

ICDL AUSTRALIA: DRAFT PAPER ON ICT SKILLS DEVELOPMENT IN AUSTRALIAN SCHOOLS

Introduction

Goals of the paper –

- Examine essential skills that comprise Digital literacy and competence and their relevance to primary and high school education in Australia
- Elaborate an approach that supports the ICT skills development in Australian schools
- Investigate ICDL Australia's role in developing appropriate ICT knowledge skills and competences within the Australian school sector.

Overview

The term 'Digital literacy' is commonly used, but since its first use in the mid-1990s, it has never had a uniform and agreed upon definition. Digital literacy resists a simple definition because what it means to be digitally literate is highly subjective and, as the technological landscape is continually evolving, so too does the meaning of the term itself. In relation to the development of relevant ICT certifications, a more useful approach is to consider Digital literacy as a broad concept, encompassing a relatively stable set of knowledge and skills that are essential for participation in any modern, knowledge-based society. By defining Digital literacy as this relatively stable set of skills and knowledge that all must possess to participate fully in society, regardless of their role/position, it is then possible to develop a model of digital proficiency which enables both teachers and students to develop the levels of ICT skills and knowledge that are required of them.

Essential Skills that Comprise Digital literacy and Competence in Schools

Policymakers, educators, and those who seek to certify end-users' ICT skills need to identify a commonly used, essential set of skills and knowledge (that can be built upon) that an individual must have if they are to take part in common factors that depend on or are defined by ICT. These skills are 'essential' in the sense that not having them may restrict, in many societies, full participation as a citizen. In a school environment they are also 'essential' in that they enable educators to develop more specialised skills and knowledge. These essential skills are not fixed, but will change over time as both technology and the common uses of technology change. Emerging technologies create new skills requirements while making other skills redundant¹.

Once we move beyond this basic shared set of skills and knowledge, we pass into a shifting domain that is more related to the context of the individual. The individual's requirements will determine the knowledge and skills that are important for him or her. In an educational context, these will frequently support the need to be 'competent' in a particular role through the demonstration of knowledge and skills, coupled with the appropriate subject area expertise.

¹ For example, reformatting a floppy disk is no longer a valuable skill, whereas using a USB memory stick is.

Therefore, in the context of schools, the need for essential skills and knowledge is applicable to all teachers – irrespective of whether they are primary or high school educators. This position reflects that set out in the recommendations of the European Commission’s Digital literacy Group². In this, Digital literacy is defined as the basic set of skills required to support the development of digital competencies, which is one of the set of competencies that have been identified as key for every European to have to operate successfully in a knowledge-based economy and society.

In summary, we can say that Digital literacy encompasses:

The knowledge and skills required to participate in essential ICT user activities.

Digital competence, in turn, encompasses:

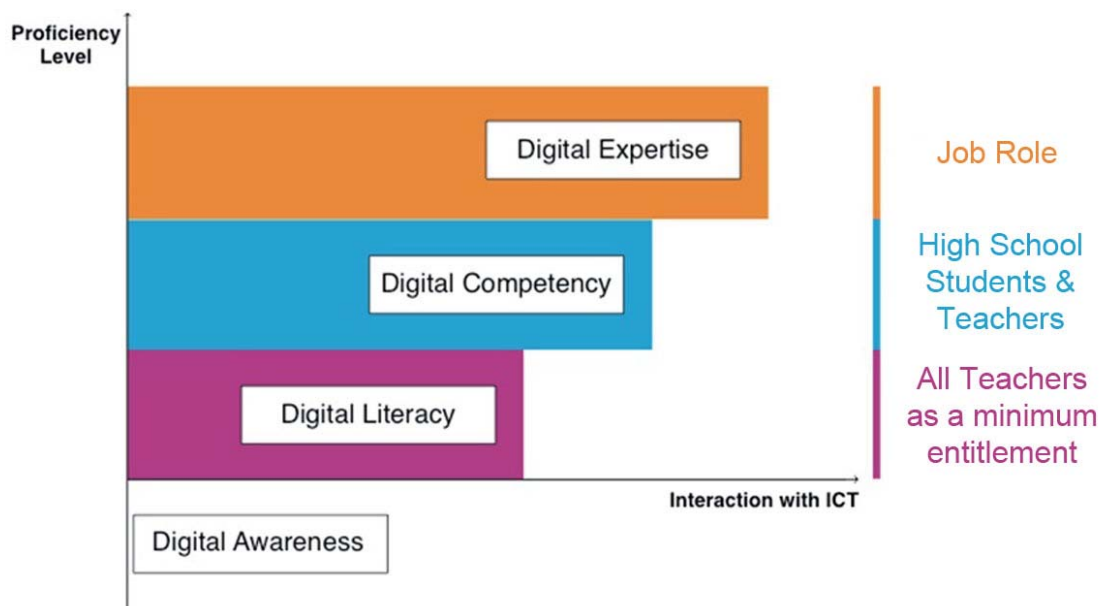
The knowledge and skills required to use ICT competently in particular social, educational, or work contexts.

Thus, it can be argued that all teachers require Digital literacy as a minimum entitlement and, as high-school teachers’ start preparing students for life outside of the school that both teachers and students need to be digitally competent.

Building ICT Skills Development in Australian Schools

From ICDL Australia’s perspective, certification programmes enable individuals to develop the skills that they need, depending on how, and in what environment, they intend to apply them. We know that everyone does not need to master all ICT skills areas at a deep, comprehensive level, but all groups in society must, in current times, possess some knowledge of ICT. The structure of our programmes supports the development of appropriate digital proficiency, which contains a range of different levels:

ICT Skills Development



² Digital Literacy Report: a review for the i2010 eInclusion Initiative
http://ec.europa.eu/information_society/eeurope/i2010/docs/digital_literacy/digital_literacy_review.pdf

ICDL Australia's role in developing appropriate ICT knowledge skills and competences in Australian schools

The skills and knowledge areas gained in the various levels of proficiency relate to ICDL Australia's certifications in the following way:

Digital literacy = ECDL / ICDL Start

An educator possesses essential ICT skills and knowledge: he/she can use some common applications effectively. Without these skills and this knowledge, educators will find it difficult to carry out common tasks that arise in the workplace or society, and are at risk of exclusion. These skills are also essential in that they enable educators to develop more specialised skills and knowledge. Typical skills would include working with figures and documents and using the Web securely and effectively. The ICDL Start certification is utilised within departments of education and teacher training programmes – as responsible employers these organisations recognise that they must provide their staff and members with the minimum entitlement of Digital literacy - to allow individuals to operate effectively in a school environment.

Digital Competence = ECDL / ICDL

An educator or student possesses the required skills and knowledge specific for one's role in the workplace and/or school: he/she can operate a range of applications effectively. Without these skills and knowledge, students will not be able to perform effectively in a particular scenario. The specific skills and knowledge required will vary considerably from person to person. Typical skills would include working with image files, maintaining databases, or creating presentations. Again, given that a key objective of educators and schools is to prepare students for further studies or to enter the workforce it is critical that teachers also have these skills and knowledge - even more so in the high-school arena as students reach years 9 and 10.

Summary

It is our belief that Digital literacy is a foundation skill in the 21st century in the same way that literacy and numeracy were in the 20th century. The ICDL Start certification provides a consistent benchmark for **all** teachers that need ICT literacy skills and equips them with the necessary skills to improve ICT literacy in their classrooms and utilise ICT where relevant to improve student learning. Moreover, the development of teacher and student skills and knowledge in high schools necessitates that digital competency is treated as a natural precursor to students entering employment or going on to further advanced studies. In summary:

Digital literacy = ICDL Start. Relevant to all teachers and forms a minimum entitlement for developing 21st century learning.

Digital competency = ICDL Core. Especially relevant to Year 7 to Year 10 students, and teachers that need to prepare these students for future studies or the workforce

Appendix A: About ICDL Australia

The International Computer Driving Licence (ICDL) concept is a global computer literacy initiative developed to raise the level of knowledge about Information Technology (IT) and increase the level of competence in using personal computers and common computer applications for all the citizens of the world.

Owned and co-ordinated by The European Computer Driving Licence Foundation, a non-profit organisation based in Dublin, Ireland, the ICDL is an internationally recognised, vendor-neutral certificate which demonstrates a person's competence in computing knowledge and skills in accordance with international standards. ECDL (European Computer Driving Licence) and ICDL are synonymous, and identical standards apply to both.

The ECDL Foundation has produced a set of standards and quality guidelines which govern the procedures for the ICDL concept and ensure that it is operated in a consistent fashion in all member countries through adherence to these common quality standards. The Foundation has appointed and licensed ICDL Australia as the sole body to implement and disseminate the program in Australia and Papua New Guinea.

Our Mission

ICDL Australia's mission is to enable proficient use of Information and Communications Technology that empowers individuals, organisations and society, through the development, promotion and delivery of quality certification programmes throughout Australia and Papua New Guinea.

Our Values

- **Social Responsibility:** We are committed to improving digital skills proficiency within society. Our certification programmes are designed to be accessible to all citizens, irrespective of age, gender, status, ability or race.
- **Vendor Independence:** Our certification programmes give Candidates the flexibility and freedom to acquire digital skills and confidently apply them in any software environment that they may be required to use.
- **Quality:** We strive for continuous improvements in all that we do and ensure that our programmes are implemented to consistent standards internationally.

Through the supply of high-quality elearning and reliable assessment programmes, ICDL Australia and its partners ensure that skills development in ICT is meaningful, enjoyable and practical to schools and their stakeholders. The learning materials that map to the ECDL syllabus are carefully chosen so that they can be deployed in a blended learning approach – allowing for self-directed learning and for personalised learning - with tutors able to work with students on key concepts and more difficult areas of skills development and knowledge acquisition. For further information please see TTTU www.icdl.com.au or www.ecdl.org

Appendix B: ICDL in Australian Schools - some examples

The ICDL (International Computer Driving License) programme is used in a wide range of high schools throughout Australia. The flexible nature of the ICDL has seen it implemented in a number of ways depending on the individual circumstances of the school and its own curriculum needs. Some examples of how ICDL is used across Australian schools are as follows:

Queensland Christian School

This school offers the ICDL exams to its Computer students in Year 9 and 10, with the final exam completed in Year 10 (so they qualify for the 2 QSA points). Computer lessons are scheduled for three periods, of 45 min each, per week with extra practice and exercises done in-between the exams.

Queensland Anglican School

This school teaches IT skills in Year 7 and then introduce the ICDL qualification for Year's 8 and 9. Each class has one 45 minute IT period, per week, for the entire year. IT is taught as part of the Technology and Enterprise learning area. As such IT, it is classed as a separate subject and is reported on each semester.

Staff support: Most of the staff involved in the ICDL programme have completed the relevant modules and obtained their ICDL licences.

NSW Grammar School

ICDL is taught across Years 7 and 8 each week for approximately one hour per week as a separate subject (Information Technology). Three modules are covered in year 7 with the remaining four Modules taught in year 8. The Database Module proved too difficult for year 8 students so an intensive two days dedicated to databases in year 9 now forms part of the programme.

Staff support: All teaching Staff have all gone through the ICDL programme as part of a school wide requirement to improve ICT competence.

Victoria Catholic School for Girls

ICDL is taught as a separate subject for Year 10 students across one Semester. Teaching and supervision of the ICDL programme is the equivalent of five 80 minutes classes per fortnight.

South Australia group of Secondary Schools

ICDL is taught in Years 9 and 10 as a separate subject with approximately 28 lessons per week over the four schools – equating to seven 50 minute lessons per week per school.



Teacher support: All staff went through the ICDL qualification prior to it being implemented in the four school locations.