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Mobile Ubiquitous Learning is the Need of the Hour for English Language Teaching during COVID-19 Pandemic

Triparna Mukherjee

Assistant Professor

Dept. of English, South Calcutta Girls' College, Kolkata

"All people naturally want to know" is how one of the world's greatest thinkers, Aristotle, begins his well-known book Metaphysics (65). Humans are recognised to possess a wide range of potential skills in the modern day. Among these skills, knowledge, learning, and curiosity surface during a person's growth and take shape under the impact of their surroundings. Our understanding comes from the realm of sensations. In the same book, Aristotle discusses the value of the senses and offers the proverb, "Who loses a sense loses a world" (68). He stresses the value of the senses to learn by noting that they are vital for comprehending the cosmos and what is happening. He stresses the use of the senses to learn by stating that "science is based on the senses, but senses are not science," noting that "the senses are an important aid in understanding the universe and what is happening" but also acknowledging that "the senses can be misleading from time to time" (70).

A person can learn and enrich his knowledge throughout his life and is characterised by long-lasting behavioural changes (Senemoğlu 208). In other words, learning may happen anywhere. It is largely distinct from education and training, which are mostly tied to organised contexts, regardless of whether the learning occurs in structured, semi-structured, or unstructured situations (Toprak & Erdoğan 23). Humans are social creatures by nature;

therefore, they can learn anything, anywhere, anytime. But as we now live in a technologically advanced world, education has also advanced beyond its traditional

In the era of the COVID-19 pandemic the perception and motivation of students towards e-learning becomes need of the hour. This innovative notion of "Ubiquitous learning", a novel way to learn, has emerged due to expanding internet services to vast geographical regions, expanding network coverage areas, increasing mobile device usage, and using sensor technology extensively.

All stakeholders in the education sector can test novel teaching strategies, implement creative approaches, and create new learning possibilities in learning settings facilitated by modern technologies. One may argue that the fast evolution of information and communication technology has revolutionised the field of education. With this increasing Internet usage, there is now a chance to gain more from computer networks. The emergence of e-learning is the result of this. With the proliferation of mobile devices, wireless networks—only useful with computers—have played a significant role in the birth of learning using mobile as a new kind of education. This brainwave of ubiquitous learning is founded in mobile and wireless communication and sensor technologies. Furthermore, it is well-recognised that ubiquitous learning offers rapid access to knowledge and greater involvement than e-learning (Boyinbode and Akintola 18).

Following the ideas of 'e-learning' and 'm-learning', the broader type of learning known as "ubiquitous learning" incorporates these two forms of learning. The creation of context awareness by perceptron technologies is the key characteristic that sets ubiquitous learning apart from other forms of learning (Huang, Chiu, Liu, and Chen, 2298). According to Shih, Tseng, Yang, Lin, & Liang, context awareness refers to learners' knowledge about the learning environment's location, movement, weather, time, and other aspects (92). Shih et al. opined that learners in ubiquitous learning acquire knowledge by assimilating information from their surroundings. Regarding its indicated qualities, ubiquitous learning has significant promise for education (97). Numerous educational characteristics are improved by ubiquitous learning. In addition to improving academic performance, this system positively impacted

students' perceptions and motivations regarding e-learning during the COVID-19 pandemic (Hwang, Chu, Lin, and Tsai 2).

Furthermore, students' problem-solving abilities are positively impacted by their capacity to retrieve knowledge straight from the context concluded that when ubiquitous learning technology is used in the classroom, students' favourable attitudes and perceptions of the lesson improve. Furthermore, technologies of ubiquitous learning also have a favourable impact on learning time, according to Chen and Huang's research. Pervasive computers and technology are the foundation of ubiquitous learning (Weiser 100). It makes learning and studying possible whenever and wherever (Sakamura & Koshizuka 11). Huang et al. claim that mobile devices, embedded digital and functional objects, and perceptual technologies allow learners to be fully immersed in the learning experience (2300).

The COVID-19 epidemic has had several notable repercussions, including the digital transformation of education. Mobile ubiquitous learning is one effective learning technique that incorporates mobile technology and makes learning possible anytime, anywhere. A new light seems to peep through the darkness of despair during this lockdown period.

The next stage of e-learning is called ubiquitous learning, and it is anticipated to bring about a paradigm shift in education or, at the very least, new approaches to learning. The ability to access learning materials and computer-supported collaborative learning environments at the appropriate time, location, and format contributes to the possibility of ubiquitous learning.

The following are the primary attributes of ubiquitous learning:

1) **Durability:** Unless it is deliberately erased, learners can never lose their work. Furthermore, every day, all of the learning processes are continually recorded.
2) **Accessibility**: Students can view their data, documents, and videos anywhere. They receive the information in response to their inquiries. As a result, the education required is self-directed.
3) **Adaptability:** Students can obtain the appropriate knowledge in the appropriate setting.

4) **Interactivity:** Through synchronous or asynchronous communication, students can engage in expert, instructor, or peer interaction. As a result, knowledge is more readily available, and specialists are easier to contact.
5) **Immediacy:** Students may get any information right now, no matter where they are. As a result, students may solve difficulties rapidly. If not, the students might write down the questions and search for the solution later.

Technology is a useful tool for students and must be a major component of their education. To enable students to expand the actual use of technology in their language study, teachers should demonstrate how to utilise it to assist the curriculum.

The way that English is taught has altered significantly as a result of technological use. It offers many options, including making instruction engaging and more effective regarding progress. For instance, computer-assisted language learning (CALL) modifies students' attitudes towards learning and boosts their confidence. Lastly, students' language learning abilities can improve as they assimilate new learner-based instructional resources. Technology has caused a shift in teaching approaches from teacher-centred to learner-centred. It is highly beneficial for students to boost their learning when teachers are facilitators and guides in their education.

U-learning apps began to concentrate on language learning systems, including Language-learning Outside the Classroom with Handhelds (LOCH), Japanese Mimicry and Onomatopoeia Learning Assisting System (JAMIOLAS), and Japanese Polite Expressions Learning Assisting System (JAPELAS). The application of a mobile device for language instruction, for example, teaching Japanese people English or Australians Italian.

To facilitate mobile ubiquitous learning, a website must be developed that offers features that allow learning to occur anywhere, anytime, using any available learning device. This is necessary to make use of the many mobile device qualities. These days, learning portfolios that document learners' online behaviours might be examined for behavioural diagnosis or instructional design purposes. Next, a concept map of the learning domain and the analytical outcomes of learning portfolios are used to build a student model. Three modules are

designed to create a ubiquitous learning environment that will improve learning performance through scheduling reminders, discussion forums, and learning status awareness. These modules are based on the student model and the learners' accessible learning devices.

The following three components are given based on the conceptual design:

1. **A module for learning about status awareness:**

This module assesses students' success in online learning, including their completed assignments, test scores, and self-assessment results, to determine their level of language acquisition knowledge. To remind students what they should study in a specific amount of time, the module sends alerts regarding new topics. Moreover, the module may offer adaptable mobile pop-up tests to enhance students' learning chances.

2. **Module to Remind Schedule:**

Teachers may control and modify the course schedule with this module. The learning schedules of the students in the online learning system are updated instantly with any changes made by teachers, and they must modify their schedules accordingly. Pupils are prompted to do assigned chores and are reminded of them. Furthermore, all students are encouraged to pursue their learning objectives before taking an exam by computing and transmitting the difference between their current learning status and learning goals.

3. **Discussion Forum module:**

Playing digital games is a funny way to polish your English and a very inspiring language-learning method. Students who are timid or afraid of making errors might benefit much from playing games. It may provide children with an enjoyable and safe English communication method. Therefore this popular learning website also offers digital games to assist students get better at speaking English. The ability to access such games during the prearranged time will only be granted to pupils who attend all their lessons.

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I will now concentrate on the omnipresent learning website's system architecture. The web-based learning system runs on a Microsoft Internet Information Services (IIS) web server. The learning website offers readings, tests, discussions, homework submissions, self-assessments using keywords, and exams as online learning activities. There will be a community area in this module. Students can share their questions in this section. Their peers may answer those inquiries. The learners might not provide the correct answer always. For that reason, the specialist will verify each response. The correct answers will be checked in a batch following the expert's verification. The instructor may also submit a PDF, doc, audio file, or video for reference purposes. In the community tab, we also provide a problematic keyword filter.

Because the Oracle Database Management System (DBMS) has trigger mechanisms that allow it to automatically give learners the right messages at the right time, the online learning system employs the DBMS as a library of students' learning behaviours. To create a student model, all students learning behaviours on different learning platforms and their performance on online tests were captured. Every topic in a course, together with a student's learning level and preferences, is included in the student model. The information-aware system uses the student model as a guide to decide what recommendation should be sent to a student's mobile device. The information-aware system also can remind students of future classes and assignments.

To conclude, I can point out that the development of communication and computer technology has aided in shifting learning paradigms from traditional learning to e-learning, m-learning, and finally, u-learning. With U-learning, students may receive the knowledge they require whenever and wherever they want, regardless of their preferred learning method, which was very effective during the lockdown period.

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