### Research Article<sup>1</sup>

# EMBRACING THE CHANGE OF DIGITAL WORLD/DIGITAL DISRUPTION



## **Computational Linguistics**

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#### **Abstract**

Technology surrounds us everywhere, every moment. It seems almost impossible to imagine our life without technology. It is pervasive and persuasive. As new technologies emerge, creative people in every industry can imagine new applications. In the education field, teachers embrace these innovations in the classroom and online. Many of these new resources are changing the traditional understanding of education. In this paper we'll talk about the use of technology, digital media and digital disruption and the opportunities they can offer to everyone and every organization. We'll focus on three phases: 1) In the past – Personal experiences as a Fulbright Visiting Scholar on 'Teaching through Media', 2002; 2) Present – On the implementation of the project, on 'Impact of Teaching English in Limited Access to Technology Environment', 2020, with the financial support of the US Embassy in Tirana; 3) 2020 onwards: challenges of using new technologies in the classroom for the future. The paper will also try to answer the following research questions: What is digital media? What is digital disruption and its importance in language learning? How does it help to improve skills in teaching through technology? How does the use of technology influence the English language learning? What are some of the challenges that teachers face while teaching in a low tech class? How does digital disruption help hybrid communication skills? On-line learning vs. face-to-face learning, etc. When available both students and teachers embrace the use of technology as a tool to make teaching and learning English fun and inclusive. Finally, the researcher will try to offer some challenges and solutions about the use of some practical disruptive education technologies.

#### Introduction

We all remember, mostly those who are over 40, when we were at school before the word processing came into use in our country. The teacher asked us to write using a pencil, to have the possibility to change, to erase the mistakes and revise it. But who remembers the great many cases when we had a lot of unpleasant unforeseen cases, when little brother or sister bumped and the ink spread all over the paper. We all have had experiences of this kind. There have been cases when we had been successful up to the end, and quite of a sudden we discovered that we had forgotten an important sentence somewhere. So we had to write the letter again and again. Who does not remember to have written several copies and tearing them without finishing a single one? After all these experiences, writing had become something that you did not like anymore. What is more revising written work has been a tedious work for teachers. Later on with the introduction of the Word Processing a lot of this tedious work about spelling and the structure of the sentences and paragraphs is eliminated to some extent. Word Processing allows students to modify and refine their written work. Computer is the best invention for making people write, you can change, arrange, rearrange, rearrange...

Nowadays technology surrounds us everywhere, every moment. It seems almost impossible to imagine our life without technology. "From the moment people get out of bed in the morning until

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they crawl under the covers at night, they are in some way subjected to the influences of mass media. The extent and the effects of media influence are incredible" (Biagy, 1999). Technology is one of the important factors of progressing the teaching/learning process in the schools and universities especially for the English language teaching. It can help the teacher to present a better lesson to students. "In fact, media today have an enormous impact. They have become so important that it is rarely that we can live without them. Every morning we may wake up with the radio music in the background, or we play a tape while having shower or being dressed. Someone may run to the PC or laptop to check the mail or the news. For some people computers have become an obsession. On the way to school or work we may grab a newspaper and have a look at the headlines. At school, in the library we may consult a lot of books and magazines for our research project. At home we may watch television for a while, etc., etc. Each of these experiences puts us in contact with a medium, or channel of communication. In the years to come, media will become more pervasive. Understanding them and their influence will be crucial to wise use" (Biagy 1999). Integrating technology in the classroom for ELL is necessary for the following reasons:

### <u>Technology</u>...

- Increases students' engagement and creates active learners.
- Encourages individual learning and growth.
- Facilitates communication & peer collaboration.
- Prepares students for the real world.
- Creates more engaged and successful teachers.
- Addresses multiple learning styles.
- Offers differentiated supports, etc.

Equipment that add to the success of teaching are: the audio-lingual equipment, movie projectors, filmstrip projectors, OHPs, VCRs, record players, tape recorders, photocopying machines, laminators, computers, etc.

Nowadays the information is abundant, it comes through different sources, but we should try how to benefit from this information, how to learn about specific issues, how to become aware of problems, opportunities and resources, how to find issues we are interested in, how to identify the issues that have impact on us, etc. So, it is easy to get this information but it is difficult to choose and more difficult to bring it to the classroom.

"The mass media are the most pervasive features of modern life. They inform amuse, startle, anger, entertain, thrill, but very seldom leave anyone untouched" (Biagy, 1996). We should understand the media, the messages they give and their influence upon us, how to explore the information and bring it to the classroom.

Media are important because we get to know the world through using them; we understand the world and try to change it. It has to do with **what** to teach through media, **when** and **how**. "We live in a world where media are omnipresent. An increasing number of people spend a great deal of time watching television, reading newspapers and magazines, playing records and listening to the radio... The school and the family share the responsibility of preparing the young person living in a world of powerful images, words and sounds" (UNESCO Declaration on Media Education, 1982). The collective effects on society of all these media choices are tremendous; sometimes we are not aware of.

This paper tries to answer the following research questions: What is digital disruption? How does it help to improve skills in teaching through technology? How does the use of technology influence the English language learning? What are some of the challenges that teachers face while teaching in a low tech class? On-line learning vs. face-to-face learning, etc. To answer these research questions two projects were considered, viewing technology from the prospective of the past, present and future.

# I-In the past - Personal experiences as a Fulbright Visiting Scholar on 'Teaching through Media', 2002

For many years, Albanian teachers of languages relied mostly on traditional teaching methods and because of this, little attention was paid to speaking, communication, group work and alternative approaches. After the 90's the aim of the National Curricula for Language learning shifted from Grammar Translation Method (GT) to Communicative Language Teaching (CLT) methods. Textbooks were changed, new methods were introduced and more attention was given to speaking and reading. Today more and more language teachers in Albania are using CLT methods and the Student Centered Approach. They focus more and more on project-based learning, collaboration, creative and critical thinking and group work strategies.

Being a Fulbright Visiting Scholar was a real experience, feeling that hard work is rewarding. In the States you can touch the results of your work. The achievements are tangible. The aim of this Fulbright Program (2002) was: Teaching through Media and Communication Technology in Education. A that time this sounded somewhat a little bit ambitious for the situation of the Albanian educational system, but things were changing so fast in the world that nobody knew what's going to happen next. A book 'Teaching through Media' was written on this project, to provide teachers, student-teachers and students of English with practical and creative ideas. Another aim was to provide students with a lot of language practice through activities using newspapers, magazines, radio, TV, movies, books, Internet, etc., and tasks which develop reading, writing, speaking and listening skills. It would also help students to encourage reading English in general, both inside and outside the classroom, to promote extensive reading by giving the students the confidence, the motivation and the ability to continue their reading outside the classroom.

Upon the return in Albania, it was very important and challenging to bring all this experience to students and exploit different means of Media in the classroom. A new course was introduced, 'Teaching through Technology', in the Master program in Education.

Thomas Jefferson wrote in 1816, "If we are to guard against ignorance and remain free, it is the responsibility of everyone to be informed". There is a lot of information available today from various sources. Having so much information has created new challenges to staying informed. This information may greatly be used for educational values that are why we are trying to use it in the classroom. A questionnaire was conducted about Media. 460 people were asked, mainly university and high school students. The students asked had little information about some means of media. Very few suggested ways of using media in the classroom.

Learning and teaching through computers is not the only way to teach. It is an alternative approach that stresses the student's use of computers to solve real-world problems while learning. It is important to note that the aim should be not to have teachers integrate computers into every lesson as an aim in itself, but to integrate computers into lessons into meaningful manner that enhances student learning. The aim should be on developing new methods for using computers in the classrooms. Particular attention should be paid at this stage to the teacher's new role, responsibilities and qualifications to be prepared for higher technique classrooms. The teachers should be aware for the social responsibility they have towards their students in understanding and interpreting any kind of media.

At the beginning the teachers were a bit resistant to integrate technology in the classroom. University teachers tried to raise the awareness of the students that computer technology is used as an instructional tool to assist language learners to develop their language skills, complementing it with other teaching methods; thus creating an active learning environment, linguistically rich. Arsten (2017) states that technology enhances language input, improves learning and sustains learners' motivation.

There are a lot of pros and cons about the use of technology in learning languages. Numerous studies focus on the benefits of using technology in class to facilitate language learning. Other researchers claim that although technology is very important in class it doesn't necessarily create meaningful change in learning instruction (Flanagan 2016). Kovalchick & Dawson (2003) suggest that at the beginning or if used rarely, technology might also be a source of distraction. Using different forms of technology in class has become a necessity if today's educators, are going to effectively prepare and encourage new teachers to have in mind the impact the use of technology has on the students. "At the beginning some lack of confidence was noticed on the part of some teachers, but alongside with the passing of the time they have become more confident and have shown increased creativity in their classes, especially concerning the use of technology". (Development, 2022, TeachThought).

Some years ago it was thought that the computers would substitute the teachers but it did not work. Wenglinsky (2005) thinks that integrating technology in the classroom is beneficial not only for the learners but also for the teachers. The author claims that computers have not replaced teachers, but instead have given them an opportunity to be more productive.

# II – Present – Experiences about the implementation of the project, on 'Impact of Teaching English in Limited Access to Technology Environment', 2020

As said, technology is everywhere, but in fact there are still places and people who have little technological resources. This is the case of this project, financed by the US Embassy, Tirana. It aimed at enhancing English through fun activities, games and use of technology. This project was carried out in two schools which have students with very limited technology access both at home and at schools. For this reason, the project tried to give those students as much access to technology in the classroom as possible to make learning English fun, and at the same time researching how would the use of technology influence their learning.

In 2015 the Ministry of Education in Albania started to implement a new curriculum where digital competence was one of the seven competences, which is closely related to learning English through collaboration, fun activities, and games through technology. This became very challenging for both teachers and students considering that many schools cannot provide the technology to help in acquiring this competence.

Many schools in major cities are equipped with computer labs, photocopy machines, video projectors and other technology devices; however, this is not the same in all the schools. Even if some of the schools have computers, the devices might not be in good working condition and there might not be any internet connection. Because of this technology unfriendly situation, some teachers tend not include technology in class as much as needed. But, on the other hand, many teachers they do bring their own technological devices to work such as their phones, laptops and speakers in order to practice activities which require the use of technology, trying to make language learning enjoyable and exciting. Some teachers try to bring about significant changes. Part of this strategy was the implementation of the project "Teaching English to Underprivileged Young Learners", focusing on integrating the use of technology in the classroom. The project primarily aimed at assisting in giving student-teachers an opportunity to develop their language and teaching skills. At the same time, the project gave supplementary English lessons to the students through fun activities, games and the use of technology considering that almost all these students have very limited access to technology at home. For this reason, the teachers were asked to include the use of technology in almost every class they had to teach. Most of the students belonged to Roma and Egyptian communities and also to families with disadvantaged social and economic backgrounds. The teachers and student-teachers participating in this project researched a lot of sources considering the use of technology a right and a must.

More and more research emphasizes the benefits of using technology as a tool in the field of education. It is supposed to enrich English language classroom, supporting student-centered methodologies, students' thinking skills and motivation as well. Peters (2009) says that instead of learning about the world in the abstract, students now have the opportunity to experience the world firsthand through the power of the Internet. However, the use of technology in class might be challenging for both students and teachers; especially when it is introduced for the first time or even when resources are limited.

In an ideal 21st century classroom technological devices would be available for both teachers and students. Depending on the location teachers may be faced with the challenge of teaching classes with limited resources, lack of technology. Acknowledging how challenging it is to teach in a low tech-class, many researchers give advice on how to face this challenge. Barnett (2011) suggests that in order to best use limited technology resources to support learning and familiarize students with technology, the focus should be on how to be creative with the tools available, how to empower students by challenging them to teach one another, how to use students' personal devices and bring them in the classroom. Paper, printouts of materials you have used before, a laptop, an MP3 player, will help you in class and make the change more bearable. You will be able to show students pictures and videos using your laptop and conduct listening exercises using your music player".

Teachers can't always rely on a steady internet connection, consistent electricity, or working technology. Teachers and students have to think 'outside the box'. Teacher educators are constantly trying to assist students master the basic technological tools, they need when starting teaching careers. But we are aware too of real-world limitations not all schools can keep up with the rapid changes of technology, especially those schools that are in high poverty areas. Besides, if technology is used very rarely, it might be a source of distraction.

However, the results indicated that students are more enthusiastic and engaged in learning during classes when the activities include the use of technology. When available both students and teachers embrace the use of technology as a tool to make teaching and learning English fun and inclusive.

Furthermore, the results of the project were significant as they identified several major challenges that teachers faced while trying to use technology in class and they also tried to shed light on the impact technology has had on learners who have limited access to technology and might be considered as a milestone for further research.

Hamilton (2015) supports the idea that: When students use technology, they talk. The technology devices that were used as educational tools during the project were: laptop, CD rom, video projector, smart phones, speakers, etc. The activities included mostly: listening for main ideas, watching cartoons and videos, making phone calls, learning songs and chants, etc. The results indicated that students showed a higher level of enthusiasm and readiness to speak when

activities were based on the use of technology. The student-talking time was increased. The affective filter seemed to be lower and almost all the students engaged in speaking activities. This was not unexpected. Children are curious by nature and the use of technology in the classroom makes them even more curious and interested. Using CD rom in class to practice listening activities; fill in the gaps, cloze, listen for details etc. made students talk more during the learning process.

The use of technology encourages active participation and collaboration among young learners (Hamilton, 2015). Most of the activities practiced during the project, which included the use of technology, encouraged interaction among students through pair and group work. Associating technology with fun activities is another incentive for the young learners to participate more actively in such activities. Using smart phones to practice a phone conversation, greeting and introducing themselves, was a fun activity that students enjoyed very much. Furthermore, the use of these educational tools motivates collaboration among young learners.

One of the main challenges that teachers faced was that some schools do not provide some devices, so they had to bring their laptops, the speakers, and the video projector to class in order to facilitate learning. They often had to improvise and be creative.

Apart from the many challenges that the teachers faced, it is necessary to emphasize that this situation had its own advantages. A lot of fun activities were organized as: Word games, jokes, riddles, rhymes, songs, tongue twisters, etc.

This project focused on **two aspects**: the impact of using technology in a limited access to technology environment and the challenges the teachers faced while teaching in this environment. The importance of this project is that while other research in Albania focuses on the benefits of using technology in class, this project focused more on the challenges and it encouraged teachers to find ways to incorporate technology in class even if access to technology is very limited.

Apart from the challenges there was a positive aspect in this situation. The limited access to technology and the necessity to integrate it while teaching helped teachers become more creative and flexible, more organized and determined to accept the challenges. Considering the impact the use of technology has on teaching in a limited technology access class, the teachers were encouraged to use technology as often as they could.

### III – Challenges, problems and solutions for the future

Digital tools provide a range of opportunities for learners to practice their language skills at their own speed and level, to communicate and collaborate, work creatively and use language in the real world. Digital disruption is the change caused by, directly or indirectly, the development of new technologies. It is a change caused by many factors, generally related to new technologies that create new models with the objective of offering students more approaches for better language learning. So, digital disruption and its opportunities can offer to every one new ways how to use technology in education. Technology has great potential for digital disruption, but it's not the only driver of it. The need to introduce new methodologies can be the most important reason for this change. As a result, new technologies become means to achieve disruption. Creativity to do something in a totally different way can also be a reason for digital disruption. The teacher-centered methods\_were the focus before, but with digital disruption, the students are at the center of these strategies. Therefore, digital media have an essential role in encouraging, and maintaining this relationship.

Some processes that were not online before, such as meetings and remote work, now became digital, as happened with on-line learning due to Covid-19. Experience shows that nowadays we can use other forms of communication, such as: What's up, Viber, Telegram or other types of social media, promoting collaborative learning.

"Digital disruption has consequences in various sectors as in finance (bank transactions from the phones), health (tele-health medicine), hotels (on-line reservations), food (order food from anywhere) and communications. Platforms such as Netflix have changed the way audiovisual content, magazines, and newspapers are consumed, and reach more and more people" (https://www.pwc.com.au/digitalpulse.html, 2022). "On-line learning, chat-based collaboration, artificial intelligence are just some of the disruptive technologies that are causing a revolution in the education sector" (Dawsey, October, 14, 2022).

Education has always been about passing on knowledge and skill. For centuries, the resources of the teaching institution limited that task. A single professor can only know so much, and a library can only hold so many books. Online education connects students to the global resources of the internet. By taking advantage of that connection, students are benefiting from new forms of disruptive technology in education (Dawsey, October, 14, 2022).

Even before concerns about social distancing, online learning was growing in popularity. This style of learning has several advantages over in-class lecture formats. Well-designed online platforms acknowledge that students learn differently. They can incorporate multimedia presentations and lessons. The online format also recognizes that students learn at different paces and in different ways. Students can pause and replay videos for improved comprehension. Also, educators receive clear reports of student progress to intervene sooner when a student struggles.

One of the disadvantages of online education format is the lack of peer interaction. Children in online classrooms want to get to know their classmates. Chat-based forums allow for collaboration at a distance. Nowadays, educational institutions are discovering the value of online cooperation.

People who love technology can make the mistake of adopting it too quickly. New disruptive technology in education gives a broad range of possibilities. Before an organization tries to implement an e-learning solution, it must have a plan in place.

### Following are some challenges and solutions for the future

In order to use e-learning successfully we need to understand student needs. Age, educational level, and technological proficiency of the students should be considered.

**Define a successful learning outcome.** The desired outcome of the program should be considered. When success is a student who understands the big picture, the lesson can incorporate optional links to more detailed information.

The *needs of students and the desired outcome* will form the basis of an organization's elearning strategy. The teacher does not want to use learning tools to insult students with their simplicity or confuse students with their complexity (digitalpulse, Dec 28, 2020).

Teachers that are passionate about a subject might be tempted to include an abundance of information. For e-learning, it is better to **keep a narrow focus** to stay on track to reach the anticipated learning outcome. If a teacher wants to give students the ability to go deeper into a subject, the learning platform can include optional links and exercises. E-learning services will continue to grow in popularity and importance as more of the world seeks **online options for education.** 'A carefully-designed e-learning platform matched with a thoughtful education plan will lead to a successful e-learning program' (Chetu, 2022).

Websites and social media allow students to research and teachers to share, not only lesson plans, but digital resources, assessment data, and even whole-group away-from-school communication. Podcasts, multimedia such as music and YouTube videos, and other digital tools can be accessed here as well. The challenge is that the internet holds within it the biggest bulk of facts, data, and information a student needs to consistently access. While this isn't knowledge or wisdom, it's a start. A key is combining progressive teaching practices and learning models with safe social media and digital learning tool use that actually results in improved student understanding.

**Reading levels** are monitored via computer-based reading programs. Readers, especially struggling readers, can often make significant gains in reading levels throughout a year. For students to improve as readers, they need to read a lot. And they need to do so mostly outside of the classroom.

In the classroom, teachers are using **smart-boards and clickers** to not simply engage students, but to offer more diverse platforms for students to work with new ideas and demonstrate

understanding. While these were forward-thinking 10+ years ago, today (in most classrooms) the bulk of their functions could be replicated with smartphones and tablets. Google Classroom, Meet me, InSeconds, on-line workshops, iPads and even student smartphones have the potential to make information and resources immediately accessible to learners, and while that was always the case with textbooks, technology makes this information more easily searchable, richer with multimedia, and potentially social beyond the classroom (<a href="https://www.teachthought.com/">https://www.teachthought.com/</a>, Jan 24, 2019)

Digital technology provides children with a great number of opportunities to practice their English. Children growing up in a supportive digital environment are learning the skills that they will need for their future studies and careers.

On the other hand, the computer multimedia-assisted English teaching can **improve students'** ability of listening and speaking, develop students' ideas in English, and improve students' enthusiasm for communication. Students can learn knowledge and skills in a good environment.

Students can prepare presentations using PowerPoint and deliver them in webinar formats. This allows students to develop language and skills needed for academic presentations that will form part of their future academic study. By using technological tools, language students can tailor their language learning experience according to their unique strengths and weaknesses and get the best possible results (digitalpulse, Dec 28, 2020)

Internet contributes to language classroom through **bridging communication gaps.** It can also improve class community by facilitating communication outside of the classroom. Class websites or blogs can give students the ability to download assignments and materials, talk with other students, and share their work. (<a href="https://www.teachthought.com/">https://www.teachthought.com/</a>, Jan 24, 2019).

### **Conclusions**

Technology provides students with easy-to-access information, accelerated learning, and fun opportunities to practice what they learn. When technology is integrated in class the teachers and the researchers notice increased collaboration, the affective filter of the students seems to be lower, and they become more curious and willing to participate in all the activities. Computer simulations provide a stimulus for skills development, by offering both a focus for oral activity and different scenarios for learners to talk about. In addition, as grammar and vocabulary need to be taught in meaningful contexts, the Internet provides a platform with such possibility. One of the reasons why to use technology is its influence on modern English language which is clearly seen and touched in various ways and means. First, it adds lots of vocabulary. Second, it provides meaning to existing words and terms, such as the meaning of 'mouse' and 'keyboard' and so on. Language skills are easily integrated through multimedia. Introducing key terms before a lesson, utilizing pictures with new vocabulary words, using various media and digital tools, and assessing

background knowledge are all ways teachers can help engage English language learners with academic language. Students can use the internet for assignments, quizzes, presentations, researching all study relevant materials available on the internet. Not only students but teachers also get help from the internet. They can use the internet for their research.

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