

# The complex model of didactic framework for digital cross-cultural learning context

Tatyana Vladimirovna Aslamova, and Elena Vyacheslavovna Shvetsova\*

Moscow State Polytech University, 38, Bolchaya Semenovskaya St., Moscow, 107023, Russian Federation

**Abstract.** Digitalization turns out to be the vector that determines further development of education and linguistic education. The benefits of digitalization are relevant in most areas of our life, but the potential to leverage digitization to achieve a significant students' performance uplift is especially great in learning foreign languages. Meanwhile, ICTs require to undertake some steps to streamline the existing approaches to the arrangement of the second language learning process as a cross-cultural dialogue through implementing new forms of students' interaction, providing enhanced access to knowledge; targeting at integration of linguistic and professional students' competences, as well as providing individual educational development trajectory and autonomy of students. This situation called for the research in this field and the article explores possible ways to meet the current challenges of digital learning settings and aimed at designing, applying and assessing a complex model of didactic framework for ICT integration into learning environment. The authors called this model complex, as they undertook an attempt to design the model, embracing such areas, as teaching and learning with technology; teacher and student context; teacher and student characteristics. The aspects, forming the core of this model are target, content, management and technological aspect. The authors describe the implementation of this model targeted at of students' performance uplift. Positive outcomes were gained in personal and cross-cultural engagement of students, participating in the experiment, in learning process. The conclusion and the materials of the research can be used for further investigation of the problem under consideration and practical use.

**Keywords:** digital technologies, digital educational environment, cross-cultural dialogue, digitalization, model of didactic support

## 1 Introduction

Building a digital economy and digital education are significant priorities of the state policy of the Russian Federation, which is fixed in federal strategic documents: Decree of the President of the Russian Federation dated 09.05.2017 No. 203 "On the Strategy for the Development of the Information Society in the Russian Federation for 2017–2030"; Decree of the Government of the Russian Federation dated 18.04.2016 No. 317 "On the implementation of the National Technological Initiative"; Priority project in the field of education "Modern digital educational environment in the Russian Federation" (approved by the Presidium of the Presidential Council for Strategic Development and Priority Projects, Protocol No. 9 dated 25.10.2016).

The Federal Law "On Education in the Russian Federation" introduces the concepts of "E-learning" and "distance learning technologies". The first refers to the organization of educational activities with the use of information contained in databases and used in the implementation of educational programs and ensuring its processing of information technologies, technical means, as well as information and telecommunication networks

that ensure the transmission of this information through communication lines, the interaction of students and teaching staff. I.e. we are talking about the recognition of the right to exist a new form of organization of the educational process, in which there is unity in a multitude of knowledge, technology of their transmission, means of communication and others. The Law defines distance educational technologies as educational technologies implemented mainly with the use of information and telecommunication networks with the indirect (at a distance) interaction of students and teaching staff.

However, it seems necessary not only to transform the educational process for the use of digital technologies in it, but also to transform digital technologies for their adequate use in the educational process. The practice shows that the practical implementation of innovative digital environments in educational systems is rather difficult. Adopting digital tools' and integrating them in education have consistently fallen behind expectations. This can largely be attributed to deep-rooted attitudes and values opposed to innovation and change [1].

\* Corresponding author: [elshvets@yandex.ru](mailto:elshvets@yandex.ru)

However, one of the unanticipated consequences of Covid-19 is the way in which many education systems have had to adapt to new digital environments to ensure continuity in teaching and learning.

In spite of the misaligning of ICT in educational context, the landscape of digitalization has been increasingly expanding. The major reasons of this ongoing process are the new opportunities for learning, among them enhanced access to knowledge, learner-centered pedagogy, interaction, and collaboration along with flexible time and space.

Defining the positive potential of digitalization, we also note that digital technologies offer many options in the design of educational processes. At the same time, the educational space formed by digitalization has features of universality.

Continuing to consider the changes taking place today in the field of education, it should be said about the change of the educational paradigm to a personality-oriented one, the leading component of which are the key competencies necessary for lifelong learning, digital competence, intercultural competence, and collaboration, social adaptation.

## 2 Problem Statement

The intensification of the processes of integration of Russia into the European and world space determines changes in the process of teaching foreign languages associated with the expansion of the content of education, strengthening the personality-forming potential of a foreign language as an educational subject. Due to the re-evaluation of the goals of foreign language teaching, foreign language teaching is considered as a process of personal development of students in the context of the "dialogue of cultures", i.e. as an interconnected communicative and socio-cultural development of students. The understanding of culture and its role in the education process is prominent as it shapes learners' values, perceptions and goals and determines how they respond to computer-based learning.

However, it seems important to note that attempts to integrate the dialogue of cultures into the boundaries of digital phenomena entail inevitable changes in the culture of dialogue and communication methods.

Thus, education also has a new priority – the formation of a digital (electronic) culture of dialogue in the process of dialogue of cultures organized in the educational space.

In the era of electronic transformations, people receive various types of cultural information as a new resource for activating interests and the level of competence based on a wide variety of means, including electronic ones. A special space is being formed to create a super-saturated information field, almost everywhere surrounding a modern person.

It becomes obvious that the Internet as a global culture-transforming phenomenon represents new values and this indicates a change in the paradigm of social communications.

The new conditions for the organization of teaching the dialogue of cultures require consideration of the latter as a culture that forms an ensemble (harmonic totality) communication networks, technical devices, algorithms, formal and informal rules of interaction, patterns of behavior, cultural symbols that make possible and provide remote access to the creation, exchange and receipt of information, structure the activity of people on the Internet and similar networks providing remote access to the creation, exchange and receipt of information [2].

The analysis of the deployment of ICT shows, that true digital learning provides the opportunities for immersion into the core of diversity, thus enabling the students to come to grips with underlying basic assumptions that shape the culture. Importantly, is not a teacher-centered process, but a learner-driven process involving interaction with other learners. The advantage of digital cross-cultural learning is that "the student is motivated to attend class, be engaged, and to learn" [3].

Therefore, consideration of the issues of digitalization of foreign language teaching processes should not be limited to the analysis of the development of digital technologies in it and their application, but should affect the socio-cultural context of the organization of foreign language teaching – the conditions, features of life and culture of the society to which the standards of the digital world are proposed. This formulation of the question seems logical, since digital culture is difficult to separate from the "non-digital" culture. The point is not only the rapid "digitization" of modern culture, but also the fact that digital culture is organically connected with the culture of previous eras, the "pre-digital" culture [4].

Emphasizing the importance of the socio-cultural approach for professionally-oriented teaching of foreign languages, we note that the interrelated communicative training and socio-cultural development of students by means of a foreign language is aimed at forming their understanding of the dialogue of cultures as "an alternative philosophy of the world". At the same time, the socio-cultural component is interpreted as a set of ideas about the culture and business culture of the country of the studied language, which allows building verbal and non-verbal interaction according to accepted norms among native speakers; it is tolerant to perceive a different way of life and to note differences and similarities with the culture of the native language.

Since there is a possibility of one-sided coverage of culture, and hence the reality in the content of teaching, it is important to understand which of the concepts of culture really directs the entire educational process. The language, as a derivative of culture, presents the social experience of previous generations in a concentrated form. In this regard, culture is considered as the study of realities in which the features of national culture (professional and digital culture in particular) are most fully manifested. The view of culture as "managerial mechanisms, a set of specific patterns of behavior" contributes to the development of communicants' ideas about the socio-cultural phenomena of another community. It is also significant that the concepts

created under the influence of the native language and culture are enriched with new content, new interpretations, which leads to the expansion of horizons and the creation of pictures of the world of communicants. The motivation of students' professional needs indicates that the expansion of the boundaries of the social functioning of languages dictates the urgent need for students to form a more complete and objective picture of the world.

The implementation of the socio-cultural approach to teaching is determined by how consistently the socio-cultural component is presented in the content of teaching. The optimal point of view on the problem of the compositional content of the subject is 1) language material, topics relevant to the sphere of business communication of various genres and types; normative /non-normative situations of professional communication; 2) a system of subject-professional, socio-cultural and linguistic knowledge necessary for a specialist to interact with representatives of another linguistic culture; 3) a set of professional and communicative skills and abilities necessary to solve the tasks of professional interaction; 4) empathy as "the ability to prevent the emergence of a communicative barrier in the process of linguistic and cultural social interaction. The socio-cultural component is organically present in all the components of the content of teaching and this is precisely where its integrative essence manifests itself. Consequently, it is the socio-cultural component that acts as the socio-cultural content of learning and, at the same time, its procedural aspect merges with socio-cultural competence, integrating into the categories of knowledge, skills and abilities in all types of speech activity. The subject aspect of the socio-cultural component (themes, texts, situations) also determines the success of intercultural communication, contributing to the formation of the socio-cultural component of communicative competence.

Hence, it is obvious that the modern process of teaching foreign language communication should be aimed at organizing interethnic and intercultural interaction. This process should be aimed at the formation of students' personal qualities such as openness, tolerance and readiness for oral communication. In other words, teaching oral communication should form students' empathic competence, which will allow them to overcome possible communication barriers in the process of intercultural interaction with native speakers of the studied language. The above dictates the need to build the process of learning to communicate in the context of a dialogue of cultures. This is an important condition for the process of student's cognition of the world, accumulation of new information about the life of the people of other countries in the consciousness. The consequence of this process is the transition of a person to a new, higher stage of cultural development and to the practical use of elements of culture of another linguistic society in their activities.

In turn, the improvement of foreign language teaching through the use of ICT depends, first of all, on the extent to which the possibilities of information

interaction technologies are realized in the educational process. It has become absolutely obvious that the development of more effective methods of organizing foreign language teaching, realizing the didactic capabilities of ICT tools, determines the preparation for information interaction in the intercultural information space.

### 3 Research Questions

This situation called for the research in this field, it is also necessary to get answers to the following questions:

RQ 1- What aspects of pedagogical provision of ICT are relevant for SSL process, arranged in the context of cross-cultural dialogue?

RQ 2- What algorithm of cross-cultural students' interaction is possible, given digital educational environment?

RQ 3- What digital technologies have recently gained the lead in the SSL process?

### 4 Purpose of the Study

The objective of the study is to design the complex model of didactic framework of ICT for digital cross-cultural learning context. This objective determined the solution of the following tasks: to identify the potential of using digital technologies in the educational process, the specifics of culture in a digital educational environment; to determine the factors influencing the choice of digital technologies about the process of teaching a foreign language as a "dialogue of cultures", to develop and justify the didactic provision of ICT in vocational education, to develop a methodology for the didactic design of ICT.

### 5 Research Methods

To solve these tasks and verify the effectiveness of the proposed conceptual model of didactic provision for ICT, a set of methods was used:

The theoretical and methodological basis of the study consists of psychological theories about the gradual formation of mental actions and categorization of objects of perception, pedagogical theories that reveal the factors of increasing motivation to learn, the formation of the content of education, the theory of measurement and control of learning outcomes, the methodology of using information and telecommunication technologies in education, the analysis of the regulatory framework in the field of education allowed to identify the social order to the education system; historical and pedagogical analysis was used to determine the prerequisites of the problem under study in scientific research; conceptual and terminological analysis was used to characterize the conceptual field of the problem; modeling was used to build a model of the process under study.

Empirical methods: generalization and study of effective pedagogical experience in the formation and development of skills of professional intercultural

interaction; ascertaining and forming, control experiments; method of expert assessments, self-assessment, generalization of independent characteristics; direct and indirect observation, questionnaire, survey, conversation, testing; pedagogical observation; statistical methods of data processing.

A substantial analysis of the scientific literature has shown that there are publications of scientists on the problem of research, which highlight some of its aspects. The issues of introducing new information technologies into the educational process are considered in scientific papers of N.A. Dmitrienko, A. Frolov, J. Hodaňová, H. Hyksová, E. G. Mikhnova, M. Škultéty [3] etc.; the influence of informatization on the content of education is studied by S. Begley, J. Harris, D. Hindman, L. Kuban, N. Kemp, K.W. Lai, A. Oliver, E.V. Shvetsova, L. Wei, B. Williamson [5–16] etc.; the possibilities and role of information and communication technologies in the educational process are revealed in the works of A.L. Morozova, J. Piaget, B. Williamson, N. Zaguzov [16–18].

At the same time, pedagogical support of the use of ICTs, depending on the forms of organization of cross-cultural social and professional interaction of students in the course of SLL in higher schools have not been studied.

## 6 Findings

The analysis of technical and pedagogical approaches to the creation of computer-based learning tools allowed us to conclude that their harmonious use is optimal.

In the study ICT is regarded as pedagogical technology using special methods, software and hardware (cinema, audio and video media, computers, telecommunications networks) to work with information along with the application of information technologies to create new opportunities for the transfer of knowledge (teacher's activity), perception of knowledge (student's activity), assessment of the quality of training and, of

course, the comprehensive development of the student's personality during the educational process.

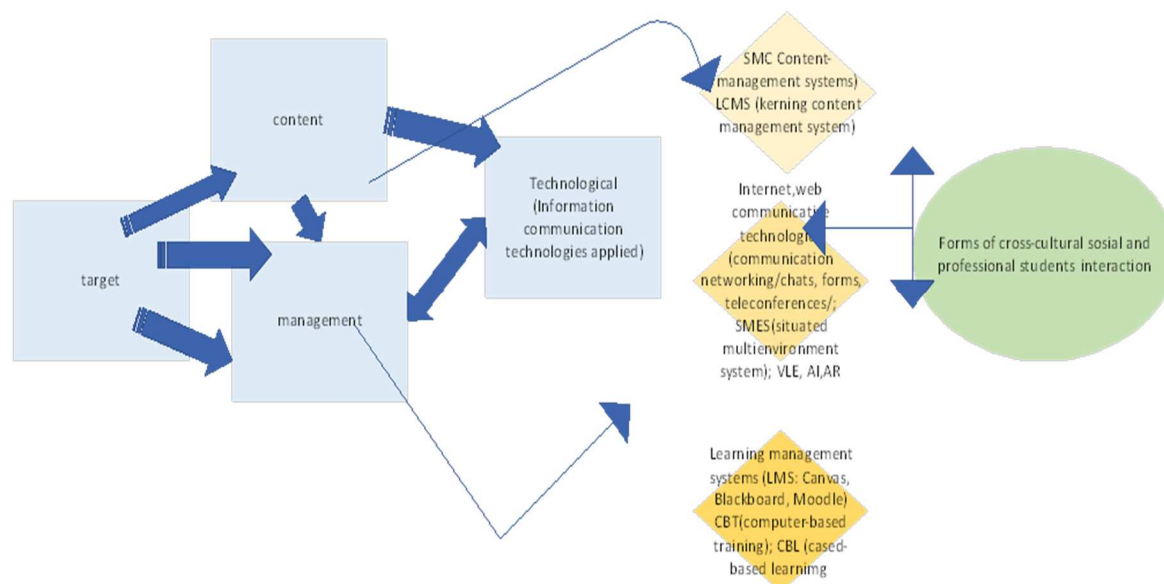
The analysis of ICT definitions gives the possibility to distinguish two approaches.

In the first approach, IT is proposed to consider IT as a didactic process that defines the theory and methodology of teaching and organized using a set of fundamentally new means and methods of data processing (teaching methods) introduced (embedded) into the learning systems, representing the purposeful creation, transmission, storage and display of information products (data, knowledge, ideas) at the lowest cost and in accordance with the laws of cognitive activity of trainees. In the second case, ICT is considered as a certain technical learning environment in which the information technologies used play a key role. It becomes obvious that the viability and effectiveness of the pedagogical use of informatization tools is determined not only by their high psychological, pedagogical, technical, technological and ergonomic indicators, but also by the degree of uniformity (unification) of substantive, methodological and technological approaches to the implementation and operation of such tools.

The proposed conceptual model regards ICT both as a didactic process using new teaching tools and as a certain digital learning environment, which, in turn, indicates a new approach to the organization of SLL process.

The authors called this model complex, as they undertook an attempt to design the model, embracing such areas, as teaching with technology (teacher-related micro-level), learning with technology (student-related micro-level), teacher characteristics(meso-level), student characteristic (student-related meso0level), teacher context (teacher-related macro-level) and student context (student-related macro-level) [3].

The aspects, forming the core of this model are target, content, management and technological aspects (fig. 1).



**Fig. 1.** The complex model of didactic framework for digital cross-cultural learning context

Considering the goal as a system-forming component, we define the target component as the formation of the willingness and desire of students to participate in cross-cultural social and professional interaction. The content component is determined by the context of the personality-oriented paradigm of modern education and consists in the formation of students' cross-cultural communicative competence – the ability to establish and maintain contacts with other people, ensure effective professional interaction, enter the system of professionally important qualities that determine success in various types of professional activities that are communicative in nature.

The technological aspect comprises a group of ICTs, targeted at organizing different forms of students' interaction in SLL process. It deals with the content management and learning management. As for the technological part, it is designed to ensure the achievement of the set goals. It is represented by technologies that have a developing, interactive and personality-oriented nature. The proposed model is based on the fundamental principles of a personality-oriented approach to learning and the use of learning technologies, which, ultimately, are aimed at developing students' ability to interact socially with representatives of a different linguistic culture and at introducing future specialists to a foreign language as a method of intercultural interaction. In our understanding, the above means: 1) rejection of the authoritarian style of teaching; 2) improvement of teaching technologies, namely, a departure from monologue as a traditionally prevailing form of educational activity, and the development of such a form of learning as polylogue (communication, conversation, discussion); 3) understanding of foreign language communication not only as the ability to impart the information in the structure and forms of a foreign language, but also as a partner's motivation to some kind of action of the verbal and non-verbal order, as well as for the realization of self-expression of the speaker.

The interaction management component of the model is represented by the sequence of organizational forms, targeted at arrangement of students' interaction in the SLL process. Depending on the level of activity, autonomy and independence of students, we distinguish such forms of students' interaction organization, as 1) initiation of interaction; 2) imitation of social and professional interaction; 3) authentic interaction. These forms reflect the "progressive format" i.e. the gradual complication of the forms of organization of students' interaction in accordance with the types of activities they are involved in the educational process [19]. Initiation to interaction presupposes a reproducing (reproductive or training) level of educational activity, on which the foundations for other levels are created and a verbal lexical and grammatical base is formed, standards are laid in memory. At this level, the assimilation and consolidation of new material is underway. Imitation of social and professional interaction assumes a (transitional or quasi-creative) level of second language learning and follows from the previous one. At this level, it is supposed to analyze the educational material with its subsequent synthesis. Here, the acquired knowledge,

skills and abilities are transferred to similar situations, as well as the formation of statements in similar situations. Academic work in a foreign language at this level requires more mental activity and creativity. Authentic interaction is realized at the creative (creative) level and is associated with the formation of skills and abilities to search for solutions to more complex communicative tasks. It is here that a creative personality and professional independence are formed. Therefore, in the process of learning a second language, none of these levels should be ignored, and at different stages of learning they are applied either in stages or simultaneously.

Furthermore, regarding training courses, they should be integrated, that is, include both multimedia fragments and external electronic resources. An ICT-based material must meet the same requirements (flexibility, integration, individual trajectory, etc.). It is a comprehensive educational material created and updated based on the use of technological innovations and Internet resources, and contains a systematic presentation of knowledge in the subject area. Among the requirements for technologies to design an ICT-based material are the use of cloud technologies in the process of creating and using a smart textbook, advanced multimedia capabilities, interactivity of educational tools, automatic filtering by the level of mastering the material (knowledge rating), subscription to access and use, group work of co-authors and readers in the Internet space, content creation through a personal account.

Based on the above features, it seems to us expedient to organize the process of teaching a foreign language based on the interaction of students with each other and with ICT in four stages: 1) reflexive-analytical; 2) design; 3) procedural; 4) cumulative.

Each stage of the organization of students' interaction in the process of teaching foreign language communication has its own specific tasks.

1. Reflexive-analytical stage. At this stage, the following tasks are being solved: a) formulation of the purpose of communication and its topics that are relevant for students; b) creation of the necessary motivation of students for the upcoming joint activity; c) formulation of an unambiguous understanding of the problem by the participants of interaction; d) creation of a friendly emotional atmosphere.

2. The design stage. At this stage, the following tasks are being solved: a) the choice of forms of organization of communication training depending on the stage and tasks of training, type of ICT employed; b) the exclusion of personal confrontation of participants in interaction; c) the distribution of roles and responsibilities between students in accordance with their individual characteristics and speech experience. At this stage, the solution of the tasks can be carried out in all organizational forms: introduction to interaction, imitation of social and professional interaction, and in the forms of authentic interaction. At the stage of familiarization with new language material and the stage of its training, organizational forms are used that involve students in interacting with each other. In fact, students perform exercises aimed at mastering communication

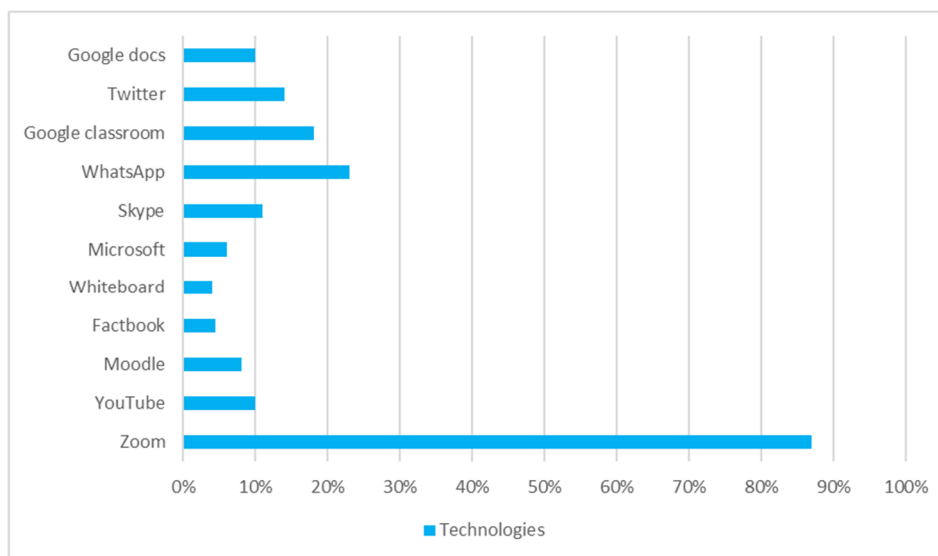
strategies, vocabulary, structural and systemic connections, special speech stereotypes and formulas of social and professional interaction. In the process of using authentic organizational forms and forms imitating social and professional interaction, students in the process of interacting with each other learn the basic concepts of business culture, norms of social and interpersonal behavior, from which foreign-speaking participants of communication proceed. It is necessary to take into account the main parameters of social interaction, such as: the repertoire of actions, patterns of interaction, features of communicative means, which must be included in all organizational forms of teaching oral communication at all stages of training. This is explained by the fact that it is knowledge about a

foreign-language professional society that is of particular importance for the formation of students' perceptual readiness to adequately perceive information transmitted by a foreign-language partner.

3. The procedural stage. At this stage, the tasks that directly relate to each of the forms chosen by the teacher are solved, based on the stage and tasks of teaching cross-cultural social and professional communication.

4. Cumulative stage. At this stage, the analysis of the results of students' interaction in the process of their mutual activities is carried out. At the same time, this stage is not only the final one, but also a prerequisite for further interaction of communicating partners.

The analysis of the most mentioned technologies allowed to rank them (Fig. 2).



**Fig. 2.** Technologies used in educational process.

From the diagram presented, it can be seen that Zoom is the most commonly used technology, the rest lag far behind.

## 7 Conclusion

The results obtained during the experimental work give us the basis to draw the following conclusions:

1. The complex model of the didactic framework of ICT for digital cross-cultural learning context is designed, including: target, content, management and technological constituent parts, which, in turn, determine the goals, content components of the information environment, the content of the teacher and student's activities, didactic and organizational means to ensure this activity.

2. In the course of the research, the organizational and pedagogical conditions for the use of information and communication in the context of cross-cultural interaction are determined. The forms of the organization of students' cross-cultural interaction are described; the characteristics of the pedagogical support of each of them are given; the special role of the teacher in the educational process as a tutor is noted).

3. The effectiveness of the developed model was confirmed, which manifested itself in the positive dynamics of the studied indicators of personal and professional growth of students who participated in the experiment.

4. The developed complex model can be used in practice of teachers' trying to implement ICT in the educational process.

## References

1. K. Robinson, *RSA Animate: Changing Education Paradigms* (2013). Retrieved from: <https://www.youtube.com/watch?v=zDZFcDGpL4U>
2. A.A. Kosmarsky, V.V. Kartavtsev, N.Yu. Podorvanyuk, M.M. Bode, Tribes and transparency: prospects of digital self-organization mechanisms in Russian science. *Monitor. of public opinion: Econ. and soc. changes* **6**, 65–90 (2019). Retrieved from: <https://doi.org/10.14515/>
3. M. Shonfeld, P. Resta, C. Ng, J.G. Ntebutse, S. Williamson-Leadly, M. Judge, D.A. Douglas, C. Bourgeois, *Cross-cultural alignments, fertilization, differentiation: bridging the gaps through*

- technology*. Discussion paper (2019). Retrieved from:  
[http://edusummit2019.fse.ulaval.ca/sites/edusummit2019.fse.ulaval.ca/files/TWG11-Working\\_document.pdf](http://edusummit2019.fse.ulaval.ca/sites/edusummit2019.fse.ulaval.ca/files/TWG11-Working_document.pdf)
4. N.L. Sokolova, Digital culture or culture in the digital age? *Digital Cult.* **3(8)**, 10 (2012). Retrieved from: [www.culturalresearch.ru](http://www.culturalresearch.ru)
  5. S. Begley, *The science of decision-making*. Newsweek January 27, 2011. The Internet. June 14 (2011)
  6. J. Harris, P. Mishra, M. Keller, Rethinking the technological pedagogical integration of teachers. *J. of Technol. Res. in Ed.* **41(4)**, 393–416. (2009). DOI: 10.1080 / 15391523.2009.10782536. The SSID is 15789445
  7. N. Kemp, R. Sorrow, Face to face or face to the screen? Student opinions and classroom test results compared to online learning. *Boundaries in psychol.* **5**, 1278 (2014). DOI: 10.3389 / fpsyg.2014.01278. PMC 4228829. PMID 25429276
  8. L. Kuban, High-tech schools and low-tech education. *J. of Computer Engineer. in Pedagog. Ed.* **14(2)**, 6–7 (1998). DOI: 10.1080 / 10402454.1998.10784333 (inactive 2021-01-20).CS 1 main: DO not active since January 2021
  9. K.W. Lai, *Technology: subordination to culture technologies* (New York, USA, Springer, 2008)
  10. A. Oliver, J.O.E. Osa, T.M. Walker, The use of educational technologies to improve teaching and learning of preschool and secondary education students of the 21st century: an example of a block of vocational education programs. *Int. J. of Ed. Media* **39(4)**, 283–295 (2012)
  11. E.V. Shvetsova, The role of the communication approach in modern conditions of teaching foreign languages. *Ed. Sci. Sci person.* **4**, 293–295 (2021). DOI: 10.24411/2073-3305-2021-4-293-295
  12. L. Wei, D. Hindman, Does digital inequality matter more? Comparison of the impact of the use of new and old media on the gap in knowledge based on education. *Mass communicat. and society* **14(1)**, 216–235 (2011). DOI: 10.1080 / 15205431003642707. The SSID is 144745385
  13. B. Williamson, Z. Ben, S. Shay, Datafication of higher education: current issues and prospects. *Ed. in higher ed.* **25(4)**, 351–365 (2020). DOI: 10.1080 /13562517.2020.1748811. The S2CID ID is 219036372
  14. N.A. Dmitrienko, E.G. Mikhnova, Use of information technologies in the educational process of the school. *Young sci.* **16(120)**, 336–338 (2016)
  15. A. Frolov, Challenges and prospects of using information technologies in higher education. *SHS Web of Conf.* **29**, 02015 (2016). DOI: 10.1051/shsconf/2016 EEIA 2016 2 2902015
  16. J. Hodaňová, H. Hyksová, M. Škultéty, *Information and communication technologies in educational process*, in *Mater. 13th International Conf. of Education, Research and Innovation (ICERI2020: Sevilla, Spain, November, 2020)* (2020). DOI:10.21125/iceri.2020.0430
  17. A.L. Morozova, Y.N. Byzina, K.V. Trostina, D.K. Godina, Information technologies in foreign language education. *Europ. J. of Contemporary Ed.* **9(4)**, 827–838 (2020). E-ISSN 2305-6746 2020, DOI: 10.13187/ejced.2020.4.827
  18. N.I. Zaguzov, The concept of reforming Russian science. *Inform. and ed.* **3**, 1–5 (2000)
  19. T.V. Aslamova, Pedagogical design in teaching a foreign language in higher education. *Education. Science. Sci. person.* **4** (2021). DOI: 10.24411/2073-3305-2021-1-132-134