Tatiana Tregubova, Irina Ainoutdinova, Vadim Kozlov

Transformation from Conventional Methods to Web-based Technologies: Enhancing FLT/ FLL Practices in Russian Universities

Abstract: This chapter analyzes the ongoing transformation of the methodology of teaching and learning foreign languages (FLT / FLL) and the changing needs, roles, skills and competencies of teachers in Russian universities. The evolution of the FLT / FLL paradigm spans from conventional methods to web-based technologies and takes place in the context of globalization, informatization and digitalization. Major disasters, including the COVID-19 pandemic, are also having impact on education systems around the world. This contribution was carried out in the framework of contextual, social, pedagogical, integrative and competency-based approaches.

Keywords: Foreign language learning and teaching, digital learning, MOOCs, language learning approaches and methods

Introduction

This Section provides an overview of the main multicultural trends and recognized methods of FLT / FLL at the turn of the 20th – 21st centuries, applicable in Russia (Direct, Audio-lingual, Immersion, Total Physical Response, Communicative, Task-based Learning, etc.).

The scientific and technological revolution of 1940–1970, which entailed an explosion of information and the need for its transmission (Perez 2003, p. 224), led to the involvement of a large number of Russian scientists, teachers and educators into scientific and practical collaboration, cultural and business contacts with international partners around the world. Communication in those days was limited to mechanical and analog electronic technologies such as old landline telephones, audio tapes, photocopiers, etc. Digital revolution of 1975 to-the-present has accelerated the transition of human civilization from its industrial phase to the technologically advanced stage of development (Bell 1979) and has filled the living space with digital devices and really fast communication technologies. Computers, laptops, microprocessors, memory chips, digital cell phones and the Internet have revolutionized every aspect of our lives, including the way we teach, learn and communicate (Castells 2009, p. 656).

In the context of expanding globalization and digitalization, the need has arisen to create new, faster and more reliable communication channels for dissemination and exchange of scientific knowledge and best practices among stakeholders living at a distance. Data transmission is now carried out through various telecommunication networks, including the Internet. Educators and teachers, as well as members of other social groups, began to establish, maintain and develop professional and interpersonal contacts through social sites, online associations, and professional groups, communicating in different languages from different countries.

Adequate networking in such multicultural environment is unthinkable without proper means of communication, the main of which is language. Likewise, it is impossible for scientists and researchers to maintain useful contacts without sufficient knowledge of foreign languages. It is expected that specialists who are fluent in foreign languages will use them for various purposes: in research work, when working with authentic sources that allow them to read, extract and analyze information, in joint projects with foreign partners, when communicating on social networks or speaking publicly in front of a foreign audience without an interpreter, etc. Given that knowledge of at least one foreign language is becoming a social, cultural and digital demand, there is an urgent need to popularize its value, improve the quality of teaching and motivate adult learners to study it on a regular basis and in the frame of a "new culture of learning and teaching" paradigm (Warschauer / Kern 2012, p. 256).

It becomes obvious that a foreign language is becoming a necessary component not only of the educational system, the scientific sphere, but also the key to successful professional growth and development of any competitive specialist. The possibilities of a foreign language are expanding, turning it into: a means of foreign languages teaching and learning (FLT/ FLL) and continuous individual development; a means of access to information in foreign languages, which is associated with the supranational nature of scientific knowledge, which has become the property of all mankind; and a means of implementing intercultural communication in the context of people's professional and daily activities (Moeller / Catalano 2015).

Implementation of the Bologna Declaration, Russia's disposition to enter into the world and European educational environment led to intensification of intercultural communication and significantly increased the importance of FLL for specialists in various fields. Today, the key task of FLT at the university is the formation of the ability to use foreign languages as a tool for communication in the dialogue of different cultures and civilizations of the world. A foreign language is also seen as an instrument for European and global cooperation, and as a means

of bilingual and multicultural self-development. This is especially important in modern realities, when fusion of people, languages and cultures has reached its climax and the digital technologies have contributed to this. At the same time, there is an acute problem of fostering tolerance, interest and respect for other cultures and overcoming feelings of irritation from redundancy, insufficiency, or simply the dissimilarity of other nations and cultures (Phillips 2007).

Some Recognized Methods of FLT / FLL in the 20th–21st Centuries in Russia

Until recently, FLT/ FLL in Russia was mainly about reading texts. At the university level, for example, this process was carried out based on reading outdated newspaper articles, when students had to read "in thousands of words" incomprehensible texts, which did not correspond to either the theme of their future profession or the requirements of the day. Communicative initiatives were limited to memorizing primitive "topics", such as: "In the hotel", "In the restaurant", "At the post office", etc. With this method, only one language function, the information or messaging function, was implemented, but in a very narrow form. In addition, only one passive, recognition-oriented skill associated with the foreign language proficiency – reading – was in sight, and the other three skills – writing, speaking and listening comprehension – were totally ignored (Ter-Minasova 2013).

FLT/ FLL, however, cannot be narrowed down only to transfer of certain signs, rules, their combination or a fixed set of language stereotypes necessary for communication, because, along with mastering the language, the learner must penetrate into a different system of values and life guidelines and integrate it into his/ her own picture of the world. Consequently, it is necessary to search for alternative educational methods and technologies that could optimize FLT/ FLL and make it possible to form a bilingual or "secondary linguistic personality" with linguistic, communicative and intercultural competencies (Ainoutdinova 2017, p. 456).

It is important to note that in the entire history of humanity many different educational methods have been developed. At first, all methods of FLT were borrowed from programs designed to teach the so-called "dead languages" – Latin and Greek, within which almost the entire educational process was limited to reading and translation. This method, the foundations of which were laid by the enlighteners at the end of the 18th century, took shape by the middle of the 20th century under the name "Grammar-translational method". In the classroom, students mainly did grammar exercises and translated texts into a foreign

language and vice versa. The teacher explained grammar most often in their native language, scolded learners for mistakes and tried to correct them all to the last. If the student could not correct his mistake himself, the teacher did it for him (Ter-Minasova 2013).

According to this method, language proficiency is based on grammar and vocabulary. Hence, with time, students formed the idea that a foreign language is a set of boring and difficult grammatical rules or some long lists of words that need to be memorized. As for the text, these usually were the so-called artificial texts, in which almost no meaning was given to the content, according to the principle – "it is not so important what you say, it is important how you say it". As a result, students received knowledge about the language and its structure, and not the language itself, not being able to conduct a full-fledged dialogue. The main disadvantage of this method was that it created ideal prerequisites for the emergence of the so-called language barrier, since a person in the process of learning stopped expressing himself/ herself and began not to speak, but simply to combine words by means of some rules and memorized clichés (Ainoutdinova 2017, p. 456).

In the mid-1950s, it became obvious that the traditional method did not meet the requirements of linguistics that had formed by that time. The result was the birth of a huge number of alternative methods and techniques (ibid.). Speaking about non-traditional or alternative methods of FLT/ FLL of that period, two main features should be distinguished that characterize them. First, some of these methods were based on the principles of suggestopedia; they used the effect of over-memorization, when a person perceived and assimilated information without critical understanding (for example, the works of Bulgarian scientist G. Lozanov) (Kharismawati 2014). These methods are also based on the work of the subconscious. For example, the widespread "25 frame" method is nothing more than a subconscious perception of information in the form of pairs of words in Russian and English. However, practice has proven that such a variant of simply memorizing the meaning of words cannot help to speak and duly communicate (Bancroft 1998).

Another example of a highly controversial method is learning languages while sleeping. The possibility of learning foreign languages in a dream, according to the supporters, is not a fiction at all but it requires an alliance between a teacher and hypnologist. The learning process is based on the brain's ability to remember and reproduce. A person recalls, for example, all pieces of English speech that have ever been heard – phrases from songs, films, scraps of school knowledge, and so on. After all, our brain remembers absolutely everything that we saw, heard and felt, only most of this information is hidden so deeply that in the normal state

we cannot extract it. However, under hypnosis, all these "masses of information" return to consciousness and become active. Thus, a large number of new words could be memorized without any difficulty. This method can only be compared with teaching in early childhood, when memory, like a sponge, instantly absorbs everything heard and seen. Therefore, the knowledge gained in childhood or under hypnosis can also be forgotten only under hypnosis (Batterink et al. 2014). Secondly, these unconventional methods are most often focused on a quick and intensive task of language acquisition, where theoretical aspects are either minimized or absent altogether, and the emphasis is on live communication, for example, spoken language, without special rules (Ainoutdinova 2017, p. 456).

In Russia, there are currently about 20 different well-developed and tested methods of FLT/ FLL. Each has its pros and cons that limit its use. Let's have a broader look at some of these methods. In the late 1970s – 1980s, there was a boom in suggestopedia. The method itself used by Bulgarian psychiatrist G. Lozanov means "treatment by suggestion or by hypnosis". With regard to FLT/ FLL, suggestopedia attaches great importance to the psychological mood and emotional state of students while learning. The role of teachers is extremely important and complex there: they must create an atmosphere in which there is no place for shyness, timidity, fear of mistakes, and in which self-confidence increases. This technique actively uses music, movements, stage actions, etc. (Bancroft 1998). Unfortunately, this method often took a caricatured form in Russia, mainly due to the insufficient qualifications of teachers. At present, discussions about the suggestopedic approach have become rare and have lost their former tension, although some further research on the methodology of pedagogical suggestionology and its application in education continues in research laboratories in Bulgaria and some other countries. These ongoing studies are likely to indicate that some of the conceptual assumptions about suggestopedics for FLT/ FLL do have value (ibid.; Batterink et al. 2014).

The systems of FLT / FLL by G. Kitaygorodskaya and I. Shekhter were developed partly under the influence of G. Lozanov's ideas. The main point of language learning, according to G. Kitaigorodskaya, is "learning through communication" (1986, p. 176). Students work in groups of 10–12 people under the guidance of a teacher. In the classroom, role-playing games are conducted with lots of movement, and specially selected music. The main goal is to learn to communicate in foreign languages, and get rid of the language barrier. However, the method of Kitaygorodskaya, called the method of "activating the reserve capabilities of the individual and the team", provides only group training. In addition, it is not suitable for students who begin learning foreign languages "from scratch", since in order to be actively involved into the process as an "equal player", it is

necessary to have at least a passive basic level of foreign language proficiency (ibid.). Shekhter's method is based on emotional and semantic language acquisition. Igor Shekhter is an ardent opponent of learning languages by "constructing sentences using patterns", which, by the way, is one of the fundamental elements of the grammatical-translation method. Shekhter's ideas about FLL (he calls it "mastering") are at odds with the traditional ones. His theory seriously contradicts the provisions of the classical methodology. Shekhter's method is based on the hypothesis that a foreign language should be perceived as a native one. To achieve this goal, students are first taught to express their thoughts in the form of statements related to various hypothetical situations, and only later grammatical materials are added to serve as bridges between three levels of training. It is assumed that after the first stage students will not get lost in the country of the studied language, after the second – they will not get lost in grammar in their own monologues, and after the third stage – they will become equal participants in any discussion. However, Igor Shekhter's "emotional-semantic" method is not suitable for students under the age of 16, since students are expected to "master the basics of grammar on their own", and in the classroom, they are expected to express their thoughts within the framework of hypothetical situations, which is not so easy. However, Shekhter declares that free language communication between the teacher and the student is possible from the first lesson (Shekhter 2005).

The "cognitive-motivational method" by linguist and psychologist Denis Runov is based on teaching grammar using graphic symbols and memorizing new words using the method of direct associations (Zelenin / Kovalyova 2011). This method can hardly be used with students under the age of 14, as it requires a sufficiently developed student's thinking; thus, this method is doomed to an age-limited audience. The author declares the creation of original approach to FLT based on unique ways of presenting information via technology for compressing and presenting it, and special ways of learning words by using memory support methods. According to the author, any person can master foreign languages from scratch using this method at a high level in just 8 months. There is an opinion that at the moment teaching foreign languages using this method is distorted in Russia in comparison with the initial postulates that were put forward by Denis Runov himself (ibid.).

Mikhail Shestov's methodology "Blitz Courses of English – Supreme Learning" can only be used for individual training (2007, p. 66). The course provides a high-speed integrated study (mastering "from scratch") of a fluent oral and written language or improvement of any level of English proficiency with parallel mastering of the system "How to teach yourself to learn" (an

effective step-by-step instruction for mastering any skill or subject developed by M. Shestov). Being engaged in "Supreme Learning", doing for 1–3 months simple exercises designed in accordance with the elementary scheme: "key phrases correctly pronounced – are correctly spelled or recorded", any student, according to the author, will simultaneously learn how to understand well any oral or written texts, speak correctly and write well in English, while the student is completely relieved of the need to think, memorize or make at least any elementary efforts. The method evokes ambiguous assessments and justified skepticism.

Vladislav Milashevich's method made it possible to master the grammatical structure of the language in a very short time (up to 30 hours) (Bronzova 2013). This knowledge is supposed to be sufficient to learn how to quickly and competently translate texts of any complexity, in particular, scientific and technical literature. This method was developed only for Russian-speaking students who have already studied the chosen foreign language at least at school. The disadvantage of the method is that it includes only the grammatical aspect of a foreign language. Thus, in order to learn how to speak a foreign language, learners would have to take another course. Techniques created according to Milashevich's method are from time to time practised in Russia, but only to provide mainly basic knowledge in the structure of the language, grammar and vocabulary (Bronzova 2013).

Next, let's examine the so-called "method of immersion" (suggest-pedia). According to this method, a student can master a foreign language by becoming (at least for the period of study) a completely different person. This method involves the student's refusal to communicate in his/ her native language, in addition, the student chooses a different name for himself, associating himself with a completely different person – to impersonate a fictional native speaker (Wilkinson 1998). As a result, the illusion is created that learners are in the world of the language being studied; they completely relax, take on other roles and their speech becomes as similar to the authentic as possible. A session of "immersion" in a foreign language environment is one of the variants of the suggestive technique. This technique is believed to have a special effect on a person and liberates him/ her. However, the same technique is used in the systems of Kitaygorodskaya and Shekhter. The economic realities of today make this teaching method inaccessible to most learners due to the high cost of courses. It is also necessary to clarify that not a single methodological approach has been subjected to such distortion and even perversion as the method of "immersion". Probably, this is because "immersion" requires the highest professional level from the teacher, which few can match.

Another method, called the "Silent way" (the method of silence) appeared in the mid-60s. Its principle of FLT was as follows: "knowledge of the language is inherent in the one who wants to learn it", and, most importantly, teachers must neither interfere with the intentions of students nor impose any obligatory point of view on them (Stevick 2000). Following this method, teachers initially do not say anything, and only pronunciation is trained at the first level. Teachers use complex color tables, in which each color or symbol denotes a certain sound, and in this way new words are presented. For example, to "say" the word table, you must first show the box for the sound "t", then the square for the sound "a", and so on. Thus, by manipulating all these squares, sticks and similar symbols, the student works out the material. What is the advantage of this method? Since the level of the teacher's knowledge has practically no effect on the level of the student's outcomes, it may turn out in the end that the student through learning with due diligence will know the language better than the teacher will. In addition, throughout the entire educational process, students have all the opportunities to freely express their thoughts. This method can be attractive for high-tech adepts.

The next way to learn foreign languages appeared in the late 1970s. It is called "Audio-lingual method" (audiolinguistic method). Its essence is that at the first stage, students repeat over and over again what they have heard after the teacher or phonogram. And only starting from the second level, students are allowed to speak one or two phrases from themselves, most of the other practice consisted of endless repetitions (Mart 2013). With the advent of the audio-lingual method, language lab courses and language lab classes have become very popular where students did endless and boring laboratory work with headphones: for example, it was necessary to make mechanical replacements in the sentence structure, etc. Classes, as a rule, were also both boring and unpromising with little or no feedback. The proponents of the method believed that students need to memorize the grammatical and phraseological structures by repeating them many times in ready-made educational dialogues, and then, according to experts, students will use them automatically at the right time and right place. However, the experience of many trainees having used this method shows that in a real situation, as a rule, a person cannot use a phrase or speech pattern that he/ she once learned that way.

Another interesting method is called "Total-physical response" (TPR or method of physical response). The basic rule of this method is: "you cannot understand what you have not passed through yourself." According to this theory, students at the early stages of learning do not say anything (Oflaz 2019). First, they receive a sufficient amount of knowledge, which becomes their passive

store. For about 20 lessons, students constantly listen to a foreign speech, read something, but do not speak a word in the target language. Then, in the process of learning, there comes a period when students should already react to what they heard or read – but they can only react with actions. Usually, training starts with requests for physical movement. For example, when students learn the word "get up", everyone gets up; "sit down" – they sit down, etc. Only then, when students have accumulated a sufficient amount of information (first they listen, then move), they become ready to start talking. This method is attractive, first of all, because students feel comfortable in the learning process, as they communicate not only with the teacher, but also with each other. The necessary effect is achieved by the fact that a person passes all the information received through himself/ herself (ibid.).

Today the world-recognized "communicative method" (Canale / Swain 1980, p. 1) is widely used in Russia. For English learners, a different name is often used – "Oxford" or "Cambridge" method, as it was jointly developed by linguistic teachers and psychologists from these leading British universities. However, its methodology is now quite popular in teaching any other language, not just English. Such popular training courses as "Headway" and "New Cambridge English Course" (English), "Teumen neu" (German), and "Le Nouvelle sans Frontiers" (French) have been written on the basis of the communicative method, which is aimed at the simultaneous development of basic language skills (speaking, writing, grammar, reading and listening) in the process of lively, easy communication. Teaching the student to communicate in a foreign language is the main task of the teacher. Vocabulary, grammatical constructions, expressions in foreign languages are presented to students in the context of real, emotionally colored situations, which contributes to the rapid and long-term memorization of the studied material (Savignon 2000).

The communicative method serves to break down the psychological barrier between teachers and students. And when the students cease to feel the "distance" between them and the teacher (ibid.), then they become involved and feel free in communication: this is how people begin to speak a foreign language with ease and desire. Numerous play-based learning elements promote classroom interaction, maintain a positive emotional atmosphere and increase student motivation. Collaborative work "in pairs", "in triplets", participation in debates and discussions on topics of interest to students – all these practices allows the teacher to approach the learning process taking into account the individual characteristics and learning styles of their students, make classes creative and exciting, and at the same time it gives the teacher the opportunity to, invisibly for

the students, exercise full control over the learning process and learning progress of the learners.

The systems of independent mastering of foreign languages are becoming popular in Russia today. For example, a "sequential system" method that includes the best developments in scientific and popular linguistics, psychology, and applied sciences, including the author's method of visual modeling of English grammar, as well as materials supporting motivation and organization of the process. Or the method of "Active development of foreign languages" – the first step-by-step, structured electronic course by Sergei Vasilenkov on the Russian Internet on how to independently and effectively master any foreign language in 4–6 months (Kolisnichenko / Yatsun 2018). The next example is "How to easily and quickly learn any foreign language" – a kind of magic seminar by Igor Serov, who supposedly offers really working principles and techniques, which teachers never talk about, but that allows freely mastering any language in a quite short period of time (Turaeva 2019). Another educational resource for self-study of foreign languages is Ivan Poloneichik's "Forced mastering of foreign languages" – a selection of useful techniques, methods and approaches to learning languages of varying degrees of complexity (Ivanovskaya / Nefyodov 2016).

Knowledge of a foreign language involves the use of different aspects of language and communication: speaking, listening (with understanding), writing, and reading with comprehension. Each of these aspects is based on its own methods of achievement. Therefore, from the point of view of different tasks and objectives, any method may have its own strengths and weaknesses. However, the greatest effect in learning a foreign language is achieved with the integrated or eclectical use of all of the above methods, which allows students to study all aspects of the language together and with the best results. Next, in this chapter we will consider how the old methods are being replaced by innovative digital technologies for FLT/ FLL and what factors do influence this paradigm shift.

Impact of Globalization & Digitalization on FLT/ FLL Paradigm Shift

This section is devoted to an in-depth analysis of the means, methods and technologies of FLT/FLL at university in the context of modern realities: globalization, digitalization, etc. (ICT-based, Computer Assisted Language Learning (CALL), Web-based (WBL), MOOCs, etc.). Best European practices and results of international

integration with our partners have been also taken into account.

In Russia, both the state policy on education and the related national legislation on education depend on many external and internal socio-economic, political and cultural factors and with time tend to give rise to tremendous changes in the sphere of education and its practices. These alterations correlate with various global processes and trends, including globalization, technologization, and digitalization, that influence at large the state and society, labor markets and educational institutions. These shifts further contextually impose high burden on the education system and, similarly, on FLT/ FLL practices (Stepanenko et al. 2020). Moreover, each era generates its own vision of educational standards, as well as its own teaching and learning methods and technologies. For example, the first generation of educational technologies in FLT/ FLL in Russia was regarded as traditional or conventional; second and third generation involved mainly structured and block-based learning systems, while the fourth generation of educational technologies can be classified as innovative, integral or integrative technologies (Ainoutdinova / Ainoutdinova 2017). So, why do we need innovative approaches, models, technologies and do we really need them today, if there is a certain developed concept of integrative learning; and the arsenal of almost every teacher is properly equipped with a set of traditionally used teaching methods, which, moreover, have proven themselves quite well? In answering this question, we declare that the world we live in has changed completely over the past half-century. The global economic relations are constantly growing in volume, expanding in content and actualizing the need for universal personnel (specialists) with professional training at national universities. This leads to the fact that the content of national systems of higher education naturally tends to the so-called universal world standards developed by science and technology. New modern technologies with their powerful infrastructure and resources make information available to almost all corners of the globe, universalize the content of higher education, and provide knowledge transfer and learning from anywhere, at any time and for everyone (Tregubova et al. 2017).

Globalization, despite differences of opinion, is an objective current reality that requires a new paradigm orientation of national higher education systems, taking into account the need for international cooperation and collaboration based on the common values of human ethics, respect and dignity. The spread of democracy in almost all countries of the world is strengthening the legal status of the state, which, in turn, increases the role of education in teaching young people and adults in the spirit of democratic citizenship. The best features originally

inherent in science and higher education, including the ideas of academic freedom and equality, are then gradually transferred to the entire society, universalizing its political structure in different countries of the world (Ainoutdinova 2017; Ainoutdinova / Ainoutdinova 2017; Tregubova et al. 2017). The formation of new socio-cultural values shared by most countries, such as a civilized free market and the humanization of public relations, not only changes the structure of higher education in Russia, expanding the training of economists, managers, lawyers, sociologists, political scientists, etc., but also changes the entire paradigm of higher education as a system of globally accepted ideas, views and concepts. The new educational paradigm, in this context, crowns the transition from scientism (Hyslop-Margison / Naseem 2007, p. 134) (a belief system that asserts the fundamental role of science as a source of knowledge and decision-making about the world) to homocentrism (Horsthemke 2019) (a belief system that means the advancement of human rights and interests). At the same time, this new educational paradigm does not put obstacles to the moral freedom of specialists, does not force them to give an unambiguous answer to the question "what is good and what is bad", but requires appropriate and competent behavior in everyday and professional life in accordance with the circumstances and requirements of the day (Ainoutdinova 2017; Ainoutdinova / Ainoutdinova 2017; Tregubova et al. 2017).It is well known that foreign languages are one of the most important driving forces of human progress. Foreign languages are necessary to acquire new knowledge and skills that allow for intercultural, interdisciplinary, academic and professional communication. Therefore, educational programs of universities consider teaching a foreign language as one of the main components of training highly qualified specialists for all areas of science and technology. This is done in order to ensure the innovative development of the country and its economy. This implies that throughout the entire period of study at university, students must intensively and effectively study foreign languages. In this regard, the question of optimization and intensification of the educational process arises.

There are various methodological prerequisites for learning foreign languages in the innovative learning environment, which offers students and teachers new ideas, flexibility, agency, ubiquity, and connectedness (Osborne 2016). In particular, the improvement of FLT / FLL practices at the university level depends, according to A.I. Fefilov, on the implementation of certain principles of optimization of the educational process (Fefilov 2014, p. 188), which include: rejection of the authoritarian teaching style and transition to a learner-centered teaching paradigm; focus on the personal qualities of the student, his/ her learning expectations, needs and styles; improvement of teaching technologies and shift from

the monologue to polylogue and dialogue; using communication not only as a means of data transfer but as an incentive for some action; taking knowledge as a set of skills that are actualized in the course of the subject's activity; exclusion from the educational process any situation marked by mercantilism or consumerism; exclusion of any situation causing replacement of learning by training of the language memory; awareness that "language proficiency" should not be replaced by "knowledge about the language"; recognition of the need to regularly practice reproductive language aspects, such as speaking, listening, reading, and writing; recognition of the need to understand the conceptual content expressed with the help of language; awareness that only consistency, integrity of knowledge obtained in an interdisciplinary context can guarantee the successful mastering and achievement of the set goals and learning objectives (Ainoutdinova 2017).

Today, according to experts, the best examples of sustainable innovative and disruptive technology-based FLT/ FLL methods include: Web-based learning (WBL) (Ainoutdinova / Ainoutdinova 2017), computer-assisted language learning (CALL), e-Learning, blended learning, mobile (M-Learning), open and distance learning, etc. (Tregubova et al. 2017). All these methods include ICT-based educational activities and practices that should not be perceived as a direct substitute for conventional FLT/ FLL strategies though they have dramatically reshaped traditional classrooms, fostered learner's autonomy and motivation, created a wide range of options for authentic interaction and communication in a technology-mediated learning environment, etc. (Ghasemi / Hashemi 2011). Let's have a broader look at some methods, keeping in mind that any experienced teacher will always take an eclectic approach to language teaching, allowing for a combination of different approaches and methods, depending on the goals of the lesson and the abilities of the students, in order to match the dynamics of the times (Tabassum et al. 2018).

Information Communications Technologies (ICT) in Education

ICT – is an acronym that stands for Information Communications Technology. The phrase ICT had been used by academic researchers since the 1980s, but it became popular after it was used in a report to the UK government by Dennis Stevenson in 1997. Addressing the UK government Stevenson emphasized that both teachers and students must be "confident and highly competent" (Stevenson 1997, p. 44) in using ICTs "in all aspects of their daily life" as well as in all other routine and specific areas that can contribute to their teaching practice and learning experience. ICT (information and communications technology or technologies) – is an umbrella term that includes any communication device, digital

infrastructures or applications, like radio, digital television, networks, satellite systems, personal computers, laptops, printers, scanners, software programs, data projectors, cellular phones, interactive teaching box, robots and so on, as well as various services and applications associated with them, such as video-conferencing or distance learning tools. In other words, ICT concerns the uses of digital technology to help individuals, businesses and organizations to use information.

Generally speaking, ICT – covers any product that will store, retrieve (access information from memory or other storage devices), manipulate (control), transmit or receive information electronically in a digital form. So, ICT – is concerned with storage, retrieval, manipulation, transmission or receipt of digital data. It is also concerned with the way these different tools can work or interact with each other (Chapelle 2001, p. 236). In its broader sense, ICTs are defined as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information" (Stevenson 1997, p. 44). Thus, information and communication technologies (ICTs) include both hardware, software, networks, and media used to collect, store, process, transmit, and present information in the form of voice, data, text, images, animations, etc. ICT also refers to technologies that provide access to information through telecommunications. In this sense, it is similar to Information Technology (IT), but focuses primarily on communication channels: the Internet, wireless networks, smartphones, and other communication mediums. It should be noted that ICT and computers are not the same thing, the latter being just the hardware as a part of some ICT-based system. ICTs are often categorized into two broad types: traditional computer-based technologies, which require the use of specific hardware, software, and micro processing features available on a computer or mobile device; and the more recent, and fast-growing range of technologies, which allow communicating and sharing information digitally.

In the past few decades, ICTs have provided the world population with a vast array of new communication capabilities. For example, people can communicate in real-time or synchronously with others from different countries using technologies, such as instant messaging, voice over IP (VoIP), or video-conferencing (Zoom, Teams, Voov, etc.). People can also communicate globally via electronically mediated asynchronous means of communication, so the participants in this case do not communicate concurrently. Forums, e-mail, bulletin board systems, chats, etc. allow the participants to send or post messages at different times. Social networking websites, like Facebook, Twitter, Skype, etc. allow users from all over the world to be in touch and communicate on a regular basis. Modern ICTs are said to have created a "global village", in which people can communicate

with the others across the distances as if they were living next door. In this regard, ICTs are often spoken of in the context of how modern information and communication technologies affect the entire society.

ICTs – are also often spoken of in a particular context, such as ICTs for development, ICTs in education, ICTs for environmental sustainability, ICTs in health care, ICTs for libraries, ICTs in business or organizations, etc. In recent years, academics, educators and teachers have taken a particular interest in how best to use computers and the Internet to improve the efficiency and effectiveness of education at all levels in both formal and informal settings. Different technologies, tools and resources are usually tested and used here in combination, rather than as the only knowledge and instruction delivery system. Technologies are specifically used to enable teachers and students to communicate, create, disseminate, store, and manage information. In some contexts, ICT has also become integral to the FLT/ FLL interaction, through such approaches as e-Learning, blended learning, web-based learning, computer-based learning, distance learning, etc.

It is also worth mentioning that ICT can be seen as the third revolution in learning and teaching, the first of which is associated with the invention of the written language, and the second with the development of movable fonts and books. ICTs make both the content of learning and teaching interactive and available anytime, anywhere and for everyone. According to the 2013 European Commission "Survey of schools: ICT in education. Benchmarking access, use and attitudes to technology in Europe's schools", the importance of ICTs lies less in the technology itself rather than in its ability to create greater access to information and communication for people living in different parts of the world with or without digital literacy and skills to utilize media and the Internet.

Computer Assisted Language Learning (CALL) in FLT/ FLL

Computer-assisted language learning (CALL) – is not a new development in language teaching and learning, as it has been used since the 1960s and 70s. Recently, though, computers have become so widespread in schools and homes and their uses have expanded so dramatically that the majority of language teachers must now begin to think about the implications of computers for language teaching and learning. The term CALI (computer-assisted language instruction) was in use before CALL, reflecting its origin as a subset of the general term CAI (computer-assisted instruction). CALL was the expression agreed upon at the 1983 TESOL (Teachers of English to Speakers of Other Languages) convention in a meeting of all interested participants (Chapelle 2001, p. 236). However, CALL still lacks concise research methods and a clear definition. The

purpose of this section is to try to give a more specific definition of CALL, to study the main stages of the development of CALL, to find out how computers were used and are used for FLT / FLL; and discuss the most recent issues arising from the use of CALL in education.

So, what is CALL? Broadly speaking, Computer-assisted language learning (CALL) – is an approach to FLT/ FLL in which a computer is used as an aid for instruction, presentation, reinforcement and assessment of material to be learned, usually including a substantial interactive element. According to Carol A. Chapelle from Iowa State University (Chapelle 2001, p. 236), CALL – is a term widely used to refer to the area of technology and second language teaching and learning. Michael Levy defined CALL as the search for and study of computer-based applications in FLT/ FLL (Levy 1997, p. 320). According to Ken Beatty, any definition of CALL should accommodate its changing nature and reflect the broad process of what may go on in a CALL environment, where learners use computers and improve their language skills (Beatty 2003, p. 304). Since then CALL has come to encompass many other issues about materials, design, technologies, pedagogical theories and modes of instruction associated with the use of computers. Materials for CALL include those, which are purpose-made for FLL, and those, which adapt the already existing computer-based materials.

Why do teachers use CALL? Research and practice suggest that, appropriately implemented, computer-assisted and network-based technology can significantly contribute to the specific areas in FLT/ FLL (ibid.). *Experiential learning* – is conducted as students can tackle a huge amount of human experience from the Internet; in such a way, they learn by doing things themselves, become the creators and not just receivers of knowledge, they develop thinking skills and choose what to explore. *Motivation* – is attained either because computers are most popular among students as they are associated with fun and games or because they are considered to be fashionable and handy to use. *Enhanced students' achievements* – are gained since network-based instruction helps strengthen their linguistic skills, self-confidence and self-reflection; advance their learning attitudes and autonomy. *Authentic materials for study* – allow students to use various resources or reading materials either at university or from their home 24 / 7 at a relatively low cost or free of charge. *Wider interaction* is achieved through regular access to the Web that disrupts the linear flow of learning; for example, by sending emails or joining newsgroups where students can chat with group mates, friends, or people they have never met; likewise, some online activities provide positive or negative feedback, offering students ample opportunities to share their views and expectations, or automatically adjusting their online activities, etc. *Individualization and personalization* allow some shy

or inhibited students to take advantage of collaborative learning focused on ensuring that everyone can reach their full potential, as long as their peers do not interfere with their work at their own pace. *Independence from a single source of information* – is achieved through access to thousands of information sources on the Internet along with paper books, which allows avoiding "canned" knowledge and satisfies the need for interdisciplinary learning in a multicultural world. *Global understanding* – is achieved in a multicultural context with extensive use of the Internet, making students feel like citizens of a "global village" that allows them to communicate globally (Warschauer 1996).

The history and practice of CALL suggests that computers can serve a variety of uses for FLT/ FLL. It can be a "tutor" to offer language drills or skill practice; a "stimulus" – for discussion and interaction; or a "tool" – used for writing, research and even playing games. With the advent of the Internet, it can also serve as a "medium of global communication" and a "source of unlimited authentic materials". But as Nina Garrett points it out, "the use of the computer does not constitute a method"; rather, it is a "medium in which a variety of methods, approaches, and pedagogical philosophies may be implemented" (Garrett 1991). Thus, the effectiveness of CALL depends not only on the medium itself, but also on the way it is used; and those who expect great results simply from installing computer systems are likely to be disappointed. But those who use computer technology in the service of good pedagogy will undoubtedly find ways to enrich their curriculum and learning opportunities for their students. Principles for the design and use of CALL programs in FLT/ FLL include: a student/ learner-centered approach – to promote a learner autonomy; meaningful purpose; comprehensive and authentic input; sufficient level of stimulation – both cognitively and emotionally; multiple modalities – to support different learning styles and strategies; high level of interaction (human-machine; human-human); and a wide range of applicable methods and techniques.

Mark Warschauer from the University of California (USA) conducted a profound research in the sphere of CALL from the pedagogical perspective, and came to conclusion, that its development can be divided into three distinct phases: behaviorist, communicative and integrative. It is important that these stages do not occur in a rigid sequence; as each new stage emerges, the previous stages continue to exist and operate. *Behaviorist or Structural CALL* – was first implemented in the 1960s and 70s, when the Grammar-Translation and Audio-lingual method were mostly used. It was introduced with a view of a foreign language as a formal structural system (Structural approach), and computer was mostly used as a tutor for drill and repetitive practice, the principal objective being the accuracy. *Communicative/ Cognitive CALL* was based on

the communicative approach to FLT/ FLL, which became popular in the 1970s-90s. It viewed language as a mentally constructed system through interaction, in which computer is used as a tutor – to practice the language but in a non-drill format, by giving students choices, control and interaction; as a stimulus – to provide computer programs that stimulate writing or discussions; and as a tool – to teach to apply language knowledge in practice, as with a word processor, grammar checkers, etc.

Integrative (Sociocognitive or Socioconstructive) CALL (1990s to present time) – is the current approach based on two important technological developments of the last decade: multimedia computers supported by CD-ROMs and the Internet. *Multimedia CALL* creates a more authentic learning environment based on a variety of multimedia, including hypermedia, allowing language skills to be developed easily and autonomously. *Web-based CALL* – includes Computer-Mediated Communication (CMC) and the Internet-based CALL. *CMC* – provides authentic one-to-one, one-to-many, or many-to-one synchronous and asynchronous communication channels in modes. *The Internet* – provides students with opportunities to search through millions of files around the world to locate and access authentic materials exactly tailored to their own personal interests, e. g., to publish their materials or media, to share them with peers or the general public. Both approaches in Web-based CALL use computers to perform real-life tasks (as a tutor, stimulus or tool), the main objective of which is some kind of meaningful action and decision-making. Language is viewed as a social interaction through discourse. The teaching paradigm is based on a content-based ESP (English for specific purposes) or EAP (English for academic purposes) methods.

How Can Computers Be Used in FLT/ FLL?

Some of the options include: teaching on a single computer in the classroom for content delivery (PowerPoint); classroom activities and discussions (Interactive whiteboard); training in a computer networked environment (task-based group work, synchronous or asynchronous CMC, tandem training, etc.); self-access/ independent learning for drills, exercises, word processing, resource search, etc.; distance/ remote learning for online course content delivery, CMC activities, e-mail, discussion forums, chat rooms, "crowdsourcing", etc.; integration of Internet activities into the curriculum to create a specific language environment with many technical and technological tools, authentic options and resources, etc. The choice of the type of CALL, relevant programs or applications and their use depends on the goals facing the stakeholders when using computers in FLT/

FLL. Computer as a Tutor – requires programs and apps for training separate aspects of language (listening, reading, writing, and speaking). Computer as a Stimulus – employs software generating analysis, critical thinking, discussion or simulations (SimCity, Second Life). Computer as a Tool – uses programs for hands-on experiential activities – as word processing (Microsoft Word, Open Office Writer), grammar checkers (Grammarly, Ginger), collaborative writing apps (Google Docs, Dropbox Paper), authoring tools with templates (Hot Potatoes, iSpring), etc.

Web-based Learning (WBL) in Teaching and Learning of Foreign Languages

Web-based Learning (WBL) – is considered the most popular and vibrant approach to higher education today due to the active use of advanced computer technology, related tools, resources and the Internet. WBL is a new powerful, flexible and efficient way for technology-enhanced FLT/ FLL. Professor Badrul Huda Khan, a well-known US educator and consultant in the field of e-learning, first coined the phrase "Web-based instruction" in his 1997 book of the same name (Khan 1997, p. 480). Later Khan defined 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, p. 599).

Web-based learning environment could be defined in this context as a sum of the internal and external circumstances and influences surrounding and affecting a person's mode of learning. Recognized scholars and experts B. Gillani and A. Relan defined WBL as an "application of a repertoire of cognitively oriented instructional strategies within a constructivist and collaborative language learning environment, utilizing the attributes and resources of the World Wide Web" (Relan / Gillani 1997). Herbert H. Clark, professor of psychology from Stanford University, defined WBL as "an individualized instruction delivered over public or private computer networks and displayed by a Web browser" (Clark 1996, p. 432). All of these definitions have one thing in common: the inclusion of the Internet or the World Wide Web.

From pedagogical perspective, WBL provides benefits to FLT/ FLL as it supports the shift from the traditional teacher-centered classroom to a learner-centered environment. In addition, learning over the Internet is a powerful interactive resource that expands learners' knowledge and guarantees the quantity and quality of language input and output. Web-based learning is often integrated with conventional, face-to-face teaching. This is normally done via the Intranet,

which is usually "password protected" and accessible only to registered users. In this way, it is possible to protect the copyright of open online resources and materials and maintain confidential exchange of information between the interested parties. Web-based learning allows quick access to digital libraries (for example, to order books or journals), online databases, and electronic journals. These services on the Internet are particularly useful for research and other scientific activities (Hartley 1988).

D.L. Johnson of North Carolina State University (Johnson et al. 2002, p. 240) revealed some of the unique characteristics of the Web, namely, that information here is interactive in nature; and that the Web often makes use of multimedia, including graphics, sound, or animation. 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 user-friendly to many people.

In terms of pedagogical features of the Internet, WBL facilitates communication, enhances interaction, provides student-centered, self-paced and collaborative learning, disseminates and shares information, and reaches out to global communities. Research has also shown that the long-term effects of learning via computers encourage students' interaction and involvement during the whole learning process. Barbara Grabowski of Pennsylvania State University presented an analysis and assessment of WBL and concluded that including web-mediated lessons and activities is a new way for teachers to use computer technology, increase student motivation and improve their learning outcomes (Grabowski et al. 1998, p. 62). Therefore, it looks like the Internet offers another new way of learning that students would rather use. Therefore, more and more teachers experiment with educational websites to make their teaching practice quite interactive and engaging for 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, data sharing, etc., plays a more important role than simply accessing information. The 1997 Dearing Report, formally known as the reports of the National Committee of Inquiry into the UK Higher Education (a series of major reports addressed to the government of the United Kingdom) pointed out that through the Internet-based and computer-based networks it is possible to offer different forms of opportunities and provide access to many highly effective learning materials that were previously unavailable to many students (Stevenson 1997).

What Are Computer Networks?

A computer network – also a data network – is a group of computer systems and other computing hardware devices that are linked together through communication channels to exchange data, and facilitate interaction and resource-sharing among a wide range of users. The best-known network is a global system of interconnected computers, called the Internet.

What Is Computer Networking?

In its broadest sense, it is linking two or more computing devices for the purpose of sharing data. Computer networking in language classrooms – can be categorized into two important technological and interactive developments: computer-mediated communication (CMC), and the globally linked hypertexts, both providing different ways for communication and exchange of data. *CMC* – can be practised in both synchronous and asynchronous modes supported by the related activities; globally linked hypertexts are often written in HTML (Hypertext Markup Language), where web pages are connected by hyperlinks, typically activated by a mouse click.

The FLT/ FLL process can be enhanced with one or all of 5 well-known educational web tools such as: *Hot List or Topic Hotlist* – a collection of websites on a specific unit or topic being taught (Dejica et al. 2016, p. 270); *Multimedia Scrapbook* – a collection of multimedia links to photographs, maps, stories, facts, quotations, sound clips, videos, virtual reality tours, etc. (Erenchinova / Proudchenko 2017); *Treasure Hunt* – an inquiry-based game in which learners act upon successive clues and are directed to a "prize" (A Big Question); *Subject Sampler* – a teacher's collection of links to multimedia resources or websites pertaining to a certain topic for students to choose from (Mustakim et al. 2014); and *WebQuest* – an inquiry-based teamwork activity or mini-project in which a large percentage of the input and material is supplied by the Internet.

A Paradigm Shift towards Massive Open Online Courses (MOOCs)

In recent years Massive Open Online Courses (MOOCs), which UNESCO named among the 30 most promising trends or drivers in the development of education until 2028, are of particular interest in Russia. It is believed that namely xMOOCs and cMOOCs open up new opportunities in the field of distance education today (Dzhurinskiy 2017, p. 240). In its form, xMOOC is, in fact, an open electronic educational resource (educational e-course or teaching

methodological complex), which includes video lectures with subtitles, lecture notes, homework tasks, tests and final exams.

Unlike traditional electronic educational resources, which are actively created and used for students of certain areas of training at the university, in particular, by the authors of this chapter, MOOCs are global in nature and operate outside of one university. Most MOOC authors are also teachers and professors of the world's leading universities, but courses are posted on the sites of popular educational online resources, courses are often created by huge clusters of universities, either on a territorial or thematic basis. In addition, MOOCs are addressed to a wide range of potential students, trainees and teachers, who are their target audience. The process involves mainly large American and British universities, which are actively involved in the creation and distribution of educational resources, training courses and programs, including open and free content; they are also actively exploring the commercial market for e-learning courses and services Kuzmina 2015).

The cMOOC model as a supplement to the structure of distance learning organization according to a more traditional xMOOC model, extensively implements various tools and means of social online communication via the Internet, creates open forums, chats and blogs for users (students, teachers and tutors), both for maintaining online communication within the community, and to assist and solve possible problems of a technical or pedagogical nature or both (Hollands / Tirthali 2014, p. 211).

The first mention of MOOCs appeared in 2008, when, independently of each other, two experts in the field of education from the United States and Canada, Bryan Alexander and Dave Cormier coined the word "MOOC" (Ainoutdinova / Blagoveshchenskaya 2017) to describe the essence of the then open online course "Connectivism and connective knowledge (CCK08)" developed by George Siemens and Stephen Downes on the basis of the University of Manitoba, Canada, to attract as many insolvent students as possible from different parts of the world (Cormier / Siemens 2010). As a result, the CCK08 attracted more than 2300 students who received training content via RSS feeds (Really Simple Syndication); all the extensive information was collected, processed and presented in this format by aggregator software and online services, which allowed users to receive news instantly and in a convenient form from virtually any site, without having to access the site itself. The course also offered other convenient Web-based learning tools, including LMS Moodle (Learning Management System), blogs, communication in the 3D virtual world with elements of the social network "Second Life", as well as unlimited online meetings and chats in real time.

The idea underlying the title and content of the course "CCK08" – is important for understanding the phenomenon of cMOOC, since the course was devoted to the study of the theory of connectivity or connectivism itself (Cormier / Stewart 2010), took its roots in it and was built on its fundamental principles, which in general terms convey the following message:

> Teaching and learning in the modern era will be successful if people learn to build the necessary relationships, provide communication and connections mediated by the goals and objectives of cooperation and interaction via electronic networking (Downes 2006).

The idea of creating networks of like-minded people or networking communities, connecting people for developing and gaining knowledge, and therefore creating a "knowledge society" – is one of the key and fundamental characteristics of MOOCs (Kop / Hill 2008). According to Downes, connectivism shows that "knowledge is distributed across a network of connections", and therefore "learning consists of the ability to construct and traverse such networks".

Over the past years, the number and popularity of MOOCs among the university students in Russia has increased manifold. Statistics show that the number of students registered at various MOOCs ranges from several hundred to hundreds of thousands. Among the most popular MOOCs are still Coursera with more than 77 million registered users; Udemy; Udacity; Khan Academy, etc. In Europe, the leading position in the field of MOOCs is still held by the British University of Open Education (the Open University, UK). One of the analogues of the MOOCs platforms in Runet (Russian Net) is the project by the Internet University of Information Technologies, which provides a free-of-charge distance learning at the National Open University "INTUIT". Another Russian system of online education, built on the MOOCs technology, is Universarium. It was launched on the Internet in 2013 to provide free educational courses conducted by teachers and professors from the leading Russian universities (Lomonosov Moscow State University, Moscow Institute of Physics and Technology, etc.). Universarium offers full-fledged free courses designed according to the highest e-learning standards. The other successful Russian MOOCs platforms are: Courson – the Russian equivalent of Udemy; project Lectorium; the leader in FLT/ FLL – Lingualeo with 13 million users; the leader in teaching of programming – GeekBrains, etc.

High reputation of MOOCs is because here FLT/ FLL takes place in communities of like-minded people connected not only by network interaction, but also by common goals, views, motivation and interests. The network communities are made up of people, each of whom are separate networks and can choose the most appropriate individual approach to learning and cognition. In this way,

the personal knowledge of each student also constitutes a network that supports the overall development of the community, which in turn develops both the network, stimulates the learning needs, and improves the learning outcomes of individual learners. It is equally important that teaching through MOOCs is carried out in the interconnection of many disciplines and professions, which is aimed at reproducing the application of a certain scientific discipline or subject in the real world.

FLT/ FLL during the COVID-19 Pandemic in Russia and Europe

This Section contains a description and assessment of the effectiveness of various FLT / FLL resources, methods and technologies during the period caused by the COVID-19 pandemic in Russia and Europe, with priority being given to remote and online initiatives and strategies. A comparison has been made between traditional and innovative means, methods and technologies in both Russian and European universities, taking into account the advantages and disadvantages of both approaches to FLT / FLL in higher education.

Several factors have prompted the need to rethink the role, place and purpose of university education, the most recent and dramatic being the COVID-19 pandemic and its unprecedented impact on the lifestyles of billions of people around the world. The recent spread of the COVID-19 turned to be a strong stress test for education systems throughout the globe with an increasing number of countries closing their institutions of learning as a response to the pandemic. In order to keep the doors of learning open there were large-scale efforts on the part of the governments, authorities, international and local organizations, educational institutions, etc. to utilize technology in support of remote modes of teaching and learning. Thus, various forms of distance and online initiatives were mobilized to replace the traditional forms of training future specialists (Ainoutdinova et al. 2021).

In the urgent circumstances of the unexpected lockdown, most universities were forced to change not only the teaching and learning format but also their curricula and look for adaptive methods and forms using various web-based resources and digital platforms such as Microsoft Teams, Zoom, VooV, etc. This happened both in synchronous mode (through online training with a mandatory Internet connection on the Teams and Zoom platforms), and through

asynchronous network interaction via LMS Moodle, blogs, chats, forums, electronic resources hosted on internal and external educational sites (Cronje 2016). This made it possible to implement distance and online learning into the educational process and make it an integral part. As a result, the emphasis on FLT/FLL has shifted from the individual to collective, massive, open, equitable and technology-enhanced teaching and learning, which placed a heavy burden on teachers and education systems at large (Li / Lalani 2020).

Although even before COVID-19 there was already a high increase in the interest of some Russian educators and teachers in various electronic forms of teaching and learning, we can assume that it was COVID-19 that, oddly enough, has given impetus to popularization and practical use of distance and online education in Russia. Also, despite all the efforts, it became obvious that many universities were only partially ready to switch to online broadcasting of their programs. This was due to pedagogical, psychological, communicative and purely technical problems that arose many times in the process of transforming to the new teaching format. For example, there were interruptions in the broadcast of lectures and practical classes due to the poor Internet connection; the online platforms did not meet expectations of the users (it turned out that Skype cannot serve large groups, Zoom may turn off after 40 minutes, and Microsoft Teams is excessively energy-intensive and consumes too much of the computer's internal memory); the equipment involved was also either outdated or technically not up to the required parameters of a high-quality online connection. This is just a small part of the questions that daily accompanied the educational process during that period.

At the same time, there was some panic noted among the older generation of professors, whose basic ICT-literacy skills, competencies and knowledge of the Internet or web-based applications revealed their poor readiness for full-fledged work in the new digital conditions. Due to unexpected but inevitable transition to distance and online education, some members of academic community were taken aback and worried whether such mode of learning would remain in post-pandemic conditions and how such shift could affect the education market and services, educational opportunities and general concept of knowledge acquisition.

Particular emphasis was placed on the question of how to teach in the age of Google, when search engines provide answers even before students have finished typing their question, and what, in fact, is left to be learned (Li / Lalani 2020). Various pedagogical issues related to the selection of methods, technologies and designs that could simultaneously meet the requirements of the day and serve the traditional goals and objectives of fundamental university education were

also in focus. It turned out that many teachers experienced difficulties while moving from offline (face-to-face) to online work, as this forced them to radically change their approaches and attitudes to issues of knowledge transfer and its acquisition.

Many found it difficult to develop relevant and effective content that would not only encompass the curriculum, but could also engage students and motivate them to study with diligence for a multitude of axiologies (values) and ontologies (ways of being) (Affouneh et al. 2020). Ensuring that digital equity was also crucial, teachers were to modify their teaching paradigm to meet all students` needs and provide equitable digital learning opportunities by encouraging learners to create their own personal learning environments (PLE) and personal learning paths in a technology-based and information-rich context albeit without direct instruction or teacher supervision. Likewise, many disputes arose regarding psychological and communicative readiness of teachers and students for the upcoming changes, etc.

Most university educators and practitioners recognize the potential of distance and online education, especially during the COVID-19 pandemic. Distance learning helps overcome obstacles related to distance, time, human and material resources that can limit access to learning opportunities in emergencies. However, if the goal of a distance program is still learning (rather than entertainment), then that program should provide an instruction design that fosters creative interaction between students and their teachers. In short, when universities choose distance learning programs for any of many reasons, they must be very careful in selection of didactic materials, teaching aids, resources, methods and technologies designed to achieve the goals of quality university education.

Teaching aids and resources are quite important in this respect. For example, Dave Cormier (who is the author of a successful MOOC titled "#rhizo14" based on the principles of rhizomatic learning) divided them into four types, from the most stupid (anonymous sources like Wikipedia) to the most useful (the unique content created by students or teachers) (Cormier 2008). Cormier regards anonymous sources useless, since in the absence of a particular author's responsibility for the quality of the data, it is difficult to discuss the content. Most of all he praises individual research project or textbooks created by individual or collective students or teachers that allows discussion of topics of interest in a multicultural environment (Cormier 2021).

To help online teachers and instructors establish best distance practices and achieve performance expectations of Generation Z students, the core principles of effective online teaching were developed at Penn State's World Campus in 2012 and published later in the Special Report presented by Faculty Focus (Ragan

2010, p. 26) . This document was primarily focused on the overlap between concepts of "distance education" and "online education", as there are many similarities between courses that describe themselves as online learning and others that call themselves distance learning. These concepts have much in common; their meanings often interchange, although the way content is delivered is still slightly different. A distance learning course will usually have more independent study than a course describing itself as online learning. This is because online courses usually include lectures or tutorials delivered via online video conferencing with a mandatory Internet connection. For distance learning, lectures or tutorials can be pre-recorded, with reading materials provided additionally; however, distance learning courses always include an online learning component and access to online learning materials. Likewise, both modes have online forums where students discuss course-related topics and engage in interaction with lecturers for immediate feedback (Sampson 2003).

In an online classroom, the set of objectives and tasks is completely different. Failure to learn how to properly manage the online learning environment can lead to frustration and negative experience for teacher and student. According to Penn State's World Campus, effective online and distance FLT/ FLL can be realized if a few reminders are taken into account. First, teachers should not simply guide students through the course, although it may already be developed and ready for online delivery. On the contrary, they have to practice active course management strategies and always set and communicate the pace and outline of the course to students. Teachers are also expected to inform students about any accidental or unexpected changes in the course syllabus and respond to student requests (feedback) in a timely manner. Teachers need to be clear in their messages and instructions to avoid misunderstanding. Similarly, they are expected to maintain positive progress in students` studies and provide adequate quality of online learning resources, instructional design strategies, while the technological infrastructure of online classrooms shall meet the needs and expectations of Generation Z students.

The New Roles, Needs and Competencies of FLT/ FLL Teachers

This Section presents the results of an empirical study, which reveals new and updated roles, needs and competencies of teachers. This part also contains relevant data on the levels of ICT literacy and ICT competence acquired by 56 teacher-respondents and considered necessary for realization of the goals and objectives of

FLT / FLL at university. The author's system for assessing ICT-literacy and ICT-competence of teachers, sufficient for effective and expanded pedagogical practice in modern social, economic, political and cultural contexts, is provided.

Recognizing that technologies have firmly entered our lives, and the use of ICTs is an obligatory component of most educational programs in all areas of training in higher education, including foreign languages, we will hereafter consider some of the new and updated roles, needs and competencies of university teachers in the ICT-mediated educational settings in Russia. Research and analysis of thematic literature and education-related documents by UNESCO (1999 Report, ICT CFT 2011 and ICT CFT 2018) and the European Commission (2021) allowed us to assume that there are certain reasons why teachers' roles must change in the ICT-mediated classroom and beyond. First, the ongoing expansion of ICT will cause certain existing technical resources to become obsolete; overhead projectors or chalkboards, for example, may no longer be necessary if all learners have access to the same networked resources on which the teacher is presenting information, especially if students are not physically in the same location.

Second, ICT – can make some assessment methods redundant; online tests, for example, can provide the teacher with considerably more information than traditional multiple-choice tests. Third, ICT – will cause that it is no longer sufficient for teachers to impart content knowledge, since they must encourage higher levels of cognitive skills, promote information literacy, and nurture collaborative working practices. Fourth, ICT – will enable a technically competent teacher: to operate computers and use basic software for word processing, spreadsheets, email, etc.; to evaluate and use computers and related ICT tools for instruction; to create hypertext documents and multimedia content to support instruction; to apply current instructional principles, research, and appropriate assessment practices to the use of ICTs. Fifth, ICT – will enable a technically competent teacher: to evaluate educational software; to create effective computer-based presentations; to search the Internet for resources; to integrate ICT tools into student activities across the curriculum; to demonstrate knowledge of ethics and equity issues related to technology; to keep up-to-date as far as educational technology is concerned.

The media literate teacher will, then, have to acquire, develop and master a wide range of new skills and competencies in order to meet the transforming goals and objectives of education as it opens new opportunities to the stakeholders and creates a wide range of teaching and learning strategies that

enable to dynamically explore contrasts, to make comparisons and to establish connections. These new perspectives are greatly facilitated by the integration of ICTs into FLT/ FLL process. Our research allowed us to identify the current roles that teachers of foreign languages already have and continue to acquire, ranging from "instructors", "facilitators", "coaches", "constructors" to "creators" of rich ICT-mediated learning environments. However, a genuine and sophisticated incorporation of new skills and roles of teachers in the wake of ICT is necessary even before teachers start their practice, so teacher training becomes crucial in this regard. Teachers are also expected to improve their knowledge and acquire new skills and competencies as they take on new roles during their professional development and growth. Teachers can look for new opportunities in the following areas of occupation: pedagogy, education and curriculum development; strategies for full ICT integration into curriculum; staff development; support systems, etc. (Rokenes / Krumsvik 2014).

Based on the empirical approach, we interviewed teachers of foreign languages working at the Russian universities, namely, Kazan (Volga region) Federal University (KFU) and Kazan National Research Technical University (KAI). We aimed to determine teachers` attitudes and needs in the changing ICT-mediated conditions. The total number of teachers surveyed was more than 50, aged from 25 to 60 years. The survey was conducted by distributing individual questionnaires issued to each participant. The event was held after the teachers` working hours, all of them having been previously instructed on the rules and goals of the survey. Participation in the study was voluntary and confidential. This survey does not pretend to show any in-deep scientific data; rather, it was an attempt to collect primary information to confirm our hypotheses about the importance of ICTs in education and about their obvious impact on the teaching profession.

The data-driven analysis of the results of the survey proved that participants (56 teachers of foreign languages from two high-ranking Russian universities) could be divided almost equally into three groups as follows: those who fully support ICT integration into educational settings and possess positive attitudes toward ICT (42 %); those who oppose ICT and show negative attitudes toward ICT (34 %); and those who generally possess positive attitudes towards ICT, but feel scared when it comes to ICT integration into educational process at university due to various reasons (24 %). The questionnaire contained 30 questions in four sections. Both open-ended and close-ended questions (as fixed alternative, multiple choice and matrix questions, the latter offering identical response options arranged one after the other, as: Strongly satisfied; Satisfied; Neutral; Unsatisfied; Strongly unsatisfied) were used during the survey (Player-Koro 2012).

The first section covered standard questions concerning age, gender, educational level and access to ICT at home and at work (university). The second section consisted of fixed alternative questions regarding teachers' private use of ICT outside their profession; their perceived self-efficacy in using ICT and why and how often ICT is used for private purposes. In the third section, fixed-alternative questions about teachers' use of ICT in classroom practice were formulated as were questions about their self-efficacy in using ICT in classroom practice and why and how often they make use of ICT-based technologies there. Finally, questions about teachers' attitudes to ICT use in education were asked. These questions contained fixed queries and the respondents were asked to agree or disagree with a series of statements. The respondents also had opportunity to add responses in their own words in a number of open-ended questions after each of the sequences in the questionnaire to ensure that no relevant response was missed.

The results of our empirical research confirmed that the majority of teachers realize the need for ICT integration into higher education as a driver for its successful reforming (82 %); admit that ICT has totally changed the way teachers work in the classroom (77 %); agree that ICT facilitates students' learning pace and styles (75 %); favor ICT in education since it contributes to cooperation between colleagues (68 %). Some teachers believe that a true professionalism of their students is only achievable in multidisciplinary settings where ICT promotes subject integration and makes students` work in the active, experiential and problem-based formats (64 %); increases students' awareness of the range of possibilities of ICT for their future profession (59 %), increases students` readiness for their future career (57 %); serves as an important factor in preparing students for active social and public life (53 %). Only a small number of the respondents do not see the need to integrate ICT into higher education (8 %), since it takes time away from other important learning activities (10 %). At the same time, they admit that ICTs might make teaching and learning funnier and more attractive to their students (12 %), and, as a result, increase students` motivation and learning outcomes (15 %).

The survey also showed that at least four factors: confidence, ICT literacy, gender and age – should be taken into account when measuring teachers' attitudes toward digital technologies (Eickelmann / Vennemann 2017). Though age and gender do not have direct influence on confidence, knowledge or attitudes toward ICT, they sometimes obstruct and limit integration of technology in academic environment of university. Our study also helped to clarify what an competent teacher is expected to perform or demonstrate in the ICT-mediated

learning environment of an university. 67 % of the teachers' respondents agreed that ICTs do support pedagogical development and growth.

Conclusion

This section contains practical steps to popularize and implement the best tools, methods and technologies for effective FLT/ FLL in both European and Russian universities. Recommendations and strategies for further improvement of practices, skills and competencies of Russian teachers were presented, taking into account what has been achieved in the field of higher education in Europe. We hope, this study will be interesting and useful for both European project partners and Russian colleagues, so that they will apply our findings in their FLT / FLL practice, thereby supporting and developing international integration, collaboration and cooperation.

Causes and effects of the new or updated roles, skills and competencies are different for an adequate functioning of foreign language teachers in the ICT-mediated learning environment of a university; this causes additional questions and debates. Each teacher goes through a range of training activities in order to reach a certain level of ICT-literacy or ICT-competency. Mastering of the skills takes time, efforts and finances. The author's scale of gradation of the levels of teachers` proficiency in ICT covers six levels of performance, presented from the lowest permissible to the highest/ mastery, namely: basic (nominal), normative (standard), instrumental, conceptual, cultural and analytical. Each level of ICT proficiency achieved in a given period of time is directly related to the new ICT-based knowledge and skills that a teacher is expected to acquire at that particular stage. The ICT skill levels normally correlate with the achievements teachers had received in the previous stages, before they attained mastery or simply began to actively use ICT in their professional practice. The mode of assessment of levels of ICT proficiency can be carried out by external experts in the process of testing teachers` skills and performance in practice, or by teachers themselves in the framework of self-reflection.

The lowest level does not inspire optimism, since it indicates that the teacher was not able to achieve even the basic or nominal level of ICT proficiency. Failure to acquire even basic ICT skills means that although the teacher tried, he/ she failed. The negative result can be caused by a variety of external and internal factors, one being the absence of any experience of earlier use of technical or

digital devices or just total technical illiteracy. This, of course, is an extremely rare case for educated people. More often, the causes of failure are beyond the teacher's control and may include, for example, the overly complex design of the semantic technology, technically difficult instructions or instability of technology, as liability of the Internet. Other limitations may include incompatibility of the technology with the aims and tasks of teachers within the university curriculum. There are also cases of culturological discrepancy between the teacher and the learning environment mediated by ICT. Difficulties and limitations in this case always dominate the goals (Maloy 2016).

The next level confirms acquisition of standard or normative ICT skills needed to efficiently use the elementary functions of ICTs in order to assess and retrieve, store and produce, present or exchange information (Facer / Owen 2012, p. 6). Also, these ICT-based skills will allow communicating and participating in collaborative and social networks via the Internet. Standard skills are still insufficient to fully employ ICTs that could contribute to the best practices of FLT/ FLL. The next, third level of ICT proficiency demonstrates instrumental skills. It is assumed that the teacher will be fluent in computing devices and other digital technologies, to be able to download software, use electronic textbooks and other manuals on disks and flash memory. It is expected that teachers at this stage will also acquire elementary skills that allow them to create their own electronic didactic materials with subsequent posting on the Internet and demonstrating to the target audience, etc. The fourth level of ICT proficiency comprises conceptual skills that enable the use of ICT tools and resources innovatively and in a new Web-based context. Such skills will enable to create and develop the ICT-enriched learning scenarios, cases and projects to promote creative and collaborative learning, with technologies being integrated into disciplinary, interdisciplinary or interpersonal relationships. Thus, conceptual skills infuse instrumental skills with new creative meanings and empirical knowledge.

Attainment of the fifth level of ICT proficiency involves cultural skills, which implies synergy or interaction of instrumental and conceptual skills in conjunction with the concept of a "new culture of learning and teaching" (Warschauer / Kern 2012 p. 256). Possession of such cultural skills related to ICT allows for easy transition from the traditional modes of learning to innovative web-based FLT/ FLL formats. These skills also provide a smooth paradigm shift from teacher-centered forms to student-centered forms of FLT/ FLL that offer students more learning opportunities and autonomy in knowledge acquisition. At the apex of teachers ICT proficiency are achievements in analytical skills. This is the highest level of ICT proficiency, though some educators believe that analytical skills should be in the arsenal of every university teacher by default. Teachers with

analytical skills are expected to make quick decisions about the suitability and usability of various ICT-based tools and resources in education, and even have a basic knowledge of computer programming to enable them to write simple codes or use open source code to create author's electronic programs or digital courses. They also need to be aware of cyber threats and cybersecurity issues, as well as intellectual property and copyright related to cyberspace.

The described roles of teachers, their ICT-related skills and competencies, gradation of levels of ICT proficiency should be regarded as the authors` design models. Provided that the learning environment of modern university is organized in accordance with the requests of information society based on knowledge, technology and networking, the submitted study can be useful for both teachers and administrators for better understanding their new mission and place in the educational process.

Acknowledgment

This is to thank our European ENTEP partners for collaboration and support.

Literature

Affouneh, Saida / Salha, Soheil / Khlaif, Zuheir: "Designing Quality E-Learning Environments for Emergency Remote Teaching in Coronavirus Crisis." *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 11(2), 2020, pp. 135–137.

Ainoutdinova, Irina N.: "Innovacionnye technologii v obuchenii inostrannym jazykam v vuze: integracija professional'noj i inojazychnoj podgotovki konkurentosposobnogo specia-lista: zarubezhnyj i rossijskij opyt. (= "Innovative Technologies in Teaching Foreign Languages at University: Integration of Professional and Foreign Language Training of a Competitive Specialist: Foreign and Russian Experience"). In: Ainoutdinova I. N. (ed.): *Nastol'naja kniga pedagoga-novatora (= Handbook of the Teacher-Innovator)*. Kazan University Publishing House: Kazan, 2017 (2nd Edition).

Ainoutdinova, Irina N. / Ainoutdinova, K.A.: "Web-Based Tools for Efficient Foreign Language Training at University". *Modern Journal of Language Teaching Methods*, 7(7), 2017, pp. 130–145.

Ainoutdinova, I.N., & Blagoveshchenskaya, A.A.: "The Potential of Massive Open Online Courses (MOOCs) for Revival of Distance Education in Russia". In: *ICERI2017 Proceedings*: *The 10th Annual International Conference of Education, Research and Innovation*. Sevilla, 2017, pp. 8335–8344.

Ainoutdinova, Irina N. et al.: "Rhizomatic Model of Online University Education in the Context of the COVID-19 Pandemic in Russia". In: *INTED2021 Proceedings: 15th Annual International Technology, Education and Development Conference*. IATED; Valencia, 2021, pp. 6962–6968.

Bancroft, W. Jane: *Suggestopedia and Language Acquisition*. Routledge: Amsterdam, 1998.

Batterink, L.J. et al.: "Sleep Facilitates Learning a New Linguistic Rule". *Neuropsychologia*, 65, 2014, pp. 169–179.

Beatty, K.: *Teaching and Researching Computer-Assisted Language Learning*. Routledge: New York, 2003 (2nd Edition).

Bell, Daniel: "The Social Framework of the Information Society". In: Dertoozos, Michael L. / Moses, Joel (eds.): *The Computer Age: A 20 Year View*.: MIT Press: Cambridge, MA, 1979, pp. 500–549.

Bronzova L.I. (2013): "Using V. Milashevich's Method in Teaching Translation from English". *Bulletin of the Tula State University*. *Humanities*, 2, 2013, pp. 313–320.

Canale, Merrill / Swain, Michael: "Theoretical Bases of Communicative Approaches to Second Language Teaching and Testing". *Applied Linguistics*, I, 1980, pp. 1–47.

Castells, Manuel: *The Rise of the Network Society, The Information Age: Economy, Society and Culture, Vol. I*. Blackwell: Malden (MA) / Oxford, 2009 (2nd Edition).

Chapelle, Carol A.: *Computer Applications in Second Language Acquisition (Cambridge Applied Linguistics)*. Cambridge University Press: Cambridge, 2001.

Clark, Herbert H.: *Using Language*. Cambridge University Press: Cambridge, 1996.

Cormier, Dave: "Rhizomatic Education: Community as Curriculum". *Innovate – Journal of Online Education*, 4(5), 2008, pp. 1–6.

Cormier, Dave: *Making the Community the Curriculum: A Rhizomatic Learning Companion*. Pressbooks EDU: Montreal, 2021, retrieved 07.06.2021, from http://davecormier.com/edblog.

Cormier, Dave / Siemens, George: "Through the Open Door: Open Courses as Research, Learning, and Engagement". *Educause*, 45(4), 2010, pp. 30–39.

Cormier, Dave / Stewart, Bonnie: "Life in the Open: 21st Century Learning & Teaching". In: Murray Shannon (ed.): Proceedings of the Atlantic Universities' Teaching Showcase, Vol. 14, 2010, Association of Atlantic Universities: Halifax, pp. 24–31.

Cronje, Johannes C.: "Twenty-first-Century Learning, Rhizome Theory, and Integrating Opposing Paradigms in the Design of Personal Learning Systems/

Johannes C. Cronje". In: Spector, Michael J. / Lockee, Barbara B. / Childress Marcus D. (eds.): *Learning, Design, and Technology. An International Compendium of Theory, Research, Practice, and Policy*. Springer: Cham, 2016, pp. 1–22.

Dejica, D. et al.: *Language in the Digital Era. Challenges and Perspectives*. De Gruyter: Warsaw / Berlin, 2016.

Downes, Stephen: "Learning Networks and Connective Knowledge". In: Harrison Hao Yang & Steve Chi-Yin Yuen (eds.): *Collective Intelligence and E-Learning 2.0: Implications of Web-based Communities and Networking*. IGI Global: Pennsylvania, 2006, pp. 1–26.

Dzhurinskiy, A.N.: *Higher Education in the Modern World: Trends and Problems*. Prometey Publishing House: Moscow, 2017.Eickelmann, Birgit / Vennemann, Mario: "Teachers Attitudes and Beliefs Regarding ICT in Teaching and Learning in European". *European Educational Research Journal*, 16(6), 2017, pp. 733–761.

Erenchinova, E. / Proudchenko, E.: "Advantages of WEB Resources use in Learning Process. Proceedings of the 7th International Scientific and Practical Conference 'Current Issues of Linguistics and Didactics: The Interdisciplinary Approach in Humanities'" (CILDIAH 2017), retrieved 07.05.2021, from https://dx.doi.org/10.2991/cildiah-17.2017.18.

Facer, Keri / Owen, Martin: *The Potential Role of ICT in Modern Foreign Languages Learning 5–19. A Discussion Paper*. The National Foundation for Educational Research in England & Wales, 2012.

Fefilov, Aleksander I.: *Fenomen jazyka v filosofii i lingvistike: ucheb. posobie* (= The Phenomenon of Language in Philosophy and Linguistics: Tutorial). FLINT: Moscow, 2014.

Garrett N.: "Technology in the Service of Language Learning: Trends and Issues". *The Modern Language Journal*, 75, 1991, pp. 74–101.

Ghasemi, Babak / Hashemi, Masoud: "ICT: Newwave in English Language Learning/Teaching." *Procedia – Social and Behavioral Sciences*, 15, 2011, pp. 3098–3102.

Grabowski, Barbara / McCarthy, Marianne / Koszalka, Tiffany: *Web-Based Instruction and Learning: Analysis and Needs Assessment. Project: Designing Online Instruction. NASA*. Dryden Flight Research Center, National Aeronautics and Space Administration: Washington, D.C., 1998.

Hartley, J. R.: "Learning from Computer Based Learning in Science". *Studies in Science Education*, 15(1), 1988, pp. 55–76.

Hollands, Fiona M. / Tirthali, Devayani: *MOOCs: Expectations and Reality. Full Report*. Center for Benefit-Cost Studies of Education: Columbia University, 2014.

Horsthemke, Kai: "Anthropocentrism, Education and the (post-)Anthropocene. On_Education." *Journal for Research and Debate*, 2(4), 2019, pp. 1–3.

Hyslop-Margison, Emery J. / Naseem, Ayaz: *Scientism and Education: Empirical Research as Neo-Liberal Ideology*. Springer Netherlands: Dordrecht, 2007 (1st Edition).

Johnson, D. LaMont et al.: *Evaluation and Assessment in Educational Information Technology*. The Haworth Press: New York et al. 2002.

Khan, Badrul H.: "Web-Based Instruction". In: Khan, Badrul H. (ed.): *Web-based Instruction.* Educational Technology Publications: Englewood Cliffs (NJ), 1997.

Khan, Badrul H.: "Web-Based Training". In: Khan, Badrul H. (ed.): *Web-based Training.* Educational Technology Publications: Englewood Cliffs (NJ), 2001.

Kharismawati, Ragil: "Suggestopedia Method in the Teaching and Learning Process". *Research on English Language Teaching in Indonesia,* 2(1), 2014, pp. 1–11.

Kitaygorodskaya, Galina A.: *Methodical Bases of Intensive Teaching of Foreign Languages*. Moscow State University Publishing House: Moscow, 1986.

Kolisnichenko, N. N. / Yatsun, Y. M. (2018): "Four Basic Methods of Teaching English in a Chronological Order of Their Development: Application in the System of Public Administration Training." *Public Governance*, 2(12), 2018, pp. 149–166.

Kop, Rita / Hill, Adrian: "Connectivism: Learning Theory of the Future or Vestige of the Past?" *International Review of Research in Open and Distributed Learning (IRRODL)*, 9(3), 2008, pp. 1–13.

Kuzmina, O.V.: "Massive Open Online Courses (MOOCs): Problems and Prospects". *IMS-2015 Proceedings 'Internet and Contemporary Society'*. University of ITMO: St. Petersburg, 2015, pp. 88–95.

Levy, Michael: *Computer-Assisted Language Learning: Context and Conceptualization*. Oxford University Press: Oxford, 1997.

Maloy, Robert W.: "Commentary: Building Web Research Strategies for Teachers and Students". *Contemporary Issues in Technology and Teacher Education*, 16(2), 2016, pp. 172–183.

Mart, Cagri T.: "The Audio-Lingual Method: An Easy Way of Achieving Speech". *International Journal of Academic Research in Business and Social Sciences*, 3(12), 2013, pp. 63–65.

Moeller, Aaleidine J. / Catalano, Theresa (2015): "Foreign Language Teaching and Learning". In: Wright James, D. (ed.): *International Encyclopedia for Social and Behavioral Sciences*. Pergamon Press: Oxford, 2015 (2nd Edition), pp. 327–332.

Mustakim, S.S. et al.: "Teacher's Approaches in Teaching Literature: Observations of ESL Classroom." *Malaysian Online Journal of Educational Science (MOJES)*, 2(4), 2014, pp. 35–44.

Oflaz, Adnan: "The Foreign Language Anxiety in Learning German and the Effects of Total Physical Response Method on Students' Speaking Skill." *Journal of Language and Linguistic Studies*, 15(1), 2019, pp. 70–82.

Perez, Carlota: *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages*. Edward Elgar: Cheltenham (UK) / Northampton (MA), 2003.

Phillips, June K.: "Foreign Language Education: Whose Definition?" *The Modern Language Journal*, 91(2), 2007, pp. 266–268.

Player-Koro, Catarina: "Factors Influencing Teachers' Use of ICT in Education." *Education Inquiry,* 3(1), 2012, pp. 93–108.

Ragan, Lawrence C.: "10 Principles of Effective Online Teaching: Best Practices in Distance Education". In: Hill, Christopher (ed.): *Distance Education Report.* Wsconsin: Magna Publication, 2010.

Relan, Anju / Gillani, Bijan B.: "Web-Based Instruction and the Traditional Classroom: Similarities and Differences. In: Khan, Badrul H. (ed.): *Web-based Instruction*. Educational Technology Publications: Englewood Cliffs (NJ), 1997, pp. 25–37.

Rokenes, Fredrik M. / Krumsvik, Rune: "Development of Student Teachers' Digital Competence in Teacher Education – A Literature Review". *Nordic Journal of Digital Literacy*, 9(4), 2014, pp. 250–280.

Sampson, Nicholas: "Meeting the Needs of Distance Learners". *Language Learning & Technology*, 7(3), 2003, pp. 103–118.

Savignon, Sandra: "Communicative Language Teaching". In: Byram, Michael (ed.): *Routledge Encyclopedia of Language Teaching and Learning*. Routledge: London, 2000, pp. 125–129.

Shekhter, Igor Y.: "Zhivoj jazyk" (= Living Language). In: Shekhter, Igor Y. (ed.): M.: REKTOR Kirov: Open Joint Stock Company House of the Press: Vyatka, 2005, 240 p.

Shestov, M. Yu: *Yes! You Can Learn Any Language and Teach Yourself to Learn Effectively*. Wayward Ventures Publishing: New York, 2007

Stepanenko, Ravia / Ainoutdinova, Irina N. / Krotkova, Natalya V.: "Distance and Online Learning Solutions in the Context of Modern Legal Educational Policy". *Cuestiones Políticas*, 38(2), 2020, pp. 239–250.

Stevenson, D. *Information and Communications Technology in UK Schools: An Independent Inquiry*. The Independent ICT in Schools Commission: London, 1997.

Stevick, Earl W.: "Review of Teaching Foreign Languages in the Schools: The Silent Way". *TESOL Quarterly*, 8(3), 2000, pp. 305–313.

Tabassum, Rabia / Najeeb, Ullah / Ullah, Irfan: "Effect of the Eclectic Approach of Teaching on English Communication Skills at Elementary Level." *Modern Journal of Language Teaching Methods*, 8, 2018, pp. 138–146.

Ter-Minasova, Svetlana: "Learning and Teaching Languages in Russia: Old Traditions and New Problems". *Linguistics and Intercultural Communication: Moscow University Bulletin*, 19(2), 2013, pp. 9–19.

Tregubova, Tatiana / Ainoutdinova, Irina / Khuziakhmetov, Anvar: "Advantages and Disadvantages of Distance Education for University Students in Russia". *Modern Journal of Language Teaching Methods*, 7(9/2), 2017, pp. 72–86.

Turaeva, M.A.: "Method of Teaching a Foreign Language as an Independent Theoretical and Applied Science". *Young Scientist*, 28(266), 2019, pp. 261–263.

UNESCO: ICT Competency Framework for Teachers – ICT CFT. UNESCO publishing: Paris, 2011 (2nd Edition).

UNESCO: ICT Competency Framework for Teachers – ICT CFT. UNESCO publishing: Paris, 2018 (3rd Edition).

Warschauer, Mark: "Computer Assisted Language Learning: An Introduction". In: Fotos S. (ed.): *Multimedia Language Teaching*. Logos International: Tokyo, 1996, pp. 3–20.

Warschauer, Mark / Kern, Richard: "Introduction: Theory and Practice of Network-Based Language Teaching". In: Mark Warschauer / Richard Kern (eds.): *Network-based Language Teaching: Concepts and Practices*. Cambridge Applied Linguistics Series. Cambridge University Press: Cambridge, 2012.

Wilkinson, Sharon: "On the Nature of Immersion During Study Abroad: Some Participant Perspectives". *Frontiers: The Interdisciplinary Journal of Study Abroad*, 4(1), 1998, pp. 121–138.

Zelenin, G. / Kovalyova, Y.: "A Survey of Innovative Foreign Language Teaching Methods in the XX-XXIth Century". *Problems of Engineering and Pedagogical Education*, 32/33, 2011, pp. 172–177.

Further Reading

European Union – European Commission: Education and Training: Digital Education Action Plan (2021–2027), retrieved 07.05.2021, from https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en

Hawkins, Melissa: "Self-Directed Learning as Related to Learning Strategies, Self-Regulation, and Autonomy in an English Language Program: A Local Application with Global Implications". *Studies in Second Language Learning and Teaching*, 8, 2018, 452–456.

Li, Cathy / Lalani, Farah: "The COVID-19 Pandemic Has Changed Education Forever. This Is How", retrieved 01.05.2021, from https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/.

Osborne, Mark: "Innovative Learning Environments. CORE Education's White Papers", retrieved 30.09.2021, from https://core-ed.org/assets/PDFs/Innovative-Learning-Environments.pdf.

UNESCO: World Communication and Information Report 1999. UNESCO publishing: Paris, 2000.