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OPPORTUNITIES AND CHALLENGES OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN FOREIGN LANGUAGE TEACHING

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Abstract

Over recent decades computer technologies and computer-mediated information and communication have become essential in higher education in general and in foreign language teaching in particular. Now almost every classroom has a video projector or LCD TV set for multimedia use, the university departments are equipped with laptops and personal computers, teaching staff as well as students cannot imagine their life without gadgets connected to Internet services. These rapid developments of information and communication technologies mean that educators need a strong framework for assessing the value of different educational technologies, new or existing, and for deciding how or when these technologies may be implemented with the best outcomes. The article presents the combination of the survey of available research papers on the issue with the study of practical experience of foreign language teaching. The use of various methods of scientific research (activity approach, holistic approach, cognitive approach and subject-specific approach) makes it possible not only to describe the main advantages of integration of information and communication technologies in foreign language teaching and specify the most commonly encountered types and forms of this phenomenon but also to identify and classify a number of implementation challenges of information and communication technologies. Awareness of such issues may assist educators to achieve better results in their professional activities and ensure the effective integration of information and communication technologies in foreign language teaching.

1. Introduction

Students who are currently studying at universities belong to the "digital natives" (Prensky, 2001), who are "native speakers" of the digital language and for whom it is a normal practice to continually resort to the help of information and communication technologies (ICTs), associated primarily with computers, the Internet, social media, broadcasting technologies and mobile phones.

Just 15-20 years ago, the use of ICTs in higher education was limited to modest hardware and software equipment of the university, insufficient digital literacy of teaching staff and financial capabilities of students. Now almost every classroom has a video projector or LCD TV set for multimedia use, the university departments are equipped with laptops and personal computers, teachers have become familiar with common ICT-facilitated learning activities and they as well as students cannot imagine their life without gadgets connected to Internet services.

These rapid developments of ICTs in education mean that teachers need a strong framework for assessing the value of different educational technologies, new or existing, and for deciding how or when these technologies make sense for them and their students to use (Bates, 2015).

Due to ICTs' importance in education, identifying the potential effects and implementation challenges of these technologies in foreign language teaching (FLT) and foreign language learning (FLL) would be an important step in improving the quality of learning environment.

2. Problem Statement

Nowadays it is generally recognized that ICTs have the potential to be influential in giving rise to changes of teaching modes, in increasing capabilities of the curriculum, in enlarging engagement and appeal to diverse learners and in providing opportunities for effective communication between teachers and their students in ways that have not been possible before. However, this potential may not easily be realised, as far as "problems arise when teachers are expected to implement changes in what may well be adverse circumstances" (Dawes, 2001, p. 62). In response to this problem, our study aims to provide an overview of the available literature associated with teachers' integration of ICT into their professional activity and a survey of practical work of integration of ICTs into FLT/FLL.

3. Research Questions

The process of digitalization of foreign language teaching is multidimensional. In order to perceive this phenomenon one should raise the following questions:

– What are the features and tools of modern ICTs?

– How are ICTs applied in education in general and in foreign language teaching in particular?

– What are the characteristics of the learning environment created with the help of ICTs?

– What are the strengths, weaknesses, limitations and risks of ICTs' integration in FLT/FLL?

4. Purpose of the Study

This study aims to bring together the facts, arguments and key points from a review of the available literature associated with ICTs' integration in education, to give a general overview of the availability of technology for FLT/FLL today, to outline the examples of application of ICTs in this sector and to depict the obstacles to the use of ICT in learning environment. All these lines of scientific research are complementary and the findings "could provide guidance for ways to enhance technology integration and encourage greater use of ICT" (Bingimlas, 2009, p. 237).

5. Research Methods

To achieve the goals of the study, the research activities were carried out in two main directions: on the one hand, the available scientific publications on the issue have been assorted and examined, and on the other hand, the existing practice of using ICTs by English teachers of the department of foreign languages of the Orenburg Law Institute has been surveyed and analyzed. The following statements were defined as starting points for the conceived scientific research:

– there is a direct relationship between what the students learn and how they learn (activity approach);

– along with content, such sub-dimensions of hidden curriculum as language, space, and structure of learning and teaching environment influence human perception of reality in the venue of education (holistic approach);

– ICTs as a part of the modern techno-social universe introduce new ways of acquiring knowledge; turning everything into digitized data and using algorithms to process this data changes what it means to know something and redefines what knowledge is nowadays (cognitive approach);

– the use of ICTs in FLT/FLL has its own traits and to some extent differs from most other subject areas in the curriculum as far as foreign language teaching is both skill-based and knowledge-based (subject-specific approach).

6. Findings

The main findings of the study are grouped together into two subparagraphs: the first one embraces the favourable opportunities of ICTs in teaching foreign languages and the second subparagraph deals with challenges of ICT's integration in FLT/FLL.

6.1. Opportunities of ICTs in foreign language teaching

The widespread use of ICTs in education enables university teachers of a foreign language to construct favourable learning environment, the properties of which are as follows:

a) general characteristics (Berry, 2011; Latour, 2010; Manovich, 2013):

– ready access to the Internet with great variety and infinity of its resources; content is now increasingly open and freely available over the Internet;

– free access and ease of use of devices for uploading, processing, downloading, coping, retrieving and transmitting information in its main forms: text, graphics, sound and video;

– variety of ways, tools and services for conversion of textual, graphic, audio and video information into digital one and vice versa; data once encoded can be resampled, transformed and filtered endlessly and it can be stored in multiple locations;

– ease of access to means of archiving and storage facilities for large amounts of information;

– almost unlimited possibilities for delegation of mental processes of high sophistication into technical devices and computational systems;

– affordances of user-friendly means of communication, providing, on the one hand, the mobility of communication (the ability to contact any person at anytime and anywhere), and on the other hand, immediate feedback from the networked software that ties humans and non-humans together into new aggregates;

b) specific characteristics (Bates, 2015; Popov, 2015; Sager, 2013):

– ICTs tend to become more communicative, asynchronous, and diversified, thus offering teachers and learners more powerful tools for teaching and learning;

– learners acquire powerful tools for creating their own learning environments, defining their personal learning paths, assessing their own advancement and demonstrating their skills and knowledge to their peers and teachers;

– resources of Internet-based digital libraries make it possible for the teaching staff to create and maintain their own information collections of course materials;

– the world simulated in educational practices through ICTs becomes the real world to those engaged in these practices.

The results of empirical research make it possible to assert that the use of ICTs by teaching staff of the department of foreign languages in the Orenburg Law Institute boils down to certain activities that can be arranged into seven main groups:

– creation and regular updating of the curriculum;

– design of content of academic subjects;

– elaboration of algorithms of students' work with educational materials;

– construction of the learning environment;

– drawing-up a system for monitoring and evaluating the advancement of students at different stages of the course of study;

– arrangement of students' independent study and extracurricular activities;

– teaching in the classroom.

Examples of ICTs that have proved their effectiveness and therefore become common in foreign language teaching and learning in the Orenburg Law Institute are as follows (Feoktistova, 2009; Ilyutyuk, 2015; Nasretdinova, 2018; Popov, 2016; Zhukova & Khalyusheva, 2015):

– digital versions of printed textbooks and authentic textual materials in a foreign language;

– monolingual and bilingual online dictionaries;

– interactive educational complexes and electronic textbooks;

– on-line information resources and reference materials in a foreign language;

– podcasts (audio and video) in a foreign language;

– social networking sites, communication platforms, forums, blogs, two-way instant messaging and e-mail;

– virtual tours and immersive environments in a foreign language;

– online courses, services, websites and platforms tailored for teaching and learning a foreign language;

– drill and practice online content;

– interactive simulators of phonetics, vocabulary and grammar;

– machine translation tools from one language to another;

– sound-to-text and text-to-sound converters;

– software enabling teachers and students to create and modify various digital materials in a foreign language, such as video lectures, video presentations, mind maps and assignments for testing;

– assessment banks for testing students' understanding and skills.

6.2. Challenges of integration of ICTs in foreign language teaching

At the same time, foreign language teachers have to take into account that the integration of ICTs brings to the learning environment a number of concomitant features that go far beyond the planned curriculum and declared goals. Most of these features can be categorized as "hidden curriculum" and "digital risks".

The term "hidden (or implicit) curriculum" refers to the unspoken, unacknowledged or implicit values, behaviors, procedures, norms and outcomes that exist in the educational setting and constitute an important part of the educational experience. The hidden curriculum is described as "hidden" since it expresses and represents attitudes, knowledge, and behaviors, which are not clearly indicated in the curriculum or organizational structure but are conveyed or communicated without aware intent of educators and students. The hidden curriculum can play a positive role and reinforce the lessons of the formal curriculum or it can adversely affect the educative process and contradict the formal curriculum, revealing inconsistencies between a university's stated mission, values, and convictions and what students actually experience and learn at the university (Alsubaie, 2015).

Integration of ICTs into the FLT/FLL is associated with occurrence of the following facets of hidden curriculum:

– promoting learning environment beyond the classroom and rearranging classroom space which cannot any more be reduced to rows of desks and a blackboard;

– getting in touch with a vast number of educational materials of different modality and various cultural content;

– creating the effect of equality of teachers and students in their interaction because of free access and ease of use of most ICTs by all participants;

– reshaping modes and patterns of teacher-student and student-student interaction and communication;

– increasing ways and practices of feedback;

– modifying forms and types of individual and cooperative work of students;

– making use of new evaluation practices and rating scales;

– increasing complexity of the work of software in curriculum-making practices.

Another type of implementation challenges is represented by digital risks. The term "digital risk in education" is used in this text to indicate the risk linked to digitalization of education and to denote a phenomenon that has the potential to cause an undesirable deviation between planned and actual results of ITCs integration into FLT/FLL due to objectively existing uncertainty.

Foreign language teachers actively using ICTs have to deal with the following four main types of digital risks:

1) risks generated by equipment and software:

– eventual failures of software and digital services;

– infliction of harm to computer software or stored information because of malware;

– rapid obsolescence of software and hardware;

– dependence on the availability and accessibility of students to proper digital devices in the case of BYOD (Bring Your Own Device);

2) risks concerned with teaching methods:

– complexity and difficulty of selection, verification, systematization, modification and adaptation of data from the Internet in compliance with the requirements of curriculum;

– elimination of traditional paper textbooks in favour of open-source materials and e-textbooks despite the fact that hard copies of textbooks are traditionally standard in FLT/FLL and availability of digital resources cannot adequately replace paper textbooks;

– teacher-student feedback problems due to misplaced reliance on computer programs and online services;

– aggravation of competition between students and creation of a negative attitude to advances of others in instances of application of ICTs that require mutual evaluation or peer-assessment of task performance where the access to a new assignment depends on another student's comments or where a student has to beat another student to get higher mark;

3) content-sensitive risks:

– Internet materials (texts, images, audio and video files, links to online resources) may contain outdated or incorrect data;

– the content of Internet materials may intersect with, or be influenced by, political, ideological, and moral differences that are controversial or irritating within our society;

– information available in the Internet may be unethical, violent, hateful, discriminatory and even illegal;

4) risks attributable to the circumstances of ICT's use:

– the offered materials might be placed in the Internet as a result of copyright infringement or invasion of privacy;

– pragmatic use of ready-made media content and digital services without any adaption to the goals of FLT gives rise to the teacher's dependence on the creators of the employed websites, digital services and software; such a risk can be put neatly as "to programme or be programmed";

– the habit of modern students to constantly use electronic devices enables learners to reduce fulfillment of complex and time-consuming assignments to two steps: the student makes a corresponding

request to social networks or other services available to him and finds a ready-made version of the solution of the assignment, whether it is a machine translation of a text, a made-up essay, a preformed presentation or a screen shot of the completed answer sheet to the test.

7. Conclusion

Information and communication technologies have become an integral part of the teaching and learning environment in modern universities. ICTs are used as effective machinery to improve the quality of education and their implementation provides an opportunity to expand the learning spaces and give access to current, up-to-date textual, graphic, audio and video materials from the whole world. The use of ICTs in education is associated, inter alia, with providing the mobility of communication, reshaping modes and patterns of interaction and communication of educators ant learners, modifying forms and types of individual and cooperative work of students, increasing ways and practices of feedback, implementing new evaluation practices and rating scales. Various ICTs, such as on-line information resources and reference materials in a foreign language, e-textbooks, drill and practice online content, audio and video podcasts, e-mail and social networking sites, have proved their effectiveness and become common in foreign language teaching.

At the same time there are numerous challenges and side effects of ICT's integration in education, such as unfavorable impact of hidden curriculum and digital risks, which may lead to weakening a student's and teacher's efforts and eventually have a negative impact on learning environment. These challenges may include, inter alia, risks generated by equipment and software, risks concerned with teaching methods, content-sensitive risks and risks attributable to the circumstances of ICT's use. Awareness of such issues may assist educators to achieve better results in their professional activities.

Thus, the findings of the study described above allow us to argue that ICTs are an effective tool in teaching foreign languages with their own strengths and weaknesses, and the use of ICTs in higher education has become an integral part of educational reality, which is created by the joint efforts of teachers and their students and which, thanks to access to Internet resources, is no longer limited to the walls of an educational institution.

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