# RMIT University Learning and Teaching Investment Fund 2008 Final Report

## Project title
Teaching and Learning-Video Streaming with Zing Technology

## Project leader
Tony Robins

## Project category
Teaching & Assessment of Large Classes

### Team members

<table>
<thead>
<tr>
<th>Name</th>
<th>Project role</th>
<th>Position</th>
<th>School/Area</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tony Robins</td>
<td>Project Manager</td>
<td>E Learning Leader, Teacher (Industry Training)</td>
<td>School of Engineering TAFE SoE (TAFE)</td>
<td>RMIT University</td>
</tr>
<tr>
<td>Patrick Walton</td>
<td>Team member</td>
<td>Team Leader Electrotechnology</td>
<td>SoE (TAFE)</td>
<td>RMIT University</td>
</tr>
<tr>
<td>Arvind Sharma</td>
<td>Team member</td>
<td>Industry Manager Electrotechnology</td>
<td>SoE (TAFE)</td>
<td>RMIT University</td>
</tr>
<tr>
<td>John Kite</td>
<td>Team member</td>
<td>Industry Manager Building</td>
<td>SoE (TAFE)</td>
<td>RMIT University</td>
</tr>
<tr>
<td>Max Dumais</td>
<td>Consultant</td>
<td>Chief Executive Officer</td>
<td>Zing Technology</td>
<td>Ahead of The Game</td>
</tr>
</tbody>
</table>

## Funds approved
See attached

## Funds acquitted (attach financial statement)
See attached

## Introduction

The proposal in 2008 was to extend the trial of Zing and other technologies to meet the client's requirements to train an entire industry workforce in a short period of time. The plan involved conducting a Pilot in 2008 by introducing lecture-style delivery to a group of students (tradespeople) using Zing and video-conferencing technology. By utilising a number of lecture theatre venues and incorporating the latest technologies, RMIT was able to showcase to industry how easily the teaching and learning can be enhanced and also demonstrate RMIT's ability to train increased numbers of students in response to client need.

In summary, the use of Zing in the classroom aimed to significantly increase active student participation and their sheer enjoyment of the learning experience. It also aimed to provide the teacher with a clear picture of (a) the current level/knowledge of the students, and (b) the expected learning outcomes from the training experience.

### Rural Students

For students who cannot attend RMIT lectures, the client has indicated they would like those students to have the same access to the training and assessment without attending the RMIT City Campus.

This was made possible by trialling Zing technology for a group of students in diverse locations using video conferencing facilities - the Pilot involved regions across Victoria that can easily be linked to other RMIT campuses, including Bundoora, Sale and Hamilton. The project was able to utilise RMIT's videoconferencing facilities which were available at a number of locations within RMIT campuses and sites, including a suite of sixteen Tandberg videoconferencing facilities, available to all staff.
<table>
<thead>
<tr>
<th>Project description and outline</th>
<th>4. Project Timelines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase 1:</td>
</tr>
<tr>
<td></td>
<td>* Videoconferencing Training RMIT Bundoora Campus</td>
</tr>
<tr>
<td></td>
<td>Phase 2:</td>
</tr>
<tr>
<td></td>
<td>* Detailed consultations with industrial client EEIT Pty Ltd</td>
</tr>
<tr>
<td></td>
<td>* Detailed consultations with Zing Technology Consultant</td>
</tr>
<tr>
<td></td>
<td>* Detailed consultations with RMIT ITS management</td>
</tr>
<tr>
<td></td>
<td>Phase 3:</td>
</tr>
<tr>
<td></td>
<td>* Teaching resources and assessment tools prepared using new tools</td>
</tr>
<tr>
<td></td>
<td>* Liaison with Bundoora teaching staff (Nursing)</td>
</tr>
<tr>
<td></td>
<td>* Liaison with ITS staff</td>
</tr>
<tr>
<td></td>
<td>Phase 4:</td>
</tr>
<tr>
<td></td>
<td>* Videoconference Trial Metropolitan Area with industrial clientele</td>
</tr>
<tr>
<td></td>
<td>Phase 5:</td>
</tr>
<tr>
<td></td>
<td>* Videoconference Trial - Rural Area</td>
</tr>
<tr>
<td></td>
<td>* Detailed consultations with East Gippsland TAFE</td>
</tr>
<tr>
<td></td>
<td>* Detailed consultations with RMIT Hamilton Campus</td>
</tr>
<tr>
<td></td>
<td>Phase 6:</td>
</tr>
<tr>
<td></td>
<td>* Evaluation of student/client satisfaction and learning outcomes completed</td>
</tr>
<tr>
<td></td>
<td>Phase 7:</td>
</tr>
<tr>
<td></td>
<td>* Teaching resources and assessment tools modified as per student/client feedback.</td>
</tr>
</tbody>
</table>

**Consultant’s Final Project Report**

RMIT employed a consultant to coordinate the Zing Technology Pilot Project, overseen by Tony Robins, Project Leader, Teaching and Learning-Video Streaming with Zing Technology, LTIF.

Max Dumais, CEO, Ahead of the Game Pty Ltd, was employed to deliver the Pilot in 2008 and develop a final report to RMIT, which I submit for your consideration:

**Ahead of the Game Pty Ltd**

*Thinking your way to success*

*10 September 2008*

**Learning and Teaching Investment Fund 2008 Grant**

**Zing technology**

**Preamble.**

The School of Engineering (TAFE) had already purchased a stand alone version of the Zing electronic learning system and have had a number of people trained in its use. Interest was expressed in the intranet version for online meeting and a grant sought to trial the technology with the video conferencing system already in place.
The aim was to establish the capability to link together the online version of the Zing electronic learning system with RMIT’s video conferencing facility with a view to developing online delivery of training.

Methodology

In developing the Pilot a number of activities were undertaken, including stakeholder meetings and ongoing liaison and consultation with RMIT staff and technical support personnel. Some examples of these activities include:

(Phase 2)

In terms of potential client focus, a number of meetings were held with Graeme Watson (Graeme.eeit@bigpond.com – Secretary Director of the Electrical Electronic Industry Training Ltd (EEIT) in view of potential application in the delivery of both the mandatory regulation upgrade and their possible ‘Green Electrician’ program. Given the 25,000 target group involved, it was considered a viable option to consider alternative delivery programs to that of set classroom and practical demonstration classes. A range of animated simulations have been developed to assist in this approach.

(Phase 3)

In that context, meetings were held at Bundoora campus with Carlo Duru (carlo.duru@rmit.edu.au) Manager, technical support. A video conferencing lecture involving nursing students at Bundoora and online to Hamilton and West Sale was observed and the lecturer interviewed as to possible uses of a Zing application. It was clear that Zing would add a new dimension to distant classrooms by way of eliciting questions and comments online.

From a technical standpoint, agreement was reached with John Zylinski, Portfolio Information Technology Manager together with Morgan Morris, Manager, Audio Visual Services to install a version of the Zing server to enable access to a permanent IP address.

To this end, a meeting was held subsequently with Eric Mistica (eric.mistica@rmit.edu.au) at John Zylinski’s behest and a temporary installation on an internal PC was arranged within RMIT’s firewall. This installation has since been made permanent on an internal server for the coming twelve months under a licence arrangement for research and developing this form of delivery within the School of Engineering and Technology.

Chris Truong met with Tony Robins and me on a number of occasions to successfully test the system internally within the city campus from the Casey Plaza site to the Queensberry street building.

Eric Mistica arranged for the consultant to have access to a staff VPN connection to the RMIT system which made it possible for online trials to be made from outside RMIT to a number of internal points.

(Phase 5)

Visits were arranged with Michael Walker (mwalker@egtafe.vic.edu.au – at East Gippsland TAFE in Bairnsdale to consider the technical issues in linking through RMIT’s internal intranet. A further meeting was arranged with Paul Mlynarz (pmlynarz@egtafe.edu.au) – Manager eLearning at East Gippsland TAFE and a subsequent online demonstration took place. Paul had agreed to work with the proposed demonstration session, but was not required.

The final link in the chain was to trial a connection with RMIT, Hamilton. To this end
client software was downloaded to James Kruger (james.kruger@rmit.edu.au) – an eLearning specialist, who trialled the connection successfully with the consultant using a staff VPN connection which allowed access to the RMIT internal system.

**Conclusion**

Following the necessary technical arrangements internally, successful connections have now been made with Bairnsdale, Hamilton and RMIT's city campus and the capacity to present both technologies together has been established and demonstrated.

(Phase 4)

A final demonstration was held with field officers of the ETU, including Bill te Wierik, senior compliance officer, Energy Safe Victoria together with Ken Gardiner, CEO of Energy Safe Victoria, Graham Watson from EEIT and members of the School of Engineering across two sites, namely Casey Plaza and Building 11, 412 Swanston Street, across the road.

There is no reason that the system cannot be used within the terms of the current cut-down licence over the coming twelve months to trial this approach with any site linked to the internal RMIT system whether directly or via VPN.

Max Dumais
CEO
Ahead of the Game Pty Ltd

---

**Dissemination of project outcomes**

**Dissemination of project outcomes**

The completed project outcomes have been widely disseminated throughout RMIT and externally.

Internal dissemination has included memorandums to staff; an article in the RMIT News; and inclusion in an RMIT LTIF Poster Display.

**RMIT NEWS  August 29, 2008**

**Making Victoria's electricians even brighter sparks**

RMIT staff and industry members at the launch: Arvind Sharma, Electrotechnology Industry Group, Manager, School of Engineering (TAFE); Ken Gardiner, Chief Executive Officer, Energy Safe Victoria; Graeme Watson, Director/Secretary, Electrical, Electronics Industry Training; Tony Robins, E-learning Leader, School of Engineering (TAFE); Bill te Wierik, Senior Compliance Officer, Energy Safe Victoria; Michael McCann, Manager – Special Projects, School of Engineering (TAFE); and Patrick Walton, Manager - Electrotechnology Trades, School of Engineering (TAFE).
RMIT University's School of Engineering (TAFE) has launched a Mandatory Electrical Installation Testing Fundamentals training program.

“The initiative will deliver updated practical skills, as well as giving licensed electricians the knowledge needed to meet the legal requirement of testing their electrical work at the completion of each job.

Michael McCann, Manager – Special Projects, School of Engineering (TAFE), said the School had established important partnerships that included the Electrical Trades Union, Energy Safe Victoria and Electrical, Electronic Industry Training Pty Ltd.

“This partnership will ensure the effectiveness of this great new training program,” he said.

“The launch was attended by a number of influential electrical industry leaders and included a pilot of the new training program, which involves the use of e-learning tools that will enhance the delivery of the training to the 25,000 licensed electricians scattered across Victoria.”

During the launch of the new program, senior electrical industry representatives participated via video conference from several locations on RMIT’s City campus, showing how interactive techniques can be embedded into an industry training program, enabling everyone to participate.

Tony Robins, E-learning Leader, School of Engineering (TAFE), said industry partners were excited about the concept of using RMIT’s modern audiovisual and video conference facilities to deliver high-quality training to licensed electricians.

The next stage of the project will be to video conference to RMIT sites in Hamilton and Sale.

The development and launch of the new training program was supported by a Learning and Teaching Investment Fund grant”.

External dissemination of project outcomes include: distribution of information to industry through Energy Safe Victoria, the Electrical Trade Union and EEIT.

Summary of project, outcomes, impacts and dissemination

The project has successfully trialled combining Zing Technology with RMIT’s videoconferencing facilities to deliver training simultaneously in classrooms across Victoria.

Feedback received from RMIT staff involved in the project is overwhelmingly positive, with many staff indicating an interest in expanding the program into the future.

Feedback from the client, the Electrical Electronic Industry Training Pty Ltd, has also been extremely positive. EEIT have indicated that there is great potential to extend the pilot to deliver a wide range of industry-based courses.

An example of how the pilot may be extended involves a new project which proposes to train students at RMIT in Mandatory Testing, which is part of a broader industry course to train electricians in green technologies.

In March 2009, the Director Secretary of EEIT announced that the RMIT Mandatory Electrical Installation Testing Course will be incorporated into the Global Green Electrician sustainable energy training program.

A “Pilot” for the Global Green Electrician project will commence in mid-March 2009 with a number of industry partners. This project will trial a new concept of training electricians to enhance their knowledge and skills in this new and emerging industry of renewable energy.
The Zing Technology pilot has proven successful, with the assistance of this LTIF Grant, enabling the School of Engineering (TAFE) to trial Zing Technology in a videoconferencing environment. The grant has been the catalyst in ensuring that RMIT becomes a major player in this exciting new industry consortium to trial the Global Green Electrician Project.

RMIT’s has the ability to showcase to industry how easily the teaching and learning can be enhanced to meet industry needs. The Global Green Electrician builds on earlier work in which RMIT trialled the Mandatory Installation Testing Fundamentals Course using RMIT’s innovative training techniques, and incorporating a number of e Learning technologies. This LTIF Project has provided an incubator for the concept to be hatched for a specific client and demonstrates how quickly RMIT can respond to specific client needs.

The Global Green Electrician is a project to address the skills shortage in the electrical trade and in particular the new and emerging technology of sustainable energy. The client will recruit licensed electricians to upgrade their knowledge and skills in energy efficiency, renewable energy and strategies to reduce greenhouse gas emissions.

The Electrical Regulator, Energy Safe Victoria, is a major supporter of the Global Green Electrician program. Ken Gardiner, CEO, Energy Safe Victoria, has indicated his strong support for the project, which will involve a partnership arrangement between RMIT and the Electrical Trade Union and a range of other organisations.

In conclusion, the Zing Technology project will deliver long-term benefits to RMIT and position the organisation as a leader in the delivery of innovative, responsive curriculum and programs which meet the current and future needs of Government, industry and the wider global community.

Tony Robins
Project Leader
Teaching and Learning-Video Streaming with Zing Technology
Teaching & Assessment of Large Classes