Embracing digital technology in English language teaching and learning: Let’s make it a reality

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Abstract

In the year 2000s, digital revolution has spread throughout the world, whereby mobile phones have become very common, and there was an increase in the number of Internet users. With digital revolution, technology-based activities are immersed in our daily lives. Educational digital technology is not spared too. 21st century sees a paradigm shift and advancement in educational digital technology. In order to adapt to the fast changing environment, teaching and learning have to change too. Teachers are no more authoritative knowledge providers but facilitators and mentors preparing their students for the technological real world. Taking the first step to learn and be adept at using digital technology should be their priority. Integrating digital technology effectively in the classroom will create a positive and vibrant learning environment. At the same time, students need to be empowered to use digital equipment wisely to seek for knowledge, check for its authenticity, and share with their peers. These are to prepare them to face their working lives, which require them to be able to use varieties of digital tools and equipment. Thus, teachers as well as students need to be aware of their respective roles in making digital education a success.

Keywords: digital technology; technology; 21st century; teaching-learning

INTRODUCTION

21st century is crucial whereby it involves the revolution that is fundamentally changing the way we live, work and relate to one another. Tan and Low (2016) reiterated that the 21st century has brought with it globalization and rapid technological advancements. The world has changed to a digital environment whereby every information required is within reach and immediate.
Jerald (2009) mentioned that in the computer age, the pace of technological change is very rapid. Not only that, in just half a decade cell phones and the Internet both unseated the second most indispensable technology in 2002—the television. Roles of learning and education in day-to-day living have also changed. Children growing up in a wired world, also known as “digital natives” are now technologically literate, and are familiar with keyboards, smartphones and tablet technology. They are able to collaborate seamlessly and spontaneously with anyone they have interest in. “Reared on social media, always on Internet connections, cell-phone cameras, Machinima, and YouTube, digital natives live on the same planet as digital immigrants, but inhabit a very different universe,” says Howe (2008 p. 45). These digital natives having been brought up being exposed to digital devices are media creators, not digital consumers. In general, more people turn to the Internet than any other source of information. This further reiterates that information and communications technology (ICT) is increasingly important in people’s personal lives, especially the teenagers and the young adults.

What are the challenges faced by 21st century teachers?

Teachers have to keep upskilling themselves and ensure quality pedagogy works within the world of contemporary students. Gen Z, those born between 1995 to 2012, now at the age of 5 years to 22 years are the ones whom we are dealing with. With some already in their tertiary years, and the youngest are in kindergartens, according to Schwab (2016), this generation will be living in an environment characterized by a range of new technologies, that integrate and fuse the physical, digital and biological worlds, impacting all disciplines, economies and industries, and even challenging ideas about what it means to be human. Therefore, teachers of Gen Z must be agile, open to learning and capable of operating in a global seamless digital environment to assist this generation build a long-term career path which has unforeseen and unpredictable future jobs that might come along in their lives. In doing so, teachers themselves need to be proactive and need to indulge in digital technology to further enhance the teaching and learning environment so that they could thrive within a changing society.

The purpose of education should be to prepare students for success in the future, and therefore schools need to prioritize the knowledge and skills that will be in the greatest demand by employers. Only teaching students to perform well in school or on a test is no longer sufficient. Heutagogy should be the focus of 21st century education, as information is found beyond textbooks
and students’ minds are not sponges absorbing information from the teachers only.

In today’s world, information and knowledge are increasing at such an astronomical rate that no one can learn everything about every subject, what may appear true today could be proven to be false tomorrow, and the jobs that students will get after they graduate may not yet exist. For this reason, students need to be taught how to process, parse, and use information, and they need adaptable skills they can apply in all areas of life—just teaching them ideas and facts, without teaching them how to use them in real-life settings, is no longer enough. Therefore, schools need to adapt and develop new ways of teaching and learning that reflect a changing world.

Why is digital technology important in the 21st century?

In view of the digital technology revolution, not only teachers have to prepare themselves, but students too, for the digital technology real world. Digital technology has changed the way society looks, and the way the classroom looks and there will be no return to chalk boards and writing letters. The 21st century society demands a digital technology advanced person and the 21st century classroom requires the same. Breslow (2007) finds that teaching using digital technology makes the class active, and the relationship between student-teacher is redefined. This is echoed by Laurillard (2008) and Norton, McRobbie, and Cooper (2000) who reflect that technologies can support teachers to deliver flexible opportunities that actively involve students through a constructivist approach.

Digital technology opens the doors to students to search and gather for information. The plethora of online information which is easily accessible via multimedia, just with the click of the mouse makes students more informative. Instant information provided bring interest and satisfaction to students. They will want to read more and cross check the information gathered. Learning can take place anytime and anywhere. However, in a knowledge society, memorization of facts and procedures alone is irrelevant. In support of their argument, digital technology can support their argument by clicking through online documents for evidence. Being able to dig deeper with technology makes students informative, and have strong content knowledge. Lohnes and Kinzer (2007) reiterate that technology integration by college students is common, and technological tools have enhanced students’ interest, interactivity and student-centred environment is created.
A survey carried out by Lenhart et al. (2010) found that 93% of teens aged 12-17 go online, as do 93% of young adults aged 18-29. With the huge number of young users, they cannot be ignored for they are the future workforce. Information literacy is unavoidable for them, as they need to be able to source for information. As such, information literacy is a requirement in the 21st century workplace. Everyone needs to be exposed on information searching, as the environment in the 21st century workplace is challenging. A graduate of any discipline in the 21st century might find what he has learnt in the universities is already irrelevant and obsolete when they start joining the workforce. Therefore, he needs the latest information to upkeep himself and make himself relevant to the workplace. Sawyer (as cited in Scott, 2015) maintains that educated graduates will need a deeper understanding of complex ideas and the ability to work in global teams to generate new ideas, new theories, new products and new knowledge. Is Gen Z ready to face the challenges? Any negation sees this generation being left behind.

The world is now flat, interconnected and has shrunk. Friedman (2005) defines the flat-world platform phenomenon as enabling, empowering, and enjoining individuals and small groups to go global easily and so seamlessly. Individuals from every corner of the flat world are being empowered to connect, collaborate and compete globally. This is made possible by digital technology, which has opened up the world to foster global connections and communications. With the rapid development in technology, using digital technology in the class provides students the opportunity to connect with people around the world. It is time for engagements with peers, celebrities, relatives and experts worldwide via digital technology. Live interviews with authors, presidents, and students from foreign countries can be conducted. The language used is also authentic and true to life. In a connected, technology-rich environment, having interactions with real life people bring realistic and meaningful learning. Students will have a feel of achievement, and be motivated to learn, as learning has brought fun and meaning to them.

Students come from different backgrounds, interests and learning styles. Tactile students learn best through hands-on activities, such as projects. The creative student can use art and music to assist in their learning. Those who love words can write. A combination of color, images and personal drawings will draw visual students’ attention. With all the differences in learning styles, multimedia teaching and learning is one of the best tools to create a context for language teaching and learning. Multimedia responds to the varying demands of the students, tasks, purposes and disciplines. Students pick what is relevant...
and effective for them in their learning: visual, audio, textual, colour, or movement. How students want to present their knowledge depends solely on their interest. Multimedia desktop publishing, web publishing, video and audio editing, and graphic programs can also be used to create and present information in innovative and engaging ways. Sharing their views and perspectives through blogging, online comments and discussion boards give them personal satisfaction as they are allowed to express themselves freely. Collaborative learning and group communication are also enhanced. This definitely gives them the empowerment in their learning, and a meaningful learning environment has been created.

Students now use iPads, Chromebooks, laptops, widgets and a plethora of other digital devices in their daily lives. As these are the necessities in the 21st century, students should be instilled and guided on how to use them effectively. When teachers use them meaningfully and effectively in the class, students are indirectly alerted and aware that technology does not only involve online games and ineffective use of social media, but could be used to enhance teaching and learning. This inspires them and sparks their scholastic interest and they are more interested in self-learning, which will then instill in them life-long learning. With their ability to utilise technology to acquire information, students’ comprehension skills are higher and they are more likely to apply what they have learnt, later in their lives.

Multimedia has its own features, such as visibility and liveliness. Teaching and learning can be enhanced using sounds and pictures set together. The various sounds and voices, as well as the attractive and friendly interface will attract the students to learn. It instills in the students that learning does not necessarily come from hard and solid materials, such as books. The mere mentioned of books actually creates fear in them, but with multimedia, they are excited as it brings a new learning environment. The rich content of a lesson integrated with digital technology is effective in nurturing students’ interest in learning English.

John and Wheeler (2008) sums up that due to the rapidly changing world of work in which business and industry are parachuting at a speed beyond words, the use of digital technology helps to prepare students to face the challenging environment. Therefore, teachers and students must be prepared.
What digital technology is used in English Language Teaching and Learning?

Digital technology could be used to enhance teaching and learning. The apps and tools in education cover a long unlimited list, depending on the purpose: sharing; collaborating; publishing; presenting; socializing and interacting. However, any learning concerning technology should be based around the theme and objectives of the lessons. The place of technology in pedagogy is further based on various factors and questions of effectiveness, time saving, increased outcomes and practicality.

a. Digital Audio-video

Using digital audio-video can help support teaching and learning, as it is more engaging and memorable with different intonation. The materials enable the students to review the lecture before the class, preparing them for discussion and content knowledge on what will be taught. This is especially crucial if the task, procedure or concept is complex and the ability to watch repeatedly helps them to understand before attending the class. In a differentiated class, having the students to prepare prior to their lessons is important and meaningful. The weak students can playback, rewind and pause till they are satisfied with their learning. Audio-video, a quick and easy way to use and record, as well as cost effective provides up-to-date content. Middleton (2009) highlights that audio-video has a demonstrated capacity to facilitate authentic engagement, allowing students to connect in various ways to the outside world as both listeners and publishers.

b. Twitter

Twitter, a free instant messaging service for sending and receiving short messages in real time. The messages known as tweets, are limited to only 140 characters. Twitter allows people to learn about topics they are interested in and also share their thoughts with their followers who can be friends, relatives, professional colleagues, people of the same discipline and interests, and even the general public.

In the classroom, handphones can be a productive tool if Twitter is used. Twitter allows multifaceted interaction in the classroom: teacher-students, student-students. Instead of students sitting down and listening to teachers, while at the same time fidgeting with their handphones, Twitter is the rescue. In a lecture hall, it is best to use Twitter for students can discuss and share their ideas and engage in the class without feeling intimidated.
c. Kahoot!

Kahoot! is a real-time game-based learning platform with collections of questions on any topics, subjects and in any language. It fosters social learning, and helps to unlock students’ potential and at the same time deepens pedagogical impact. Players can go global, playing with people from more than 180 countries. This fun learning tool allows creation of questionnaires and quizzes, and administer the aforementioned as well as discussions and surveys. Videos, images and diagrams could be integrated to the questions to enhance engagement. Anyone can create the questionnaires and quizzes, and the players are unlimited, creating a social and fun learning environment. Questions are projected on the screen, and players answer the questions with their smartphones, tablets or computers. The points are awarded based on correctness and speed in answering the questions. Answers and scoreboard are displayed after each response. The competitive nature of Kahoot! brings excitement to the students. In between questions, discussions can be carried out. The detailed results, entailing the answers provided by each player can be downloaded. Teachers can analyse and assess how they perform, and track the progress of individuals over time. Based on the detailed results, teachers can easily identify those in need of support or interventions.

Currently, there are 3 types of Kahoot:

i. Quiz

The most common type of Kahoot! is the Quiz. Each question may have images or videos, and between two to four options. A minimum of one correct answer is available and the time limit to answer each question is from 5 seconds to 2 minutes, which could be set individually. The whole room of people can play the game.

ii. Discussion

Discussions are designed to carry out various tasks, such as gathering opinions, divisive topics or even a mundane topic, “What is your plan for the summer holidays?” Images or videos could be attached. There is no right or wrong answer, but open reponses to facilitate a conversation. No points are awarded for the discussion, but there is a time limit to ensure the discussion is within control. The collective responses are displayed on the screen in front of the class, allowing viewing and discussion of the responses.

iii. Survey

This real-time survey is answered through personal devices. As this is a survey, it is to collect data. There are no right or wrong answers to the survey questions, which might have associated graphics or videos. The results of each
survey question can be analysed and debated there and then. As in quizzes and discussions, the survey results can be downloaded too.

CONCLUSION

The introduction and implementation of digital technology in the classroom can empower as well as motivate students to explore and discover. While it is fundamental to use technology as an enabler to support classroom environment in the 21st century, Davies, Fidler and Gorbis, (2011) caution that technology alone cannot ensure an effective learning experience. A study by The World Bank on the efficacy of classroom ICTs in 2005, concludes that the positive impact has not been proven. In 2013, the findings by the Inter-American Development Bank (IADB) on the impact of laptop distribution programs in Peru found that, while children’s competence in computer use had increased, there was no sign of better educational outcomes. Therefore, it is essential to realise that technology alone does not work. Teachers have to consider other approaches such as promoting learner autonomy, encouraging creativity and innovation and exposing to real-world situations. However, the most prominent determinant is the teachers, for technologies cannot function as mechanisms to replace them, but teachers who don’t use technology will be replaced by those who do. Since teachers’ roles are irreplaceable, they need to be proactive in learning and exploring on how to use digital technology to conduct their teachings effectively.

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Author's Brief CV

Ooi Choon Meng, a lecturer and trainer in IPGKBA, Kuala Lumpur Malaysia, is actively involved as a speaker. She is now a trainer in the Malaysian Technical Cooperation Programme (MTCP). Her vast experience in training local and international practitioners, student teachers and students is well acknowledged.