ANALYSIS OF NEW TECHNOLOGIES FOR ENGLISH LANGUAGE TEACHING IN HIGHER EDUCATION

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Abstract

The introduction of new technologies is an increasingly common resource in the educational environment and, especially, in the teaching of a language. In this research work, a bibliographic analysis of the evolution of the most important methods and approaches in the teaching-learning process of the English foreign language aimed at higher education students was carried out, and the relationship between technology and foreign language teaching-learning is analyzed from a diachronic and critical perspective. To this end, the emergence of different technologies in the field of language teaching and learning is considered, as well as the analysis of their effectiveness in the foreign language learning process, noting various cycles of technological innovation, enthusiasm about its possibilities, scarcity of evidence of results and a call for caution regarding the impact of the technology itself. In conclusion, a state of positive but cautious alertness to the constant emergence of technologies that generate new opportunities for memorable learning is raised.

Keywords: MOOCs; English language learning; ICTs; technology; English language teaching; higher education; ELS.

1. Introduction

English has been considered a universal language that offers countless opportunities in different areas and opens the door to new paths that a person can go through, being the greatest in the professional field since commercial relations around the world is constantly going through a process of globalization requires people who are not stuck in the barriers of the past and that offer varied knowledge for the performance of activity[1–4]; English is one of these skills that is most appreciated in the labor market, both commercial and student[5].

The presence of Information and Communication Technologies (ICT) in 21st-century education is a reality that brings with it a series of challenges for both educators and learners; however, the advantages and benefits of the exploitation of ICT in the teaching-learning process are incalculable and, faced with such a perspective, teachers and pedagogues cannot remain indifferent[6–10]. Since its appearance, ICT has opened new ways for teaching and learning, showing its great potential in the possibility of interaction, communication, and access to information[11,12].

Virtual education represents great opportunities for teachers-students in higher education and, above all, for students in terms of accessibility, flexibility of time, space, pace, schedules, and, in some cases, costs[13]. These environments are becoming more important every day because beingactive in the new social space requires new knowledge and skills to be learned in the educational processes.

It is evident then, that the English language is a process of expansion adhered to the phenomenon known worldwide as globalization, more and more people are learning to speak this language, and more and more people are depending on it to obtain a job[14,15]. Indeed, the use of a foreign language, with emphasis on English, has gone from being a privilege to a necessity in the different productive sectors. The process of globalization has been the main reason why English has gained importance worldwide, to the point of being considered today as the universal language of business[16–18].

Therefore, it is necessary to train people for the workplace with knowledge in new languages such as English, as this strengthens their professional curriculum, opening the way to various opportunities. For the training of these professionals who are fluent in more than one language, the country has established that the teaching of English is an obligation in most educational institutions at all levels, even promoting programs that help to give a plus so that young people are interested in learning it from an early age[19–22].

On the other hand, the current globalization of the world opens the way for new methods of teaching multiple subjects and disciplines, where English is not precisely excluded, since currently in several institutions in Ecuador and for reasons of protection against the current health situation has relied on the use of virtual tools to implement the entire teaching of English in young people, training them to use computer tools as the best way to learn this language throughout the student's life[23,24].

ICTs have a leading role in our society. Education must adjust and respond to the changing needs of society. Training in formal contexts cannot be separated from the use of ICTs, which are becoming more and more accessible to students[24,25].

Precisely, to favor this process that begins to develop from informal educational environments (family, friends, leisure, etc.) the school as a public service must guarantee the preparation of future generations and for this, it must integrate the new culture: digital literacy, didactic material, source of information, an instrument to carry out works, etc[23–27]. That is why it is important the presence in class of the computer from the first courses, as another tool, with different purposes: recreational, informative, communicative, and instructive among others[26–28].

Currently, many teachers request and want to have computer resources and the Internet to teach their classes, responding to the challenges posed by these new information channels. However, the incorporation of ICT in education does not only imply the provision of computers and Internet access infrastructures, but its fundamental objective is to integrate new ICT technologies in the teaching-learning processes, in the management of educational centers and the participation relations of the educational community, to improve the quality of education[22,26–30].

Concerning the above, the different skills of the English language (grammar, vocabulary, writing, reading, and speaking) are considered indispensable tool, as it facilitates communication between countries engaged in the import and export of goods or services, therefore having professionals who can read, write and interpret this language, allows the growth and strengthening of the economy through international trade[25,29,31]; It is also necessary to emphasize that organizational

development is focused on generating a change in the institution centered on the quality of human relations and the holistic development of the personnel, giving greater productivity for the benefit of its collaborators in the work and professional environment. In this context, the present research work focuses on exposing the importance of virtual resources and new virtual technologies for the teaching-learning process of the English language in higher education institutions, given that at this level it is expected that young people or adults master this language at least in its most basic/intermediate level to use all the technological tools that are exposed in this study to strengthen the knowledge that has been developed throughout the student's life.

2.   Materials and methods

The methodology applied for the development of the research of the present work consists of an exploratory methodology, through the review of scientific literature, which allows the researcher to approach the problem and relate to it, to grant a final statement.

The materials used in this research are based on virtual technological sources of teaching-learning English as a second language, which will be analyzed and discussed according to the referenced bibliography, as possible applications/technological tools to be used in the classroom by higher education teachers.

Following these ideas, we will analyze the web tools that are mostly used to develop and improve oral, written, reading, and listening skills.

2.1.   Online learning and MOOCs

The concept of traditional training has changed dramatically in recent years. It is, without a doubt, the end of the road. Being physically in a classroom is not a discovery. It no longer is - not with all the risk associated with the web and new technologies, at least. Today, you have access to a good education whenever and wherever you prefer, as long as you have access to a computer and most essentially the internet. Today, everyone has access to an era that is new in the change of education on the net. One should not discount the skepticism surrounding online training, and mainly the ease of access to the main virtual technological tools, which graphically explains the meaning of open virtual education in Figure 1. It is difficult to understand the notion of leaving the main classroom, especially if it is to manage this vast space labeled as the Internet.

Figure 1. Learning through Open Online Courses (MOOCs)

2.2.   ICT tools.

ICT tools stand for information and communication technologies. ICT tools refer to digital infrastructures such as computers, laptops, printers, scanners, software programs, data projectors, and interactive teaching boxes.
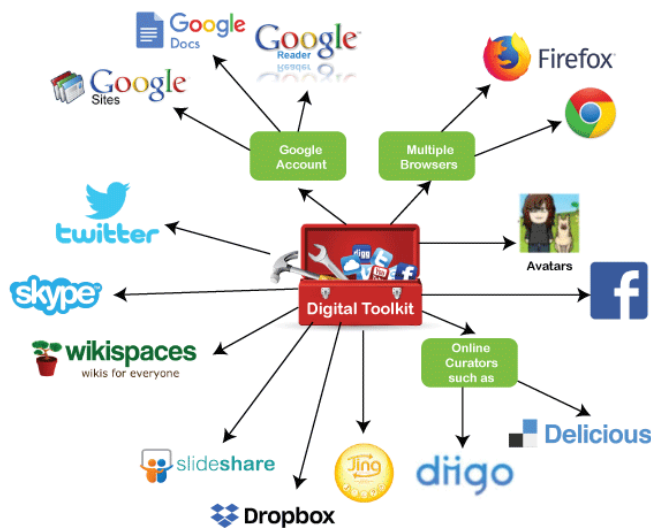

Figure 2. Mostly used ICT tools.

ICT devices are the latest tools, concepts, and techniques used in learner-teacher, learner-student interaction, e.g.: - Clicker devices, mobile applications, flipped classrooms) for information and communication technology (see Fig. 2).

2.3.   ICT tools for English language teaching.

To use a language, you first need to know how that language works. This means that students have to learn its linguistic aspects, including its vocabulary, grammar, and functions. In addition to that, to be able to use the linguistic system, students must develop the skills involved in understanding spoken and written discourse. This means developing the ability to comprehend the input (i.e., receptive skills: listening and reading), as well as the skills involved in producing coherent and cohesive output (i.e., productive skills: speaking and writing), as described in Figure 3.
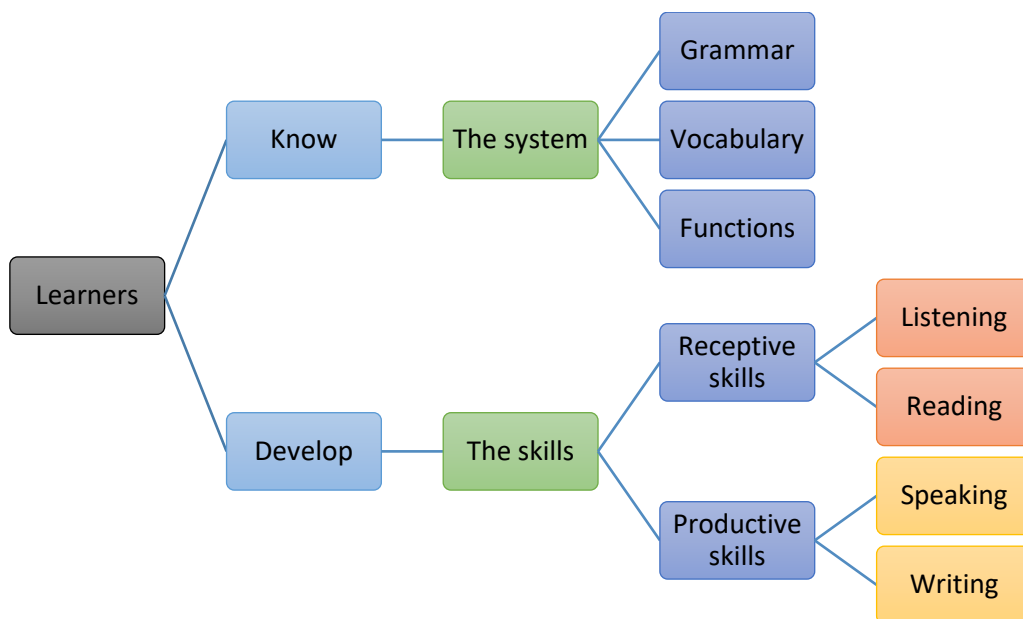

Figure 3. Components of English language instruction.

In this context, it can be seen that learning a new language, such as English, can be a challenge, especially when learning a second language. However, there are currently a thousand technological tools, both paid and open access, to improve English language skills.

3. Results and discussions

The results obtained in this research work are analyzed and discussed, according to the advantages and disadvantages of teaching-learning of the English language used by both teachers and students of higher education.

3.1. Analysis of English language learning through MOOCs.

Massive open online courses (MOOCs) offer accessible and affordable discovery that is remote for students around the world. Numerous famous undergraduate institutions, including Harvard University and the Massachusetts Institute of Technology, offer these web-based programs for a variety of subjects, specifically the topic of interest in this study.

Most MOOC platforms offer free courses. However, particular systems charge a small fee. Relatedly, some universities provide program credits for these classes, which can be online. As their title suggests, MOOCs often recruit hundreds, even thousands, of students at any given time. These courses generally offer available enrollment, in other words, enrollment throughout the year or within a designated time frame, and a self-paced learning format to support such a vast student population. According to the research group's latest analysis [23,31,32], more than 30% of higher education students take one or more distance learning courses. Online education is an option that makes sense whether you are a teenager or an adult. It is often a useful way to hone your skills in a complicated subject or to discover a new skill as a learner.

3.2. How to use ICT tools in the classroom.

To unlock the potential of technologies for classroom use, we must do the following:

❖ Establish a starting point for each pupil's ICT learning and integrate formative assessment into key learning areas such as literacy and numeracy in an elementary school.
❖ Plan for the progression of ICT learning in the curriculum learning curriculum.
❖ Build on evidence about ICT learning alongside subject learning.

Advantages and disadvantages of the use of ICTs.

These days, it is well known that, in education, ICTs add great value to key learning areas such as literacy. There are more advantages than disadvantages to using ICTs, as detailed below (see Table 1.):

Table 1. Advantages and disadvantages of using ICTs as virtual technology tools

Advantages	Disadvantages
Cost-effective	Unemployment
Provide facility for easy management of students	Lack of security/privacy
Direct classroom teaching	Cyberbullying
Improved communication modes	Dependence on technology
Environmentally friendly: eliminate the use of paper	Social networking
Minimizes costs and saves time	
Improved data and information security	
Web-based LMS tools link teachers, students, researchers, academics, and education.	
Teachers can teach better with graphics, videos, and images.	

Teachers can create interesting, well-designed, and engaging classroom activities.
Provide better teaching and learning methods.
Spread awareness about the social impact of technological change in education.
Promote and enhance digital literacy in universities, colleges, and schools.
Automated solutions for manual paper-based procedures and processes.

Additionally, ICT brings inclusion since all students in the classroom can learn from the course material. Students with special needs are no longer disadvantaged because they have the necessary materials. Students can use special ICT tools according to their educational needs. Despite this, new problems related to the "digital divide" open up and make it easier for the less fortunate to access ICT resources and tools.

ICT tools also provide a new way of learning for students and teachers. Online learning or E-learning is becoming more popular. The various extraordinary events in our lives open up opportunities for higher education institutions to ensure that students can access course materials while they are in the classroom. Outside students can also be assured. Learning can also be done in class, as well as at home or in any remote location.

3.3.   Use of ICT resources in English language learning.

Table 2. Virtual web tools for developing grammar and vocabulary

Grammar & Vocabulary	
Virtual tool	*Description*
BBC Learning English	British public television dedicates a website to English language learning, where you can find videos, activities, grammar explanations, pronunciation exercises, and other useful resources for classes. In addition, the site has a remarkable YouTubechannel. https://www.youtube.com/user/bbclearningenglish
The Englishman's Mansion.	On this website, there is theoretical information, exercises, e-books, videos, games, and other activities to practice grammar and spelling, train and sharpen your ear, and improve your vocabulary.
EngVid.	Repository with more than 850 free video lessons covering different topics at all levels. The "flipped classroom" tool within this repository can be a resource for use in class or to review certain aspects of grammar, vocabulary, or pronunciation with students.
Bon's Tips.	Complete page created by the English teacher Manuel Bonillo Valverde where he offers, in an organized way, a great number of materials and activities to work on English grammar.

Language Guide.	A collaborative project to develop interactive learning resources with integrated audio in several languages. It allows us to practice vocabulary, grammar, pronunciation, and oral and written comprehension.

The use of technological resources/tools for English language teaching-learning is mainly used to develop 4 skills for the mastery of English language skills, as shown in Figure 4.

Based on these linguistic skills, the following virtual technological tools that are used to improve and develop each of these skills, including grammar and vocabulary, are analyzed(see Tables 2, 3, 4,5, and 6).

Table 3. Virtual web tools for developing writing

Writing	
Virtual tool	*Description*
Spell Up	Interactive online game for the Chrome browser to improve vocabulary, pronunciation, comprehension, and spelling. The user must spell, pronounce, complete or write words to form a higher and higher tower and level up, as levels advance the difficulty increases.
Listen and write	A website that brings dictation closer to the present day and allows students to work on English comprehension and writing skills while transcribing from songs, poems, and lectures to the news.
Write Source	Site designed to encourage writing from an early age of 6 years old to 18 years old. It offers a wide range of topics to propose writing in class, as well as examples for each one.
Pen Pal World	Portal for people interested in corresponding with people from other countries. It is ideal for students to practice and reinforce their written expression while meeting people from other countries and cultures.

Figure 4. Skills for the mastery of English language skills.

Table 4. Virtual web tools for developing reading.

Reading	
Virtual tool	*Description*
Starfall	A small web resource that allows students of all ages to access stories or fiction texts in which, while reading and listening, they practice the use of verbs or expressions. There are also simple games with which students could practice English vocabulary.
Project Gutenberg	A virtual library that allows you to access and download a multitude of works in English and other royalty-free languages.
Go comics	A web page that compiles daily all the comic strips published in American magazines and newspapers.

Table 5. Virtual web tools for developing listening.

Listening	
Virtual tool	*Description*
Vaughan Radio	This is a well-known English radio station, specially designed for Spanish speakers, which can be a technological resource on the web to train the ear, deepen the grammar, expand the vocabulary and especially improve pronunciation by taking advantage of its programs for all levels. Without a doubt, it is an excellent technological tool that can be used on cell phones, computers, etc.
Listen a minute	This resource or web tool offers a wide variety of one-minute audio organized by topic. They are accompanied by the corresponding text and exercises to check that what has been heard has been understood.
Lyrics Training	Web a great variety of music videos to improve oral comprehension and writing through song lyrics. You choose the video and the level (beginner, intermediate, advanced, and expert).
RD Lessons	This is a web tool with fun English lessons suitable for all types of learners. This site proposes exercises and questions based on short videos, current news, or movies, in which you can practice and improve your listening skills.

Table 4. Virtual web tools for developing speaking.

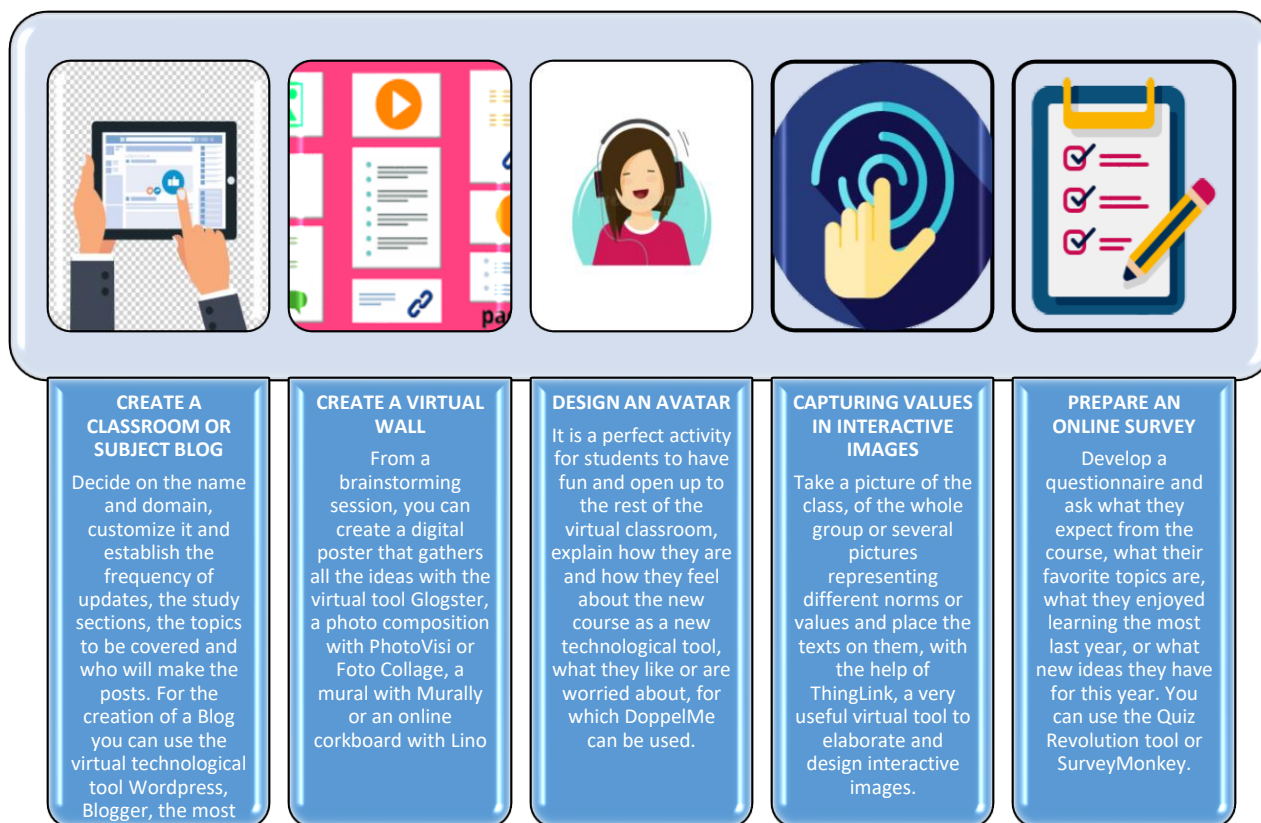| Speaking	
Virtual tool	*Description*

Learn English Sila	A website with a large section dedicated to English pronunciation.
Sub English	Portal with videos of subtitled songs to practice English as karaoke.
Phonetics Focus	Games to work with students on phonics in a fun way.
Duolingo	Website and downloadable app for iOS. Android and Windows. It allows interactively learning of English, through activities of various types and themes: the user chooses the pace of study, takes a level test, and progresses step by step.

3.4. Proposal for the development and use of virtual technological tools for the teaching-learning of English.

Having analyzed all the virtual technological resources that most people interested in learning English tend to use in the teaching-learning process of this language, the following methodology is proposed as a new virtual technological tool to be used in the teaching process by teachers dedicated to teaching English and also by students who wish to improve themselves autonomously.

This tool is based on a web page (see Fig. 5) with interactive proposals, games, and organized activities that can be used and topics to practice vocabulary, pronunciation, and grammar.

Finally, it is considered that the use of technological virtual tools is very useful in the teaching-learning process of any language, not only English. However, in many underdeveloped countries, these tools are difficult to access, which makes these resources inadequate for teaching.

CREATE A CLASSROOM OR SUBJECT BLOG	CREATE A VIRTUAL WALL	DESIGN AN AVATAR	CAPTURING VALUES IN INTERACTIVE IMAGES	PREPARE AN ONLINE SURVEY
Decide on the name and domain, customize it and establish the frequency of updates, the study sections, the topics to be covered and who will make the posts. For the creation of a Blog you can use the virtual technological tool Wordpress, Blogger, the most	From a brainstorming session, you can create a digital poster that gathers all the ideas with the virtual tool Glogster, a photo composition with PhotoVisi or Foto Collage, a mural with Murally or an online corkboard with Lino	It is a perfect activity for students to have fun and open up to the rest of the virtual classroom, explain how they are and how they feel about the new course as a new technological tool, what they like or are worried about, for which DoppelMe can be used.	Take a picture of the class, of the whole group or several pictures representing different norms or values and place the texts on them, with the help of ThingLink, a very useful virtual tool to elaborate and design interactive images.	Develop a questionnaire and ask what they expect from the course, what their favorite topics are, what they enjoyed learning the most last year, or what new ideas they have for this year. You can use the Quiz Revolution tool or SurveyMonkey.

Figure 5. Proposal for a combination of virtual technology tools applied in the classroom.

4. Conclusions

Educators are just beginning to realize the power of Web tools, new technologies, and emerging social software applications for oral and other skill development. Since the time devoted to oral skills development in the classroom is clearly insufficient, and acquisition would only occur through extensive exposure to practice and repetition, we must consider the development of consistent online tools for autonomous learning.

With the appropriate use of technology, learning can be more active, motivating, and learner-centered, especially with Internet-based resources such as audio-video, podcasts, video clip tools, or virtual worlds developed with MOO (Multi-oriented Objects).

Technologies are evolving rapidly and the Net generation will likely continue to be at the forefront of technological change. Therefore, educators must continue to find new ways to exploit student skills and drive the student learning experience.

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