# THE
# SEVEN YEAR EDUCATION ITCH

**ADULT LEARNING IN VOCATIONAL TRAINING**

*My digital journey so far*

Julian Davis

# Why am I Writing this?

What keeps me awake at night is the desire to want to make things better - pretty simple you would think? It's funny how the brain works when you're lying down in a dark room with nothing but erratic thoughts bouncing around your head like a washing machine on spin cycle. One minute you are pondering over your daily activities and the next you're conjuring idea's on how to write a book.
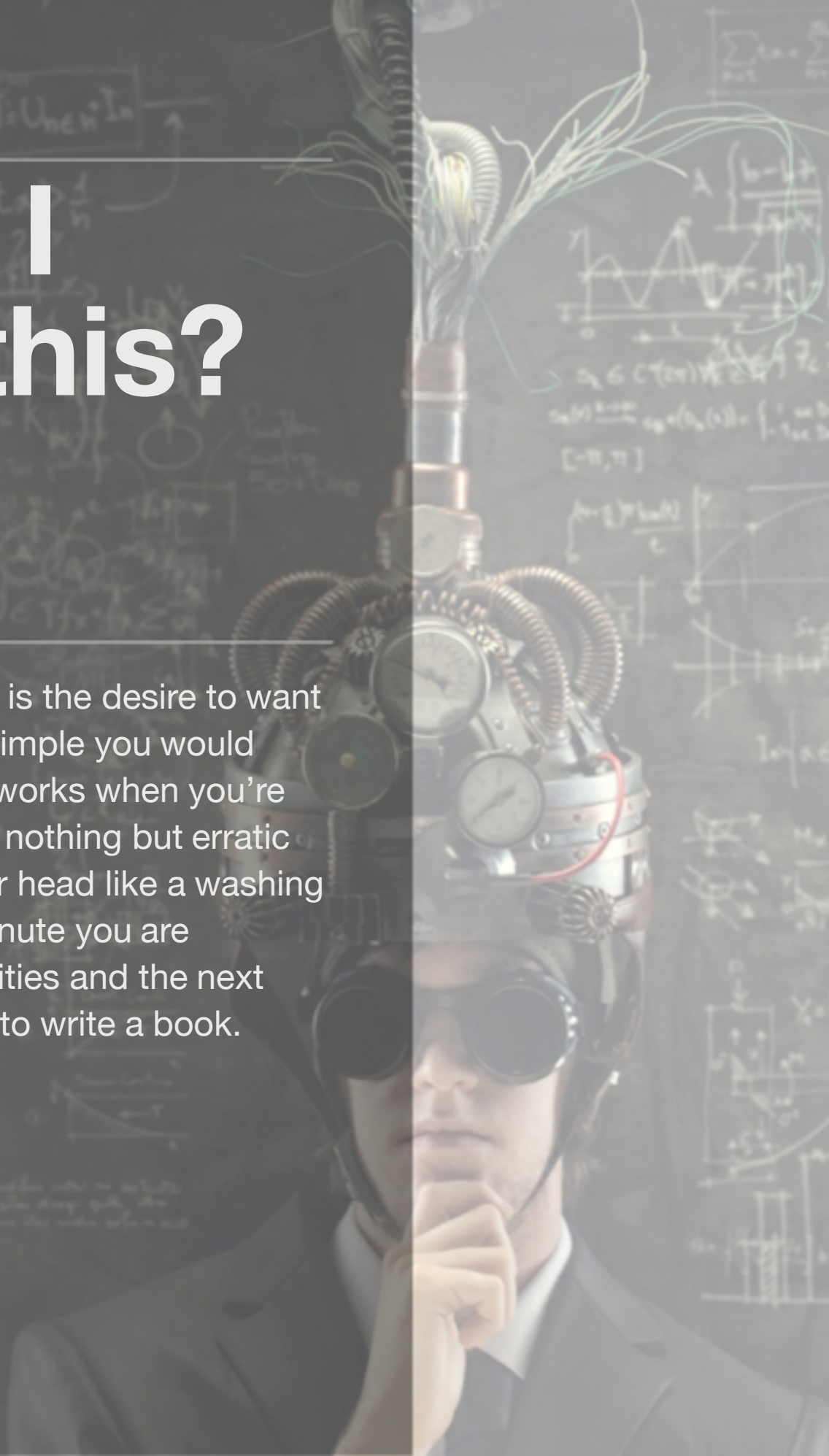
This book is a collection of some of my experiences in adult education using technology as I come up to 7 years in education. During this time I've been on both sides of the fence when it comes to learning as an adult, and as my experience has taught me, it's a lot more complicated than one would think. When I first started teaching adult learners in 2010, I had a major misconception about what I was getting myself into. I recall thinking '*I'll just teach them everything I know*' and '*Teach them as if you would employ them*'. I could not have been further from the truth.

I distinctly recall my very first day in a classroom. I was petrified! The students were studying a **Certificate IV** in Web Development and were in their final months of the course working on their final web projects. I was a **'shadow' teacher** to gain a better understanding of the dynamics of a classroom.

Keep in mind I had just come from industry. In fact, I had just come from a State Government role as a Web Developer, so you can imagine the shock to the system when I was confronted with a range of adult learners. This was one massive reality check and I wondered what the hell have I got myself into!

Ok, lets get back to why I'm writing this book. I wanted to share with you what I've learnt over my short time in **Vocational Training**. I've written a number of articles for elearningindustry.com and figured that I would compile them together and see what I come up with. I like sharing my experiences, and some people may recognise something that they have experienced as well, sharing a common interest.

Perhaps I can create an 'ah ha' moment or help provide an insight into something you've experienced or just a read to pass the time away on a flight!

Throughout this short ebook I have included area's of lessons or experiences I've learned along the way. They'll be highlighted with a bright red box and an icon of a light bulb with a leaf growing inside. I wanted to use this icon as it symbolises what I have learnt and how an idea can grow into something much bigger if you want it to.



You will also find some videos and image galleries. To watch the video, just tap to view and use the controls to view the video in fullscreen. With the image galleries, simply swipe left or right to scroll through the images and touch to view a zoomed image. If you see a bolded word, touch to see the definition.

**Over all, I hope you enjoy reading about my digital learning journey to date, I've enjoyed recalling all the memories, some good some not so!**

# Here, have a class of Adults

In January 2011 I was given my first class of adult learners. I had 2 months prior to prepare all the resources, lesson plans and time table. I recall a colleague at the time telling me '*The first year of teaching is always the hardest*' - this was an understatement.

To prepare me for facilitating a lesson, I completed a **Certificate IV** in Training and Assessment (TAA). This was a requirement for the role as a **TAFE** teacher in **Vocational Training**. My TAA training was conducted by a private **Registered Training Organisation (RTO**) over a period of 3 months, 1 day a week. Did this qualification prepare me for what I was facing in the world of adult learning? In a word, No.

The TAA was just a piece of paper that says you understand the way the **Vocational Training** Sector in Australia works. Sure, it showed me how to generate lesson plans, assessments, validations and student feedback, but what it didn't prepare me for was the classroom.

I was given guidance and helpful tips from other colleagues that had been facilitating for a very long time. A common theme was they were very set in their ways of how to deliver classes, what resources to use and methods of handling students that aren't progressing. I listened to what they had to say and it just didn't sit with me. Right from the beginning of my **VET** career, something was just not right. However I continued with the development of my own resources based on the wealth of advice I was receiving.

Development and from memory, the unit I had to deliver was in Copyright and Intellectual Property - seriously, can it get any more boring for future programmers? As much as I tried to improve the lesson and engage the students, the resources I had were terrible, even I would've fallen asleep in my own class!

I'd like to briefly explain the class I was presented with, and the type of students. I was delivering to students that were generally from a **low**

**socioeconomic** in South Western Sydney. Their ages ranged from 17 to 55 all with a diverse range of backgrounds and skills. Some of the older students had wanted a career change, others had dabbled in Web Development and thought it would be easy. Some were forced by their parents as one parent said to me '*He's on Facebook® all the time, so he should be good at programming*' - seriously, that is what I was told!

Others were there just to tick off the hours they had to do to get the welfare payments. Of all the students, the majority were under prepared and thought it would be an easy ride.

So what do I have to do to keep these students engaged? How can I change the status quo and make a difference in the way I facilitate a class? I spoke with my Head Teacher and asked '*What are the limits on what I can use to get the content across to these students*'? His response, '*As long as it maps back to the unit, you can do whatever you like!*' - just what I needed to hear!

At the time, there was a movie doing the rounds called **The Social Network**®. This movie was based on the intellectual property of Facebook® and who owns it and the ensuing battle. I thought to myself '*This could be used for the copyright unit - if I show the movie we can then discuss how this can be an issue with copyright and intellectual property*'. This turned out to be a success. Students were engaged as watching a movie was not something you would expect in a **TAFE** classroom.

So *why* did this work? The answer is fairly simple. It's **RELEVANT.** Adult learners need to understand that what they are learning is relevant to their lives and their goals. In this case, Facebook® is a big part of most people's lives. So as future web developers, this was relevant to their life and studies. We still covered all the performance criteria of the unit, but now it was relevant for student, improving retention.

# I'm not a Teacher

It took me a long time to realise that I'm not a teacher, and I don't believe I ever will be. I find this also equates to potentially most **VET** teacher's. This might sound a bit harsh, but let me explain my reasoning on why I say this.

First off is the obvious, most **VET** teachers don't have a teaching degree. The V in **VET** is Vocational, meaning it is relevant to an industry skill set.

Now, based on legal requirements, a **VET** teacher needs to hold a **Certificate IV** in Training and Assessment (as well as the qualification that they are facilitating). This course does not automatically make you a teacher. It simply provides you with a means to provide an introduction to the complex world of **Vocational Training**.

Secondly, most **VET** teachers are hired for their exposure in a particular industry to pass on their wisdom, knowledge and experience, under the **VET** guidelines of course. So they come from their industry where they have done things in a particular manner, are creatures of habit and have a certain 'way' of doing things.

Lastly, there's a high probability they've never stood up at the front of a classroom before - which can be very daunting!

Now we've established some of the points as to why, let's put it into perspective as an example.

Let's put these newly **TAE** qualified 'teachers' in front of 30 adults that want to get into a particular industry. In this classroom there are 30 adults, 30 different personalities, multiple learning styles with an exceptionally vast range of backgrounds and reason for being there. Does this new 'teacher' understand **learning styles** and **learning theories**? Do they know how to create critical thinkers? Do they understand **andragogy principles**? Can they handle an abrupt student?

Adults learn in many different ways. There has to be a reason for why an adult wants to learn something. This could be based on financial gain, promotion or self improvement, however there is always **_a_** reason. Adults also have this thing that just keeps getting in the way.......**it's called life**. Adult learners are result driven, self-motivated and generally have higher expectations and outcomes.

In my experience, I've seen students come to the first couple of classes then you lose them. They will always have an excuse why they can't attend class, but chances are they are bored because I didn't pick up on their learning style, methods or reasoning for wanting to be there.

Understanding a learning style and learning behavior takes time. Now add an element of delivering online, and that's a whole new ball game...

So is a **TAE** trainer a teacher? I don't believe so.

I believe it makes them a *MENTOR* (some may call them Educators). They are very successful in their chosen industry, so they can mentor the students, guide them if you will on the right path. All under the guise of **VET.**

# What not to do in an online course

In 2012, I decided that I wanted to prove to myself that I could complete a University course. I left school at 16 years of age and never classed myself as an academic. At that age, University was just not for me, the Navy look much more appealing!

Now I'm a little older, possibly wiser as well, I

As I was loving developing Apps for iOS®, I wanted to take this to the next level. I did a little bit of searching around online and found a course that was perfect for me. It was distance and self paced, so this fitted in with my busy lifestyle. It wasn't too expensive and it provided me with a solid qualification from a reputable University. I have to stress that at this point in my life, I had not seriously completed any online courses, but of course was in the education sector.

I reached out to the University and explained my situation and experience. Told them I didn't have a degree but plenty of life experience. That was enough for them and I was enrolled in the Post Graduate Certificate in Mobile Application Development.

The course was broken up over 2 semesters and had 2 units per semester. For this experience, I'd like to focus on the first 2 units. These were Mobile

Development and Games Psychology. I really couldn't wait for the resources to turn up so I could get stuck into it. I had a reason and motivation to want to learn and I was ready to dive in.

When the resources eventually turned up, I read the requirements and marked up my calendar for the online session. Note the singular reference there to session? For the 2 units, there was only 1 online session, and this was for the Mobile Development unit. I thought just 1 online session for a course might be the norm given this was my first serious online course, so lets see how things go.

The online session was not what I was expecting, especially for a course based around technology.

had never heard of this and turns out (at the time) it did not work on a Mac®. I found this ironic as I was developing apps for iOS® for the unit. I was

advised to roll back my browser FireFox® to version 4 (we were at V18 at the time I think) which was not an option. I was already doing web development and needed the latest versions for testing.

The Universities advice - *install Windows® on you Mac®*.

This was just to get onto the one online session. Had I not had a technical background and they were using this method of delivery to other students, this is a sure fire way to instantly disengage students.

Then the online session......all it came down to was the lecturer reading directly from the book (which I was already doing) with his children screaming in the background, this was engaging as watching paint dry.

What I took away from this is not what the lesson was about, but more what not to do. If only the lecturer had planned the session, made it more engaging and more relevant to what we were learning. The lecturer was probably used to large auditoriums, and not the online environment.

Lets move onto Games Psychology. This unit I knew I would struggle with as I just don't play games. There were no online sessions for this unit, but I did get sent a PowerPoint® Presentation with a voice over - Yay! Now here's the kicker, the

opening remarks from the lecturer delivering the unit in the presentation were:

> **'Well, we just dropped this unit into this course as we had no where else to put it'**

Are you kidding me? Way to get me engaged straight away! The presentation was boring as you know what. To be honest, I can't recall much more beyond the opening remarks as it lost me.

The take away lesson from this was know your audience and be professional, something you would think would be the foundation for any online presentation. I would like to add that this unit had 3 assignments. I did not receive feedback on the final 2 assignments until AFTER the final unit exam. Students of today want quick feedback. This has become evident with automated quizzes, social media and instant messaging. I waited well over 3 months

So what have I learnt from completing this online course?

- Test test test! Make sure that what you are delivering online will work on the most popular platforms. Set a cut off for browser and OS versions and advise the students of the requirements.

- Support Mobile's and Tablets. Mobile learning is increasing in popularity everyday as the devices are right with the students.

- Be professional in your delivery. Remember that you are the expert in your industry and you need to demonstrate this. Having a good rapport with your students will help them to engage more.

- Provide feedback in a timely manner. If you're bogged down, at least communicate with your students to let them know that you have not forgotten them. Any communication is better than none at all.

# eLearning - can I make a difference?

As time progressed in my career, an opportunity presented itself within **TAFE**. There was an opening for an **Educational Designer** - so I applied.
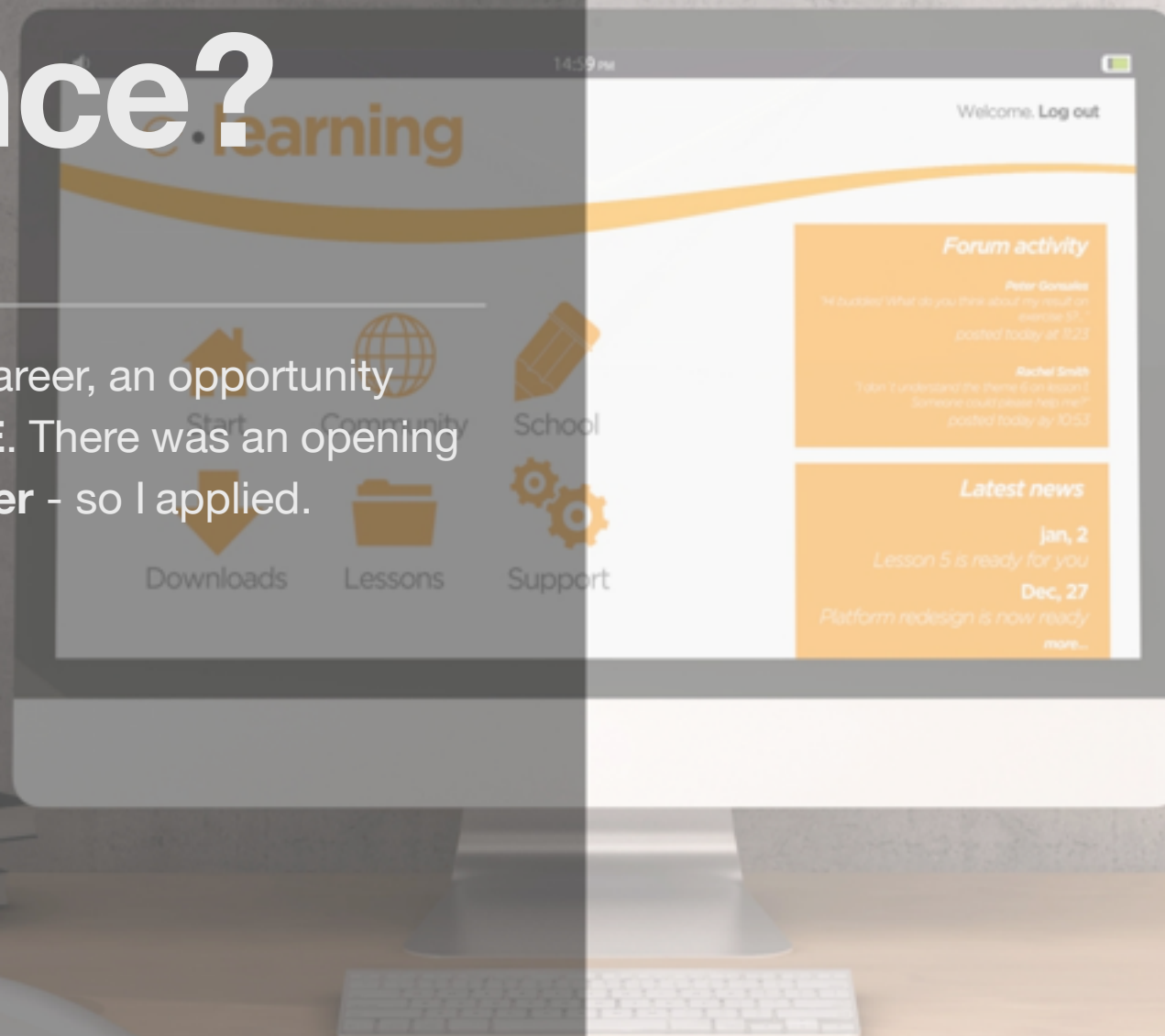
When I first started my career in **VET**, like any new job I had to go through an induction process. Of the entire induction process, there is still one defining moment that made me realise what I wanted to do for the rest of my career. It was when we were given a talk from the **iTEL** team. These were the guys that did all the elearning for the college. We were shown a video called 'The Networked Student'. Never has a YouTube®
video had such an impact on me.

This was it, this was what had been bouncing around in my head, this is what I wanted to do. Even though the video is a few years old now, it's still very relevant. Have a look at the video, you'll soon see what I mean.

**Interactive 5.1** The Networked Student
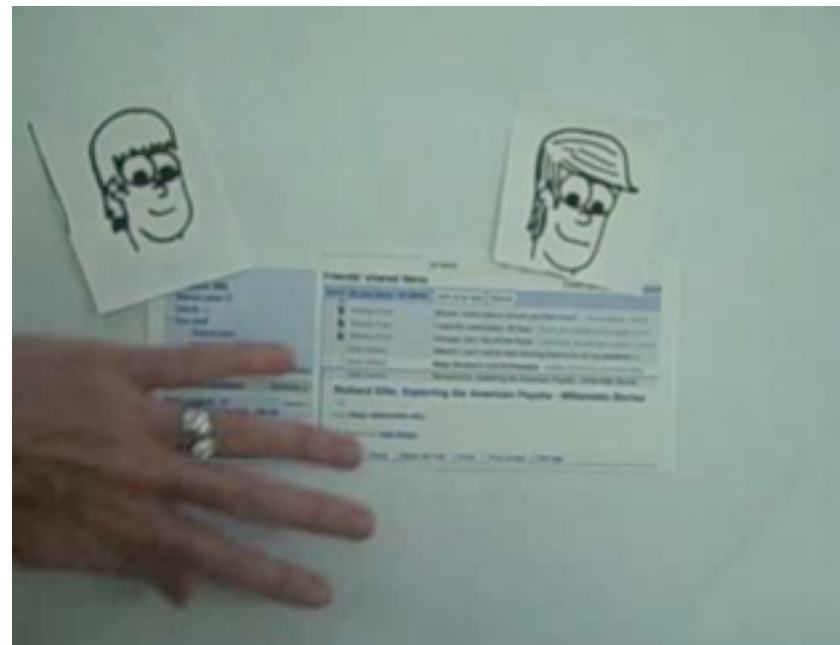
Ok, back to the **Educational Designers** opportunity.

I didn't get the job, I ran second. I was beaten by someone with much more experience than me, which is fair enough. In saying that, I received a call from the Manager of **iTel** and she asked if I'd like to come on in a temporary role for 6 months. I jumped at the chance! It also meant I got to work with the guy that got the job, and we're still mates today and still work in eLearning.

Now I'd gotten my break into eLearning and I can't thank the Manager enough. She has since retired and we still keep in contact. You know who you are, and I thank you for giving me a
chance.... It set me up for where I am today.

***I now felt like I could make a difference.***

Looking back on what I was doing, it was the combination of my years of web development and my desire to want to use these skills to improve education that got me into the role.

Smart phones were relatively new, being only about 3 years old and people were still trying to identify how they could use them for education.

The College's **Learning Management System (LMS)** was **Moodle**. I'd completed some work in Moodle, but not extensively.

To be honest, the entire eLearning world was a little daunting at first, so much to learn, so many acronyms and so many different ways of doing things.

My first project was to build a Teacher Toolkit. This was a resource of all eLearning tools that teachers could use. I figured this would be perfect as an app. Once developed, I submitted to Apple® to put on the app store. Apple's reply was *it wasn't reaching enough of an audience*, so perhaps I should do it in **HTML5**. So, after some research, I did build it in HTML5 and it was launched to the college. My first tool to help in the world of eLearning...ish.

**Gallery 5.1** SWSi Tools HTML Web App

Next challenge please! The Horticulture School had a very dated website that was able to show and play audio of the Latin names of flowers and plants. I was tasked with rebuilding this and getting it to record results in Moodle.

This was my introduction to **SCORM**. I built a SCORM package that could be used in Moodle and record what the students had completed. This was a big learning curve for me but allowed me to think outside the box and know that there are massive opportunities using this standard. Since then, I'm using Learning record Stores and the **Tin-Can API** to record student's results.

I was asked to do many other jobs that affected many aspects of the **Virtual Learning Environment (VLE)** including **responsive design** of the Moodle theme allowing students to use resources and assessments on their mobile devices.

Things took a slight turn when I was asked to join the Marketing Department. I really was wondering how I could still have an impact on students and their learning. What I was unaware of is now I was taking on the complete Course Information System. This was a new system where Head Teachers and Teachers alike can enter details about a course by way of a web interface, all stored in a central database.

Having a passion in mobiles and what they can do, I looked at creating a hybrid application of the Course Information System. What's a hybrid application I hear you say? When you build an

**Gallery 5.2** PhotoMatch SCORM Plugin



app there are 3 methods to building. The first is **natively**, meaning you build for iOS® it will only work on iPhones, if you build for Android, it will only work on Android.

The second is a Web App, like the **SWSi** Toolkit I built that will work in any web browser on any device.

Finally you have a **hybrid** app where you build the app using **HTML5** technologies without having any knowledge of the native code and use an application to 'wrap' the code to work natively. I used a product called **PhoneGap**® which you can checkout more at http://phonegap.com/about/

Word got around and I was asked by Management to represent **TAFE** and **SWSi** to be a presenter at the University of Southern Queensland at the inaugural HTML5 Symposium in November 2012. I presented on how you can easily develop native apps using HTML5 and **PhoneGap**. This was the first time anything like this had happened to me and I must say, as nervous as I was, it was an awesome experience and I was able to connect with many other eLearning experts.

I filmed my presentation so feel free to take a look (sorry, not the best quality and the audio gets out of sync a bit and that mo - OMG)!

**Movie 5.1** HTML5 Symposium



*HTML5 Symposium - Developing Native Apps using HTML5 and Phonegap Presentation recorded November 2012.*

*Click to view the video.*

OK, back to the app. After writing the **API** for the Course Information Systems, I got to developing the app. It finally launched in January 2013 on the App Store® and Google Play® store.

The app was the first one of it's type to allow students to enroll in a course directly from their phone, something I'm still very proud of. Although I no longer manage the app, it is still updated with the updated course information systems and running today using the same interface.
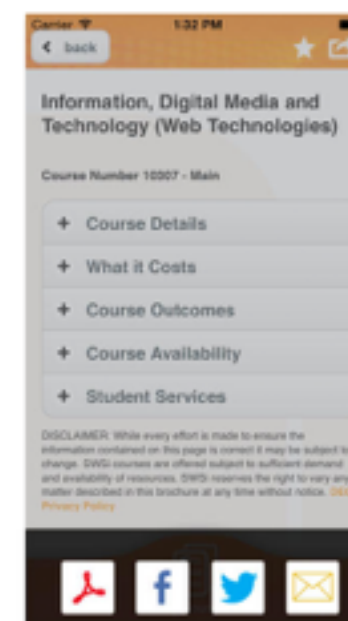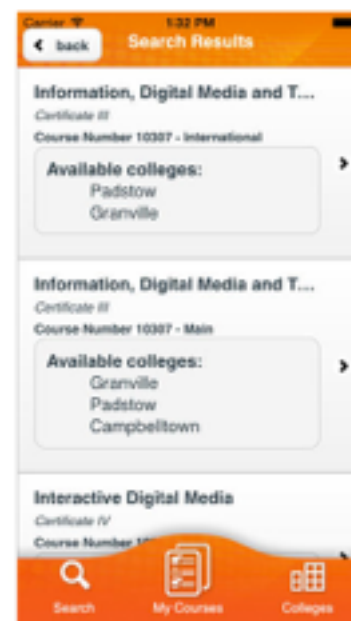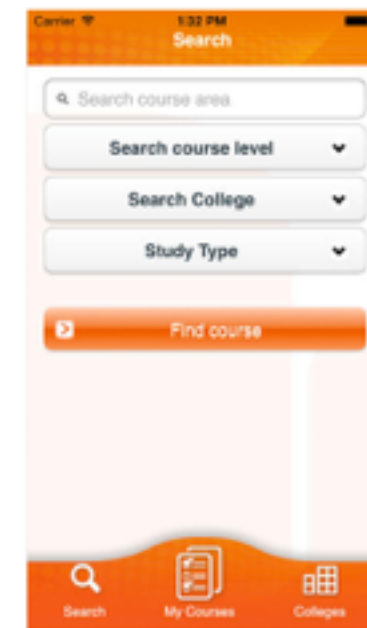
A change in personal circumstances had me leave Sydney and head for the sunshine of Queensland in August 2013. Little did I know just how fortuitous the move would be and just how much of an impact I would have.

After a short stint back in industry, I started with a private **RTO** in May 2014 as a Distance Tutor delivering the **Diploma** in Web Development. This was a challenge from my previous role in a classroom. However, it did highlight just how important it is to deliver and support eLearning in the right way.

The **RTO** used **Moodle** as it's primary **LMS**, so this made it easy for me to adjust. In saying this, I was familiar with the way **SWSi** had been using Moodle and all of it's features, so it was a bit of a shock to me to see it was really only being used as a repository for documents and assessments. I knew the Moodle Administrator, so I contacted him and asked why we weren't using certain features of Moodle. Turns out he was the only one Administering the entire LMS with some 40,000 registered users in the system, with no formal training in Moodle - wow, what an undertaking!

An internal position came up for a **PHP** Developer and one of my fellow tutors suggested I apply for it, as a joke. Well, to be brief, I didn't apply for it but turned out they were looking for an **Instructional Designer**. After some negotiations between my Faculty Leader and the Manager of Resource Development, I started with the Resource Development team in August 2014.

Before I started, I sat down with my fellow web development tutor colleagues and asked them to list what they felt was wrong with our **LMS**.

Perhaps I shouldn't have done that! Any way, I got the list and headed off into my new role.

I sat down and started making changes to the **LMS**, known then as *Learning Spot*. The site needed a new name, new look and somewhat of a resurrection, given it was the main student portal.

In January 2015, the new Moodle user interface was launched with a brand new name, brand new look that was responsive and worked seamlessly on a mobile. I'd made my mark.

With the big push now on for eLearning within the company, a colleague, myself and an Apple® Consultant took off on a very ambitious 3 week tour of Australia to deliver iPad® 101 training to all staff. This covered 3 states in 3 weeks, training over 300 staff both one-on-one and classroom. Needless to say, it was exhausting but the eLearning team were now starting to get noticed.

There was no real eLearning strategy in the company, so I took it upon myself to create one. With the assistance of my fellow **Instructional Designer**, we developed a way forward to improve the user interface of Moodle, create interactive student learner guides using Articulate Presenter and creation of eBooks for iTunesU® Courses with formative assessments to improve learner outcome. This was a massive undertaking given there was just 2 of us and over 300 units with some 1,200 assessments!

Students were increasingly using iPads®, as they were provided one for their studies, but they weren't really using them for studying. Yes, now we have a responsive design that will allow

students to view the **LMS** on their devices, but what about completing their studies and assessments?

So I set out to solve the problem. The final solution was integrating Dropbox® into the **LMS** with Microsoft Word®. An end to end solution for students to complete assessments was now available. The courses that were very theory based, like Business could now complete the entire course on a mobile device. I had achieved the '*Any Where, Any Time, Any Device*' target.

Technology can greatly improve the progression and retention rate of students. Some guidelines when integrating new tools:

· Keep it simple and easy to follow

· Create guides in a format that is familiar to the student

· 2 clicks to get anywhere - any more than this and the student will give up

To help us, we needed to get the tutors onboard with the technology, so I came up with the *Mobile Innovators*. This was a one day intensive course that covered all aspects of the iPad®, AppleTV® and Moodle. We provided all the resources for the tutors and any other tools or tips they may need. The idea was to have a Mobile Innovator in every branch / college so they can take the resources and facilitate their own sessions.





The day turned out to be a major success with the National Business Development Executive for Higher Ed - Apple Inc. conducting a presentation of the growth of technology in higher education. All of the Executive team turned up to see his presentation, fully supporting the initiative.



Empower your Tutors / Trainers / Students to use technology in education. Run programs or use the early adopters to spread the word.

The elearning team was now starting to grow rapidly as the strategy started to take full swing and had grown to 10. We were now creating unit introduction videos for every unit. These could be no more than 90 seconds long as we know from experience, that student's attention span won't last longer than this, unless it is something to do with cats or puppies!

The videos serve as an introduction to unit for the student as well as for new tutors. New tutors that come straight from industry (remember, these are not teachers) can use these as a guide as to what they need to know and do. The video's are made in house and use tutors or subject matter experts to present the videos.

It was at around this point I was promoted to *Educational Technologist Coordinator* where I'm responsible for the eLearning team under the National Resource Development Manager.

From mid 2015, the **VET** Sector was about to go through a massive shakeup. There were some suspicious **RTO's** out there that had tarnished the entire image of both Public and Private **RTO's**. Where I worked was not immune.

iPads® were no longer being loaned to students, so I needed to rethink the interactive books in iTunesU® strategy, as well making all resources platform agnostic. This is not to say we weren't already doing this, but with the inevitable move to **BYOD**, we now had to make sure everything worked on every platform.

We also needed better learning analytics. One of my priorities for 2016 was to implement a better method of understanding the students behavior in a **LMS**.

Have you ever wondered WHAT your students do when they are in your **LMS**? Do you know if they go straight to the assessment and just start

answering the questions? All these questions are generally not available to a tutor. When I say not available, I'm now referring to tutors that deliver by way of distance learning. Classroom tutors can work with the students face-to-face, distance is an entirely different game all together.

With the help of my awesome Moodle Developer, we connected our Moodle environment to Piwik®. This open source platform gave us much more useful data than Google Analytics®, and much more relevant data. By using custom variables, we were able to link the recorded analytics to a student record from Moodle.

My Moodle Developer was then able to access the Piwik® **API** and return the data for a particular student. By creating a local plugin in Moodle, using the built in security framework of Moodle, we created a plugin that allowed tutors to be able to view up 12 weeks of their students behavior in Moodle.

For me having delivered by way of distance in the past, this is a big step forward in understanding how your students behave in the **LMS**. You can see what days your students are studying and adapt your delivery to fit into their lives. See how long they spend online so you can judge if the resources are effective. View what resources and assessments have been downloaded. All this right at the finger tips of the tutors. The short video below provides an overview of the plugin. This was also entered into the Best of Education E20 2016 awards.

**Movie 5.2** Understanding Student Behavior in an LMS



*This is the introduction video that I compiled for the launch of the plugin.*

*Click image to view video*

In April 2015 I took on a Vocational Post Graduate Certificate in Digital Education by distance (of course) learning. A 2 year course, I completed in 9 months. This course gave me a further grounding in eLearning. It made me challenge my own methods and improve my understanding how how to adopt better learning design. In July 2016 I assumed the role of eLearning Manager.

# How adults struggle with technology

Adult learners acquire their knowledge very differently to that of children. They are much more results driven, goal oriented, and practical, as well as being very self-directed. When it comes to technology, we can't simply assume that all adult learners understand or know what to do with technology. In this chapter I have grouped what I believe to be the 5 main technology challenges faced by adult learners.

Being in my mid 40s, I grew up in an age where technology was not as prolific as it is today, especially in the classroom. My introduction to computers was in the form of a massive box that had a black and green screen attached and (from memory) was BASIC. After entering a few lines of code, I was gob smacked to see my name display across and down the screen, constantly updating
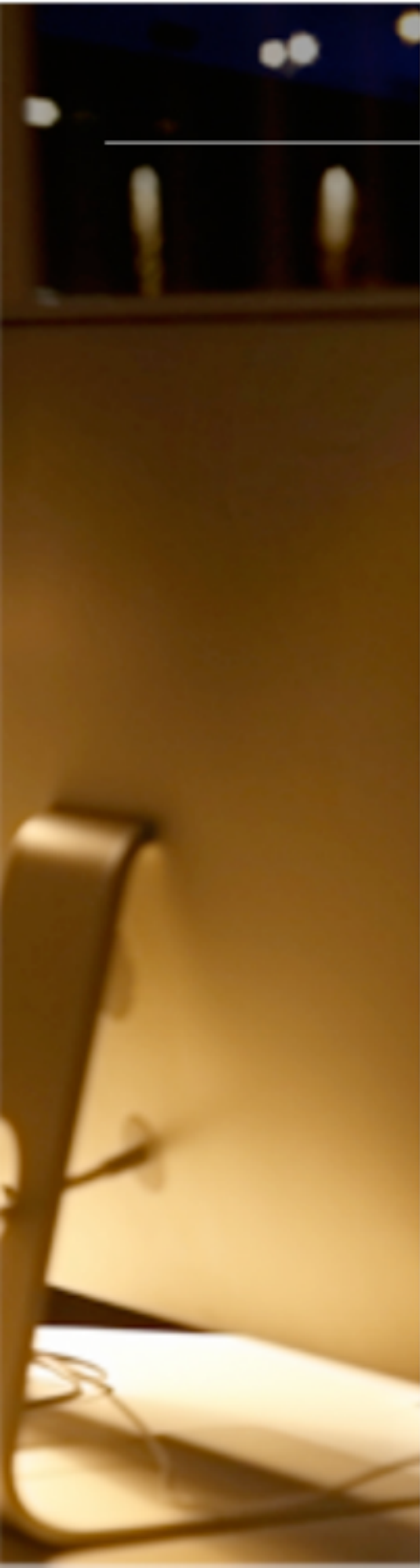– this was just amazing! When I left the classroom, that was all soon forgotten – it was time for Home Science and there were no computers there, just sewing machines.

The reason I speak about this brief blast from my past is that this is not an unusual scenario for anyone now in their mid 30's and onward. We didn't have smartphones, tablets, or this crazy thing called the "internet". The way we learnt was very different to how children of today learn.

Let's jump forward to today. I want to introduce to you a fictitious scenario that would not seem that out of place in todays world:

> **Though no one can go back and make a new start, anyone can start from now and make a brand new ending.**
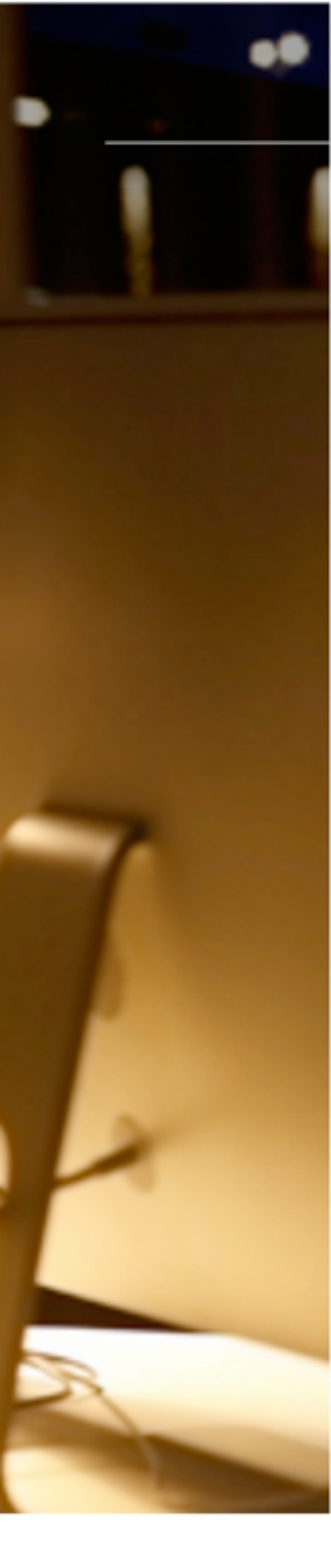>
> **James R. Sherman**

Judy is 47 and lives in Longreach, Outback Queensland, Australia. For the past 25 years she has been raising her family of 3 children whilst her husband, David, has worked the land on their cattle station.

Prior to starting a family and moving to Longreach, Judy worked as a Paralegal in Brisbane. Over the last 20 years, Judy has experienced many hardships on the land and at times has had to go without. Modern technology was not seen as a necessity, so would go without or seek cheaper alternatives. Mobile coverage was almost non-existent on her property; however, the family did get the internet in 2003 to help the children with the school studies on a basic computer.

Judy's children are now in their 20s. The eldest son still lives at home and helps on the land with the family business. The middle child has chosen a path in Information Technology, but has moved to Sydney and works as a Consultant for a large financial company. The youngest daughter has moved to Rainbow Beach and is following her dreams of becoming an artist whilst working as a tandem skydiver to make ends meet. With the children now moving on, Judy has decided she'd like to get back into the work force and has always loved the business side of her husband's work. She elects to complete a Diploma of Business as a distance student, conducting most of the course online. The course requires access to the internet and the ability to complete complex reports in Excel as well as Word, and also be able to upload assessments and assignments to the Learning Management System.

You may be able to relate to Judy, or know someone similar. Her priorities after leaving school (and working briefly) were to get married and raise her family. Her own education was purely work based and on the job training. It wouldn't be very different to assuming that the last time Judy was at school, the technology probably extended to an overhead projector.

Now that Judy wants to start studying again, she faces many challenges. The method in which Judy was taught to learn has long since changed. Distance learning was not something that was readily available, but is very much a part of today's learning environment.

I have summarized the challenges that Judy, and other adult learners, may face when it comes to using technology to learn.

## 1. Bias

How many times do we here "Apple® is better than Android®" or "Microsoft® has the advantage over Apple®"? This can be extended to "when on the internet, use Chrome® as it won't work on Internet Explorer®". These are all too common these days, however this could affect the way an adult learner can access learning tools. Think about an adult learner that simply uses Microsoft Windows® and only uses the built in web browser (Internet Explorer®): How would this affect them? There are also adults that will only use Android® and will continue to bag out any other competitor and will not use any other brand; we all know someone like this! When **Instructional Designers** are designing courses, they should consider making their tools platform agnostic, that being that work across any platform and not discriminate. This is not as easy as it sounds, but from an adult learner's perspective, it has to be considered.

## 2. Literacy

Ask yourself these questions:

· Can everyone conduct an internet search?

· Can everyone use different search engines and change the search term to refine their search?

These are assumptions that educators make. These are fairly good assumptions given the technology we all have access to. It's all around us, so everyone knows it. Right? I'd have to disagree. I'll give you an example that I personally experienced. Whilst delivering a short workshop on iPad® 101, I was asked by an older student "Where does the CD go?". This invoked a few snickers of laughter from around the room. Just because we're bombarded with technology does not mean we understand it. This person was used to the way that a CD has information on it and we simply put it in the computer, it loads and away they go. As far as they were concerned, the iPad® IS a computer, so why shouldn't it have a CD? There is also a level of "jargon" that comes with technology. This can bamboozle some people. We hear the jokes of the older generation saying FaceTube or MyFace etc, but when you think about it, this is because they don't understand – they are not digitally literate. Another example is I once mentioned in a workshop, "Just Google® Office 365®". To me, this was a simple statement. Open Google®, enter the search term Office 365®, and follow any links. However, I received

an email the next day stating "Where can I find Google® Office 365®?".

## 3. Experience and exposure

The technology that adults are exposed to varies extensively, and can be very diverse. If we were to look at our example of Judy, how much technology has she been exposed to? Chances are the family had a PC for the kids going to school to do their homework. They would've asked their mum for help, but she couldn't help that much, as she didn't have any experience with PC's. Over time, the kids would expose her to different types of technology, but is this enough? When it comes to an adult learner starting to studying again, will they have the experience to just pick up an online course or resource and just slip straight into it? I'll use an example and this time I'll bring my mother into it. She's in her early 70s and has had some exposure to technology, purely based myself and my brother patiently taking her through various technologies over the past few years. She's now on an iPad®, which is great, but ask her to download a PDF and she'll throw you a look that included "A wha?", all with an Irish twang. She may get emails with PDFs as attachments, but does she know what it is? Not being exposed to what is common technology today, that we may take for granted, can have an impact on adult learners.

## 4. Fear

There is a genuine fear of losing data, losing photos, breaking things, or losing all their personal details when it comes to technology, especially with adults. Adults that have not been exposed to technology would only hear the "scary stories" from the media or family where something has happened, be it hacked or scammed in some way. Relating this back to learning, if an adult learner has a real fear of technology, they most likely won't be able to use any form of eLearning tool. Alerts and messages popping up and a lack of digital literacy can cause unwanted stress to an adult that already has a fear of technology. This could also lead to them giving up. My mother-in-law needed to complete a survey of 10 questions before completing an online course for her work. Seems simple enough, but the way the survey was designed, meant she struggled to complete it. Messages and bad user design created a bad user experience. Her fear of the unknown kicked-in, and she could not progress.

## 5. Social and culture exposure.

Finally, there is the social and cultural exposure to technology. I don't wish to discriminate here, however, depending on the environment of the adult learner, they may not be able to afford the latest and greatest technology. This could also aide to a Digital Divide. If the adult learner's background is of a low social economic environment, there is greater chance that they are less likely to understand how to use technology. This can also be family related. Without discriminating, if parents have a low digital literacy, there is a high chance the children will also have a low digital literacy. Not having the technology can and will have an impact on the learning process.

To summarize, adult learners gain knowledge in different ways. They are very self-directed and less open minded. They have higher expectations of themselves and if they lack the technological skills to learn with today's tools, they will struggle to complete their training. As educators, we need to consider these challenges when developing online learning tools and courses.

Originally Posted on eLearningindustry.com



**Remember the 5 technologies challenges that adult learners face:**

1. Bias

2. Literacy

3. Experience and Exposure

4. Fear
5. Social and Culture Exposure

## Bridge The Technology Gap Faced By Adult Learners

**When an adult makes a conscious decision to start studying again, especially after a reasonable time away from learning, chances are they are going to run into some technology challenges they'd never encountered before. Here is how to bridge the technology gap faced by your adult learners.**

So, how do educators adapt their delivery to help adult learners facing these technology challenges? Here are 5 things that I believe an educator can use to bridge the technology gap with adult learners:

**1.    Know your stuff**

You can't help someone if you don't know yourself! As an educator you need to have a good grasp on the technology you're going to use. Don't be scared to try new things and new software. What's the worst that can happen? (as long as you've backed up!). Get on to social media, **RSS feeds** and **Blogs**. Follow and keep up with technology, it's not as scary as you think.

**2.    Identify.**

Ask the questions of your students and learn to identify what your students do and don't know. You can't always assume that your students know everything. Ask questions like "Can I email you this link?" or "Have you tried searching Google® for

it?" and gauge their response. This will give you a great insight into their knowledge and provide you with a starting point.

### 3.    Bring it down.

Enough of the jargon! Bring it down to the level of your student. Once you've identified your students technology level (digital literacy), you'll know the level of conversation needed. For me, I've found that trying to describe things using a bucket analogy seems to work with adult learners. For example, trying to explain how a folder structure works, I bring it down to simple buckets within buckets, the more buckets you have nested inside other buckets, the more complex it gets!

### 4.    Provide relevant resources.

When providing resources, be it paper or electronic, make the resources relevant to what you've been discussing with your student. Don't give a student more than what they can handle, you will lose them. As you've already identified what the student's strengths are, play to these. If they know Word Processing and Email, send them document in an email, if not, arrange to have it printed and mailed to them.

### 5.    Don't give up.

Last but not least, don't give up on your students! With the support, resources and experience that you provide them, you can open a whole new world of learning. Your students will come round and they'll have that light bulb moment which makes it all worth it for use as educators.
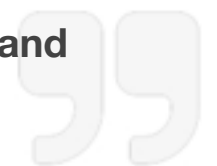
Remember to Bridge The Technology Gap Faced By Adult Learners you need to:

1. Know your stuff

2. Identify
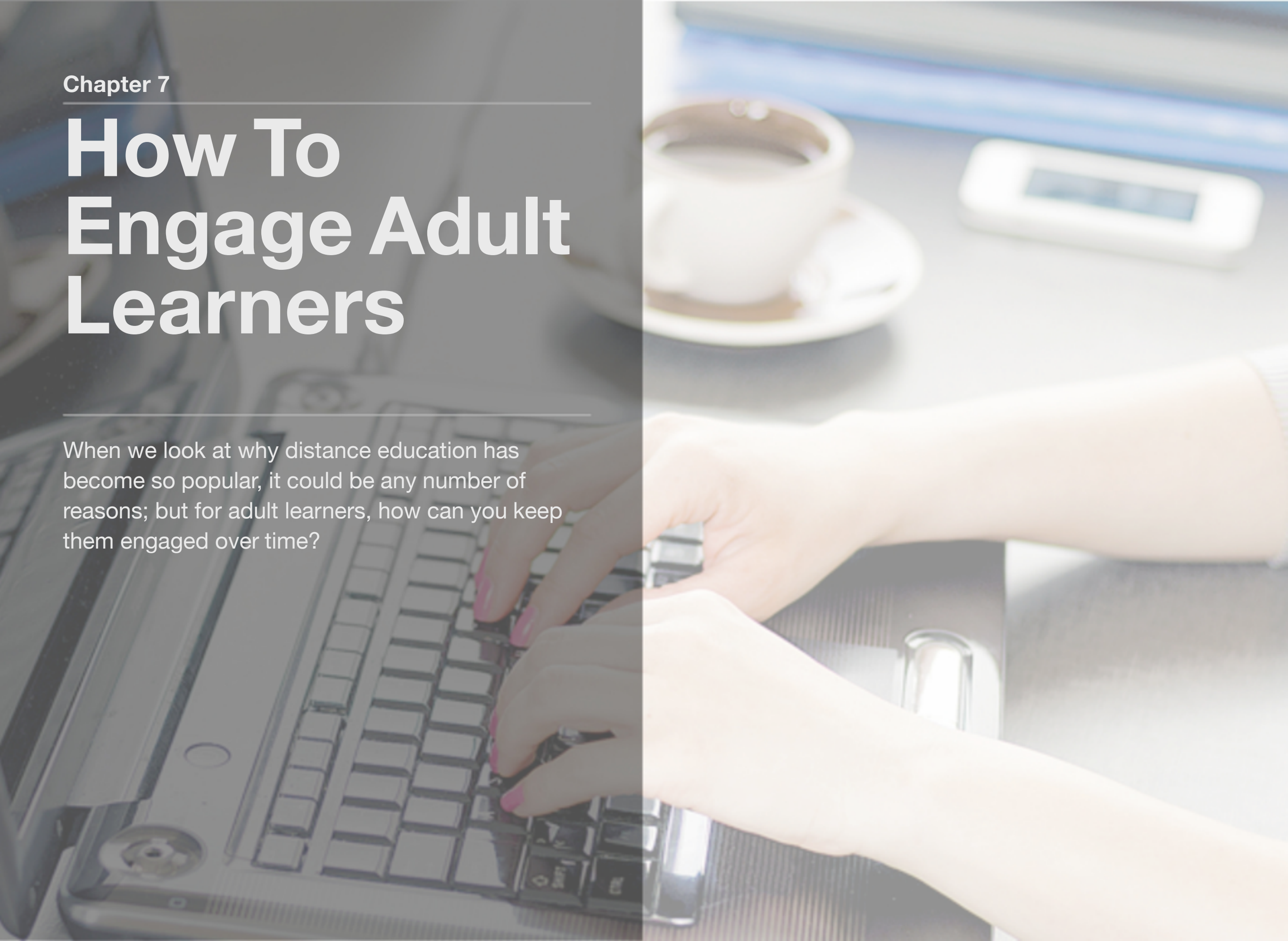3. Bring it down

4. Provide relevant resources

5. Don't give up

**Use technology to drive motivation and change the way  we learn**

# How To Engage Adult Learners

When we look at why distance education has become so popular, it could be any number of reasons; but for adult learners, how can you keep them engaged over time?

Having worked in **Vocational education** for a number of years now, distance education is becoming more popular by the day. When we look at why distance education has become so popular, it could be any number of reasons. There is the convenience of having everything there for you when you want or need it. Being able to study when you're ready, not to a timetable. Study where and when you like. These are all fantastic and probably equates to why it is so popular. Let's now look at adult learners that opt to do a course online.

The first item we need to look at is the why? Why did they sign up to do an online course? There could be any number of reasons, including lured in by advertising, career change, or enter back into the workforce. Perhaps they just want to challenge themselves or it '*just seems like a good idea!*'. It's all super exciting when you first start. You get all the glossy brochures, maybe some books and

**USB** with some resources on it, an ID card, links to the student portal, and heaps of resources – it's all official now!

Then, reality sets in – maybe I should rephrase that; *life gets in the way*.

Studying by way of distance education is not something that will come naturally to adult learners. Now when I say naturally, I'm referring to those learners that are in the 30+ age group. Chances are the last time they did study was in lectures or a classroom. Distance education requires discipline and dedication, and this can be really challenging for just about any adult learner.

Let's shift to a tutor / trainer that is delivering by way of a distance model. I used to be one. I delivered the diploma of web development to up to 80 students at one time. All scattered across the country and all at various levels of the diploma. As I delivered the course, I would always

be thinking about how I could use technology to both mine and the students' advantage. How can I keep my students engaged? What do I need to do if one of my students falls back?

Here are some of the things I used to adopt both using technology and experience to keep adult learners engaged when studying over distance education:

1. **Make it and keep it real.**

Remember that these are adult learners and they have a reason to study. They are not being forced into it. There has to be a tangible reward or goal for them. As you are their tutor, share your experiences with them and explain why and how what they are learning will help them in their career. They want a career in the study option they have chosen.

2. **Know your students' limits.**

You get to know your student's strengths and weaknesses. Use this to your advantage. If you have a younger adult learner, know that they are going to want to use technology. They learn differently – but they have the same goal as your older adult learners. If you know their limits, you can apply your experience to help them.

3. **Learn from them.**

Find out what technology your students use. Let's look at Facebook .There are over 1.5 billion people using Facebook these days and yes it can be used in a learning environment! You might be surprised to find a little gem in there that can be adapted to learning.

4. **Routine.**

Adults like routines. If they know that Tuesday's at 10:30 they will be involved in an online session with their tutor, they can plan their lives around this. Remember, an adult learner is more focused on the goal and needs the consistency to stay motivated.

5. **Feedback.**

Give your students feedback – good or bad. They are adults, they need to hear how they are going. They need to know if they are on the right track. They need to hear it regularly.

There are hundreds of tools out there that can help you get and keep engaged with your students. Don't be scared to use something new. Just because somebody says you can't use it because it didn't work for them, doesn't mean you can't get it to work either.

Originally posted on eLearningindustry.com

How do you engage with Distance Learners? Remember to:

1. Make it and keep it real

2. Understand your student's limits

3. Learn from your students
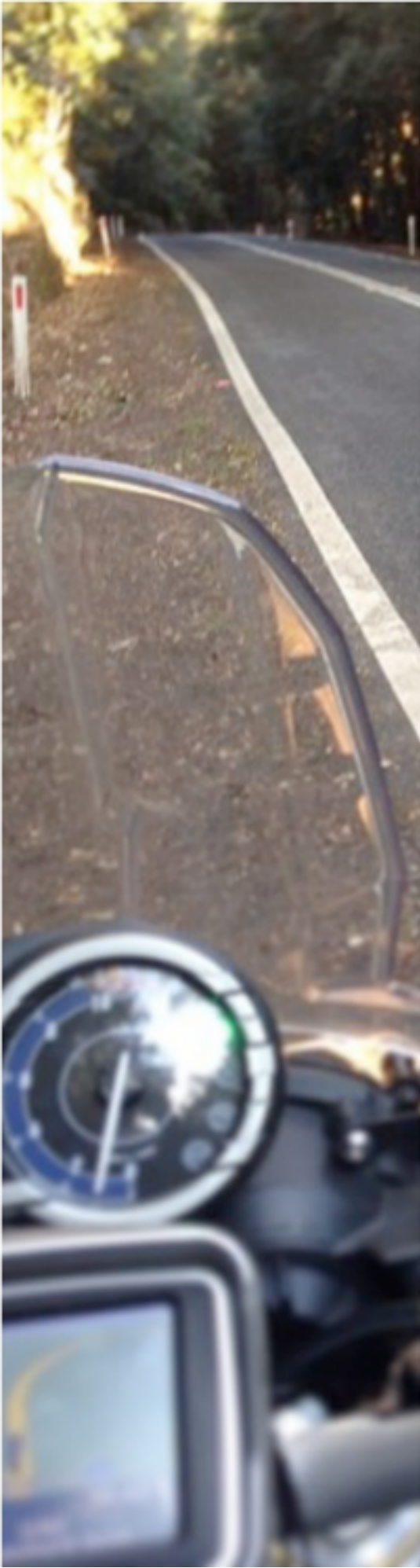4. Routine

5. Feedback

"If we make technology easy to use,
it will create an natural learning
environment"

# About Me

My life journey has taken me around many corners, some good and some filled with holes. In saying that, it has led me to a career that I now throughly enjoy and find incredibly rewarding.

Having served in the Royal Australian Navy for 10 years as an Electronics Technician specialising in Under Water Weapons Systems. I was introduced to this new thing called 'The Internet' in 1996. Curiosity got the better of me and I desperately wanted to learn more about this new *thing*. The natural progression was into the world of Information Technology.

Many years later and having been exposed to many different industries, I find myself wanting to give back and share my knowledge with the next generation of web guru's. So I took the next career change and became a **Vocational Educator** delivering the **Diploma** in Web Development and Design at **TAFE**.

After a major skin cancer scare and followed up with a major operation in 2011, I got a little impatient lying around and doing nothing (once the the painkillers wore off) for a week or so. So what else do you do? Start teaching yourself mobile application development of course! This led me to complete a Post Graduate Certificate in Mobile Application development where I averaged a Distinction completing in mid 2013.

Whilst teaching adult learners for several years, I started to see there was a difference in how they learnt and how the teachers around me were facilitating. An opening at the college I worked at became available – and I was now in the eLearning world.

Since then I have developed a greater passion for technology based learning, especially in the adult learning world and the challenges faced by adult learners. I've also completed a Post Graduate Vocational Certificate in Digital Education.

I am now the eLearning Manager for one of the countries biggest private **RTO's**. I have a vision to fill the gap with eLearning in the adult education world and thrive on the rewards it produces. This book has been the next challenge on my digital journey through adult education and I really wanted to share some of the experiences and tools I've used to improve adult learning. Follow me on twitter to keep up to date or connect via LinkedIn.

**So many challenges……yet so rewarding.**

My partner keeps telling me I'd achieved a lot in the past 7 years. I would always just shrug it off, but since sitting down to get all my thoughts into this book, I can now see what she means. Here's to the next 7 and who knows where this will take me.

In my spare time I love to research new technologies (especially Apple®)! As well as spend time with my family. I love to get away on my Triumph® Tiger 800, just to checkout those corners in my journey I may have missed. I am also actively involved as a Petty Officer with Australian Navy Cadets (Youth Development) in the role as Training Officer.

# Acknowledgments

I'd like to acknowledge a few people for their support, guidance, advice and who believed in me and led me down the path I'm on now.

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**Thank you all**

*The beautiful thing about learning is nobody can take it away from you.*

**BBKing**

# Copyright

**The Seven Year Itch**

**Adult Learning in Vocational Training - my digital journey so far.**

# Glossary

## Andragogy principles

Malcolm Shepherd Knowles (1913 – 1997) was an American educator well known for the use of the term Andragogy as synonymous to the adult education. According Malcolm Knowles, andragogy is the art and science of adult learning, thus andragogy refers to any form of adult learning.

https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles

## API

Application program interface (API) is a set of routines, protocols, and tools for building software applications. An API specifies how software components should interact and APIs are used when programming graphical user interface (GUI) components.

www.webopedia.com/TERM/A/API.html

## Blogs

A blog is a frequently updated online personal journal or diary. It is a place to express yourself to the world. A place to share your thoughts and your passions. Really, it's anything you want it to be. For our purposes we'll say that a blog is your own website that you are going to update on an ongoing basis. Blog is a short form for the word weblog and the two words are used interchangeably.

http://blogbasics.com/what-is-a-blog/

## BYOD

Bring Your Own Device

# Certificate IV

The purpose of the Certificate IV qualification type is to qualify individuals who apply a broad range of specialised knowledge and skills in varied contexts to undertake skilled work and as a pathway for further learning.

Certificate IV qualifications are located at level 4 of the Australian Qualifications Framework.

Certificate IV qualifications must be designed and accredited to enable graduates to demonstrate the learning outcomes expressed as knowledge, skills and the application of knowledge and skills specified in the level 4 criteria and the Certificate IV descriptor.

http://www.aqf.edu.au/aqf/in-detail/aqf-qualifications/

# Diploma

The purpose of the Diploma qualification type is to qualify individuals who apply integrated technical and theoretical concepts in a broad range of contexts to undertake advanced skilled or paraprofessional work and as a pathway for further learning.

Diploma qualifications are located at level 5 of the Australian Qualifications Framework.

Diploma qualifications must be designed and accredited to enable graduates to demonstrate the learning outcomes expressed as knowledge, skills and the application of knowledge and skills specified in the level 5 criteria and the Diploma descriptor.

Diploma qualifications are available for accreditation and issuance in both higher education and vocational education and training.

http://www.aqf.edu.au/aqf/in-detail/aqf-qualifications/

# Educational Designer

The key concern of Educational Design is to apply appropriate learning theory to the design of learning materials and learning events to ensure that learning is maximised. (Meg O'Reilly)

http://instructionaldesign.com.au/content/differences-between-educational-design-learning-design-and-instructional-design

# HTML5

HTML5 is the latest version of Hypertext Markup Language, the code that describes web pages. It's actually three kinds of code: HTML, which provides the structure; Cascading Style Sheets (CSS), which take care of presentation; and JavaScript, which makes things happen.

## Hybrid

Hybrid mobile apps are like any other apps you'll find on your phone. They install on your device. You can find them in app stores. With them, you can play games, engage your friends through social media, take photos, track your health, and much more.

http://developer.telerik.com/featured/what-is-a-hybrid-mobile-app/

## Instructional Designer

Instructional Design is the systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction. It is the entire process of analysis of learning needs and goals and the development of a delivery system to meet those needs.

www.instructionaldesigncentral.com/whatisinstructionaldesign

## iTEL

Innovation and Technology Enhanced Learning unit is the name of the department for SWSI TAFE

## Learning Management System (LMS

A learning management system (LMS) is a software application for the administration, documentation, tracking, reporting and delivery of electronic educational technology (also called e-learning) courses or training programs.

## Learning styles

The term "learning styles" speaks to the understanding that every student learns differently. Technically, an individual's learning style refers to the preferential way in which the student absorbs, processes, comprehends and retains information.

https://teach.com/what/teachers-teach/learning-styles/

## Learning Theories

Learning theories are conceptual frameworks describing how information is absorbed, processed, and retained during learning. Cognitive, emotional, and environmental influences, as well as prior experience, all play a part in how understanding, or a world view, is acquired or changed and knowledge and skills retained.

https://en.wikipedia.org/wiki/Learning_theory_(education)

## Low socioeconomic

The Australian Bureau of Statistics defines socioeconomic disadvantage in terms of people's access to material and social resources as well as their ability to participate in society.

http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4250.0.55.001Main +Features32009

## Moodle

Moodle is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalised learning environments. You can download the software onto your own web server or ask one of our knowledgeable Moodle Partners to assist you

Moodle stands for **modular object-oriented dynamic learning environment**.

## Natively

Sometimes referred to as the host language, the native language is the language understood by the computer. For example, binary is the language understood by the computer. In programming,native code is code that is written to run on a specific processor. To run the code on a different processor, an emulator must be used to trick the program into thinking it has a different processor. If an emulator is used, the code almost always runs more slowly than it would in its native environment.

http://www.computerhope.com/jargon/n/natilang.htm

## PhoneGap

PhoneGap is a software development framework by Adobe System, which is used to develop mobile applications. To develop apps using PhoneGap, the developer does not require to have knowledge of mobile programming language but only web-development languages like, HTML, CSS, and JScript.

www.tutorialspoint.com/phonegap/

## PHP

PHP (recursive acronym for PHP: Hypertext Preprocessor) is a widely-used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML.

http://php.net/manual/en/intro-whatis.php

## Registered Training Organisation

Registered training organisations (RTOs) are those training providers registered by ASQA (or, in some cases, a state regulator) to deliver vocational education and training (VET) services. RTOs are recognised as providers of quality-assured and nationally recognised training and qualifications.

http://www.asqa.gov.au/about-vet/about-rtos/about-rtos.html

## Responsive design

Responsive web design (RWD) is an approach to webdesign aimed at crafting sites to provide an optimal viewing and interaction experience—easy reading and navigation with a minimum of resizing, panning, and scrolling—across a wide range of devices (from desktop computer monitors to mobile phones).

https://en.wikipedia.org/wiki/Responsive_web_design

## RSS feeds

RSS (Rich Site Summary) is a format for delivering regularly changing web content. Many news-related sites, weblogs and other online publishers syndicate their content as an RSS Feed to whoever wants it.

http://www.whatisrss.com/

## SCORM

**Sharable Content Object Reference Model** (SCORM) is a collection of standards and specifications for web-based electronic educational technology (also called e-learning).

## Shadow teacher

Lurking in the background of a classroom trying to come to terms with what I'd got myself into.

## SWSi

South Western Sydney Institute of TAFE. Various colleges located in the South Western Region of the Sydney, NSW, Australia.

## TAE

Certificate IV in Training and Assessment is an important course required by all trainers by the National Skills Standards Council (NSSC).

## TAFE

Acronym for Technical and Further Education. A Government run Vocational Training College

## The Social Network

In 2003, Harvard undergrad and computer genius Mark Zuckerberg (Jesse Eisenberg) begins work on a new concept that eventually turns into the global social network known as Facebook. Six years later, he is one of the youngest billionaires ever, but Zuckerberg finds that his unprecedented success leads to both personal and legal complications when he ends up on the receiving end of two lawsuits, one involving his former friend (Andrew Garfield). Based on the book "The Accidental Billionaires."

https://g.co/kgs/ATLFyA

## Tin-Can API

The Experience API (xAPI), also known as the Tin Can API, is an e-learning software specification that allows learning content and learning systems to speak to each other in a manner that records and tracks all types of learning experiences. Learning experiences are recorded in a Learning Record Store (LRS).

https://en.wikipedia.org/wiki/Experience_API_(Tin_Can_API)

## VET

Acronym for Vocational Education and Training

## Virtual Learning Environment (VLE

A Virtual Learning Environment (VLE) is a system for delivering learning materials to students via the web. These systems include assessment, student tracking, collaboration and communication tools.

**Vocational Training**

Vocational education is education that prepares people to work in a trade, in a craft, as a technician, or in support roles in professions such as engineering, accountancy, nursing, medicine, architecture, or law. Craft vocations are usually based on manual or practical activities and are traditionally non-academic but related to a specific trade or occupation. Vocational education is sometimes referred to as career education or technical education.

Vocational education can take place at the secondary, post-secondary, further education, and higher education level; and can interact with the apprentices hip system. At the post-secondary level, vocational education is often provided by a highly specialized institute of technology/polytechnic, or by a university, or by a local community college.

https://en.wikipedia.org/wiki/Vocational_education