into new technology areas and providing guidance materials and tools to support the effective use of emerging technologies; for more information:

<http://flexiblelearning.net.au/e-standards>

² <http://e-standards.flexiblelearning.net.au/documents/2010-commonly-used-elearning-apps-and-tools-in-vet.doc>

4 Web-Based Functionality

4.1 Access to National VET Teaching and Training Resources

VET practitioners require access to the teaching and training resources available through the VET sector's national network of learning object repositories.		
Example tools	Licence	Notes
Toolboxes http://flexiblelearning.net.au/toolboxes	F	Install as desktop short-cut and/or add to search toolbar in web browser.

4.2 Access to Digital Resources to Support Teaching and Training

Practitioners require the ability to access supporting digital resources that are available online.		
Example tools	Licence	Notes
TeacherTube http://www.teachertube.com	F	Video-based educational resources that can be viewed online, or downloaded for use in class or personal viewing.
YouTube http://www.youtube.com	CNC	Video-based resources that can be viewed online and commented on.
Google Maps and Google Earth http://maps.google.com http://www.google.com/earth/index.html	CNC	Web services that include interactive mapping, satellite and terrain imagery.
Webquest http://webquest.org/	F	American based and not particularly VET focused but an example of actual content resource base used in some VET institutions

4.3 Access to Social, Collaborative Communication and Content Creation Tools

Practitioners require the ability to communicate, collaborate and create content online using web-based applications and tools.		
Example tools	Licence	Notes
Blogger http://www.blogger.com	CNC	Blogs are commonly used in education for topic discussion by a learning group or as a reflective journal as a group.
Edublogs http://edublogs.org/	F	
Del.icio.us http://del.icio.us	CNC	Social bookmarking tools are used by individuals or learning groups to collate, manage and rate links to web based resources.
Diigo http://www.diigo.com	CNC	Social bookmarking tool that incorporates group functions for class activity and online sticky notes
Wikispaces http://www.wikispaces.com	CNC/C	Wikis are commonly used for group documentation or assignment work.

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Flickr http://www.flickr.com	CNC	Images can be shared within an online community or private groups.
Picasa Web Albums http://picasaweb.google.com	CNC	
Instagram http://instagr.am/	CNC	Photo sharing often linked to FaceBook and Twitter (now owned by Facebook)
YouTube http://www.youtube.com	CNC	Videos can be uploaded and shared with the online community, or topic-based and private channels.
Facebook http://www.facebook.com/	CNC	Needs policy support and guidance for effective and safe use. May be blocked in some institutions/jurisdictions
Twitter http://www.twitter.com	CNC	Used for sharing, collaboration, shared learning and search

4.4 Access to Virtual Classroom and Synchronous Communication Tools

Practitioners require the ability to connect to teachers, trainers and students to deliver and participate in training and professional development activities.		
Example tools	Licence	Notes
Adobe Connect http://www.adobe.com/products/connect	C	Use virtual classroom software to connect remote teachers, trainers and students
Centra http://www.saba.com	C	
Blackboard collaborate http://www.blackboard.com/platforms/collaborate/overview.aspx	C	
Horizon Wimba Live Classroom http://www.wimba.com	C	
IDL React http://darwinnt.biz	C	
Netviewer/GoToMeeting www.gotomeeting.com.au	C	
Second Life http://secondlife.com/	C	Virtual world tools can be used to deliver immersive alternate reality experiences and collaborate in online workshops, training, demonstrations, seminars, professional development and meetings. Bandwidth and network issues should be considered
Skype http://www.skype.com/intl/en/home	CNC	Make video and voice calls, send instant messages and share files. Only fees for calling phone numbers
Google Hangout http://www.google.com/+learnmore/hangouts/	F	Online group video conferencing where recordings are automatically uploaded to Youtube
Big Blue Button www.bigbluebutton.org		Open source video conferencing tool with LMS integration

4.5 Access to Tools to Support Evaluation and Assessment Activities

Practitioners require the ability to access tools to support the creation and publish surveys and quizzes for research, evaluation, feedback and assessment.		
Example tools	Licence	Notes
Survey Monkey http://www.surveymonkey.com	CNC/C	Surveys can be conducted for research. Teachers and trainers can also use these tools for evaluating a session, or collating data. Paying annual fees gives higher level of functionality
Hot Potatoes http://hotpot.uvic.ca/	F	Quizzes can be created offline then delivered via the web or through a learning management system.
Lime Survey http://www.limesurvey.org/	F	Open Source online survey tool
Google Forms http://www.google.com/google-d-s/forms/	F	Create surveys that are saved into GoogleDocs

4.6 Access to Cloud based storage and sharing functionality

Practitioners require the ability to store, collaborate and share across multiple devices For further information on selection of cloud tools see http://e-standards.flexiblelearning.net.au/implementation/cloud_computing.php		
Example tools	Licence	Notes
Dropbox http://www.dropbox.com	F	Files can be organised within a desktop folder that syncs with other devices and online. Documents can be shared online.
Google Drive http://drive.google.com	F	File storage, collaboration and sharing platform that incorporates google docs.
Evernote http://www.evernote.com	F	Online text repository that links across online applications.

5 Required Desktop Functionality

5.1 Ability to Author and View Documents

Practitioners require the ability to create and view PDF, DOC, TXT and RTF files		
Example tools	Licence	Notes
Acrobat Reader http://www.adobe.com	CNC	View PDF documents
Microsoft Word Viewer http://office.microsoft.com	CNC	View DOC, RTF and TXT documents

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CutePDF Writer http://www.cutepdf.com	CNC	Create PDF documents
Acrobat Writer http://www.adobe.com	C	
Microsoft Office http://www.microsoft.com	C	Create text-based documents
Open Office http://www.openoffice.org	F	
Google Docs https://docs.google.com/#home	CNC	View and author collaboratively

5.2 Ability to Play Audio and Video Content

Minimum requirement for practitioners is the ability to play all media created in content formats recommended to VET by E-standards for Training.		
Example tools	Licence	Notes
Flash Player 10 http://www.adobe.com	CNC	View FLV and SWF content. Also plays other standard formats. Refer to website for info. Also refer to the VET technical standards for Notes regarding Flash's ongoing support .
QuickTime 7 http://www.apple.com	CNC	Play MOV, MPEG -2, H.264/MPEG-4 AVC content. Also plays other standard formats. Refer to website for info.
Windows Media Player http://www.microsoft.com	CNC	Play WMA and WMV content. Microsoft website provides information on which version is recommended for which operating system.
Vimeo http://vimeo.com/	F/C	Free basic service available, premium service for a fee. Can upload videos and share with others plus browse and search for videos. Uses Creative Commons licences. Vimeo works on diverse devices including iPads and minimises bandwidth usage.

5.3 Ability to Create and Customise Multimedia Content

Minimum requirement is for practitioners to be able to create and customise multimedia content.			
Functionality	Example tools	Licence	Notes
Record and edit audio	Audacity http://audacity.sourceforge.net/	F	Commonly used for creation of audio content for podcasting.
Take screen-captures	Jing http://www.jingproject.com/	CNC/C	
	Snagit http://www.techsmith.com/	C	
Create demonstration or interactive	Captivate http://www.adobe.com/support/captivate/	C	
	Camtasia http://www.techsmith.com/camtasia.asp	C	

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tutorials and assessments	Adobe Flash Creative Suite http://www.adobe.com	C	Also refer to the VET technical standards for Notes regarding Flash's ongoing support.
	Articulate Storyline http://www.articulate.com/products/storyline-overview.php	C	Publishes to Flash, HTML5 and iOS Also refer to the VET technical standards for Notes regarding Flash's ongoing support.
Plug in for Moodle	Sloodle http://www.sloodle.org/moodle/	F	Works for Second Life

5.4 Ability to Access and Subscribe to Information Feeds

Minimum requirement is for practitioners to be able to access, subscribe to, and download news feeds and podcasts. Should also have access to information aggregators

Example tools	Licence	Notes
Google Reader http://www.google.com/reader	CNC	Recent web browsers include news and RSS aggregators
NetVibes http://www.netvibes.com	CNC	Virtual Webtop. Aggregator of online content (text, podcast, photos, video). Also has online sticky note function

5.5 Ability to Develop Web-Based Learning Content

Minimum requirement is for practitioners to be able to create and update web-based learning content.

Example tools	Licence	Notes
Adobe Dreamweaver http://www.adobe.com/products/dreamweaver/	C	Dreamweaver can also be used as a collaborative development tool.
Cybertrain http://cybertrain.info/index.html	F/C	Create on line quizzes and games
eXe http://exelearning.org/	F	Tools that develop web-based learning content without the need for specialised coding experience.
Wimba Create http://www.wimba.com/products/wimba_create	C	
Kognito http://www.kognito.com/	C	Designed for health industry but used by some Australian education providers. Sets up role plays, simulations and games

5.6 Ability to use and deliver learning and assessment on mobile devices

VET practitioners need the ability to deliver on multiple mobile devices including BYO ones that may include proprietary systems such as iPads. Content here should be the subject of a subsequent piece of work

Link	Licence	Notes
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http://e-standards.flexiblelearning.net.au/implementation/mobile_technology.php		M-learning Teacher and Training guide
https://sites.google.com/a/adlnet.gov/mobile-learning-guide/home		ADL Mobile Learning Handbook

5.7 Ability to use e-portfolio approaches as part of teaching and learning

Teachers need to be able to engage with learners through the use of e-portfolio approaches and to provide a link to the outcomes of learning		
Example tools	Licence	Notes
Mahara http://mahara.org/	F	Links well to Moodle, a commonly used LMS
PebblePad http://www.pebblepad.co.uk/	C	Claims to be a personal learning space, beyond just an e-portfolio

More Information

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