

Flexible Learning Leaders 2004

Serious Computer Games

2004 Flexible Learning Leaders are asked to pass on their learning to an audience who would be likely to be interested, challenged or excited by it. They are encouraged to choose a means of communication appropriate to reach that audience

Adrian Denyer
NSW Manager
TDT Australia, NSW

October 2004

Australian Flexible Learning Framework

Supporting Flexible Learning Opportunities

MEDIA RELEASE

Monday 29 November 2004

Computer games get serious in Australia

Australia's AUD\$3 billion electronic games industry could have a head start in the international race to develop 'serious games' by tapping into more than 10,000 workplace competencies currently available within the vocational education and training (VET) system through nationally endorsed Training Packages.

'Serious games' were discussed at the Tokyo Game Show Forum in September and the concept was introduced with a great deal of industry support and enthusiasm to the world stage at the October *'Serious Games Summit'* in Washington.

According to 2004 Flexible Learning Leader Mr Adrian Denyer, serious games should not be confused with other interactive educational e-learning tools.

"Serious games have the same ability as any normal computer game to emotionally immerse people in game play using adventure or strategy, but the difference is the subtly disguised intention that players will *learn as they play*, with progress checkpoints acting as a platform for knowledge and content assessment," Mr Denyer said.

Mr Denyer is researching Australia's potential to tap into the serious games market with support from the Australian Flexible Learning Framework's (Framework) Flexible Learning Leaders project, which has provided professional development funding to more than 200 Australians.

The Framework was established in 2000 to support the VET system to meet the rapidly increasing demand for flexible learning.

Mr Denyer says there is enormous potential within Australia to use commercial mainstream computer games as an exciting alternative training and assessment tool.

He believes that nationally endorsed Training Packages offer a significant potential source of material for game developers to draw on, particularly for trainers delivering flexible workplace-based learning. Game users, including school students, could also use serious games to explore career options by experiencing them virtually.

"The great thing about serious games is that people will have the opportunity to step into a job role and perform tasks that they may be unfamiliar with, or perhaps would never have experienced under normal circumstances.

"Competencies from Training Packages really give Australia an inside running in this growing global market because they cover all the activities required for a huge range of jobs that are carried out all over the world, based on more than 10,000 very carefully defined units, and hundreds of thousands of performance criteria," he says.

1/3

...Computer games get serious in Australia

“With around 50 game development companies located across Australia, additional corporate interest could make the option of using serious games as a delivery tool for Training Package units of competency a reality within the next couple of years,” Mr Denyer says.

While some educational games do exist in Australia (one example is ‘Ditto’s Keep Safe Adventure’, which was developed in collaboration with a number of Australian Government departments and the Telstra Foundation, to make children aware of personal safety and the danger of sex offenders), there are currently no serious games available that have the high level of interaction that Mr Denyer envisages.

“If we can develop serious games based on other popular computer games which are available for systems such as Sony Playstation 2 or X-Box, we may attract interest from a wider range of game development companies,” Mr Denyer says.

In the computer game industry, there are two ways games can be developed. The first is to ‘mod’ (industry-speak for ‘modify’) an existing game. The second option is to develop a game from scratch.

“Some companies are keen to ‘mod’ because it’s good publicity for them, and we’ll certainly explore this option,” Mr Denyer said. “In the meantime we are developing a closely guarded bus game prototype to test with game development companies.”

Skills Councils work closely with the Australian Government and training providers to develop Training Packages. Mr Denyer is the NSW Manager of TDT Australia, the National Industry Skills Council for the Transport & Logistics Industry.

He believes the possibilities for simulating different workplace environments and on-the-job situations in serious games are unlimited.

“Either way, computer games will soon be a key part of how we learn things, especially things where we have to ‘do’ in order to ‘learn’,” Mr Denyer said.

According to the summary in a recent literature review [‘The use of computer and video games for learning’](#), there are several reasons why computer games can be beneficial as learning resources, including motivation via fun, instant feedback, responsiveness and the option to be uploaded and customised by individual players.

Next month, the Australian Game Developers Conference will be held, featuring an ‘Academic Summit’ titled *‘Playing With Our Minds 2004’*, where the issue of serious games will be discussed.

Scenario: Educating workers about occupational health and safety

Put yourself in the position of a future school leaver who is exploring their career options via serious games...

Imagine that you have gained a position working in the shipyards in Australia’s biggest sea port. You are responsible for protecting the ‘front line’ of the import and export industry against possible threats against this country and its people. You oversee the quality control and inspection of perishable and non-perishable goods that are to be transported to and from Australia on international carriers. Included in this long list are ‘dangerous goods’ that could pose a threat to the wider population.

2/3

...Computer games get serious in Australia

You are getting dressed for work. What clothing is considered to be appropriate attire? Do you put on overalls, protective gloves and boots, or a suit and polished shoes?

To proceed past the first checkpoint and enter the shipyard, you need to wear overalls, protective gloves and work boots.

Once you enter the shipyards, you are greeted by another work mate who hands you a clipboard and asks you to inspect a shipping container from a vessel carrying 'dangerous goods', which have just arrived from a foreign port that is deemed to be a 'low security risk'. The container is due to be loaded onto a goods train destined for a highly populated metropolitan area in two hours' time.

Before unloading the container, would you use your initiative and follow workplace protocol to:

- read the paperwork attached to the clipboard?
- check your 'expected arrivals' list to ensure the cargo was registered?
- scan the shipping container before opening to check for illegal or life threatening content?

If the first task of the unit of competency is completed correctly, you will discover that despite the shipping container being correctly registered, it was used to transport an explosive device and the paperwork on the clipboard was a death threat from a radical extremist group. Had you not followed procedure, you would have breached Australia's line of defence and effectively caused a state of national emergency with potentially devastating consequences.

Failure to complete this task would be recorded as a failure for this assessment. Successful completion of the task would enable you to move on to the next stage of the game, by alerting national security. Despite being a very realistic simulation, the explosions experienced in the game are nothing compared to the irreparable damage of a blast that could occur in real life.

Mr Denyer will attend the Australian Game Developer's Conference, to be held in Melbourne from the 2-4 December. For more information or to register, visit: <http://www.agdc.com.au/>

For more information on serious games, visit: <http://www.seriousgames.org>

For demonstrations of serious games currently under development, visit: <http://www.socialimpactgames.com/index.php>

For more information Flexible Learning Leaders, visit: <http://www.flexiblelearning.net.au/leaders>

For more information about the Framework's other products, resources and networks, visit: <http://www.flexiblelearning.net.au>

To subscribe to or view the Framework's online monthly newsletter, visit: <http://www.flexiblelearning.net.au/flex-enews>

Ends

For further information about this story contact the Framework Communication team, Susannah Thackray or Kristen Banks, tel: (07) 3247 5511 or email: flexenews@flexiblelearning.net.au

flexiblelearning.net.au