The Internet Generation and its Implication on Higher Education

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Abstract

The Internet Generation is the first to have Internet technology freely available from very early age. Students have been exposed to an unprecedented amount of technology. By the time this generation enters the work market digital technology will be part of almost all career pathways. Consequently the impact in education is somewhat obvious and expected. The future holds exciting opportunities as the accelerating economic integration, changes in demographic trends, and advances in ICT bring great changes to Higher Education. They also pose several implications for universities.

Generation Z, or Internet Generation, as it is commonly called, was born after the 1990's, and refers to 'the children of *Generation X* parents, and are *digital natives*—the first generation born into an already-digital world' (Gasser And Plqfrey, 2008). This is the first generation that has Internet technology freely available and from a very early age. Since the web revolution in the 1990s, they have been exposed to an unprecedented amount of technology.

This generation is highly trained to process a huge amount of images, from TV and cinema, to YouTube channels and videogames; and it demonstrates great resilience in spending numerous hours in front of screens. Pedagogical online resources and didactic digital games are assets that any modern family disregards. Multimedia gadgets are slowly replacing old schoolbooks, and images in motion filled with colour and audio tracks rule our kids' imaginations. The first letters are now read in a tablet or laptop and the learning process is done specially through motion visual stimuli. Short narratives are preferred since the text became frag-

mented and hypertext and hyperlinks turned the process of reading into a non-linear exercise, taking the reader from web page to web page in a non-ending digital path. The ability to focus on still images, as in a book, or even worse, lots of books – and studying the way that we did in the past (which we still ask our students to do) – became extremely hard to this generation as abstract thinking and memorization are no longer practiced since early age as it happened in former generations. Moreover it is easier to just *google it.* The impact the browser has in our culture today is quite representative of a world in change as it entered the linguistic system and became a verb used worldwide. Since information is now on the tips of the fingers, typing became faster than handwriting. Sooner than we expect calligraphy will became obsolete, as technology made it unnecessary and time consuming. It will remain eventually as an artistic practice that specialized people will maintain for aesthetic purposes. For the first time in History, a generation was brought up in the belief that more important than *knowing something* is *knowing how to find it*, that is to say, researching efficiently, selecting information and managing big amounts of data.

According to Marc Prensky this Generation has a different mode of activity and interaction that is not in sync with the traditional educational system. *Net Gen* students, as Prensky calls them, prefer informal, small-group discussion, often through text messaging or e-mail, as a means of gaining understanding of curriculum content rather than large lecture halls. They feel better in a learning space in which they can get to know one another, participate in dialogue, work on projects individually or in groups, get or provide feedback, and, in general, they pursue a collaborative environment that encourages understanding and learning Prensky, 2001).

The following picture represents a medieval classroom where the teacher assumes a higher position, standing on a pulpit from where he conducts his lecture. Some of the students seem to be focused and interested in the class; some seem to be as bored as they could be: two of them take a nap, another group talks in the corner, distracted with their classroom fellows. Pretty much the same as a classroom today, except for the pulpit and the students who are now *busy* on their smartphones. Even though seven hundred years have passed since the scene depicted by Voltolina, lecture is still the primary method of delivering instruction, learning is still the obligation of the student, and its measurement is not the main priority. We are still in a paradigm where the teacher is asked to mark, classify and label students' assignments, rather than acknowledge the skills and competencies gained. We keep on looking at students as

empty vases that need to be filled with knowledge, assuming that they all came from the same background, they all have the same abilities and learning rhythms and therefore we are allowed to perpetuate the same strategies. We seem to face Education the same way as centuries ago and stubbornly insist on keeping a model that is no longer appropriate. The signs are evident and somehow we all have this inner feeling that something has to change, as we *scent* the challenges of technological development.

The world is in constant change, and this change affects us all. It is time for 'Fijian Time' to upgrade to 'Modern Time', because Fiji is also being dragged along by the wave of internet revolution. By means of progress and modernization, the teacher must become an agent of change rather than a traditional knowledge provider. He needs to be a learning facilitator rather than an instructor, guiding the students' learning processes, engaging in joint problem-solving, creating and designing courses based on the observation of what a student needs to know to function in a complex, competitive world.

Recent studies, for example research conducted by Hämäläinen and Vähäsantanen (2011) from the Finnish Institute for Educational Research, provide evidence about the changing role of the teacher in technology-

Laurentius de Voltolina, *Henricus de Alemannia con isuoistudenti* Italian painter second half of 14th century

supported learning environments. According to the Finnish researchers the role of the teacher is increasingly related to designing and arranging collaborative learning situations in which fruitful and creative group work can occur. They argue that technology offers a range of new types of learning possibilities: 'With the help of tablets and smartphones, new ways have been discovered which support the cooperation between education and the world of work. For example, videos recorded at the workplace can be used as a learning resource at school' (Hämäläinen, 2011). According to Hämäläinen (2011), smartphones also open up new possibilities for such pedagogical practices where students have a more active role than before: 'With smart phones the students can, for instance, write scripts and make videos that illustrate the matters to be learnt'.

Successful utilisation of technology provides opportunities for more interactive learning and teaching. This, of course, poses a challenge for teachers' professional development and teacher training. Universities are now encouraged to reconfigure the ways in which they create learning outcomes by identifying learning styles, developing modular curriculum, and mastering instructional technology and methodology in order to become effective assessors of a student's abilities and potential, as well as designers of learning environments and systems (Miller, 2016).

Technology affected society in an irreversible way and its presence is strongly felt in education. Information Technology (IT) became an essential dimension of every modern institution. The impact of the Internet on learning process is enormous. Not only the amount of information available is unprecedented, but also the possibility of accessing information and learning electronically anywhere and at any time revolutionises the entire concept. The student doesn't need to go to a 'place' to learn; the place is now omnipresent by means of the World Wide Web. Distance is no longer a problem, since the student doesn't need to travel long distances as he/she can watch video conferences, download tutorials and submit their assignments online. A young mother can still finish her graduation while raising her child. A student can work and study at the same time and finance her/his own education, since it all becomes more affordable and accessible, not to say that the country gains more skilled workers capable of contributing to a dynamic economy.

The shift from what Barr and Tagg (1995) defined as instruction paradigm to a learning paradigm, is eminent, not in modernized countries where IT and internet revolution happened decades ago, but essentially in developing countries where education is now more than ever at the centre of political concerns as it is acknowledged as a pillar for growth. It is ex-

pected that by the time Generation Z enters the work market, digital technology will be part of almost all career pathway. Fiji is not an exception; consequently the impact on education is obviously expected as one of the faces of modernity – globalization – dictates the need of building a new educational environment for training qualified citizens.

Chandra discusses the developments in tertiary education in Fiji over the last decade and the challenges faced by Universities and Governments (2009). He highlights the fact that higher education in Fiji is directed by the interaction of three agents: globalization, regional necessities and national objectives and competencies. The imperative of globalization requires tertiary programmes to be aligned with the skills and knowledge that are needed by industries, businesses and the employment market. This will ensure that they meet the purposes of social, economic and cultural development (Fiji Higher Education Commission Report 2010).

Another important point raised by Chandra is the issue of quality. He states that quality is recognized globally as being among the most important determinants of the value of higher education: 'It is … recognized that the quality of some existing providers of tertiary education in Fiji has considerable scope for improvement which will require … fundamental changes in the mind-sets of the key academic leaders and managers. There is a significant challenge in moving existing state institutions into a more client oriented environment' (2009: 22). Being more client oriented means to put the student at the centre of higher education policies and restructure curricular programmes, scientific research work, teaching processes, infrastructures, cooperation and openness of higher education institutions to the surrounding environment and the world at large, according to its idiosyncrasies and needs

As earlier mentioned in this essay, Generation Z is clamouring for changes, since the work market requires mastering digital technologies. Being quality minded in higher education is acknowledging students' expectations and necessities. In the context of the new paradigm, students should be taught different ways of thinking, developing creativity, be autonomous and able to find new solutions in unexpected scenarios. These changes represent the transition to a learning process in which students have a more active role in building knowledge (Monteiro, Leite and Lima, 2013). IT makes it possible; it allows shaping knowledge in a bilateral process, bringing together teachers and students, enhancing their creative potential.

Blended learning is a pedagogic model that combines face-to-face instruction with online learning and has yielded strong results since officially being researched as an education strategy. As Michael Smythe states, 'at its simplest [it] is nothing more than employing a variety of media and methods, most often a mix of online and face-to-face learning' (Smythe, nd).

The origin of the term 'blended learning' is inexact; nevertheless one of the first occurrences was in 1999 in a software training business news-release: 'The Company … offers its Internet courseware using the company's *Blended Learning* methodology [sic]. Select courses will continue to offer the traditional course content online, but will also offer live instruction and other collaborative components, all from the student's desktop' (PRNewswire, 1999). Since then the use of the term has become widely accepted and is ubiquitous worth lies on 'significant enhancements of curricula and pedagogy, optimized work integrated learning experiences and an internationalized approach to learning, teaching and curriculum design ('Griffith Blended…').

Studies conducted recently by the U.S. Department of Education show that blended learning produces statistically better results than their face-to-face, non-hybrid equivalents. The success of this model is partly due to the fact it increases the flexibility and individualization of student learning experiences and allows teachers to expand the time they spend as facilitators of learning (U.S. Department of Education, 2010). It allows a large range of permutations in technologies, pedagogies and contexts. The fact that it is rapidly growing all over the world proves its effectiveness and value.

Many steps have been taken to ensure that Fiji's Higher Education is in touch with international directions and developments, not only by the accreditation of tertiary education that facilitate the recognition of skills across borders; but also by promoting industry involvement in standards and qualifications development. Nevertheless, there are many steps still to be taken. Moodle is an online learning platform designed to provide educators, administrators and learners with an integrated system to create personalized learning environments that is being utilised by all Fijian Universities contributing to a more informed and progressive society. We live in a world in constant change, accelerated by technological development. It is time to face it as a propelling force for optimising pedagogy practices. It is time to embrace it as it will impact on assuring quality, enhancing work through integrated learning experiences and promote an internationalised approach to learning.

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