

WEB-BASED TOOLS FOR EFFICIENT FOREIGN LANGUAGE TRAINING AT UNIVERSITY

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Abstract

The need for the study has been caused by the overall processes of globalization, integration and informatization. The use of computer-aided foreign language learning/ teaching methods has been facilitated by recent advances in science and technology. One example is the appropriate use of a web-based learning (WBL) approach. The purpose of this article is to examine the impact of the corresponding web-based tools and resources on the whole process of foreign language training at universities. The methodological framework of this research work rests on the comparative approach allowing discovering and accumulating best practices and experiences of WBL application at universities for their further dissemination worldwide. A comprehensive analysis of the technical, pedagogical and managerial issues of WBL as of efficient technology for foreign language teaching of university students has also been provided as an integral part of the research. On the basis of the empirical approach testing, evaluation and control of usability, accessibility, availability and safety of some major WBL tools and resources have been performed. An experimental study has also been conducted in order to obtain and compare certain relevant data concerning the learning outcomes of students in a traditional versus web-based learning environment. The process involved 50 teachers and more than 300 students who were temporarily placed into separate learning environments, i.e. conventional (traditional) and web-based. The main result of the study is the design of the model of an efficient web-based student-centered learning environment that enhances the quality of university education in general and foreign language training in particular. The data driven analysis proved that most of the web-based tools and resources used at university could be regarded as both sustaining and disruptive technologies determined though equally by innovation and student-centered paradigm. As a sustaining technology WBL corresponds to the well-known and successful computer and Internet-assisted methods. As a disruptive technology WBL still lacks its complete realization, often has performance problems, seems to be known to a limited group of educators/ students and might not yet have a

proven practical application. Through detailed analyses and research the targeted data on advantages and disadvantages that WBL may bring to learning and teaching process at university have been gathered. The key result of this study show that the appropriate well-designed WBL-mediated environment enhances learning opportunities and helps students succeed via networking and collaboration where other methods may have failed.

Key words: web-based learning, technology, tools, resources, university, environment.

1. Introduction.

The new national and regional education standards call for all students throughout Russia to use every opportunity to become proficient in foreign languages. The use of common languages, especially the English language, is in great demand in such areas as trade, tourism, international relations, technology, media, science and research. Ironically, proficiency in English is not only a ticket to a bright and shining future with high-level or meaningful job or further career advancement; it is *inter alia* one of essential process skills (problem-solving, team working, critical thinking, etc.) so needed today to cope with the rapidly changing world (Kivunja, 2014).

Various foreign language programs are growing in response to the need to develop longer sequences of foreign language learning that will enable students to learn in, rather than to learn about, a foreign language and to graduate from universities with an acceptable level of language proficiency. Since foreign language education cannot rest solely on conventional solutions to overcome the shortages of methods, resources and tools to realize its goals, new types of learning activities challenge our thinking as to how learning environments might be facilitated and improved at universities (Ainoutdinova, 2015).

In recent years both academic researchers, educators and practitioners witness and show great interest in how computers and the Internet can best be used to improve the efficiency and effectiveness of language education at all levels and in both formal and non-formal settings. Different digital technologies are typically used here in combination rather than as the sole delivery mechanism for better foreign language acquisition by university students. The best examples of sustaining and disruptive technology-mediated methods of foreign language teaching and learning include: web-based learning (WBL), computer-assisted language learning (CALL), e-Learning, blended learning, open and distance learning, etc. (Ainoutdinova, 2015) All these ICT-enhanced (Information Communications Technologies) education activities should not be perceived as a substitute for conventional learning methods though they have dramatically reshaped traditional classrooms, fostered learner motivation and autonomy, created a wide range of options for authentic interaction in a technology-based language environment, etc. (Fakhrutdinova et al., 2016).

The analysis of the literature (Harshbarger, 2016; Jansen & Van der Merwe, 2015) on the topic allowed us to assume that some of the most common trends of the 21st century foreign language teaching and learning include: (1) e-Learning, web-based and mobile learning and other forms of online education - being considered by most educational institutions as clue solutions for continued educational success in a diigital era (Warschauer, 2007); (2) Employment of real world applications - which allow students to apply theories to realty and see them in action (Bolstad et al., 2012); (3) Gamification - with nearly half of the teachers admitting that they have at times incorporated online games into their classroom educational setting (Maloy, 2016); (4) Emerging and use of Open Source Textbooks, Massive Open Online Courses (MOOC), crowdsourcing based

on networkig, cooperation and collaboration, etc. (Lin, 2016); (5) Blended Learning – regarded as the foremost trend in education (Ainoutdinova, 2015), etc.

As we see the current trends are taking on an absolutely new shape as university teachers leverage modern ICT technologies and strategies to creatively deliver content in various ways to their students. As a result, the learning environment is constantly evolving and changing thus creating among other things new etiquette of learning and teaching, shifting the locus of control from the teacher to the learner and, according to International Society for Technology in Education (ISTE), bringing the world to the classroom (Jansen & Van der Merwe, 2015). No doubt, learning today isn't what it used to be.

The purpose of this article is to try to come to a more particular definition of a Web-based learning (WBL), to examine the main phases of its development, to discover what Web-based tools and techniques have been used and are being used for efficient foreign language training of university students in Russia; and to discuss the most recent questions regarding WBL. We will not focus on a technical description of hardware, software or networks, but rather on the pedagogical questions that teachers might consider while using web tools and resources in the classroom. For those interested in more detailed information on particular web-applications, specific web-mediated language programs and web-resources there are enormous options on the Internet.

2. Methodological Framework.

The methodological framework of this research work rests on the comparative approach allowing to discover and accumulate best practices and experiences of WBL application at universities for their further dissemination worldwide. A comprehensive analysis of the technical, pedagogical and managerial issues of WBL as of efficient technology for foreign language teaching of university students has also been provided as an integral part of the research. Our study has been supported by deep analysis and synthesis of the best scientific findings on the topic presented by prominent western scholars (Beatty, Bolstad & Gilbert, Khan, Warschauer, etc.). We also examined and analyzed some unique characteristics of the Web (McKimm, 2003; Maddux, 2012), main phases of the Web development from Web 1.0 to Web 3.0 (Kazlauskas et al., 2000; Khan, 2001; Warschauer, 2007), synchronous and asynchronous Web-based delivery methods along with the computer and online networking in language classrooms (Beatty, 2010), distinguished between these two methodological strategies and enumerated their common advantages and disadvantages (Cook, 2007). On the basis of the empirical approach testing, evaluation and control of usability, accessibility, availability and safety of some major WBL tools and resources have been performed. An experimental study has also been conducted in order to obtain and compare certain relevant data concerning the learning outcomes of students in a traditional versus web-based learning environment. (Relan & Gillani, 1997; Khan, 2005) The process involved 50 teachers and more than 300 students who were temporarily placed into separate learning environments, i.e. conventional (traditional) and web-based.

We took into account the broad international experience concerning Web-based learning through comparative research and study as the source of both sustaining and disruptive innovation to improve the system of university education in Russia. First we analyzed the general roots of WBL and then the existing definition of the term WBL as a part of its conceptual apparatus (Clark, 1996; Relan & Gillani, 1997; Khan, 1997; Kazlauskas, 2000; Khan, 2001; Warschauer et al., 2002; Bolstad, 2012). We paid special attention to the globally linked hypertexts referring to as the World Wide

Web (or WWW). In the end we examined with due diligence the basic components of a general Web-based course and describes some of the Web-based, namely Web 2.0 tools and resources, for practicing four language skills (listening, speaking, reading, and writing) and assisting language teaching and learning process. To sum up the topic we identified and enumerated most of advantages and disadvantages of a Web-based learning within a web-mediated university environment.

3. Results.

The main result of the study is the design of the model of an efficient web-based student-centered learning environment that enhances the quality of university education in general and fosters foreign language acquisition in particular. It should be a multilingual educational space of university based on inclusion of the native language and teaching of one or more foreign languages to students (usually English, German, French, Spanish, etc.). Such a space functions in the interconnection and complementarity of all its components that are traditionally integrated into educational process of university. The learning environment should also be organized in accordance with the changing learning needs and styles of modern students, usually referred to as the "digital generation Z", their preferences and capabilities (Warschauer, 2007). The learning environment of university should thus be organized with a due web-based support where educational tools and resources might function as adaptive, familiar and comfortable instrumental facilitators of the learning process (Brown & Lippincott, 2003).

The information and communication environment of university, mediated by direct quick access to computers and the Internet, should include the university's website, portal for electronic and distance education, digital libraries, etc. Classrooms and lecture rooms should be equipped with modern devices and multimedia equipment, adapted for work, with both external and internal web-based and other educational resources (Brown & Lippincott 2003). Moreover, academic community faces the challenges of development, testing and implementation in the aggregate of a set of innovative forms, methods, techniques, technologies and training tools adequate to the stated goals and objectives. Forms of foreign language teaching can be synchronous and asynchronous, face-to-face and distant, with the involvement of native speakers, with the participation of a teacher or with more independent work of students (King et al., 2015). The methods of instruction can vary from traditional, aimed at the development of 4 types of language activity (reading, speaking, listening, writing), to breakthroughs aimed at the formation and development of artificial bilingualism, cognitive, meta-subject and research qualities, critical thinking. The methods and technologies of education should, in this context, give unambiguous answers to the questions: "How and what to learn?" and "How to learn effectively with best outcomes?" It became obvious, that one of the most favorable option for learning foreign language for today's students, who have grown accustomed to smartphones, computers, tablets and the Internet, is a habitual friendly web-based university environment. At the same time, experience shows that, although this generation of students has clearly divided their lives, including communication and education, into off-line and on-line modes, most of them still recognize the need for teachers to participate in their training. Therefore, today mixed learning technologies are apparently very popular among the teachers and their students, being based on a combination of e-learning technologies integrated into the learning process with traditional classroom (face-to-face) studies and techniques (Ainoutdinova, 2015).

The data driven analysis proved that most of the web-based tools and resources used at university could be regarded as both sustaining and disruptive technologies determined though equally by

innovation and student-centered paradigm. As a sustaining technology Web-based learning (WBL) corresponds to the well-known and successful computer and Internet-assisted methods (Warschauer et al.,2002; King, 2015; Conley et al.,2017). As a matter of fact, web-based learning offers incredible opportunities to study nowadays (Khan, 1997; Warschauer & Kern, 2000). Despite of its popularity the notion WBL still remains unclear and confusing since it has too many names. WBL is inclusive of, and is broadly synonymous with such terms as multimedia learning, technology-enhanced learning (TEL), computer-based instruction (CBI), computer-based training (CBT), computer-assisted instruction or computer-aided instruction (CAI), Internet-based training (IBT), web-based training (WBT), online education, virtual education, virtual learning environments (VLE) or virtual learning platforms, m-learning, digital educational collaboration, etc. (Bolstad et al., 2012). These alternative names emphasize a particular aspect, component or delivery method. Web-based learning (WBL) typically involves some form of interactivity, including online interaction between the learners and their teacher or peers (Khan, 2001). Web-based learning (WBL) opportunities are usually accessed via the Internet and its associated tools and software. Web-based learning (WBL) includes numerous types of media that deliver text, audio, images, animation, and streaming video, and includes technology applications and processes such as audio or video tape, satellite TV, CD-ROM, and computer-based learning, as well as local Intranet/ Extranet and Internet-based learning. However, Web-based learning (WBL) is evolving to include an increasing use of a wide and diverse range of other technologies and tools. These include video and audio conferencing, mobile phones, data projectors, digital cameras, global positioning systems and interactive whiteboards. Information and communication systems, whether free-standing or based on either local networks or the Internet in networked learning, underlay many Web-based processes. Web-based learning (WBL) can occur in or out of the classroom. It can be self-paced, synchronous or asynchronous learning or may be instructor-led. Web-based learning is suited to distance learning and flexible learning, but it can also be used in conjunction with face-to-face teaching, in which case the term blended learning is commonly used. "Pure" web-based courses are wholly based on computer and online possibilities. In this case all the communication and learning activities are done online (Warschauer et al.,2002; King, 2015; Conley et al.,2017).

4. Discussions

4.1. *Web-based learning: roots and features*

WBL's roots and features are traced in Sociocognitive or Integrative Computer-Assisted Language Learning (CALL), which is currently reaching its upmost position in the pedagogical field of English as a Second or Foreign Language (ESL/ EFL) (Warschauer & Whittaker, 2002). CALL's powerful presence has fostered learner autonomy and a wide range of opportunities for authentic interaction in the target language in computer-based environment. Mark Warschauer, Heidi Shetzer, and Christine Meloni in their book *Internet for English Teaching* (2002) explained that computer technology help ESL / EFL classrooms come ALIVE (Authenticity + Literacy + Interaction + Vitality + Empowerment) (Warschauer et al., 2002). Thus, CALL resources have supplemented English teaching in: (a) authenticity - a vast amount of authentic materials are accessible to be further experienced by the learner; (b) literacy - students can master such skills as reading, writing, communicating (speaking and listening), researching and publishing for academic and occupational goals; (c) interaction - learners can enjoy meaningful communication with native and non-native speakers worldwide; (d) vitality - learners are boosted by their motivational needs to communicate in real time with freedom, flexibility, and without engaging in memorization of

grammar rules; and (e) empowerment – learners become autonomous collaborative learners, and teachers become coaches who teach how to learn/ how to construct new knowledge (Warschauer et al., 2002). Computer-Assisted Language Learning has indeed influenced education throughout the years. That is why CALL has developed from a traditionally self-contained, programmed type of application where learners were exposed to tutorials, drills, simulations, instructional games, tests, and controlled practices to a more human-to-human communication type of application where learners can potentially communicate with native speakers or any other language learner all over the world on a one-to-one basis or many-to-many basis without restrictions of time or place and with an access to the Internet (Warschauer & Kern, 2000; Jansen. & Van der Merwe, 2015).

Web-based Learning (WBL) is regarded as a powerful, flexible, and efficient tool for technology-enhanced learning of foreign languages today. Its integral components are the Internet and the World Wide Web (WWW or Web). It is also considered as the easiest and the most popular approach to higher education because of advanced computer and Internet technologies. Professor Badrul Huda Khan, President of a professional development institution McWeadon Education – first coined the phrase "Web-based instruction" in his 1997 book of the same name (Khan, 1997). Later Khan defined Web-based Learning or WBL as "a hypermedia-based educational program which utilizes the attributes and resources of the World Wide Web to create a meaningful learning environment where learning is fostered and supported" (Khan, 2001). Learning environment could be defined here as a sum of the internal and external circumstances and influences surrounding and affecting a person's learning (Khan, 2001). Dr. Bijan Gillani and Prof. Anju Relan, internationally known e-learning scholars and experts, define Web-based Learning as "the application of a repertoire of cognitively oriented instructional strategies with a constructivist and collaborative language learning environment, utilizing the attributes and resources of the World Wide Web" (Khan, 1997; Relan & Gillani, 1997; Hsu, 2017). Prof. Herbert H. Clark (Herb Clark), Professor of Psychology from Stanford University, in his book "Using language" defined Web-based Learning as "an individualized instruction delivered over public or private computer networks and displayed by a Web browser" (Clark, 1996).

All of these definitions have a common feature: the Internet or the World Wide Web. From a pedagogical perspective, WBL provides an added value to the learning of languages. It supports the shift from the traditional teacher-centered classroom to a learner-centered environment. Web-based learning is becoming an even more powerful interactive source that increases learners' knowledge and that guarantees quantity and quality of language input and output (McKimm, 2003). Web based learning is often integrated with conventional, face to face teaching. This is normally done via an Intranet, which is usually "password protected" and accessible only to registered users. Thus, it is possible to protect the intellectual property of online material and support confidential exchange of communication between students. With web based learning, the material can be linked to libraries, for example, for ordering books or journals, online databases, and electronic journals. These functions are particularly useful for research and other scientific activities (Warschauer, 2007).

4.2. Some unique characteristics of the Web

Prof. Roger D. Maddux from Iowa State University has revealed some unique characteristics of the Web, namely: a) information on the WWW – can be made interactive in nature; and b) WWW – often makes use of multimedia, including graphics, sound, and animation (Maddux, 2010). The Web provides more effective and efficient searching tools than traditional searches in libraries, and

the pages retrieved from the web are more attractive and appealing than traditional printed media. Moreover, multimedia capabilities probably make the Web more attractive to many people. In terms of pedagogical features of the Web (Khan, 1997), Web-based Learning (WBL) facilitates communication, enhances interactions, provides student-centered, self-paced, and collaborative learning, disseminates shared information, and reaches out to global communities (Khan, 1997; Maddux & Gibson, 2012). Research studies have also indicated that the long-term effects of learning via computers encourage student interaction and involvement in the whole learning process. The scholars (Kazlauskas et al., 2000) provided analysis and assessment of Web-based instruction and learning and came to conclusion that incorporating Web-based lessons and activities is a new way for teachers to utilize computer technology to enhance learning. So, it seems that the Web encourages another new way that students prefer to use while learning. Therefore, more and more educators have experimented with the WWW sites for learning in order to make their teaching more attractive to and more interactive with students. With the advent of Web 2.0 the Internet is viewed as a medium in which interactive experience, in the form of blogs, wikis, discussion forums, podcasts, social networking and sharing, etc. plays a more important role than simply accessing information (Warschauer et al., 2016; Cordes, 2017). The *Dearing Report*, formally known as the reports of the National Committee of Inquiry into Higher Education (a series of major reports into the future of Higher Education in the United Kingdom, published in 1997) – pointed out that through Internet networks it is possible to offer different forms of contact and access to many highly effective learning materials that were previously unavailable to many students (The Dearing Report, 1997 Bennett, 1997; Scott, 1998).

4.3. What is computer networking in a Web-based university environment?

In the world of computers, computer networking, in its broad sense, is the practice of linking two or more computing devices together for the purpose of sharing data. In information technology, networking is the construction, design, and use of a network, including the physical (cabling, hub, bridge, switch, router, etc.), the selection and use of telecommunication protocol and computer software for using and managing the network, and the establishment of operation policies and procedures related to the network (Kazlauskas, 2000; Warschauer et al., 2002; Brown & Lippincott, 2003). Computer networking in language classrooms can be categorized into two important technological and thus, interactive developments: one related to computer-mediated communication (CMC), and the other one related to globally linked hypertexts, both of which provide different ways for communicating and exchanging information (Kazlauskas, 2000; Khan, 2001; Warschauer et al., 2002; Brown & Lippincott, 2003; Beatty, 2010). These features can be seen clearly as follows:

Asynchronous computer-mediated communication – is a networking that usually takes place outside a real time and is often exercised through electronic mail (e-mail) for delayed, controlled and longer messages. Its delayed nature enables much of flexibility though. Students may send or receive messages and other information when it's most convenient for them, they do not need to be sitting in front of the computer all the time; besides, there is less pressure and participants have time to digest information and put it in a proper context and perspective. Asynchronous activities will take place whenever learners have time to complete them, for example, viewing videos linked to the course site, reading a textbook, writing a course paper, responding to posts added to bulletin messages board, etc. The controlled nature of asynchronous CMC enables learners to share information such as word-processed documents, sound files, pictures, computer software, and even

full-motion pictures as attachments. There are many ways to do this: on one-to-one basis, one-to-many basis, or many-to-many basis by being part of e-mail discussion groups. Another advantage is that some forms of asynchronous collaboration, such as e-mail, are ubiquitous these days, it's hard to find a co-worker, customer, business partner, consultant, or other party who doesn't have an e-mail account (Bolstad, 2012). The drawbacks of asynchronous collaboration are that they can lack a sense of immediacy and drama and there's less immediate interaction as a result. Sometimes people have to wait hours, days, and even weeks to get a response to a message or feedback on a shared document. The lack of immediacy means that information can be out of date by the time someone views it. This is especially true in light of the rapid pace of change in today's business environment (Bolstad, 2012; Ainoutdinova, 2015; Harshbarger, 2016; Hsu, 2017).

Synchronous computer-mediated communication – is a real-time networking, where messages are sent and received instantly, as if individuals were having a telephone conversation. This interaction occurs on-line, and can be either written down (text) or can occur through audio and video tools. If a class uses only writing-based tools to communicate, the only synchronous communication possible is a chat session. Here everyone gets online in the same chat room and types questions, comments, and responses in real time. Chatting can happen on a one-to-one basis or many-to-many, as in Internet-based chat rooms. Thus, synchronous activities may include: chat sessions, whiteboard drawings, and other group interactive work. If a class involves multimedia tools, synchronous communication might incorporate audio or video feeds to the computer. Some "online" courses require learners and teachers to get together at least once or sometimes several times in person, by conference call, or through closed-circuit television links. One of the advantages of synchronous communication is its immediacy, so learners can send and receive information right away. This closely resembles a face-to-face or telephone conversation between two or more people, being a more natural way of communicating. The sense of immediacy is likely to solicit a timely response from people. Moreover, synchronous communication is generally more interactive than asynchronous (Bolstad, 2012; Ainoutdinova, 2015; Harshbarger, 2016; Hsu, 2017). The downside of synchronous communication is that it is less popular and not many people really like to use it. Although instant messaging, chats, etc. are becoming more common, they are still not as ubiquitous as e-mail or forums. Also, synchronous communication is not as flexible as asynchronous one. The parties involved must be willing and ready to communicate at a given moment or the session is not held at all. Besides, some people like to think twice over what they want to communicate.

4.4. The role of a globally linked hypertexts in foreign language training at university

Globally linked hypertexts – are referred to as the World Wide Web or WWW. Hypertext is the underlying concept defining the structure of the World Wide Web, with pages often written in the Hypertext Markup Language (HTML). Hypertext is a text displayed on a computer display or other electronic device with references (hyperlinks) to other text which the reader can immediately access, or where text can be revealed progressively at multiple levels of detail. Note, that hypertext is not just flat text with highlights or paragraphs omitted during display, but rather, the text is hyper-structured with hyperlinks or other structures embedded inside a page, including hidden search words, to control the display and connection with other pages or hypertext nodes. The hypertext pages are interconnected by hyperlinks, typically activated by a mouse click, key press sequence or by touching the screen. Apart from text, hypertext is sometimes used to describe tables, images and other presentational content forms with hyperlinks. Hypertext – enables an easy-to-use and flexible connection and sharing of information over the Internet (Khan, 2005). By using the

World Wide Web and hypertext, students can search through millions of files around the world within minutes to locate and access authentic materials (newspaper and magazine articles, research, radio broadcasts, movie reviews, reports, newsletters, software, and web-publishing sites, among many others). The resources of the World Wide Web are unlimited, and the advantages it provides for language learners are tremendous. For example, students can publish their texts or multimedia materials, and these can be shared with partners or other language learners around the world. This new approach to Integrative CALL and its Web-based subtype can only reach its goal of providing authentic means of communication if learners are exposed to this technology responsibly (Relan & Gillani, 1997; Warschauer & Kern, 2000; Warschauer et al., 2002). Learners will not achieve the desired level of communicative competence by just using a computer. As with any language class, the use of networking processes for learning a second or foreign language should be well-designed, carefully-planned and many variables should be taken into account, as: students' interests, their individual styles and strategies of learning, students' needs and wants, as well as the major aims and goals of teaching and learning a second or foreign language, the applicable content, tools and resources. (Hsu, 2017). Likewise, the roles of both teachers and students will change into "teaching how to learn" (coach) and "learning how to learn" (autonomous learners) (Maloy, 2016).

4.5. The most effective web-based tools and technologies for foreign language training

Educational communities today are rapidly increasing their interest in various Web-based tools and technologies for efficient foreign language training and the enhancement of teaching practices. So, let's have a closer look at various conceptions and terms associated with the Web. The term *Web 1.0* - refers to the first version of the web, sometimes also known as the informational web, which developed from 1991 onwards, as distinct from web 2.0, the social web, which emerged around the year 2000. Web 1.0 was essentially a source of information created by a small number of authors for a very large number of users. It consisted largely of static web pages with little room for real interactivity. Thus, it functioned much like a large reference book, or indeed a whole library of reference books (Bennett, 1997; Khan, 1997; Khan, 2001).

Until the emergence of web 2.0, of course, we didn't need to talk about versions of the web: therefore, the term web 1.0 was created retrospectively after the advent of web 2.0 to help differentiate the informational web from the social web. It's important to realize that web 1.0 hasn't disappeared, though. It still exists but is now overlaid with the more social web 2.0. Compared to pre-digital education, web 1.0 offers advantages in terms of student autonomy, use of authentic materials and scenarios, exposure to multiliteracies, and a limited level of interactivity. However, the main educational uses of web 1.0 tend to fall into two categories: information retrieval (as in webquests) or rote training (as in drills). These correspond to very traditional models of pedagogy: a transmission model in the former case, a behaviorist training model in the latter. Notwithstanding more sophisticated uses (such as webquests for problem-based learning, or drill exercises for guided discovery) such activities are not so clearly aligned with the social constructivist model which underpins much of the educational use of web 2.0 (Bennett, 1997; Khan, 1997; Khan, 2001).

In contrast to Web 1.0, a term which refers to the original informational web, Web 2.0 refers to the social web, which began to emerge around the year 2000. It's a loose grouping of newer generation social technologies, whose users are actively involved in communicating and collaborating with each other as they build connections and communities across the web through such web 2.0 tools like: blogs, wikis, social networking sites, social sharing services, and many others. The term Web 2.0 itself was coined by Dale Dougherty in 2004 and popularized by Tim O'Reilly (Cook, 2007).

While web 1.0 refers to the original, information-oriented web, and web 2.0 refers to the social web, the term web 3.0 refers to the currently evolving version of the web, though there are different views of what it actually entails. It doesn't exist on any large scale yet but, depending on which view of web 3.0 we accept, it's possible to see the beginnings of a shift towards web 3.0 in a variety of recent developments. There is of course a possible overlap between various conceptions of web 3.0 (Khan, 2001; Conley et al., 2017).

Some see web 3.0 as the semantic web, also called the intelligent web, where software agents will use metadata to "read", collate and integrate information, enabling them to give what appear to be "intelligent" responses to human operators. (Note that this is not the same as artificial intelligence, where machines infer the meaning of web data as opposed to finding and processing it). This idea is associated with Tim Berners-Lee, the founder of the World Wide Web. The notion of the semantic web often entails an increase in personalization, with search engines, for example, tailoring search results to individual users, based on accumulated data about individuals' interests and preferences. We can see the beginnings of shift in this direction in the increasingly personalized search results returned by Google, or in the personalized newsfeeds on services like NewsTrust, which filters stories through a user's personal and social networks (Bolstad et al. 2012; Jansen & Van der Merwe, 2015; Conley et al., 2017).

Some see web 3.0 as the geospatial web or Geoweb, where location is used to index information. We can see the beginnings of a shift in this direction with geosocial services like Foursquare and augmented reality services like Layar. Indeed, in 2009, Tim Berners-Lee suggested that the concept of the semantic web fits neatly with the emerging Internet of Things (IoT). Some commentators believe that the future web will look more like a virtual world which is navigated by avatars (Bolstad et al. 2012; Jansen & Van der Merwe, 2015; Conley et al., 2017).

Below are examples of some web based, namely Web 2.0 tools and resources, for practicing four language skills and assisting language teaching and learning process:

1. Speaking: *Audacity* (<http://www.audacityteam.org/>) - a free, open source, cross-platform software for recording and editing sounds; *SoundCloud* (<https://soundcloud.com/>) - is an online or mobile platform that allows collaboration and distribution of audio recordings; *Eyejot* (<http://www.eyejot.com/>) - is a free account that allows for one-minute video messages (message receivers don't have to sign up to watch the message, so teachers can send messages to students and encourage them to continue and reply, while students can send one another messages to practice speaking and listening); *Skype* (<https://www.skype.com/en/>) - is a free technology that allows to make audio and video phone calls from any computer so as to "skype" to connect with experts, educators and other classrooms all over the world; *Skype in the classroom*, a "Microsoft in Education" project (<https://education.microsoft.com/getstarted>) - is a free online community to help teachers globally use Skype to help their students learn and share learning experiences using the standard free version of Skype; *GoAnimate* (<https://goanimate.com/>) - is a free animation software that lets users quickly generate videos that incorporate a selection of characters, backgrounds and technical effects; the default program converts typed text to speech in a range of languages and users can also incorporate a voice over in the target language as well; *Blabberize* (<http://blabberize.com/>) - enables to upload photos and animate the mouth so that it speaks; users can try out the program without registering first, the program needs a microphone or pre-recorded sound file to work, etc.

2. Listening: with *iSpeech Text to Speech* (<https://www.ispeech.org/text.to.speech>) users may simply upload any supported document in Word, PowerPoint, PDF, etc. or type in text directly and convert it to audio, it is useful for creating short dictations or podcasts; *Voices* (unfortunately shut down in February, 2017) – it enabled to create location based audio maps for students to listen to, then they could have embedded the published audio into a wiki or website and located recordings created by native speakers to embed too; users might have uploaded podcasts they have created to a podcast site such as PodOmatic, teachers could have shared them directly with their students or embedded them in a website, noodle or wiki, etc.

3. Writing: *Voki* (<http://www.voki.com/>) – in addition to creating with a voiceover, users can also type here in the text of their talk and the character will read it out; *Scribblar* (<https://scribblar.com/>) – is a multi-user tutoring platform or whiteboard with live audio, image sharing, text-chat, etc.; *Penzu* (<https://penzu.com/>) – is an online diary or personal journal users can access from any computer with the Internet connection, students can keep their journal entries totally private or share them by email; *Storyjumper* (<https://www.storyjumper.com/>) – is a story making site that enables learners to use a range of backgrounds, clip art and personal photos; *Newspaper clipping generator* (<https://www.fodey.com/generators/newspaper/snippet.asp>) – permits to write newspaper article in the target language, once the clipping has been generated a user can download it as a jpeg file to insert in a document; *Flipsnack* (<https://www.flipsnack.com/>) – is a web 2.0 tool that converts standard PDFs into a flipping book that can be shared by email, be embedded in a website etc.; *Recite This* (<http://recite.com/>) – is an easy to use poster creator, etc.

4. Reading: *Free ebooks - Project Gutenberg* (<https://www.gutenberg.org/>) – offers over 42,000 free ebooks, users may download or read them online; *Daily Free Books UK* (<http://uk.dailyfreebooks.com/>) – provides a popular service which sends the highest rated books from genres which users can specify by email every day; Duolingo (<https://ru.duolingo.com/>) – takes a different approach to learning new languages than just memorizing words and phrases, it allows learners to learn while translating sites on the web, etc.; *Wordle* (<http://www.wordle.net/>) – creates word clouds from text and develops students' critical thinking skills and creativity, etc.

For better outcomes self-paced courses are now being created by teachers often with the help of e-learning authoring tools. Self-paced courses can then be delivered in many ways including: Internet, Intranet or Local Area Networks, CD-ROM or DVD (Khan, 2001; Conley et al., 2017). Self-paced courses usually have these features: Multimedia (a mix of text, graphics, animation, audio and video to enhance the learning process); Interactivity (an instructional strategy that helps a learner practice what they have learned); Bookmarking (includes a user's reference to a document on the Web, which lets the learner stop the course at any time and restart it from the same point); Tracking (a tool, which reports the learner's performance within an e-course to a Learning Management System, LMS). Some self-paced courses may have these advanced features: Simulation (a tool providing practice with a mock-up of a real system); Online Experts (a tool providing access to experts through chat or online discussion); Multiple Bookmarks (a tool which designates one or more pages of the course to access while at work or study); Search (a tool providing search through a course to find information required to complete a task); Notes and Highlights (a tool which allows marking one or more parts of a course that contain the most important information), etc. (Brown & Lippincott, 2003; Beatty, 2010; Conley et al., 2017)

Self-paced courses are often created with e-learning or web-based authoring tools. The e-Learning authoring tool is a simple, easy to use tool for creating online courses. Its design allows teachers to

create rich media courses containing text plus images, flash animations, audio and video created with any favorite media editors and every course thus created will fully conform to the SCORM (Sharable Content Object Reference Model) standard (Brown & Lippincott, 2003; Beatty, 2010; Conley et al., 2017). The top free e-Learning web-based authoring tools include: *Writinghouse* (<http://writinghouse.org/>) – a tool that allows to automatically create citations, bibliographies, and works cited lists in the required format; *CAST UDL Book Builder* (<http://bookbuilder.cast.org/>) – this website allows its users to create their digital books and publish them for free; *authorPOINT* (<http://www.authorgen.com/authorpoint/>) – this website provides the easiest way to develop multimedia SCORM compliant content and share it across different platforms; *Dipity* (<http://www.dipity.com/>) – is the most user-friendly timeline creator which allows to create content, integrate social media, timestamps, text, links, location, audio, video, and images and easily share it with other users; *CourseLab* (<http://www.courselab.com/>) – is a hosted software for e-learning, which allows to create, manage, and publish high-quality learning content in a programming-free online environment; *Edmodo* (<https://www.edmodo.com/>) – is a private and free social media that has a goal of connecting all learners with the resources and people needed to help them reach their full potential; *Edublogs* (<https://edublogs.org/>) – is the most popular education blogging service which allows to create private pages and posts; *Scratch* (<https://scratch.mit.edu/>) – is a fun tool that allows its users to create stories, animations, and games, which they can later share online; *SmartBuilder* (<http://www.smartbuilder.com/>) – this tool allows its users to create interactive, custom e-learning material in the easiest way possible and become part of an effective interactive learning community; *Vyew* (<http://vyew.com/>) – is a tool that allows its users to instantly collaborate on documents, upload course content, meet with multiple people in real-time, give live presentations, conduct team meetings, etc.

5. Conclusion and Recommendations

The World Wide Web (Web) has made people rethink the nature of teaching, learning and schooling. It shifts their focus from teaching to learning, from teacher to student. More and more institutions of higher education are beginning to use the web-based learning strategies widely and benefit a lot from integrating them into their prospective plans and already accredited courses or distance learning programs. There are some evident advantages that web-based technologies bring to learning and teaching of foreign languages (e.g., English) in higher education. Some of them are:

1. *An appropriate learning environment* – helps learners succeed where other methods have failed. Basically, web-based learning environments are designed to offer more variety in features related to network information retrieval systems, electronic communication (e-mail), up-to-date course resources, interaction via newsgroups or forums (online discussion groups), multimedia lecture presentations and demonstrations (net meetings, conferencing), and course management based on cross-platforms and varied software. From the learners' perspective, learning environment becomes comfortable and attractive due to: (a) the presence of the Web and computers (familiar and integral of most students' lives); (b) employment of universal language manipulated by all Internet users (English, being the target language of their course of studies as well); (c) 24 hour access to authenticity (authentic language resources and materials) with no limits in retrieving and practicing different web-links over and over again, etc. (Bennett, 1997; Kivunja, 2014; Conley et al., 2017).
2. *Web-based programs, such as tutorials, simulations, exercises, learning tools and educational games* – are highly interactive and provide activities that students need to develop for their understanding of

other's ideas and articulation of their own, which in its turn provides learning and understanding via complex problem-solving (Khan, 2001; Bolstad et al., 2012; Harshbarger, 2016).

3. Web-based learning – can also provide flexibility in teaching and learning, free from the physical boundaries of classrooms and the time restraints of class schedules. The student can study independently online, communicate with the facilitator or coach, submit assignments, have access to course guides electronically from course web sites, and communicate real time (synchronously) with teachers and classmates for questions and discussions in chatting rooms (Khan, 1997; Bennett, 1997; Scott, 1998; Khan, 2001; Cook, 2007; Beatty, 2010; Kivunja, 2014; Conley et al., 2017).

4. Web-based learning – can also help students acquire better communicative skills through negotiating, persuading, clarifying meaning, requesting for information, exchanging ideas, discussing, asking questions, etc. It also enhances learning opportunities to shy students and those with disabilities (Khan, 2001; Warschauer et al., 2002; Bolstad, 2012; Hsu, 2017; Cordes, 2017).

5. Web-based learning – contributes to a global critical thinking a lot. International collaborative projects provide wider opportunities for students to contact and communicate with other people outside their own country, incorporating intercultural knowledge, awareness, tolerance, etc. Students have opportunities to observe, identify, and recognize elements of their own and other cultures, compare and contrast, negotiate meaning, tolerate ambiguity, effectively interpret messages, limit the possibilities of misinterpretation, defend one's point of view while acknowledging the legitimacy of others', etc. (Khan, 2001; Warschauer et al., 2002; Hsu, 2017)

Despite the advantages, some arguments related to web-based learning are still in debate. When designing web based programs, the learners' needs and experience must be taken into account. Appropriate technology and reasonable computer skills are also needed to get the best out of web based or online learning. All students should be involved, no one being left or isolated (Hsu, 2017). Programs and web pages ought to be designed to accommodate different technical specifications and versions of software. Thus, teachers must always keep up-to-date and be aware of various technological innovations, which in its scope may seem to be too difficult in technical terms as well as extremely time-consuming (Kivunja, 2014). Reliable fast networks and telephone services are currently required, but they may not appear in another few years. On the one hand, web based programs may, for example, encourage more independent and active learning and is often an efficient means of delivering course materials. It is frustrating for learners, however, if they are trying to work on the internet with slow access or cannot download images or videos they need (Kivunja, 2014; Ainoutdinova, 2015; Hsu, 2017). Access to appropriate computer equipment can be a problem for some students and they find it frustrating if they cannot access graphics, images, and video clips because of poor equipment. Thus, the necessary well-supported infrastructure of a web-based learning environment must be designed to be available to everyone (Khan, 2001; Beatty, 2010). There is a great deal of high quality information and instructions available on the web, but there is also an avalanche of false and even harmful information and poor instructions too, while learners often have difficulty judging the quality. Since affordable Information can vary in quality and accuracy, so guidance and signposting is needed (Warschauer, 2007). Besides, though many young people find it fascinating to explore the web, some waste much time doing so and playing games instead of learning much. Moreover, the costs of web-based instruction are currently still too high for widespread use in language education, but may be justified to supplement the curriculum in high priority areas for which there are not enough qualified teachers (Hsu, 2017).

The topic of this article may be useful and informative for a wide range of professionals including university teachers, professors, educators, scientists and researchers who are interested in any new approaches and innovative educational technologies aimed to foster and enhance foreign language training of university students. Teaching and learning are two sides of a continuing challenge that requires time and commitment (Bennett, 1997). Today, in the 21st century, we realize that technology as such is not the answer to all our questions and problems. What really matters is how we use technology. Today academic communities worldwide are rapidly increasing their interest in various web-based tools and technologies for e-learning advancements and enhancement of teaching practices. So, it generates various conceptions and terms associated with web. It is evident at the same time that neither the Internet nor computers will ever substitute teachers 100% (Khan, 2001; Warschauer et al., 2002; Bolstad, 2012; Hsu, 2017; Cordes, 2017) but they may offer new opportunities for better language training of university students, make the process of language acquisition significantly richer, more interactive, collaborative and meaningful, thus playing a key role in the reform of any country's educational system (Ainoutdinova, 2015).

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