Digital Media Literacy in Language Teaching*

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I. Introduction

The last few decades have seen massive changes in the way in which education is carried out and conceptualised, with increasing emphasis on learners taking responsibility for their own learning, rather than the teacher-centred approaches that dominated before this. This is in part a result of the changes that have occurred in theories related to second language acquisition, but also it is directly related to the developments in technology. Approaches that move the focus from the teacher more towards the learners have gained momentum, with social constructivist perspectives on

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teaching and learning dominating over the past several years (see John-Steiner & Mahn, 1996, for a discussion of these approaches). These approaches emphasise the social nature of learning, advocating that learners acquire knowledge and skills through interactions with others. Given that interactivity is one aspect that digital technologies are particularly suited to, it is not surprising to see an increasing number of studies in recent years that capitalise upon the interactivity that technology affords to carry out research based on social constructivist approaches to language teaching and learning (Mynard, 2011; Kozlova & Priven, 2015; Tanaka, 2015). In this way, developments in technology have resulted in their adoption directly because of their suitability to specific learning activities, essentially as another tool which can be used to accomplish learning outcomes.

The impact of digital technologies obviously extends beyond simply providing extra tools to teachers. Technology has pervaded into essentially every aspect of our daily lives, and as such, not only does it provide more options for teachers and learners, but it directly affects the roles of both teachers and learners, and has even shapes the relationship between them. Thus, it could be said that a complex interrelationship has emerged between technology, teachers and learners, where each has the potential to influence the others. For example, the use of technologies such as a learning management system (LMS) means that teachers may require assignments and other assessment items to be submitted through the system rather than in paper
form. In this way, the students are required to prepare documents in digital format and upload them into the system so that the teacher can grade it. Consequently, the introduction of a technology has changed behaviour of both the teacher and the learners involved in that environment. Decisions made by the teacher can also impact what technologies are used and the ways in which they are used by students. If a teacher has a particular interest in using mobile phones for listening, then learners may be required to use their own mobile phones in a manner stipulated by the teacher to carry out learning activities. The technology is one that already exists and maybe owned by learners, but their behaviour in using it is shaped by the teacher. Finally, technologies used by the learner can also influence teacher choices of technology, as well as how they are used in that learning environment. For example, if learners commonly use a certain social networking service (SNS), teachers may choose to adopt this as part of the learning environment in the belief that learners are already familiar with using it. Accordingly, the use of a technology by learners for non-educational purpose may be adopted by teachers, which in turn shapes how it is used, and to some degree how it is viewed as well. Represented visually, we might see the relationship between these three elements as follows:
Changing any one of these elements will inevitably have an effect on the other two. Indeed, as Levy (2000: 190) argues, “...technology always makes a difference ... [and] is never transparent or inconsequential.” Regardless of how much a technology is ingrained in our everyday lives, its usage is necessarily changing the ways in which we do things in educational contexts (see Stockwell, 2014, for further discussion). The changes may be subtle or they may be far more pronounced, but what can be said categorically is that technology is steadily changing the way in which education is conceptualised and conducted, and this is having a direct impact on the roles of teachers and learners, as is described later. Before dealing with this, however, it is useful to consider some of the reasons behind the impact that technology has on our daily lives, and why this can also impact education as well.
II. Technology and cognition

The devices that we have around us these days bring with them a range of different functionalities, and many people in modern society are constantly surrounded by some kind of device which is connected to the Internet. While almost unceasing access to this information has certainly made our lives easier in many respects, it has also been attributed to changes in the cognitive abilities and cognitive styles of users of these tools. Sparrow, Liu and Wegner (2011) have suggested that the convenience of having multiple sources of information available at users’ fingertips has been thought to contribute to what they termed the “Google effect,” where users of technologies subconsciously select what information to remember and what to simply look up if required. Information such as telephone numbers of significant others, addresses, or many other types of facts and figures can be retrieved with such ease that people rationalise between the effort required to learn them and the ability to search for this information through the devices that are generally within in easy reach.

It follows, then, that learners feel that they can make similar decisions about information they are required to learn through the current educational system. With virtually 100% ownership of smart phones by students in many countries, learners have a very powerful tool that allows easy access to information both inside and outside of the classroom. This situation has led to a very
pertinent comment about the changing state of education by Dikkers (2014), who argues, “Mobile media… presents another pedagogical challenge: Can we proactively continue to define teaching and learning as relevant? For instance, consider the need for massive amounts of memorized data… if a student can find information in less than thirty seconds, is it worth testing them on it?.” In language learning contexts, this is also obviously a relevant argument, but there are other complexities involved as well. Certainly, being able to use online dictionaries or annotation tools that enable learners to access the meanings of unknown items would be thought to be beneficial in reading, but this becomes less relevant with regards to producing language in real time. Searchable information such would generally fall into the domain of declarative knowledge (i.e., metalinguistic knowledge about language), but in order to be able to use this knowledge, it must be proceduralised (Mitchell, Myles, & Marsden, 2013). Procedural knowledge depends on having a rule internalised sufficiently such that it can be not only retrieved but then put into practice through usage. To this end, while the Google effect may have some relevance to language learners, there is still a need for learners to memorise—either explicitly or implicitly through context, perhaps even using the tools described above during reading—vocabulary and grammar in order to be able to use them in language production. The implications of this for digital media literacy are below.
III. Emerging literacies

The term literacy is usually used to refer to having knowledge or competence in a specific area. While it was originally used to describe the ability to read or write, it has taken on a far wider range of meanings in recent years, and this has often also been used to refer to how to deal with the new communication systems that provide us with not only written and oral language, but also with the various audiovisual modalities that modern technologies facilitate as well (Snyder, 2005). That is to say, accessing information in various formats, processing this information, and being able to use it to communicate with others either in formal or informal contexts requires an increasingly broad and complex range of skills.

The concept of new literacies encompassing a technological component has attracted an increasing amount of attention over the past several years, although it has been argued that learner needs are not necessarily being adequately met by existing educational policies (Merchant, 2012). Despite this, however, there is certainly more discussion of what new literacies might entail, in education in general (e.g., Lankshear & Knobel, 2008) as well as for language learning (e.g., Hockly, Dudeney & Pegrum, 2014). There are connotations for both teachers and learners, and competences in using technologies to facilitate the processing of information have shifted the idea of literacy far beyond just the
ability to read and to write the language being used. The very roles of teachers and learners themselves have changed, and meaning that there is a need to acquire an entirely new skill-set in order to function within the modern educational system.

Apart from the changes in educational psychology that have occurred over the past several decades, the ways in which teaching and learning are conducted have also undergone rapid transformations as a result of the technologies that are being used, both at a private level by teachers and learners, but also at an organisational level by educational institutions. Few would argue that learners—and indeed most teachers—are generally quite technically savvy, and for the most part are competent users of technology for private uses such as using social media and carrying out searches for information pertaining to personal interests or needs. To believe that these competences translate into the ability to use technologies for teaching and learning purposes, however, would be considered as rather naïve, and it is becoming increasingly evident that there are skills specifically required by both teachers and learners, some of which overlap, and others which will differ from one another.

1. Teacher perspectives

From a teacher’s perspective, perhaps one of the biggest challenges is keeping up with the enormous changes that have taken place around them, and this can be particularly difficult if
teachers were trained and gained their experience before technology use was more mainstream. Teachers who have been trained more recently will likely have had some opportunity to experience using technology as a learner of some shape or form, and for that reason will often feel more comfortable with adopting technologies into their own teaching. These teachers may have already used an LMS as a part of their learning experience, or have communicated with teachers through various kinds of electronic tools as a student. Teachers who have not had the benefit of this experience, however, often feel frustrated when technologies are thrust upon them, sometimes by the institutions they work for, and sometimes because of pressure to not be the only one not using technology, which can be compounded if there is insufficient rationale or training in how to use it. On the downside, however, there is evidence to suggest that teachers who use technologies for private purposes also tend to apply the same technologies to learning purposes as well (Tour, 2015), so even teachers more experienced with technology need to consider other options that are available to them.

Lawrence (2014: 67) argues that teachers need “a range of experiences and beliefs to develop critical attitudes and beliefs towards the potential of technology-based tools through a combination of situated experience and learning.” One way is to achieve this is work together with others who have had experience with using a particular technology, and to see it in action from a teacher’s standpoint. Through this process, it is
possible to see the potential of the tools, the amount of time taken to develop or adapt materials, how to provide feedback, and how to use any additional tools which may enhance the learning experience. Another way to be able to determine whether or not a technology is appropriate for learning is for teachers to experience learning through the technology (see Hubbard, 2004, for a discussion). This may involve teachers assuming the role of a learner, either through enrolling in a course to learn something new, or attempting to undertake activities that they intend to use for their students as from a learner’s perspective. This can allow teachers to get a better picture of how learners may feel about using the tools, including what they find difficult to use or understand. Once teachers are able to make sense of the range of tools and resources that are available, Potter (2012) suggests that there is a need to make this manageable to learners through curating it, much in the way that museum curators organise information to make it more comprehensible to consumers of this information. Selecting resources based on their appropriateness and providing sufficient information about them can make it far easier for learners to make sense of the massive amount of resources that are available.

As Romeo and Hubbard (2010) point out, using technology in teaching and learning will also include being able to provide learners with sufficient technical training (how to use a technology), strategic training (what learning strategies to use with the technology) and pedagogical training (why they should
use the technology for language learning). Not only does this imply being technically familiar with the technology to provide learners with support when experiencing difficulties, but also an intimate knowledge of how and why the technology should be used. Providing all three types of training is likely to lead to more active engagement in online tasks and activities, which in turn will has the potential to lead to improved language development (Stockwell & Hubbard, 2014). One fact that should not be underemphasised, however, is that becoming familiar with using technologies will take time, and this is something that must take place in the midst of other everyday tasks.

2. Learner perspectives

Being a learner today will almost certainly entail the use of technology in some shape or form, although this will vary greatly depending on the context in which the learning is taking place. In a structured course, this may well include using technologies such as an LMS or accessing resources on the Internet or using tools that have been stipulated by the teacher. On face value, this would appear to be a “safe” and easy environment for learners to function in, but there is in fact the danger of causing confusion for learners, often without the teacher even being aware of the fact. Although learners may be familiar with using certain uses of technology such as social networking, reading news or current affairs stories, playing games, or other private uses, it is quite
feasible that they have never used technology in the way that teachers expect them to as part of the course. Learners may not know even what an LMS is, nor how to use the educational resources, tasks and activities that teachers expect them to use in an effective manner. As stated in the previous section, without training that goes beyond simply showing what the tools are but also includes how and why they can be used for language teaching and learning, it is very difficult to expect learners to be able to engage in the tasks to achieve the anticipated goals.

Many technologies that are used for learning these days allow for some kind of tracking or monitoring of the learners, and research has provided some rather interesting insights into the ways in which learners engage in the activities that teachers provide. Fischer (2012), for example, showed that learners engaged in an activity in class tended to simply go through the options of multiple choice questions one-by-one as a means of completing the activity quickly, rather than attempting to think about their learning objectives. In another study, Stockwell and Liu (2015) used comparable activities to study English vocabulary and listening on mobile phones, but framed them differently, with one group receiving encouragement in class to engage in them regularly and the other assigning a completion score at the end of the semester. The results showed that the group that received the regular training were far more likely to engage actively on an ongoing basis, despite not receiving any credit for doing the activities, while the group that received credit for doing the
activities completed them in a block at the end of the semester. These results make it clear that the way that activities are framed can have a significant impact on how learners will engage in them, which may ultimately affect learning outcomes.

In contrast to structured learning as part of a course, self-learning requires the learner to be able to seek out software, web-based resources, or mobile apps of their own volition. This may be the case when learners are undertaking self-study, or when they want to supplement what they are doing as a part of a course. The sheer mass of available resources, however, can make it very daunting for learners who are deciding what to choose. There is still little known yet about how learners make decisions regarding which apps to use for language learning, but it is likely the main selection criteria are cost, the order of appearance in the appropriate app download store (e.g., App Store or Google Play), and the reviews given by users of the app. Learners are far more likely to choose free apps than to pay for them, unless they already have some knowledge of the reputation of the app or the company producing it (Stockwell, 2012), and the order of appearance of apps is generally not indicative of how good it is. User reviews may be a useful tool, but if there are a large number of apps, then learners would be unlikely to scroll past the first few pages at least, and could possibly not even reach apps that might be superior to the ones that appear higher in the list. Learners need some assistance in choosing the resources that are most appropriate for them, which is can be
very demanding.

3. Digital media literacy

Looking at the entire context of teaching and learning through technology, it becomes apparent that it can be extremely complex, from both the teacher’s perspective and from the learner’s perspective. As described above, literacies that encompass technology are becoming more widespread, and we are starting to see a range of new literacies that consider different aspects of technology in our lives. These literacies are relevant not only to students but also to teachers, and indeed, there would be thought to be an overlap between the types of literacies that are necessary to both teachers and learners.

The term “digital literacy” has been used as an encompassing term to include competence in knowledge of using technology to access, manipulate and create digital resources. There appears to be a gradually expanding list of literacies that are being placed under the umbrella term, but two of the more relevant terms that might be *multimodal literacy* (Lotherington & Jenson, 2011) and *code literacy* Hockly, Dudeney Pegrum (2014). Multimodal literacy refers to an ability to deal with information that occurs through various modes, including the written, visual and even aural modes, and, in modern contexts at least, requires skills to use the relevant technologies to be able to achieve this. Code literacy includes knowledge of how software is coded, and while
it might not refer directly to an ability to write software, at the very least, it includes with it the idea that we understand that the information that we access has been presented for consumption through specific programming code that has the potential to distort or influence its accuracy. Related to this is media literacy, which is the ability to evaluate the credibility of sources, and to create new messages based on the information that has been analysed (see Buckingham, 2007). These literacies would be considered as being essential for both teacher and learners in undertaking any type of education that utilises technology.

Finally, it is also important to bear in mind that the types of literacies that are necessary will depend heavily on the type of educational environment and teaching approaches being used. Face-to-face environments that do not use technology will obviously require different skills than blended learning, where learners use technology as a part of the course. This would be different again from flipped classrooms or distance learning, where there is a need for learners to be suitably motivated to undertake much of the study that they are undertaking unsupervised outside of class time. This varies again from massive online open courses (MOOCs), where feedback from teachers is highly limited due to the large enrolments in a course, and learners are often required to depend on automated feedback to provide them with information about how they are progressing.
IV. Conclusion

As has been pointed out at many points throughout this paper, technology has had an enormous impact on the way in which education is both conceptualised and carried out. Teachers and learners bring with them varying skills in using technology for private purposes, and this will to some degree also influence how technology is used for learning purposes as well. What is important to bear in mind, however, is that while technology has the potential to bring with it a range of tools and resources that can enhance the learning environment, if teachers and learners lack the appropriate digital media literacies to capitalise upon them, then much of this potential can be lost. Apart from the technical skills appropriate for using the various technologies that exist, both should have a clear idea as to how they can be used effectively for learning purposes as well. From the teacher’s perspective, they need to also take on a curative role where they can make sense of the flood of available resources, but also provide learners with the skills to be able to make sensible choices as well. Being aware of the fact that private literacies are not immediately translatable to literacies to learning can go a long way towards alleviating any potential problems that might arise, and it is important to provide learners with not only skills in what to do, but also ensure they understand why they are doing it. Ensuring that teachers equip themselves with the necessary
literacies, and to assist learners to develop the digital literacies they will require can make learning through technology a far more rewarding experience for all.

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언어 교수에서의 디지털 미디어 리터러시

글렌 스톤웰

지난 수십 년간 디지털 기술의 발달과 인터넷 통신망의 확산은 사회 곳곳에 지대한 영향을 끼치고 있다. 정보 취득, 활용과 보존, 커뮤니케이션 방법 그리고 사회 활동 등 사회 전반에 디지털 기술의 발달로 인해 많은 변화를 가져왔다. 이 변화는 교육 분야도 예외는 아니어서, 디지털 기술을 접한 다양한 교육 프로그램이 보급되어 있고 지금의 학생들에게는 디지털 기술을 이용한 학습 방법이 더 이상 새로운 것이 아닌 일상화가 되었다. 이런 급속한 변화는 디지털 미디어 리터러시의 중요성을 인식케 하고, 특히 체계적인 디지털 미디어 리터러시 교육의 중요성이 강조되고 있다. 본 논문에서는 어학교육과 디지털 미디어 리터러시에 대해 살펴보고자 한다. 먼저 디지털 기술의 발달과 변화가 교수법과 학습법에 어떠한 영향을 미치는지를 분석하고, 교수자와 학습자, 각각에 필요한 디지털 미디어 리터러시 태도에 대해 생각해 보았다. 마지막으로 디지털 기술의 발달과 변화에 대처하는 교수법과 학습법을 제안해 보았다.

[주제어] 디지털 리터러시, 미디어 리터러시, 컴퓨터 보조학습, 학습자 트레이닝, 교수자 트레이닝
Abstract

Digital Media Literacy in Language Teaching

Glenn Stockwell

The changes brought about by advances in digital technologies over the past several decades have impacted all aspects of society, affecting how we communicate, access and store information, read and write, and in some ways how we view and interact with the world around us. It is not surprising that these changes have had massive repercussions on a range of fields, not the least of which is education. Digital technologies are used by students in virtually all aspects of their education, and there are expectations that students be able to apply these technologies skilfully in order to complete their respective courses of study. It follows, then, that these literacies are also necessary in second language teaching and learning as well. This paper discusses the issue of digital media literacy in language teaching. It looks at the different types of literacies that are required by both teachers and learners, and considers the impact of range of language teaching approaches on the literacies they that need. It then goes on to look at how technology affects our cognition, and the implications of this for teaching and learning. The paper concludes by providing suggestions for teachers to provide adequate training for learners in a changing world.

[key words] Digital literacy, Media literacy, Computer assisted language learning, Learner training, Teacher training