
Validated Individual Learning Pathways

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Abstract

“As a learner I want to access content electronically and in print, that meets my individual needs but also extends me beyond my current thinking and work. I expect that any chunk of learning I have completed will be validated by my local institution and accepted by my workplace”. (Smart, 2002)

A great deal has been said and written about tertiary learners and their ability, in 2002, to determine their own learning pathways for “Life long Learning”. However these decisions are generally made within a traditional pedagogical framework and need validation by traditional institutions.

Learning for life requires knowledge to be personally and culturally integrated. If we are to create truly dynamic learning, we must merge pedagogical traditions and progressivism, recognising that all learning emanates from, the individual. One of the ways we can respond to our learners’ demand for “dynamic learning” is to use technological advancements to:

- ensure that learning is valued and above all validated
- develop accessible, relevant and current content
- provide digital storage and retrieval services
- facilitate the customising of identified chunks of learning

In this paper I will explore the issues related to digital storage and retrieval of ‘chunks of learning’. I will also look at the creation of frameworks that ensure resources contain information, content and validation that is readily accessed by learners and accepted by institutions.

The dream

It is important to dream and plan for a preferred future based on your understanding of the present and a desire to improve, change or challenge the thinking of others.

“The future does not belong to those who are content with today, apathetic toward common problems and their fellow man alike, timid and fearful in the face of new ideas and bold projects. Rather it will belong to those who can blend vision, reason and courage in a personal commitment to the ideals and enterprises Society.

Our future may lie beyond our vision, but it is not completely beyond our control.”
(Robert F. Kennedy Capetown speech, 1965)

Adopting the techniques of Peter Ellyard and other futurists I will present my dream of how learners might direct their own learning within systems that support, accommodate and facilitate individual learning plans. Once we have formulated an idea of a preferred future, we can take a few tentative steps towards it, as we will do in the second half of this paper. Ten years is not very long. However if we reflect on the changes and introductions of new technologies that are now part of our everyday life that educationists had not dreamed of ten years ago, then the possibilities for the future are endless.

My vision for the year 2012:

- learning as a family experience
- dynamic and integrated learning for all, is a basic human right
- lifelong learning is truly planetary in nature
- is truly learner-driven (not system driven)
- learning is integrated with living
- all learning is validated and valued

A birds eye view of the future.....

It is 2012

TAFE frontiers are about to commission the tenth State of Play Survey for Victoria. As with previous surveys we will engage the community in debate about current family learning and the support mechanisms for Individual Learning Plans and Family Learning Practitioners. The survey will ask these four questions:

- how effectively is learning valued and validated
- is there accessible, relevant and current content
- how effective are the digital storage and retrieval services
- are individual learning groups able to customise chunks of learning.

The survey will seek participants' views on how well the current government has been able to achieve its goals established in 2002 through the Knowledge

& Skills for the Innovation Economy statement, which has spanned the decade.¹

We have seen some amazing changes in the past ten years that have enabled the establishment of the learning planet. It was necessary first to abolish war and famine, conquer disease, implement sustainable development, turn around the decline in our environment. Neurological science and bio-chemistry have advanced to the point where we now understand how learning really works in the human brain and how artificial intelligence can complement human intelligence in ways that enable all humans to develop their full capacity, always within a social and ethical context.

To answer the State of Play questions I will use parts of a story about a friend of mine, Jill Dong. Jill is 63 years old and has been a lifelong friend, in 2003 she escaped from war torn Zimbabwe to start again in Victoria. She has just returned from her working holiday in the Southern Ocean Whale Sanctuary and is about to resume her advanced course in the History of Education. Her special field of interest is in the antiquated technologies of the late Twentieth Century that were applied to lifelong learning.

How strange it seems that what was accepted practice only ten years ago is now spoken of with amusement and tolerant dismissal.

How effectively is learning valued and validated?

Until late 2002 learning was compartmentalised into discrete modes—face-to-face, online, distance, off-campus. Even the catch-cry of ‘flexible’ learning was interpreted widely to mean ‘going online’ and learning administrators were very slow to realise that ‘learner choice’ (another fashionable slogan) actually meant ‘learner abandonment’.

The motivation to introduce flexible learning programs had little to do with learners and more to do with government expenditure and pressures from the ailing Australian economy. Moreover, teachers and learners who really enjoyed face-to-face encounters were made to feel inadequate by the constant demand to offer ‘flexible’ alternatives², demands that were in any case rarely accompanied by the requisite funding or by any provision for systematic professional development. There were a few pockets of progress within the system, most of which were regularly ‘reviewed’ in order to ensure their influence would not be lasting.

Flexible learning needs to promote both individual and group learning, be responsive to gender, cultural, and motivational differences and help establish patterns and networks of lifelong learning. This has considerable resource implications and requires careful consideration of not only the courseware, but also student support systems and levels and types of interaction. (Mitchell et al, 2001)

¹ *Knowledge & Skills For the Innovation Economy*, A statement by The Hon. Lynne Kosky, MP Minister for Education and Training on the future directions for the Victorian vocational education and training system

² Face to Face Focus groups, State of Play Survey 2002 TAFE frontiers

Australia's National Strategy for Vocational Education & Training (VET) extends from 1998 – 2003 and drives change in the VET sector where learning is constructed based on a competency acquisition system.

"If we can get it right, we might create a future with genuinely seamless pathways for skill development. We might harness the potential of local communities and the commitment of all employers. We might finally excel at people-centred access and choices. We might even see the day when learning is a universal cultural value".
(ANTA Website May 2002)

The training package model was supposed to provide the means for learners to gain competence to suit their needs creating a "Learning Passport" of competencies. However the system of the time did not change sufficiently to allow this to happen.

Using the Enlightened Nations Charter of 2006 community pressures and industry had made considerable inroads into funding so that learners could make lifelong learning choices.

'Lifelong learning will be essential for everyone as we move into the 21st century and has to be made accessible for all.' (OECD, 1996, p. 21).

The early strategies were rarely based on any pedagogical model. The one size fits all approach applied. The 20th century educators had rudimentary knowledge of different learning styles. However in developing different delivery methods these were rarely applied. In any case, the mode of learning took little account of the many learning preferences based on individual thinking and learning patterns or preference for one sense over another (visual learners, haptic learners, conceptualisers, intuitives, imagineers, hunter-gatherers, divergers, brainstormers, preservers, socialites, dramatisers, practitioners). Learners had little capacity to choose a style of learning that suited their preference and they had to deal with a teaching style that 'pitched to the middle', envisaging a mediocre learner as the target, to the neglect of slower, faster, gifted or differently abled learners. Jill laughed— learning has been fully customisable now for more than seven years! How boring it must have been to learn stuff in which you had no interest, in a way that you didn't like.

"It is almost as if lifelong learning is about human resource development whereas it is actually also about human development, about learning beyond work".³

Learning was separated from other aspects of living. This is a source of amazement to the netizens of 2012, who all enjoy the Right to Learn defined in the Enlightened Nations Charter of 2006. Learning used to take place in specially designated learning sites, many of which resembled the factories created by the long-gone Industrial Age, an Age that almost brought the planet to ruin. Only ten years ago, learners were divided into separate populations, according to their age, stage of development, purpose of their learning (workplace, qualification, leisure/curiosity) and were subjected to strict, unchangeable curriculum frameworks that were decided by 'expert' committees who had little contact with the learners themselves. Teachers were also classified according to the learning environment in which they

³ Editorial in *International Journal of Lifelong Education* Vol 21 No1 Jan-Feb 2002

taught—early childhood, primary, secondary, higher education, vocational education and training, community and adult education, workplace training. It was extremely rare for teachers to cross boundaries.

The breakthrough came with the introduction of Family Learning Practitioners, first introduced in the United Kingdom in 2003 following NIACE research.

The key purpose of family learning was defined as follows.

“Family Learning provides and promotes learning within an intergenerational family context. Families are supported in taking the opportunity to enhance and develop relationships with each other and the wider community through the process and outcomes of learning”.⁴

As part of Jill’s survey response she took into account the pioneering work of Shanti Wong who was awarded a Travelling Scholarship by the Department of Employment, Training and Tertiary Education in June 2001. The scholarship studied four Learning Cities in the UK and two in Northern Europe in order to enhance the development of ‘SmartGeelong - The Learning City’ and provided useful insights that were highly transferable to other Victorian Learning Towns and Cities. The cities visited over three and a half weeks in January 2002 were Rotterdam, Gothenburg, Glasgow, Blackburn, Norwich and Great Yarmouth. The study tour also included visits to the offices of the National Institute for Adult Continuing Education (NIACE) in Leicester and the Campaign for Learning in London⁵.

Shanti’s report noted that in the Learning Cities visited, there seemed to be a widespread acceptance and understanding of the concept of lifelong learning and its value to individuals, communities and countries. This understanding spread well beyond the core group of people involved in the instigation of the Learning Cities. People involved in a wide range of community education projects referred confidently to lifelong learning and the strategies they were using to widen participation⁶.

Jill reflected on the real change that had occurred through 2002 –2006 in the VET sector.

Jill’s fellow netizens all recognised that humans have a range of inherent learning abilities, which they choose to exercise at different times of their lives, in different ways and for different purposes, according to the things that have meaning and value for them. Each successive group of VET learners with their communities behind them had forced change to Government policy and practical implementation within the VET sector.

In 2012 learners now determine curricula, in so far as these still exist, based on their personal needs and ambitions.

⁴ Draft Occupational Map Family Learning, NIACE promoting adult learning

⁵ Learning Cities - *Building 21st Century communities through lifelong learning* Shanti Wong 2002

⁶ Learning Cities - *Building 21st Century communities through lifelong learning* Shanti Wong 2002

Is there accessible, relevant and current content?

Until 2009 any learning that took place outside the pre-determined framework was not truly valued and had to be pursued at the learner's own expense. Only learning that could be 'useful' (that is, by adding to 'national productivity') was valued and indeed the late 20th century had already seen the withdrawal of funding from universities and other institutions that persisted with 'old-fashioned and irrelevant' programs catering for curiosity, enthusiasm, a thirst for the unknown and a passion for the strange and the exotic.

Luckily, the rapid adoption of digital storage systems in 2005 meant that much of these knowledge and experience fields were saved and a new Dark Ages averted. Jill smiled at the idea that only accredited programs were valued and that the years of learning were circumscribed to those between the ages of four and twenty-one. Article Four in the Declaration of the Right to Learn makes it clear that all learning is a human good and an important aspect of humanity's progress.

"The traditional meaning of the word learning is much deeper than just taking information in. It is about changing individuals so that they produce results they care about, accomplish things that are important to them".⁷

"If we accept the thought that real learning implies a relationship between the known and unknown there will be some serious consequences for our views on knowledge and lifelong learning".⁸

If learners only learned what was already known, there would be no progress. If learners only learned the skills and knowledge that were needed for the economy, the economy would soon die. The netizens of 2012 know that what is 'useful' is a citizenry of curious and mentally agile people who have free and universal access to information and the skills to be able to interpret, analyse and apply what they learn to the common good of all on the planet.

In the late 20th Century, early childhood was perhaps the only stage of human development in which learning was holistic, that is, related to the person, his or her stage of development and social environment. Learners at this stage were able to explore, feel, experience, use their imagination, experiment and play. Guidance was always available and centered on the growing person, not on the curriculum framework or on a set of competencies to be ticked off once learning was 'completed'. Jill smiled: 'Is learning ever complete?' Thank goodness that in 2005 it was acknowledged that the early childhood model was to be adopted throughout the education systems along with the Family Learning Strategy.

How effective are the digital storage and retrieval services?

The learning technologies of the late 20th Century were the product of engineers, technocrats and marketeers, not of educationists. We were puppets to the technologies forever being made to feel inadequate in our ability to master successive generations of technological advancements.

In 2002 Bill Cope noted that new strategies needed to be implemented to shift the focus towards the provision of services, or a mix he calls Product-Service

⁷ Senge, 2001, p 610.

⁸ Bernt Gustavsson International Journal of Lifelong Education Vol 21 No1 Jan-Feb 2002

Systems. One of the definitions of the PSS described by Oksana Mont (Mont 2000) was a self-learning system with the goal of continuous improvement⁹

It was not until 2006 that the Enlightened Nations were able to create and universally distribute learning and knowledge technologies that provided customised, personal learning to every person.

From that date, all learning technology was wedded to the lightweight PAD, a cheap wireless device that used voice-activated communication to connect instantly, through low orbiting satellites, to other learners world-wide and to the digitised knowledge repositories of the Cybrary, centrally located and maintained by the Enlightened Nations as part of the Declaration of the Right to Learn. The smallest version of the PAD is the size of what used to be called a mobile phone and is carried in the pocket or held in the hand.

The next size PAD resembles the antiquated clipboard and is the 'work-horse' of the world's learners. In the home the PAD is wall-sized and is used for entertainment as well as for personal learning, communication and a wide range of functions (shopping, banking, videophonic home chat, and so on). 'Those old technologies sure limited the possibilities of learning,' mused Jill. Personal PADs are all connected, and incorporate your own personal styles and preferences. Immersive learning can also be accessed through the learning glove (called a Gauntlearn) or glasses (called Opticlearn) that transports you to, for example, the launch of the first space shuttle, allowing you to experience the first walk on the moon.

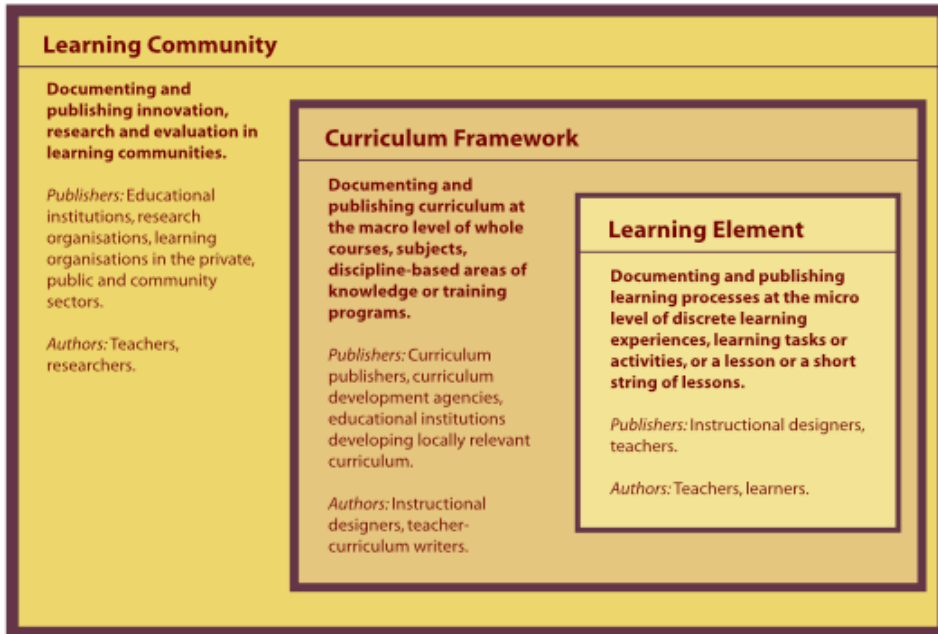
Are individual learning groups able to customise chunks of learning?

International digital storage systems and agreed formulae for describing a "Learning Chunk" advanced the cause of self-directed learning. In the early days there was a struggle in the VET sector with the use of the terminology "learning object" and a better term "learning chunk" was adopted. This helped provide the critical distinction between information (objects) and guided instruction (learning chunk). Universally distributed learning and knowledge technologies provided customised, personal learning to everyone. Bill Cope's vision of the Learning Design Language, introduced in late 2002 at a TAFE frontiers 'think tank',¹⁰ had been developed as an application of Kalantzis and Cope's theories and practices of pedagogy to Common Ground's C-2-C (Creator to Consumer) publishing system. It set the benchmark for discussion and debate. The system facilitated three levels of documentation, publication and dissemination of educational practices and innovation.

⁹ *The Need for a New Mindset*, C-2-C Project Book 2.1 p.19

¹⁰ TAFE frontiers 'think tank' August 2002

Dynamic Learning Chunk



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The diagram above shows the groundbreaking work of Common Ground in endeavouring to describe the structure of a learning chunk in VET.

The diagram clearly shows the two additional levels required to describe a learning chunk, adding curriculum framework and learning community to the learning element (known in early 2002 as a learning object)

This work enabled Victoria to implement international policies much earlier than other states and nations.

Jill was delighted that Victoria had been her home for the last ten years and that she had been able to pursue her Life Long Learning goals with all the support systems needed as a self-directed learner.

In 2012 learners respond to the State of Play Survey and answer the four prime questions posed in a positive and thought provoking way that will challenge our thinking for the next 10 years.

The present day

In 2002 I put forward these four questions to stimulate debate, as we are a long way from being able to provide any definitive answers.

- Is learning valued and above all validated?
- Is there accessible, relevant and current content?
- How effective are the digital storage and retrieval services?
- Are individual learning groups able to customise chunks of learning?

The Victorian Government, through the Knowledge Skills For the Innovation Economy statement has made a commitment to Life Long Learning that embraces and challenges the ways we currently value and validate learning.

“The innovation economy is an economy that can apply its rapidly increasing knowledge effectively in work and social situations to increase productivity and general well-being, and to create and apply new knowledge. It values cross-cultural skills for global trade and other cross-cultural exchanges”.¹¹

TAFE frontiers have been working extensively to develop new methods for learning resources design and distribution. Promoting new and innovative delivery strategies, researching how to get the best out of flexible learning for various target groups, researching provider opinions about flexible learning and determining their support needs. Developing strategies to embed higher order learning into all flexible learning programs. Supporting providers develop the strategies and skills required to take a whole of organisation approach to flexible learning. Continuing to plan for the implementation of lifelong learning and community involvement.¹²

Three of the current critical issues in promoting Life Long Learning are:

- analysing the design elements of learning resources that are required to support learner choice and control.
- building self-directed learning skills and enhance generic skills development.
- preparing of learning materials templates and design tools that will enable the production of effective learning resources

To address these and other emerging issues TAFE frontiers is undertaking action research projects, think tanks and broad debate and analysis that allows us to improve our ability to support learners in their lifelong learning goals.

In Stephen Downes' report *New Directions*¹³ he talks about The Possibility Network which consists of:

- a corps of learning consultants
- a network of learning stores
- a personal learning assistant.

The Personal Learning Assistant resembles a kind of “Quicken” for learning. It is owned by a learner, not an institution, it is portable and personal, within the learner's control. If ideas of this kind are integrated with the Family Learning concept, we will see the beginning of learner empowerment.

In 1986 a time capsule was buried and one of the items included was an electronic version of the Magna Carta stored on a disk. When it was dug up in 2000 the disk could not be read by any of the technologies available. This illustrates how important it is for us to identify digital storage mechanisms that can maintain their relevance and accessibility. At the retrieval point, learners

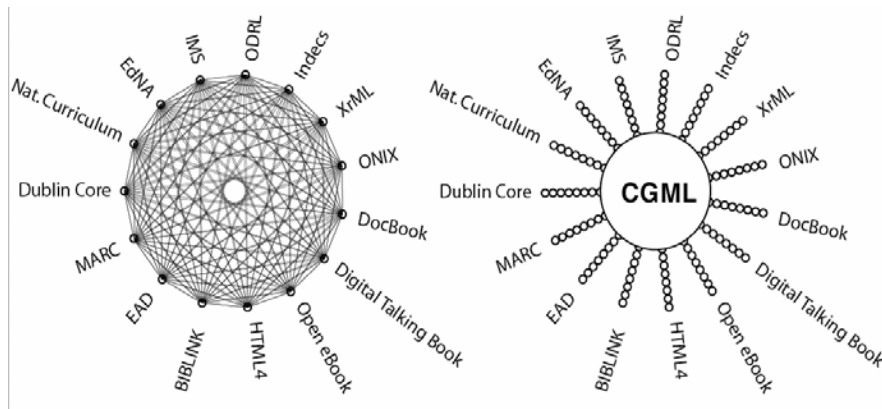
¹¹ Knowledge Skills For the Innovation Economy, Kosky, 2002

¹² TAFE frontiers Board meeting 3/02 Paper 02

¹³ New Directions Stephen Downes August 16, 2002

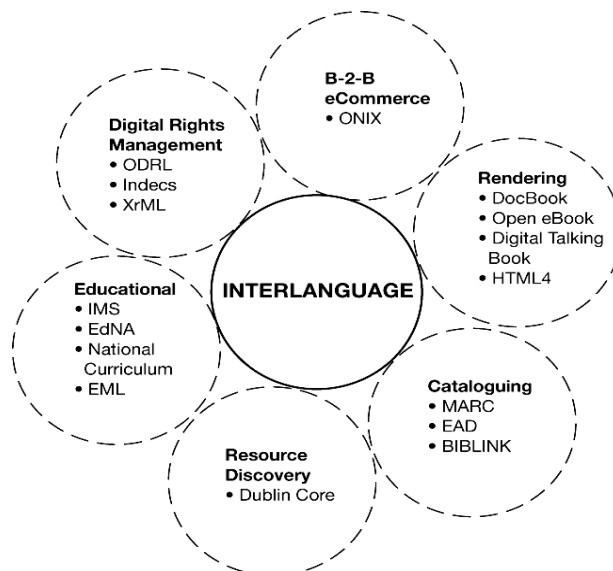
need options that allow choice of content customised for their requirements. Employers, social requirements and Life Long Learning goals may drive these choices.

We are still in the embryonic stages of digital storage and management with many funding initiatives looking at standards all across the world. The diagram below illustrates the current complexity of the educational environment we are working within. All the acronyms around the circles represent a standard for categorising content or systems that support storage of content.



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We need to create an environment that is compatible yet independent of any current media types, and that can easily be adopted and adapted to suit the learners requirements. Bill Cope uses the term 'interlanguage' to describe how digital storage and retrieval will work. All the different standards and platforms are able to engage with the central repository that has a universal language.



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One of the foundation blocks for the VET sector is the definition of a “learning chunk”. Through the ‘Learning Federation schools online curriculum content initiative, standards and specifications’¹⁴ much work has been done. This is in a pedagogical framework managed by the teacher. How then do we define a chunk of learning where the material contains its own learning process that includes, assessment, learning pathway and content?

What is the criterion for chunks of learning? Until we establish the answer to this question we will not be able to move forward. Bill Cope’s learning design language starts this process. It will be important in the next two years to engage key stakeholders in Victoria and all other States and Territories in the debate. Otherwise we will continue to spend vast amounts of money in the design of digital repositories that all use different meta-tagging and cannot talk to each other.

This ultimately creates silos of information and learning materials that quickly become redundant because learners cannot access them easily and because they do not complement each other. Currency, maintenance and quality cannot be sustained and ultimately the learner is disadvantaged.

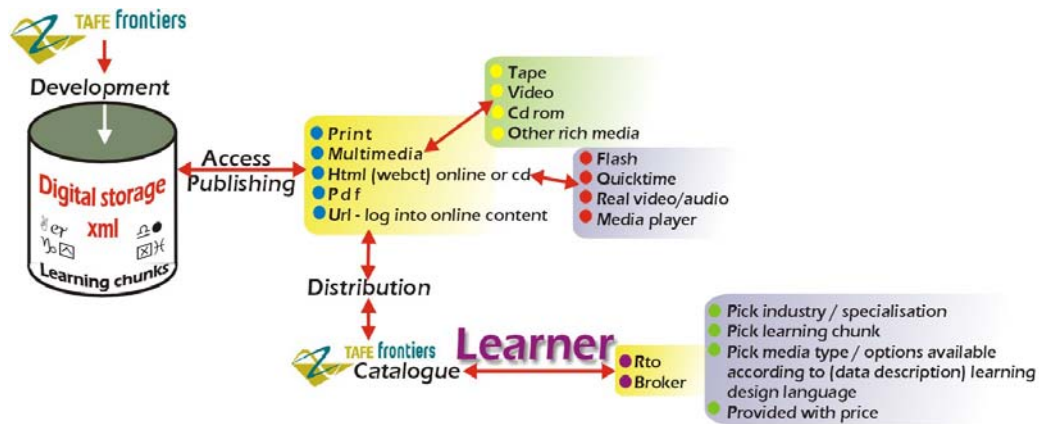
Conclusion

My vision for the future VET system embraces the ideas of Maslow where the learner moves to self-actualisation. I see a future where learners can really determine and direct their own learning pathway. Holistic frameworks have been established that allow the learner to truly make life long learning decisions. Technological and pedagogical solutions blend together to provide the learner with seamless access to formal learning that is validated by workplaces and educational institutions.

These solutions will ideally be facilitated by sophisticated technological and educational systems and solutions. Learner driven approach is not just about providing learning in different media or replacing one technology with another, which is what I believe has happened in the last five years. It is not about labeling educational options such as “face to face”, “online”, “distance” “off campus” and “self paced”. These descriptors of educational pathways ought to disappear! They limit and exclude from both a learner and teacher perspective. The preferred future will use using technological advancements to our advantage, by addressing the educational framework that includes teacher understanding and new skills acquisition.

The model below represents my vision for an integrated system that could work on a local, national and international level

¹⁴ © Curriculum Corporation and *education.au limited*, Specifications 2002



This model constitutes a learning system that embraces the best use of the technology so the learners choose online, print or multimedia as blended solutions to their individual needs.

If Australia is remain prosperous and competitive, it must develop a culture that values ongoing learning in which 'everyone should be able, motivated and actively encouraged to learn throughout life.' (OECD, 1996, p. 21)

I firmly believe learners will inherit a future, where they can make choices and determine their own learning pathways. Training organizations, the workplace and the broader community will all participate in dynamic learning that maximizes the possibility for self-actualisation.

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