IETC 2014

Digital divide within the context of language and foreign language teaching

Assist. Prof. Dr. İsmail YAMAN*

Ondokuz Mayıs University, Samsun, Turkey

Abstract

Digital divide, the existence of which is commonly familiar but unknown as a concept, influence the lives of human beings to a notable extent. Access to information and communication technologies is one of the most significant indicators revealing digital divide. Within this framework, digital divide has a remarkable influence in various areas ranging from education to economy and from art to industry. In this paper, the links between digital divide and language and foreign language teaching are explained taking the cause-effect relationships into account. Under its links to language, the factor of "English" and multilingualism are emphasized. Under its links to foreign language teaching, subjects like teaching materials, language testing, multiple intelligences and learning styles, and foreign language education for physically-handicapped students are discussed.

Keywords: digital divide; language; foreign language teaching; information and communication technologies

1. Introduction

Millenniums ago people lived on agriculture which took physical effort as its fundamental source. Everything was slower ranging from communication to transportation. Also, as a result of the very nature of conditions available at those times, the terms 'difference' and 'gap' cannot be said to have been in question within the framework of people's livings and relations to the extent it appears today. However, with the advent of Industrial

* Dr. İsmail Yaman. Tel.: 0362 312 19 19; fax: 0362 457 60 91.
  E-mail address: ismail.yaman@omu.edu.tr

Revolution in the late 1700s in England, the whole understanding of the world began to change and many practices in daily life from agriculture and manufacturing to communication and transportation turned out to have technical dimensions within only a few decades. Following this industrialization process, it did not take long to introduce the two most striking profiles for human beings: 'wealthy' and 'poor'. These profiles cut for 19th and 20th century people posed the core motive behind the most violent conflicts among human beings. Though, on the other hand this quite fast industrialization process was paving the way for a totally new era: Information Age.

In the late 20th century the world began to take on a completely different appearance. The term 'technology' initiated its reign and it has maintained its dominance at an increasing pace since then. This new age has turned out to be quite different from the preceding processes the humankind has gone through in that its speed of progress has been unbelievable. While a walkman was viewed as a great gadget approximately thirty years ago, the existence of pocket computers are taken for granted today. As a direct result of this characteristic of the new digital age, the gap among people around the world has undertaken distinct dimensions. Since such development of information and communication technologies (hereinafter ICTs) has brought out the well-known 'globalization', everything throughout the world has become closely interlinked. Therefore this novel conjuncture and its direct and indirect reflections have introduced many positive and negative outcomes for almost every field from education and medicine to sports and transportation.

2. The term 'digital divide'

Being a quite novel concept, digital divide can be roughly defined as the gap between those having enough access to ICTs and those who do not have. It is defined by Mossberger et. al. (2003: 1) as "the patterns of unequal access to information technology based on income, race, ethnicity, gender, age, and geography". As it is clear from the definition, ICTs constitute the basic criteria for the measurement of digital divide. As for the scope of ICTs, television, phone (mobile and landline), computer and access to internet can be seen as the main determinants. Digital divide can show itself in different contexts resulting from various factors. Considering this multi-faceted characteristic of it, the methodologies formulated to measure digital divide are quite changeable. Therefore, while measuring it the aim should be specified clearly and the criteria should be selected accordingly.

2.1. Factors behind the digital divide

Digital divide is resulted or exacerbated by some factors that also shape the way people live. These factors can be counted as income level, literacy, age, geography, gender, language, population, disability, and so on. These factors are, in most cases, inherited characteristics or conditions on which people generally do not have a right, indeed, an opportunity of decision-making. It is just like being born into poverty or prosperity. What is worse, they are rather hard to improve due to the multi-dimensional nature of the issue.

2.2. Basic contexts for digital divide

One of the most striking gaps in terms of access to ICTs arises between countries. From a more general perspective, an apparent divide can be observed between continents. Secondly, digital divide can arise domestically, between regions, areas and even individuals. As the socio-economic and educational factors can vary with different regions and areas in a country to a notable extent, level of access to ICTs cannot be homogenous in every part of a country. Actually, the issue has its roots at the individual level. Everybody has their own socio-economic and educational background and the needs and routines of people vary radically even within families. Thus the manner of people in terms of ICT use poses differences ultimately leading to domestic digital divide. Finally, time is another important variable in terms of the way digital divide shows itself. Change of time directly means change of things and so the inevitable result is the change of life. Hundreds of years ago, the divide was characterized by possessing tools like ploughs for agriculture. Likewise, just a few decades ago, televisions pioneered a radical change after radios and the digital gap displayed itself under having or not having access to this novel technology. However, today the major context for digital divide is marked by access to computers and internet. After several decades, probably, the world will see new technological discoveries access to which will constitute the gap between people's lives. Actually, time resembles a magic tunnel; as you get ahead, you come across totally new and unusual things

and conditions. It does not take long for new conditions to become solely a part of the near past. Similarly, digital gap throughout the world perpetually adopts different faces in accordance with the circumstances posed by the time.

3. Digital divide and language

Language is a highly complex and multi-faceted system composing the essence of people's lives. That is the origins of language dates back to the origins of human beings. A number of languages have existed throughout the history. While some of these have become extinct, some others have been able to exist up to now. In addition, some of these living languages are spoken by billions of people like English and Chinese whereas some address solely to thousands like Abkhaz and Adige languages.

Since language is so included in our lives, it is also an indispensable part of ICTs. The use of ICTs almost always requires a language system. On this point the difference between the languages set in the electronic devices or sources and the language the addressees of these ICTs speak pose a problematic situation.

3.1. Dominance of English

After the beginning of American dominance in politics and technology around the world, English began to be used as the lingua franca almost everywhere. It is widely used even in many countries where it is not an official language. This "universality" of English has been blamed for killing local languages and corrupting local and intact cultures. As a matter of fact, many words of English origin belonging to fields like technology, medicine, botanic, etc. have invaded and tarnished the originality and image of languages like even German, Turkish and French. Because most people believe in the necessity to have a good command of English in our century, it is likely to see more and more controversies as to the debilitating effect of English on other languages and cultures.

The interference of English lexical items is not the only problem faced by users of other languages. English is widely seen and used as the most prestigious language of science. The status of English as a science language is consolidated by the fact that it is commonly used as a prestigious language of education. For example, Middle East Technical University and Bosporus University, which are among the most reputable higher education institutions in Turkey, are teaching in English. Consequently, new scientific findings, major scientific articles and proceedings are almost all communicated to the world via English. Publishing and presenting such studies in English are thought to enable researchers to address broader masses of people and such studies are viewed as "more scientific". Thus, attaining access to new scientific findings and so planning future roadmaps in accordance with them requires the knowledge and usage of English. As a result, in many cases, people who cannot speak English stay unaware of recent scientific and technological developments or at best they wait for the translation of the researches even if they are conducted in their home countries. Because science and technology are inseparable realms, people without English knowledge and countries which do not make effective use of English are drifted towards a more severe digital divide.

In addition to the above characteristics of it, English turns out as the most prevalent language under the framework of computers and internet. As access to internet is the most fundamental indicator in terms of digital divide of nowadays, the language factor gains more importance on this point. Considering the proportion of web-pages by language according to the data of 2007, 45 % of all internet media is in English and it is followed by other European languages like German (5.90 %), French (4.41 %) and Spanish (3.80 %) (http://funredes.org/lc/english/inicio/). Similarly, latest data from Internet World Stats (2010) indicate that English is used in the internet by 536 millions of people and it is succeeded by Chinese (444 millions) and Spanish (153 millions) (www.internetworldstats.com/stats7.htm). It can be apparently deduced from both researches that English has an overwhelming rule in the realm of internet. That is, non-speakers of English have a rather limited scope in the digital world and they are left in a necessity condition that they learn English and only then get access to the innumerable benefits provided by internet.

The problem is worsened by the fact that most software and hardware belonging to computers and related technologies are designed and formulated in English. Until new computer-related devices and programs become

ready for the use of non-English speaker communities, they go through a challenging translation process. This relatively technical translation job not only retards the delivery of technology but also produces new problems. Since, most terms and concepts related with technology are of English origin and many other languages, particularly less spoken ones, do not have their equivalents. Moreover, words like format, update, wireless, etc. are preferred even in languages like Turkish which has their native equivalents. Therefore, components of key significance like user manuals and software instructions turn into an incomprehensible load of borrowed words and terms. The result is then a mounting digital divide again for less educated and those with a lower socio-economic status.

3.2. Multilingualism

The nature of human beings requires them to interact with each other. Throughout history, many nations, states, empires, colonies and communities have appeared in differing locations on Earth and members of these have all made use of a language system to communicate with each other and even to talk to themselves. Following the rise in interactions between people with activities like trade and war, it was understood that knowing only one language was not adequate. From this point on, the world began to see the cases of multilingualism and plurilingualism almost everywhere people live.

Even though multilingualism is a direct indicator of cultural and social wealth, it may become a disadvantage in dealing with digital divide in communities where the number of languages exceeds a few. While the rule of English is an undeniable case, it would be weird to expect that more than three languages in a country can receive equal shares in terms of technological developments. The existence of each more language means a new challenging translation process. Furthermore, every language in a multilingual system does not have the chance of being seen worthy enough for translation. In India and South Africa, for example, there are more than ten official languages and in addition to them dozens of other local languages. When a novel technological system or software enters into such countries, the official languages (even some of them may be neglected) are naturally given priority for the translation of related documents and systems. Thus, speakers of less common languages become digitally isolated and they are somehow forced to employ other prevalent languages in order to keep abreast of technology.

4. Digital divide and foreign language teaching

Each passing day brings a new paradigm and the conditions of effective learning are shaped in accordance with these new paradigms. The century we live in has introduced a number of facilities for the realm of education and most of these are closely related with the use technology. In the book "The World is Open" Bonk (2009: 51) lists ten openers that make learning more effective and prevalent in the 21st century:

Ten Openers: (WE-ALL-LEARN)

1. Web Searching in the World of e-Books
2. E-Learning and Blended Learning
3. Availability of Open Source and Free Software
4. Leveraged Resources and Open Course Ware
5. Learning Object Repositories and Portals
6. Learner Participation in Open Information Communities
7. Electronic Collaboration
8. Alternate Reality Learning
9. Real-Time Mobility and Portability
10. Networks of Personalized Learning

These points listed by Bonk (2009) put a strong emphasis on the integration of technology and computers in to education. This clearly shows the extent to which internet and new technological developments hold potentials for learning in the 21st century. In the same direction, Warschauer et al. (2000: 7-8) state that the integration of

the internet brings ALIVE (Authenticity, Literacy, Interaction, Vitality, Empowerment) to the learning process. However, the problem here is the identification of the extent to which learners have access to ICTs on an equal basis. As a mater of fact, digital divide remains as a serious threat in front of having equal learning opportunities. The results of a recent report by the World Economic Forum indicate that Turkey ranks 45th after Kazakhstan and Hungary in The Networked Readiness Index 2013 (http://www3.weforum.org/docs/GITR/2013/GITR_OverallRankings_2013.pdf). This statistical datum is simply related with the between-countries context and it shows that Turkey is not in a desirable place in terms of network readiness. Even developed countries face inequalities among students concerning access to ICTs (Castaño-Muñoz, 2010).

Foreign language teaching differs from second language teaching in many respects. First of all, learners do not have enough opportunities to have access to the authentic uses of the target language in foreign language contexts. This is mostly because of the fact that there are not enough native speakers around to practice and to be exposed to the target language to an adequate extent. Therefore, language learners and teachers need to exert extra effort to compensate for this disadvantage. Under this framework, the significance of making use of technological aids increases. If there is digital divide faced by the learners in different countries, regions, cities, schools, and even families it is hard to mention equal chances of developing foreign language skills. The importance of the use of ICTs for language learning and teaching purposes is discussed below under separate subheadings.

4.1. Instructional materials

The effective use materials is quite important in foreign language teaching. In order to raise the efficacy of the learning process, teachers can make use of internet, computers, smart boards, and projectors in the classroom. This is especially important in terms of raising the authenticity of the learning. Through internet, learners can have access to limitless authentic reading, listening, writing, and speaking activities and tasks. In disadvantaged schools, for example, listening activities are still done through cassette players, which challenges students due to factors like poor voice quality, the absence of a visual aid, and so on. However, a computerized listening activity provides the students with supporting visual aids, a perfect-like voice quality and even a script. Alongside their benefits to the improvement of language skills, the use of technological aids in the classroom can contribute remarkably to the motivation of the learners. Actually, this is not something completely related with the within-class conditions; on the contrary, these learning aids render learners autonomous and make learning free of time and place restrictions. The posh term, 'Computer-Assisted Language Learning (CALL)' puts a strong emphasis on this autonomy dimension with its direct reference of *learning* instead of *teaching*. Nevertheless, in order to benefit from these opportunities adequately, you have to possess these types of ICTs. A technologically-advantaged student, for example, can look up an unknown lexical item on a smart phone instantly while a technologically-disadvantaged student has no alternative than a paperback dictionary the use of which is relatively time-consuming compared with digital and online dictionaries.

4.2. Testing

Assessment is an integral part of all learning processes and language learning is not an exception within this context. Computerized systems enable language teachers to prepare more interactive and content-rich tests. However, the learning environments that suffer from digital divide are bound to paper and pen tests. Internet media do not only bring benefits for the teachers in terms of preparing quality tests, they also bring considerable contributions to the learners in the self-preparation process for the tests. Moreover, the international tests of English like TOEFL and IELTS are now carried out mostly on internet-based basis. If a learner is not familiar enough with computers and online systems, this constitutes a serious disadvantage. Even if such students are good enough at language skills, their inadequate digital literacy may put them in a difficult condition.

4.3. The recognition of multiple intelligences and different learning styles

In a foreign language class, it is very important to understand the different intelligence types of the learners in order to address their different learning preferences. It is wrong to expect every learner to have the same sources of motivation to learning. Through the recognition of different types of intelligences and learning styles in a single

classroom, the teachers can adapt the language and accompanying activities to suit the needs and intelligence types of the different language learners in their classes. The integration of technology can make teachers more powerful in addressing the distinct needs and expectations of their students. A video display, for instance, can enhance the motivation and learning performance of a visual learner while a nature-related video can contribute to both to learners with visual and natural intelligence. Every small addition will help the teachers touch more students in their classrooms and this holds a strong potential in enhancing the quality of learning. However, in a technology-deprived setting, teachers do not have many alternatives at hand in addressing the different expectations of the learners.

4.4. Foreign language teaching for handicapped students

A more crucial point as to the integration of computer and internet technologies into foreign language learning is the potential of helping people with disabilities by providing them broader range of opportunities during the whole process, thus ultimately assisting them in integrating more with life. Some specific websites and software that are specifically designed for the visually-impaired learners can be quite useful if there is a chance of having access to internet. Even screen readers can bring priceless uses to such disadvantaged learners in their foreign language learning process. The availability of a computer and access to internet can also save other physically-handicapped students from going and participating in language courses in person. Thanks to internet, they can benefit from the limitless language resources to develop different language skills in accordance with their own needs and preferences and even attend online speaking sessions. However, these are not so possible in settings where digital divide unfortunately shows itself.

5. Conclusion

In this paper, the term *digital divide* is covered within the context of language and foreign language teaching. After a general introduction with the basic factors behind and basic contexts for it, digital divide is linked to language under the titles of the dominance of English and multilingualism. Its relation with foreign language teaching is established under the titles of instructional materials, testing, the recognition of multiple intelligences and different learning styles, and foreign language teaching for handicapped students. It is obvious that digital divide is not something that can be ignored. In this paper we have looked at its apparent relations with language and language teaching, and it becomes clear that we all have to strive to bridge this gap in order to let language teachers and learners experience better and higher-quality processes. Technology is developing at an unbelievable pace and the benefits it brings hold a significant potential for everyone. However, if we cannot manage the struggle against digital divide, these invaluable benefits can easily turn into huge disadvantages for many people.

References

Bonk, Curtis J. (2009). *The World is Open: How Web Technology is Revolutionizing Education*. San Francisco: Jossey-Bass.
Castaño-Muñoz, J. (2010). Digital Inequality among University Students in Developed Countries and its relation to Academic Performance. *Revista de Universitat i Societat del Coneixement (RUSC), 7*(1).
Mossberger, K., Tolbert, C. & Stansbury, M. (2003). Virtual inequality: Beyond the digital divide. Washington, D. C.: Georgetown University Press.
Warschauer, M, Shetzer, H. & Meloni, C. (2000). *Internet for English Teaching*. Alexandria, VA: TESOL Publications.

http://www.internetworldstats.com/stats7.htm Accessed on August 26, 2014

http://funredes.org/lc/english/inicio/ Accessed on September 12, 2013

http://www3.weforum.org/docs/GITR/2013/GITR_OverallRankings_2013.pdf Accessed on May 3, 2014.