Current Developments

The growth of technology has been rapidly increasing in the past two decades and has been accelerated by the Covid-19 pandemic which has pushed language educators and learners to grapple with e-learning and increasingly rely on computer-mediated communication (CMC). With the rise of new technological aids in the workplace and education sectors (e.g. Google Meet, Zoom, Discord, etc.), the importance of technology is further emphasized in the so-called fluid working and learning environments.

A majority of the learners now are digital natives who are familiar with technology. They find traditional English language teaching methods to be irrelevant and seek, indeed expect, the use of technology in language learning (Mofareh, 2019; Pazilah, Hashim, & Yunus, 2019). Statistics have shown that 75% to 95% of students who adopt modern means of English language learning achieve higher results in their attainment in English than students who are taught by traditional means (Mofareh, 2019). Technology has revolutionized the education field, making it more flexible for different types of English language learners.

With a selection of digital tools such as mobile phones, tablets, laptops and computers to ease accessibility, language learners are able to maximize their resources to learn English within an informal learning environment. Thus, technology has become a key feature of the education field as it offers an abundance of new learning tools that can effectively aid English language learners (Rafiq & Hashim, 2018). This chapter will address
recent developments in the use of technology in communication and language learning by exploring some popular trends such as multimodality, mobile-mediated communication, voice chat, web conferencing, online gaming, computer and mobile-assisted language learning.

7.1 Multimodality in Communication

The concept of multimodality can be explained using Kress and Leeuwen’s (1996) Principle of Multimodal Communication. This defines multimodality as the way in which people communicate using multiple semiotic modes such as linguistics, textual, space and visual simultaneously.

In face-to-face (F2F) communication, multimodality is presented through voice, discourse, eye gaze, facial movements and body language. Media richness theory makes the point that F2F communication is rich because of the availability of verbal and nonverbal cues. On the other hand, online communication which was initially, and is still widely, text-based is tending towards becoming a multimodal communication with the following features to make the delivery of intended messages more effective:

- **Text** (letters, numbers, punctuation, special characters, and controls)
- **Graphics** (lines, circles, boxes, shading, fill colors etc.)
- **Images** (still pictures, expressed as the colors of many small individual picture elements (pixels), either photographs or paintings)
- **Audio** (sound, including voice, music, and special effects)
- **Video** (successive pictures presented sufficiently rapidly to give the appearance of smooth motion)
- **Animations**, flashes and 3D

The incorporation of the above features in a rich digital learning platform captures learners’ attention and provides contextualized cues which eases learners’ comprehension difficulties and enhances their motivation in communication and language learning (Butler, Someya, & Fukuhara, 2014; Derakhshan, Salehi, & Rahimzadeh, 2015; Lin, Chen, & Liu, 2017). More importantly, the presence of up-to-date sound and visual effects in electronic devices can reflect real-life situations, which enables more exciting discussions among learners.
7.2 Mobile-mediated Communication (MMC) & Voice Chat

Mobile-mediated communication (MMC) has become increasingly popular due to its convenience and flexibility. Like computer-mediated communication (CMC), it enables learners to communicate at any time and anywhere using similar applications. CMC would usually entail the use of desktop or laptop computer, which is usually at a fixed location, while MMC utilizes mobile phones.

With the advent of smartphones, instant messaging applications such as WeChat, WhatsApp and Telegram are widely used. One of the technological affordances of these mobile messaging applications is voice recording which enables communicators to send voice notes and engage in voice chat or oral communication. It can also be a platform for learners to practice speaking, since they can listen to their recordings and revise their pronunciation, fluency, choice of words and so on. This creates a ‘safe space’ which reduces language learners’ anxiety and encourages them to express themselves better (Chen, 2018; Satar & Özdener, 2008). It also provides learners with more opportunities for oral communication as they are not limited to a F2F classroom setting only.

In view of the versatility offered by MMC, it is not surprising that the use of MMC is seen as a solution for academic institutions and professional businesses to communicate or chat with their students or business partners via instant messaging platforms (e.g. Telegram, WhatsApp, WeChat) or teleconferencing applications such as Zoom, Google Meet, Microsoft Team or Skype. More information about online video conferencing can be found in the next section.

7.3 Online Video Conferencing

When people cannot meet physically at the same place, video calls, which involve the use of text, audio and video, are the next best option to maintain relationship or to get tasks done. Video calls or online conferencing are made possible by online synchronous meeting tools (SMTs) such as Google Meet, Zoom, Cisco Webex, Microsoft Team and Skype. Some useful and interactive features offered include screen sharing, breakout rooms, virtual whiteboard, annotation tools, chat box, polls and emoticons to show agreement. These tools have received exceptional attention
and use lately, particularly because people are being encouraged to maintain a safe physical distance.

Even though the online SMTs allow people to meet face-to-face, it is not always possible due to insufficient or low-quality equipment, technical issues, network interruptions, users’ computer self-efficacy and so on. Sometimes, users who prefer not to show their faces may turn off their own cameras. This could be due to the awkwardness that stems from watching oneself while communicating using webcam (Smidt, McAndrew, & McDyre, 2017). When using a webcam to present, it is also important to take note of the position of the webcam. To make better eye contact, the webcam should be placed at the level of your eyes and the lighting behind the webcam should be good so that you look clear to the audience. If possible, sit away from the webcam so that your hand gestures could be seen.

In addition, it is a good idea to obtain feedback from the participants by asking them to respond in a chat box. Sometimes, the background chat in the chat box may cause distractions and so it will be helpful to have an assistant in charge of the chat box. In addition, the static noises coming from unmuted microphones could also be disturbing. Therefore, advance preparation and guidelines about netiquette and the use of microphones, webcams and chat box are necessary to minimize potential technical issues and interruptions.

### 7.4 Online Gaming

Playing digital games was once frowned upon by the educators as it was thought to be addictive and to cause an individual to be unproductive, unhealthy and anti-social. However, online games are now seen more positively, even considered as electronic sport or e-sports.

Most video games are driven by an immersive storyline and tactical gaming mechanisms which are most often constructed in English (Jack & Muhammad, 2017). The engaging aspect of video games and the need to use language to unlock achievements make video games a potential tool to improve language (Butler et al., 2014; Bytheway, 2015).

Playing games online with friends is found to be more fun and effective for language learning compared to playing games in offline mode (Chik, 2014). Therefore, it is not surprising that online gaming is becoming increasingly popular in the studies of language development. Moreover, Massively Multiplayer Online Role-Playing Games (MMORPGs) provide
gamers with access to theme-based virtual worlds where they can communicate online in real-time with their peers, have opportunities to role-play as in-game characters, co-op gameplay through guild membership, as well as solve problems while going through the immersive storyline (Jack & Muhammad, 2017). The role-playing element in MMORPGs has been found to be effective in lowering players’ inhibitions, enabling them to express their emotions effectively using the moving emoticons provided in online games (Peterson, 2010).

Research has also found a significance increase in students’ engagement, interaction and language production when they are playing online games such as OpenSim or Habbo Hotel during gameplay sessions (Berns, Rodriguez, & Gomez, 2013; Liao, Chang, & Chan, 2018; Pitarch, 2018). Students are able to interact and collaborate better with one another and are seen to be more critical when they perform specific activities in which they are able to use language precisely and solve language problems by paraphrasing, seeking clarification and responding to confirmation requests (Berns et al., 2013). On top of that, online gamers are found to use vocabulary-learning strategies and pick up new terms or vocabulary when they interact with their friends (Bytheway, 2015). Aside from solving problems and building projects, MMORPG players may also practice their language skills through their interaction with other speakers during sessions (Bytheway, 2015; Strachan, Kongmee, & Pickard, 2016; Canto & Jauregi, 2017; Chotipaktanasook & Reinders, 2018). This further concretizes the effectiveness of game-based learning, as language learners are able to participate in collaborative communication as well as acquire language through negotiation and language-learning strategies (Pitarch, 2018).

Furthermore, MMORPGs also encourage players to join a collaborative community and participate in discussions related to the games they are playing. For instance, interacting in chat rooms, forums or social networking sites (e.g. Twitter, Facebook) and exchanging information through YouTube videos, blogs (e.g. BlogSpot, Wordpress), content communities (e.g. Reddit) or virtual social worlds (e.g. Second Life, VR Chat) (Pitarch, 2018). In accordance with Vygotsky’s (1978) sociocultural theory, MMORPGs can enhance language learning via a collaborative and interactive setting. To explore the potential of game-based learning platforms in promoting communication and collaboration, language learners and educators could explore Minecraft: Education Edition, The Mad City Mystery, Second Life, Everquest, World of Warcraft (WoW). However, it
should be noted that online gaming can be addictive and can cause users to develop a confused identity. Therefore, learners should always self-regulate their emotion when playing online games (Miri, Miri, Hajloo, Basharpoor, & Narimani, 2020).

7.5 **Computer-assisted Language Learning (CALL)**

Computer-assisted language learning (CALL) involves the use of computers or electronic devices to amplify students’ language learning experience through unlimited access to knowledge at one’s fingertips (Miftachudin, 2012; Mutlu & Eröz-Tuğa, 2013). It encompasses CMC and the use of multimodality in communication, web conferencing, online gaming and so on.

In digital storytelling, technology and interactive media are integrated which allows learners to visualize and use their imaginations in a creative way (Thang et al., 2014). With virtual reality (VR) technology, learners’ immersion in a simulated and interactive virtual environment is further enhanced. The multisensory stimuli of the virtual environment enable learners to actively visualize, comprehend and construct their own knowledge to improve their target-language ability (Lin & Lan, 2015). Thus, the use of VR technology is found to positively affect learners’ vocabulary and learning trajectory.

Drawing on the vast online linguistic resources, learners can also learn independently as well as enhancing their language capabilities through the use of computer-mediated communication (CMC). CMC allows learners to interact and discuss with one another without having the need to be present at the same place. Apart from the use of emails, online forums and instant messaging applications, social media such as Facebook, Instagram, TikTok, Twitter and blogs have now become preferred platforms for learners to connect with others and develop their language skills through collaborative learning and discussions in an innovative manner (Mansor, 2016; Yunus, Hashim, Embi, & Lubis, 2010).

New inventions have made CALL very exciting and their use is no longer limited to computers or laptops. Smartphones have made interpersonal communication and language learning more spontaneous and convenient. The following section explains mobile-assisted language learning, which has emerged following the popularity of smartphones.
Mobile-assisted language learning (MALL) is defined as the use of mobile technology in language learning, where the nature of language learning is spontaneous and informal (Miangah & Nezarat, 2012). Contrary to the traditional classroom learning setting, MALL enables learners to have a sense of freedom in which they are able to develop their language competencies at different places and times using MALL applications. Studies found that learners have generally indicated positive attitudes towards the use of mobile technology as it is capable of producing better results in terms of language proficiency (Nariyati, Sudirman, & Pratiwi, 2020; Oberg & Daniels, 2013). The benefits of MALL also extend to the increase of proficiency in oral performance among foreign-language learners, due to the implementation of CMC task-based activities in foreign-language learning classroom (Abrams, 2003; Payne & Whitney, 2002; Shi, Luo, & He, 2017). Simultaneously, the utilization of MALL tools has helped students to reduce their anxiety in the foreign-language classroom, as indicated in Kessler’s (2010) study showing that language learners feel less self-conscious and anxious and are more motivated to learn the language.

To further elaborate, language learners can use mobile phones to communicate with one another and engage with real-world experiences where they are able to apply language skills and words learnt in classroom sessions in authentic learning contexts. Mobile devices also enable learners to contribute to the creation of the learning content through the use of applications such as YouTube, TikTok, Facebook, Instagram and so on. The effectiveness of e-learning through mobile devices has helped learners to break through learning barriers as they continuously learn language and use it to communicate with others beyond classroom sessions (Alqarni, Bown, Pullen, & Maters, 2020). On top of that, with the vast expansion of the Internet, learners are able to access their MALL applications all the time, and this further aids their language-learning capabilities.

Additionally, language learning applications such as Kahoot!, Duolingo, Babel and Memrise also help language users to further learn the language beyond the rules and time constrictions of the classroom setting (Loewen et al., 2019). These mobile applications aid language-learners as they are able to learn at their own pace and leisure. Moreover, learners also find the gamification aspect of these mobile applications motivating and engaging (Loewen et al., 2019). Despite that, there are still learners who eventually
lose interest in learning through these applications (Botero, Questier, & Zhu, 2019). Therefore, it is important to support self-directed learning with encouragement and appropriate training (Botero et al., 2019).

7.7 Summary

This chapter has highlighted some recent developments in the use of technology in communication and language learning. Some of the important aspects include multimodality in communication, mobile-mediated communication and voice chat, online conferencing, online gaming, computer-assisted language learning and mobile-assisted language learning. These features are found to secure learners’ attention and motivation. They are also important in preparing learners for Industrial Revolution 4.0. As technology continues to make advances, we should continually update ourselves with the way different people or learners communicate using different technological tools.

Despite the benefits technology has to offer, we need to use it carefully due to the potential distractions it carries. To avoid misuse and possible distractions from entertainment, supervision is needed, especially when technology is being used by younger learners.

We would also caution ESL language researchers and practitioners about the incorporation of new technology in an ESL class. New technology should always be examined vis-à-vis different groups of learners to maximize its full potential. Simply implementing a new form of technology is not recommended. One should also bear in mind that there is no learner who is the same and thus “no single pedagogical solution which is applicable to all classrooms” (Ellis, 1990, p. 68). An eclectic approach should be practiced, taking account of the teacher’s level of computer skills and personality, and every learner’s language proficiency, personality, expectations and preferences. After all, technology is only a tool and it needs our strategic use to realize its maximum potential for different users.

Acknowledgement We would like to acknowledge and thank Rino Shafierul Azizie Bin Shahrir Raghibir for his contributions to this chapter.
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