

# Professionalizing Your Use of Technology in English Language Teaching



Greg Kessler

**Abstract** This chapter provides an overview of technology use in English language teaching. This topic is commonly referred to as computer assisted language learning (CALL). It is likely that this topic is more complex than many readers may realize. While there are some long established practices in the field of CALL, the rapid development of technology today creates new opportunities. These new technologies are often accompanied by new communication and social practices that can help to promote language practice. This chapter addresses these opportunities with some suggestions for developing foundational skills and abilities that can be adapted across these technology based interventions. The chapter also includes suggestions for ongoing professional development as this field is in a state of constant change.

**Keywords** Technology · CALL · Innovation · Assessment

## 1 Introduction

Teaching English as an additional language is a profession that has evolved dramatically in recent decades. In the past it was quite common for English teachers to have little or no professional preparation. This often resulted in teachers who did not explicitly understand English grammar, basic pedagogical approaches or important concepts from applied linguistics and second language acquisition (SLA). I began my career before obtaining such training, but soon sought it out as I realized that I wanted to follow TESOL as a career path. I soon understood that this professionalism requires a lifelong commitment. One of the most exciting and challenging areas within the TESOL domain these days is the effective use of technology. Using technology to teach language in the most effective, efficient and appropriate manner is not an easy or obvious thing to do. There are numerous decisions that instructors need to make regarding the design of instructional activities, materials used, sequencing, feedback, assessment approaches, follow-up, and so on. These decisions are difficult for those

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G. Kessler (✉)  
Ohio University, Athens, OH, USA  
e-mail: [kessler@ohio.edu](mailto:kessler@ohio.edu)

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who are professionally prepared as English teaching professionals. They are nearly impossible to address for those who are unfamiliar with the vast array of opportunities and potential materials available for teaching language using technology. They require professionals who are appropriately prepared to teach the language as well as determine which technologies may be appropriate and effective in a particular context. Language teaching professionals today need to be engaged in ongoing exploration and negotiation around these topics as they exist within a constant state of change. This is largely the consequence of the rapidly advancing technologies in the larger societies in which we live as well as the co-evolving communicative and social practices that are associated with the use of emerging and established technologies today. This chapter will present a brief history of technology use in language teaching in order to frame current practices. It will primarily focus on the opportunities and challenges faced by professionals in the current context as well as how the field is being transformed by emerging opportunities for using technology in extremely innovative and exciting ways.

There is broad agreement that teachers should be familiar with a wide variety of technologies that can support their teaching (Healey et al., 2011). These range from grammar and spelling checking tools that are commonly used in word processing programs to automated linguistic analysis tools that can evaluate the complexity of learners' syntactic or lexical production. They should also be familiar with internet-based applications such as learning management systems or collaborative word processing programs that allow for multiple writers to simultaneously author a paper. Such practice is not only commonplace in the workplace around the world, but it is becoming increasingly common in English teaching settings. Further, it is likely that such platforms dramatically alter the way that we plan, write and revise compositions, particularly as we collaborate in the process (Kessler, Bikowski & Boggs, 2012). This is just one example of an array of writing tools that can support collaborative student-centered online activity. Similarly, teachers who focus more on teaching listening and speaking, should be aware of the wide variety of tools that make it possible to record, archive, exchange and collaborate while engaging in extensive practice. There is also consensus that teachers benefit from formal preparation guiding the use of technology in their classrooms. Ideally, this preparation is grounded in research based observations of previous instructional practice as well as linguistic and educational research. This chapter will highlight some fundamental aspects of this research with suggestions for how they can influence instruction. In order to effectively teach using technology, professionals should also engage in ongoing professional development (PD). These are varied and extensive and opportunities to engage in such PD are discussed as well.

Some readers may be surprised to know that the area of computer assisted language learning (CALL) dates back to the 1950's. Many often believe that this field is a much newer phenomenon. This is largely due to the fact that they were not exposed to CALL practices as language learners. Further, they were likely not prepared to use CALL approaches, practices and materials during their teacher preparation. CALL practices have evolved dramatically during this time. Early design and use was largely focused on behavioristic and audio-lingual method approaches to instruction (Warschauer &

Healey, 1998). More recently, CALL use has expanded to utilize the vast variety of authentic linguistic content and social communication practices that have become common across the internet. Today, English teachers are using various forms of technology that represent the entirety of this lengthy and rich lineage. This chapter will present some examples of these with suggestions for how we can prepare for future potential developments and teaching and learning practices.

## **2 Professionalizing Your Technology Use**

There is a movement across the TESOL landscape to professionalize our practice. For decades we have faced challenges in this regard. We have a history of favoring native speakers as teachers regardless of their qualifications. Fortunately, this trend is currently being addressed. Those who have been in the field for many years will have certainly worked with teachers who are not adequately prepared to teach effectively, whose English language skills are not sufficient or who do not explicitly understand basic rules of English grammar. Similarly, teachers who lack appropriate professional preparation are likely to lack knowledge of pedagogical concepts and practices. With such deficits, it is quite unlikely that these teachers will have the pedagogically related technology skills, abilities and knowledge necessary to be effective in contemporary education contexts. While teachers today have numerous technology resources at their disposal, there are some universal skills that can serve as a foundation across various contexts. Table 1 includes basic and advanced CALL skills.

While these skills can be applied to most contexts, each unique resource, tool and environment will likely include specific details that will require teachers to adapt these skills or adopt additional skills. In fact, much current research and professional development tends to be focused upon a specific tool or set of tools within a specific domain. Consequently, it can be challenging to use technology most effectively, but there are some established principles that can help to guide us.

## **3 Effective Teaching Practices**

Effective technology use is focused upon the goals and objectives of a particular lesson within a particular learning context, among a particular group of learners. The details surrounding these variables are important to consider as we frame our practices. It is also carefully designed to address the particular language level and technological abilities of the learners. Any use of technology should be based upon established concepts and principles that have been identified by applied linguistic research, particularly those focused on Second Language Acquisition (SLA) and Computer Assisted Language Learning (CALL). While this chapter is far too brief

**Table 1** Basic and advanced CALL skills for classroom teachers

Skill	Example teacher action
<b>Basic</b>	
Locate	Use Internet search engine to find relevant movie files
Evaluate	Watch videos to determine if the language level is appropriate, if the content is accurate, if the quality of the video is acceptable, etc
Select	Select the file that best meets pedagogical needs
Distribute	Determine the best means for distributing a video file to students, including Web links, CDs, local files, etc
Integrate	Construct a language lesson around the content of the video file that utilizes the images, audio, and text in meaningful pedagogical ways
<b>Advanced</b>	
Create	Create a video using a combination of personally created images, texts and voice recordings
Customize	Edit the movie file expanding the narration with a more challenging version for a higher-level class
Convert	Edit the movie file deleting the audio to utilize as a reading activity
Repurpose	Use instructional materials, media or technology in multiple contexts with relatively minor alterations

Source Adapted from Kessler et al. (2012, p. 4).

to address this vast body of research, Egbert, Hanson-Smith and Chao (2007) synthesized previous SLA research into 8 conditions that should guide curricular design and instruction. These can be seen in Table 2.

Using these principles can support reflection for curricular design and classroom practice and help teachers prepare for different domains, environments and highly contextualized culturally relevant spaces (Kessler & Bikowski, 2011). Not only do

**Table 2** Eight conditions for optimal language learning environments

1. Learners have opportunities to interact and negotiate meaning
2. Learners interact in the target language with an authentic audience
3. Learners are involved in authentic tasks
4. Learners are exposed to and encouraged to produce varied and creative language
5. Learners have enough time and feedback
6. Learners are guided to attend mindfully to the learning process
7. Learners work in an atmosphere with an ideal stress/anxiety level
8. Learner autonomy is supported

Note From Egbert et al. (2007, p. 5).

we have an increased diversity of intentional learning environments that take place in online, hybrid or face to face spaces, we also have an expansive variety of technological domains in which we can communicate in authentic and engaging ways. Teachers need to be aware of emerging innovations that may offer opportunities to maximize these conditions. For example, we are frequently encountering new and diverse social communication opportunities in digital spaces, including the many varied forms of social media that can support and promote authentic and meaningful communication. Language practices are changing in response to social communicative practices that we engage in across various digital domains, including social media, digital games and an increasing array of environments (Kessler, 2013). The nature of language that we teach, as well as the context in which we situate learning, should be fluid to reflect the linguistic realities of the digital social world in which we live.

Sykes (2019) argues that we need to prepare learners for the language demands of emerging digital discourse. Thorne (2016) has referred to these informal domains of digital discourse as the digital wilds. Similarly, teachers should be familiar with what we know about motivation and autonomy as this understanding is critical when working within these emerging domains where learners are compelled to engage with one another because of the nature of the social interaction and associated expectations rather than simply for a grade on an assignment (Kessler & Bikowski, 2010; Stockwell & Reinders, 2019). Consequently, there is a need for us to acknowledge and design instruction that supports learning that takes places in both formal and informal learning contexts (Dubreil & Thorne, 2017; Lai, 2019).

## 4 Social Media and Participatory Culture

Social media and Internet communication technologies have made it possible for us to communicate with others in more varied ways than at any other time in history. We can do this through so many modalities that support text, audio, video and other forms of media. Yet, they all combine to support the goal of effective social communication and engagement. In fact, we often combine these forms of communication through mashups that make the message even more compelling and engaging. Perhaps the most engaging aspect of these social practices is the participatory culture that social media promotes (Kessler, 2013). This phenomenon encourages everyone who is interested to co-construct knowledge in a way that promotes further engagement as well as extended linguistic practice. Acknowledging these various ways that learners are able to manifest and demonstrate their English competence enables us to conduct more accurate assessment of our learners' abilities. It also encourages them to embrace these domains and continue to engage in their language learning pursuits (Sykes, 2019).

## 5 Social Trends and Disruption

As these innovative technologies and their associated social practices are embraced, we are beginning to see a number of interesting projects that address the wide range of skills related to English language development. As with technology developments across society, these tend to be disruptive. These include entrepreneurial offerings as well as open access options. My favorite resources today are websites that are open and freely accessible for all users. One notable example, YouGlish (<https://youglish.com>) is a website using YouTube as a corpus that can be used to provide learners with examples and models of speaking, pronunciation, text construction and variation in vocabulary and form. In this screenshot example, readers can see a search for the common question, “What do you know?” This question can be contextualized in many different ways that may not be familiar to learners. With 2,602 examples, learners can listen to each one in isolation or in the more extended context of the video. They can easily and quickly advance through the examples to hear many different speakers, with different topics, in different contexts. In short, this is an extremely valuable opportunity for learners to interact with authentic language in various ways. Creative and professionally prepared teachers will be able to integrate this website into many different instructional experiences (Fig. 1).

We are seeing developments related to the so-called gig economy. Readers are likely familiar with Uber, Lyft, Lime, and Grab in the transportation industry. These alternatives to traditional transportation have allowed individuals more flexibility and options when seeking out transportation solutions. English teaching companies such as Vipkids, Gogokid and Voxy are now offering similar options for those seeking teaching and learning opportunities related to English language learning. Such disruptive technology-driven social movements not only expand the availability of English teaching and learning, but they are likely to influence how more traditional institutions might also be affected. Other disruptions include trends in artificial intelligence as well as virtual and augmented reality. We should anticipate many interesting opportunities within these contexts in the near future.

## 6 Assessment

TESOL professionals should have basic qualifications to manage student records beyond simply grading assignments. Yet, there is little evidence that instructors recognize the potential student data presents. Fischer (2007) identifies the power of tracking, monitoring and observing student behavior in digital domains. Educational professionals need to understand how to effectively use technology as part of assessment and evaluation. Evaluation today can benefit greatly from the ability to collect, assess and aggregate the data of individual as well as groups of students. When we are working in digital environments, we are able to archive, curate, aggregate and better understand our learners’ performance throughout the instructional

process. The amount of data we are able to gather about students and their language use is increasingly promising and challenging. In ideal circumstances, we are able to observe everything a student does in class and out of class. We are also able to observe how they think through linguistic processes. This puts more and more responsibility on the instructor. We need to understand how to gather this available data in ways that make it meaningful for all stakeholders. Whether we use a learning management system (such as Moodle, Blackboard or Google Classrooms) or a data visualization tool (such as Tableau, Google Analytics or Microsoft Power BI) having access to student data provides us with new insights and opportunities to better understand what students are capable of, as well as how they compare to other students and ideal student models. However, with the ability to gather such extensive and rich data, we need to be able to manage this data ethically.

## **7 Ethical Challenges**

In addition to developing professional skills, there are numerous issues related to ethical use of technology that need to be considered. This becomes increasingly difficult the more we embrace these informal learning spaces and robust data collection practices. It is likely that there will be even more ethical concerns in the future as technology is becoming increasingly more social and so much personal information is potentially gathered. Instructors must strive to protect this information and help learners to understand how they can manage their own data and learn to keep themselves safe.

## **8 Professional Development**

There is an established literature about the technology skills that all teachers should have in order to effectively design instruction, facilitate instruction, manage classes, monitor learners' development and perform assessment. Teachers need to be prepared to use the appropriate technologies that are available today and being used for particular language teaching goals.

All instructors can benefit from working with CALL professionals who can conduct ongoing professional development, coordinate CALL integration and help design innovative technology integration for instructors who are just beginning to experiment with CALL (Hubbard, 2008). Hubbard differentiates the expectations for CALL knowledge and skills among different kinds of instructional professionals. At the most basic level, all instructors should be expected to be familiar with current and emerging technologies that relate to their own instruction. They should be expected to use these technologies in ways that effectively and efficiently address their instructional goals and objectives. They are also expected to explore the potential for emerging technologies that may present innovative opportunities for instructional

use. CALL specialists, who are on the advanced end of the spectrum, are expected to be knowledgeable about the potential for technology integration across language skills, practices, contexts and environments. They are leaders who are responsible for guiding others as they learn about these tools and approaches and provide support to help these instructors develop their own abilities for specific applications. CALL specialists are the ones providing the professional development that is critical in order to effectively use technology in the midst of the technological and societal changes that we are currently witnessing. Ideally this occurs institutionally to be most effective. Numerous studies have revealed that innovative teachers working in isolation may have very impressive results, but their impact is limited (Hubbard, 2008). Professional teachers also need to be prepared for the changes that are occurring across technology practices in education. Teacher preparation needs to recognize and integrate appropriate use of technology as well. Those who prepare teachers should be familiar with how educational technology practices have been effectively integrated across the TESOL curriculum. Bax (2011) pursued the normalization of CALL within language teaching and language teacher preparation and recently, Lomicka and Lord (2019) conclude that much of CALL practice is still superficial and lacking meaningful integration. They argue that the solution is to integrate CALL across teacher preparation and language education programs. However, many have concluded that most teachers receive inadequate technology preparation in their formal degree programs (Healey et al., 2011; Kessler, 2012; Kessler & Hubbard, 2017). This results in an increased reliance upon professional development. Such PD is widely available and can range from personal reading to participating in extensive workshops.

## 9 Professional Development Resources

Being a professional involves engaging in ongoing professional development and staying on top of developments in the field. This requires maintaining professional affiliations and engaging with others in meaningful professional ways. Much of the most meaningful professional development available for technology use is offered by these organizations. TESOL international, as well as national, regional, state and local affiliates host regular events with opportunities to engage in PD or to host PD sessions to share your own skills and experience. Other professional organizations also offer conference-based PD, including the computer assisted language instruction consortium (CALICO), and the international association for language learning technology (IALLT). There are also an increasing array of online opportunities to learn about using CALL. TESOL currently hosts two blogs related to this topic. These can both be found at <https://blog.tesol.org>. The Electronic Village Online (EVO) (<https://evosessions.pbworks.com>) offers free courses each winter for anyone who is interested in professional development. Many of these attendees are individuals who are unable to attend the annual TESOL conference so this is a special opportunity. Those who are able to attend the conference can attend follow up sessions that build upon what was learned in the EVO.



One of the most helpful resources available today is the TESOL Technology Standards (Healey et al., 2011). The TESOL Technology Standards establish benchmark expectations for instructors, administrators, learners and other stakeholders. They include detailed guidelines for how technology can be effectively integrated into diverse instructional contexts around the world. Vignettes provide explicit examples for how technology can be meaningfully integrated in specific contexts with specific technological capabilities. There is also a step by step program evaluation that allows users to identify strengths and weaknesses in their programs and institutions. TESOL offers many other PD resources as well.

## 10 Conclusion

Effective technology use is changing as the linguistic expectations, communication technologies and authentic social contexts evolve. As professionals in the midst of these societal and technological advancements, we should make every attempt to stay abreast of aspects of these changes that will influence the profession. Today's technologies are so quick to change, yet also so easy for us to embrace and adapt to so many varied contexts. I look forward to witnessing the multitude of ways that creative TESOL professionals address these opportunities. It is an exciting time to be a TESOL professional!

## 11 Discussion Questions

1. What are some examples of effective technology integration that you have observed, read about or heard of? What made them particularly effective?
2. What are some potential current or emerging applications of technology that would be effective in your teaching context? Why would this be particularly effective? How might they expand instruction beyond what would be possible otherwise?
3. What challenges do you anticipate in integrating current and emerging technologies? How would you address these? How might these challenges strengthen your teaching?
4. What are some ways that you might benefit from the ability to gather ongoing data about student behavior and performance? How might this data change the way you teach?

The screenshot displays the YouGlish website interface. At the top, there is a search bar with the text "what do you know?" and a "Say It!" button. Below the search bar are tabs for "All", "US", "UK", and "AUS". Navigation links include "AdChoices", "English Pronunciation", "Speaking Lessons", and "Learn English Speaking". The main content area features the text "How to pronounce **what do you know** in English, Form: **interrogative** (2 out of 2602):". Below this is a video player showing a woman in a red jacket with her arms outstretched. The video player includes a speed control (normal, slower, faster), a toggle for subtitles (off), and playback controls (play, stop, next, previous, full screen). Below the video player is a text overlay: "what do you know to be true right now at this very moment?". At the bottom of the video player are links for "[Feedback]", "[Share]", "[Save]", and "[Youtube]". On the right side of the page, there is a vertical advertisement for "M.S. in Instructional Design" from "FRANKLIN UNIVERSITY" with a call to action button.

Fig. 1 YouGlish

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**Greg Kessler** is Professor of Instructional Technology at Ohio University. He has published extensively and delivered keynotes and featured talks around the world. He has also won numerous teaching awards. His research addresses technology, teaching, learning, culture and language with an emphasis on teacher preparation. He has been the President of CALICO and Ohio TESOL.