

English Language Education Study Program, FKIP Universitas Lambung Mangkurat Banjarmasin

Volume 1 Number 2 2018

HOW EMERGING CONCEPTS AND DIGITAL TECHNOLOGIES CAN RESPOND TO THE CHANGING NEEDS OF THE LEARNERS

Siyaswati Universitas PGRI Adi Buana Surabaya siyaswati@unipasby.ac.id Abstract: The goal of this paper is to know how emerging concepts and digital technologies can respond to the changing needs of the learners. technologies offer us promising opportunities to respond to and incorporate into the practice of educational assessment some of the emerging epistemologies. Epistemologies that may be integral to the effort to deliver high quality education to learners with diverse characteristics and life circumstances in our society. Exploration on development on technology, applied to how we conceptualized and implement assessment may help in the education enterprise to prepare learners for the challenges of the twenty first century workplace. Gordon commissioner and senior scholar Eva Baker (2012) observe that there are at least three rational approaches to dealing with the unpredictability of job and learning requirement in changing global context: 1) educational systems must become both operational and politically agile. 2) Assessment should always include task that call for transfer or the application of learning to new unexpected task, 3) learning and assessment should focus on more pervasive skills that could be embedded in different context and changing subject matter directed toward new applications. Baker identifies two simple and clear policy actions. First transfer must be regularly included as part of test or assessment used to measure learning. Second is to investigate the use of cognitive, interpersonal and intrapersonal skills which is understand as a type of interaction we expect to be demonstrated with components that interact with one another.

Keywords: Emerging concept, digital technologies, learners

INTRODUCTION

Digital technologies develop very fast in everywhere and technologies are impacting on students learn. Many schools are using digital technologies like the internet, laptops and tablets to quickly, easily and cost effectively connect students with the huge range of digital services and resources. However, the benefits of learning with digital technologies are accompanied by some challenges and potential risks for students and schools. These 'digital challenges' are real and present a dilemma to schools in using digital technology. Digital information and technology at present have come to school. Schools are advised to recognize and understand the nature of the changes and challenges that digital technology have brought and develop systems and processes to manage these.

Technology mediated social interactions dominate our daily lives, how we can leverage those interactions to the benefit of our learners, and how we can engage them in learning



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experiences in ways that will encourage them to practice language extensively. Gordon commissioner and senior scholar Eva Baker (2012) observe that there are at least three rational approaches to dealing with the unpredictability of job and learning requirement in changing global context 1) educational systems must become both operational and politically agile. 2) Assessment should always include task that call for transfer or the application of learning to new unexpected task, 3) learning and assessment should focus on more pervasive skills that could be embedded in different context and changing subject matter directed toward new applications. Baker identifies two simple and clear policy actions. First transfer must be regularly included as part of test or assessment used to measure learning. Second is to investigate the use of cognitive, interpersonal and intrapersonal skills which is understand as a type of interaction we expect to be demonstrated with components that interact with one another for example cognition and motivation.

Technology will determine much of the nature of educational delivery and assessment systems. Unsupervised personal access to knowledge portends a massive and continuing change that will debilitate effort to maintain control and authority over learning. Games and any other programs are an activity which is far from the testing and assessment. It has evolved to include simultaneous players, complex, narratives, and realistic graphics, and interactive task. Numerous games are now attempting systematically, rather than incidentally, to affect learning. In a short term, Baker (2012) predict that learning through technology will be based on these connected elements: 1) longer task involving both independent and collaborative learning 2) mobile or device free connection to technology through camera and sensors 3) use of virtual tools, and 4) automatic ways modifying difficulty. Classroom and informal sources of learning and assessment must also be blurred, placing increasing responsibility on students but giving students guidance on how to be successful with different requirement. Technology may also assist and records students' performances. These developments mean that proximal learning goals and process will be more personalized and standardized. If this is happen that would be difficult for teachers in managing the class.

In the Gordon Commission advancing a postmodern test theory, Mislevy (2012) writes that assessments are sociocultural system, with powerful effect on people and institutions in the subtle ways they influence other practices. They do not simply measure existing qualities in students and they don't event just shape the development of those qualities. Rather, they cause those qualities to exist and people's lives and practices to adapt to them. Any assessment is meant to gather information for some actor, for some purpose, under some constraints, and with some constraints, and with some resources. Each actor-teacher, higher-level educator, policymaker, employer, admissions officer, and so on-need information about how educative efforts are faring in order to evaluate them, allocate resources, or plan next steps. To design or evaluate assessment, we must not only consider what task to include but how best to provide information to whomever needs it and for whichever purpose.

Digital Revolution

The digital revolution has resulted in some changes in every area of everyday life. It includes the language teaching. The development on technology make teacher to thinks the best way to teach the students. As this era with unprecedented opportunities to communicate with others in authentic and compelling linguistically and culturally contextualized domains. In fact, language teachers today are faced with so many fascinating options for using technology to enhance language learning that it can be overwhelming. Even for those who are inclined to experiment with emerging technologies, it can be challenging to identify which resources, tools, or web sites may best fit a particular lesson, activity, or goal. In fact, such technology



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use has become so ubiquitous in our daily lives that the absence in our classroom is quite noticeable.

Many of the most compelling opportunities are situated within the same global social and technology trends that have become common place in daily lives, including social media, artificial intelligence, big data, and augmented reality. These technologies are familiar to many of us, and learning to use them for our personal lives has become an expected societal norm. However, using them for language teaching is often overlooked. Unfortunately, many language teachers are unfamiliar with the extensive body of research and practice produced by professionals in the field of computer-assisted language learning. Yet it can be easily to create opportunities for learners to record their oral production for speaking and pronunciation improvement while presenting them with feedback from native speakers, peers, instructors, or others. It also easily gathers extensive authentic language samples of specific vocabulary relevant to their lexical development and present it to students in a manner that is compellingly contextualized and familiar. It can be easily creating opportunities for students to engage in extensive and meaningful target language practice both in and out of the classroom with interlocutors who offer salient, nonthreatening feedback. Teachers can also anticipate an increasing array of options for creating engaging experiences for learners. Learning to use these contemporary technologies is so much easier than previous literation's of technology that were designed for language teaching

Digital Technologies

Digital technologies challenges can be broadly categorized as: a) Cybersafe: Involves conduct or behavioral concerns. Examples include cyberbullying, smear campaigns, accessing inappropriate content, creating spoof websites or sexting. b) Cybercrime: Involves illegal activity. Examples include sexual offending, accessing objectionable content or online fraud, and 3) Cybersecurity: Involves unauthorized access or attacks on a computer system. Examples include hacking into someone's social media service account, launching a Distributed Denial of Service (DDoS) attack or loading malware onto a laptop.

In general, preventative approaches that rely on technical or other protections simply do not work. These methods have a role but must be balanced with strategies that promote: a) development of skills and knowledge for safe and responsible use of digital technology b) opportunities for students to be involved in decisions about the management of digital technology at the school c) development of a pro-social culture of digital technology use, and d) cooperation of the whole community in preventing and responding to incidents. The ultimate goal is to ensure the online safety of all students.

Using digital information is very different from its physical counterpart. Physical information has a fixed position in place and time. This is not the case with digital information, which can be: a) rapidly duplicated and easily distributed for example a message posted via social media is reposted elsewhere by friends or an email sent to a list of recipients within a very short time frame b) stored in multiple locations for example a photo can be stored simultaneously on a laptop, a smartphone and in the Cloud c) created and communicated automatically for example a smartphone can synchronize emails with another device or an online service d) stored with varying levels of 'discoverability' for example image files that can only be accessed using a password or other method of authentication.

Digital information can be communicated rapidly the 'viral' nature of digital communication enables information to spread rapidly and reach a wide audience. This can make it very difficult to know who has received the information or how it will spread further.



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It also requires any action to minimize harm that could be caused by this communication to be taken quickly. Digital information is hard to permanently delete Once digital information or items are created it can be difficult, if not impossible, to permanently delete all copies. For example, digital information can be: a) stored on a range of digital devices such as smartphones, laptops and internet servers as it is communicated. For example, an email or chat message b) copied and communicated automatically or to a schedule making it difficult to know what information is stored where. For example, a smartphone automatically synchronizing stored information with a laptop computer or to the 'Cloud' c) retrieved or restored from the archive or trash after deletion using easily accessible tools d) temporarily stored on a device. For example, a device will download information to display a website and then can delete it when the web browser is closed. Digital information can be remotely accessed Typically, transmitting digital devices such as smartphones or laptops can be accessed remotely via another internet connection. Similarly, the content of a website can be remotely accessed and edited. Example of actions that can be carried out remotely include: a) deleting, adding or editing information stored on a digital device or web page, b) accessing a device's location services to find its specific location, or c) turning on a device's web camera and using it to record.

How digital technologies can respond to the changing needs of the learners.

Digital technology can respond to the changing needs of the learner in all aspects of study. The learner much easier in study online like Massive Open Online Course. Learnings texts that physicals textbooks are slowly being replaced with iPads and various forms of devises connected to online media, etc. The following is a brief explanation regarding how digital technologies can respond to the changing needs of the learners as follows:

- 1. Availability of Online Classes and Programs: One of the first easy observations regarding digital technology and education is that online schools and classes are becoming widely available. Even free online classes called "MOOC's" otherwise known as Massive Open Online Courses are becoming widely popular. Online courses and full online programs are making it possible for learners young and old to unite from all over the world at any given moment, and to have easy access to a course or program from home.
- 2. Learnings Texts Are Now Digitalized: Check the backpack of many high school and college students, and you will find that physicals textbooks are slowly being replaced with iPads and various forms of devices connected to online media. With the fast-paced development of online media, e-books, e-readers, and learning programs developed for iPads, iPhones, and smartphones, the textbook is becoming "extinct" in some areas. You can forget the time when your backpack was loaded down with a stack of textbooks, because learning is going online.
- 3. **Mobile Learning:** A combination of the result of the sharp and sudden increase in the availability of online courses and programs, and the wide availability of online resources and books, you can now study from your phone. MOOC's such as the well-known "Future Learn" MOOC allow you to access your course(s) from your smartphone. Just open the course, plug in your headphones, and follow the content and the classroom discussions! Whether you are riding the subway or taking a bus or a train you can instantly connect to the world full of learners and learning.
- 4. **Personalized Teaching and Learning:** Due to the increase in the presence of technology in the classroom, teachers now have more ability to personalize lessons, instructions, and projects for each group or child. By using devices and programs to distribute classwork and



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assignments, teachers can personalize lessons and focus on the work of each student. Individualized lessons can be provided to each student, and learning tools enable students to work, perform, and excel at their own pace. Teachers can also now provide feedback, grades, and reports directly to students through online platforms, and online school portals and log-ins.

- 5. **Guidance and Instruction from Diverse Teachers:** The increase of digital technology has also affected the availability and access to diverse teachers and instructors for students worldwide. One student can be present in a multi-cultural online classroom with teachers with origins from South Africa, England, Brazil, Spain, Russia, and Poland all at the same time. Teachers from different backgrounds and countries all bring their own unique perspectives, cultures, and languages to the table of learning.
- 6. Collaboration and Peer-to-Peer Learning in the Classroom: With an increase in access to online learning, whether part or full instruction is provided online, increased opportunities for students to collaborate together from a variety of places becomes possible. Student bodies, in turn, can be made up of students from all over the globe, with every continent represented. Diverse student bodies also increase diversity in ways of thinking and contributions to class discussions and projects. Inside and outside the classroom students can work together through online platforms and portals to exchange ideas. Students can express ideas and communicate through programs provided by their schools, and also informally through social media programs such as Facebook, Twitter, and Pinterest. Peer-to-Peer learning has become increasingly popular as students share their ideas with each other through online discussions and share documents through programs such as Google Docs. Teachers are encouraging and setting up classrooms that inspire and sometimes require peer-to-peer discussions
- 7. **Data Driven Instructions and Results:** Another change that is occurring due to the rise of digital technology is the increase in data-driven instruction and results. Although some teachers are being forced to use online grading tools and devices, analysis tools are also becoming more precise. These devices and grading tools can provide more accurate results regarding student performance, but can also result in a teacher's limited ability to judge a student's performance based on the content of their writing, classroom performance, and other contributions.

In relation to how digital technologies can respond to the changing needs of the learners. Baker (2012) offers four insights related to assessment. First personalization is the opposite of formal, standardized, and uniform. Second, embedded, automated testing and scoring will save time as well as increase the accuracy and speed of feedback and accumulation of validity evidence for interferences. Third, when testing becomes totally web hosted, the security of the individual performance is at some risk. Fourth, a limitation of technology-based assessment although probably short term-is test security.

CONCLUSION

Emerging Concepts and Digital Technologies can respond to the Changing Needs of the Learners. Technology will be used to design, administer, score, store and report findings to entitled users. Schools and education systems will not be the only source of assessments. Students will make things, not just give the answers. And students will be working in more globalized environment. Technology growth portend many possible assessments in the future.

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