THE POTENTIAL OF THE LATEST INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE PROCESS OF RESEARCH AND STUDY OF THE GERMAN LANGUAGE

Irina Kruashvili
Doctor of Philology, Associate Professor
Sokhumi State University
(Tbilisi, Georgia)
e-mail: i.kruashvili@sou.edu.ge

Annotation. The aim of the article is to show the importance of the latest information and communication technologies in the research and study of the German language, to review the scientific and educational literature in digital format, to emphasize the expediency of finding, selecting and using Internet resources in accordance with the demands of modern science and teaching practice. The purpose of the article is also to support and assist academics in overcoming new challenges, namely in developing innovative creative approaches in the process of research and study of the German language.

Several methods of research are used in the article: studying the literature concerning digital technologies, review of the electronic resources, descriptive method, method of analysis.

Results of the research can be characterized as follows: modern information and communication technologies can be effectively used in scientific and pedagogical activities. The internet has huge informative possibilities. It gives an unprecedented opportunity for German language researchers and learners to use the latest digital scientific and educational materials as well as authentic texts. The article discusses scientific and narrow branch portals, multimedia study materials, digital resources, electronic databases, electronic libraries, online dictionaries, reference sources, bibliographies.

As a conclusion, it can be said that rapid digitization in the last century has contributed not only to the development of innovative ways of finding and storing information, but also to the emergence of new social realities. The latest information and communication technologies include new approaches to the research and study of the German language, implying a new style of organization and scheduling of the research as well as of creative and educational activities. The global network provides access to information in world-renowned science centers, libraries and, consequently, creates the conditions for better management of academic activities. Digital technologies not only facilitate access to information, they also open the field of new alternative scientific activities, enable us to individualize the knowledge, to differentiate, to enhance the professional culture of the specialist, to develop linguistic skills, to ensure a high quality of education.

Keywords: Information and Communication Technologies, German Language

ПОТЕНЦИАЛ НОВЕЙШИХ ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ ТЕХНОЛОГИЙ В ПРОЦЕССЕ ИССЛЕДОВАНИЯ И ИЗУЧЕНИЯ НЕМЕЦКОГО ЯЗЫКА

Ирина Круашвили
Доктор филологии, ассоциированный профессор
Сухумский Государственный Университет
(Тбилиси, Грузия)
e-mail: i.kruashvili@sou.edu.ge

Аннотация. Цель статьи - показать важность новейших информационно-коммуникационных технологий в исследованиях и изучении немецкого языка, провести обзор научной и учебной литературы в цифровом формате, подчеркнуть целесообразность поиска, отбора и использования интернет-ресурсов в соответствии с требованиями современной науки и педагогической практики. Цель статьи также состоит в том, чтобы поддержать и помочь представителям академической сферы в преодолении новых вызовов, а именно в разработке инновационных творческих подходов в процессе исследований и изучения немецкого языка.

В статье использовано несколько методов исследования: изучение литературы, касающейся цифровых технологий, обзор электронных ресурсов, описательный метод, метод анализа.

Результаты исследования можно охарактеризовать следующим образом: современные информационно-коммуникационные технологии могут быть эффективно использованы в научной и педагогической деятельности. Интернет обладает огромными информационными возможностями. Это дает беспрецедентную возможность исследователям и учащимся немецкого языка использовать новейшие цифровые научные и образовательные материалы, а также аутентичные тексты. В статье рассматриваются научные и узкоотраслевые порталы, мультимедийные учебные материалы, цифровые ресурсы, электронные базы данных, электронные библиотеки, онлайн-словари, справочные источники, библиографии.

В заключение можно сказать, что стремительная оцифровка в прошлом веке способствовала не только развитию инновационных способов поиска и хранения информации, но и появлению новых социальных реалий. Новейшие информационные и коммуникационные технологии включают новые подходы к исследованиям и изучению немецкого языка, что подразумевает новый стиль организации и планирования исследований, а также творческой и образовательной деятельности. Глобальная сеть обеспечивает доступ к информации во всемирно известных научных центрах, библиотеках и, следовательно, создает условия для лучшего управления академической деятельностью. Цифровые технологии не только облегчают доступ к информации, они также открывают поле для новой альтернативной научной деятельности, позволяют нам индивидуализировать знания, дифференцировать, повышать профессиональную культуру специалиста, развивать лингвистические навыки, обеспечивать высокое качество образования.

Ключевые слова: Информационно-коммуникационные технологии, немецкий язык

INTRODUCTION

Information and communication technologies have given new opportunities to science. It is an already recognized fact that digital technologies bring people together, including those in the field of science. Modern forms of communication have enabled scientists to share their research findings digitally or online. All this contributes to the development and internationalization of scientific dialogue and is a very important factor in today's globalized world.

Coronavirus pandemic is a big challenge for all of us. It refers to the adoption of drastic measures that affect the public space and, consequently, the implementation of research or teaching process in higher education establishments. The current situation has turned the people's lives upside down all around the world and has fundamentally changed our everyday being - both professionally and socially. Certainly, professors now face a new task, namely, they have to conduct their research and lectures digitally. This requires not only technical skills, but also a transition to a new work style, understanding and re-evaluating how university-proven research and teaching methods can be transferred from the offline phase to the online phase and finding out which tools can enable us to activate the creative process of learning and research of a foreign language, in particular, of the German language.

REVIEW OF THE ISSUE

Information technologies are facing a revolution. In terms of language technology, German, as before, is well provided with Internet products and resources. There are available speech synthesis, speech recognition, spelling and grammar checking programs, as well as many translation machines / programs that

can provide a linguistically correct translation. Various information and communication technologies are successfully used for the research and study of the German language, in particular, electronic databases, electronic libraries, electronic journals, reference sources, digital dictionaries, encyclopedias, electronic textbooks, lecture courses, computer presentations, multimedia educational audio-video materials, online tests and exercises, educational and feature films.

METHODS OF RESEARCH

Several methods of research are used in the article. In particular, studying the literature concerning digital technologies, review of the electronic resources, descriptive method, method of analysis.

RESULTS AND DISCUSSION

The German Language Institute (Das Leibniz-Institut für Deutsche Sprache (IDS)) in Mannheim has been researching since the 1990s how digital resources, vocabulary, grammar, word production, phraseology and other aspects can be delivered to interested readers at a highly scientific level and, at the same time, clearly and comprehensibly. IDS is a leading research center, where multifaceted research of various German language systems is implemented. It is distinguished by a high academic level and high quality of the material presented by it. Among various IDS online offerings, the online platform "Grammis" is remarkable. It is an extensive and comprehensive information system designed for all German speakers as well as for anyone interested in the German language. "The object of research of this system is not only a detailed description of the grammatical structures of the German language, but also the compilation of linguistically relevant documentation and sources of information to deepen certain aspects, as well as to further study methodological or content issues" (Dalmas and Schneider 2018: 270).

"Grammis" consists of three sections: Research, Basic knowledge, and Resources. The research section presents the results of current and completed scientific research in the field of German grammar, provides detailed information on systematic German grammar, corpus grammar, comparison of languages, speech phonology, scientific terminology. The basic knowledge section also includes extensive and essential information on German spelling, key grammatical terms, specific grammatical issues, or on this or that controversial field issue. The resource section includes digital dictionaries (e.g., dictionaries of verb valence, affixes, prepositions, connectors), bibliographies (German grammar, spelling bibliography), special databases (genitive markers, attributive adjective databases) (Grammis - IDS).

Information and service portal "Germanistik im Netz" is designed for Germanists who are studying or teaching German. The website is both a research tool and a provider of information, as well as a repository of research results and publications in the field of German linguistics and literary studies. It contains printed and digital literature (monographs, scientific journals, websites), information about library catalogs and databases, as well as information about planned conferences in the field of German studies, scholarship offers, current research projects, etc.

We should mention the field portal of general and comparative linguistics - Linguistik Portal für Sprachwissenschaft, which presents all kinds of digital information resources in the field of German linguistics, including research data. The portal allows us to find information in several catalogs, bibliographies, open access repositories and online sources at the same time. The portal contains links to all relevant scientific resources, for example, more than 2000 electronic journals, more than 500 online databases, more than 1100 online dictionaries, etc.

Due to the current situation and various security measures, it is now necessary to conduct university education online. In order to make the issues related to this transition easy to overcome and to enable quick orientation, a number of supporting materials and tools have been created. One of them is the distance learning support package, a collection of electronic didactics and tools for rapid mastery of online learning (Online Campus 2021). It brings together various categories such as, for example, online training for anyone, not only who wants to master synchronous work technology, but also who intends to plan for didactically valuable units and promote social inclusion; Mixed learning scenarios are also found: a combination of face-to-face and distance learning; Flexibility to introduce different digital topics in a small group; International

resources on digital higher education; Review of digital tools and their use in distance learning; Self-organization of learning for students. There is also discussed how the multiplier effect can be achieved quickly, what tools are available in Office 365, and how they help the student organize learning, and more.

Still just a few years ago, the majority of respondents were skeptical about the distance learning activities of higher education institutions (Burchard 2016). However, effective and powerful tools have emerged to respond to new challenges. The digital age has begun in the education sector. As online lectures become increasingly integrated into the education management system, universities are optimizing platforms for mobile use, which is in high demand among students.

The Hochschulforum Digitalisierung (HFD), together with its experts, regularly publishes research and discussion papers on higher education in the digital age. In the publications you will find detailed research and reasoned positions on the issues needed for digital education. The forum brings together the general public in digital research and teaching, highlights current trends and implements innovative solutions in practice. On the forum website, you can find information on issues such as higher education in times of crisis, "Open Science", digital exams, curriculum development, internationalization, etc.

The "University Network for Digital Teaching and Learning in Teacher Education" (digiLL) was launched at the end of 2016 as a joint initiative of the teacher training centers/schools of education at the universities of Bochum, Dortmund, Duisburg-Essen, Cologne and Münster. The goals of the alliance are to establish and expand a network to strengthen digital teaching and to promote the digitization-related competencies of teachers and learners. Since the beginning of 2019, five additional locations have joined so far (Bonn, Erfurt, Jena, Landau and Trier). digiLL presented itself and its work at the University: Future Festival 2021. Due to the speed and intensity of the digital transformation, the participating sites are pooling their resources and expertise in order to jointly meet the emerging challenges. The core of digiLL is the creation of compact OER learning modules, which are developed according to common content and structural criteria. Open Educational Resources (OER) are the best foundation for collaborative learning material creation (Wiesmann 2022). Open Education Resources are educational materials that are openly licensed and can be freely used, edited, and disseminated. It can be different media: books, courses, workbooks, videos, podcasts, curricula, etc.

The subject of discussion is so called Blended Learning. "Blended learning is a module format that involves a mix of face-to-face and online phases that are reasonably interchangeable and interrelated in terms of content. The learning material is developed in both phases; Participating in just one phase is not enough to achieve the learning objectives. Both stages are initiated by the teacher and he/she supervises the respective process" (Brash et al. 2017: 127). Students can decide where they want to study (at university, at home, or elsewhere) and when they want to study (during lectures, evenings, or weekends). At the same time, the teacher decides which parts of the course will be conducted online and which, in the university auditorium.

A specific form of mixed learning is so-called "flipped classroom." It is a method of teaching, in which homework and teaching content change places in such a way that students have to design the study material themselves in their own time. This enables them to acquire knowledge autonomously, solve problems, make decisions and, consequently, achieve more sustainable learning outcomes (Brame 2021).

Online language learning offers students engagement opportunities that go beyond traditional auditorium parameters. A team of leading specialists from the Open University, UK, who have been involved in distance learning for more than twenty-five years and have extensive experience in this field, offer colleagues the basic principles and tools of online language teaching, as well as approaches and practical advice on how teachers and professors can create an interactive online environment to support language learning for their students (Barkanyi et Al.). Learning takes place within a coherent and pedagogically well-thought-out framework. The authors suggest different components or combinations of them. What can you do online that is not possible in a face-to-face university audience? How can you combine different elements to ensure effective learning? These and many other issues are discussed in detail in this collection of papers.

In recent years, podcasts and screencasts have become increasingly popular in foreign language learning. Many podcasts can be listened to or viewed directly on the relevant website. However, sometimes it is also advisable to download them to listen to them further offline. Automatic download requires a small additional program that is available for free on the Internet. The Goethe-Institut tests its podcasts only with Apple iTunes and Juice, so, respectively, you can find all the recommendations for this software on Goethe's websites. Apple iTunes and Juice are freely available.

Podcasts and screenshots have great didactic potential, in particular, linguistic and cultural authenticity, persuasive relevance, frequent use of audio or audio-visual texts, new vocabulary definitions, discussion of geographical aspects, training of listening comprehension by means of the changes in tempo of the audio-material, mobile learning, training of the German pronunciation, activation of the existing knowledge, increase of the motivation, amongst other methods, by choosing your own podcasts.

The didactic potential is even greater, when students create their own podcasts and screenshots; in particular, with the use of newly learned language tools in a communicative situation, with integrated learning of all four language skills (listening, speaking, reading, writing), with the transfer of learning material into a new situation, with the reflection on one's own learning process, thus developing autonomous learning, with the increased involvement, responsible group work, additional acquisition of digital skills.

In order to create screencasts, the following software is popular: Software Screencast-o-matic https://screencast-o-matic.com

When working with podcasts and screenshots, attention should be paid to the copyrights. It is advisable to operate under a Creative Commons (CC) license and to use it only under appropriate conditions. It is also possible to use lyrics and music without a license (e.g., https://www.jamendo.com or http://www.hoerspielbox.de). You can also create the sound yourself. You can use Open Educational Resources (OER), such as DigU (Digitale Unterrichtsgestaltung - Digital Learning Design) or DigFo (Digitale Fortbildung - Digital Training) (http://digu.goethe.de/).

Privacy and data protection settings should be carefully reviewed when publishing images, text or audio. Free platforms for uploading and downloading audio files are AUDIYOU (https://www.audiyou.de/) and PodHost (https://www.podhost.de/).

Twitter can be used for German language lessons. In particular, Twitter allows you to participate in group discussions, read current short messages and get acquainted with the topic. Writing tweets is also a good exercise: you can post short ads (or run a so-called Twitter feed) and respond to other tweets.

To learn the German language, in addition, there can be used learning apps (Lernapps), learning programs Babbel, Duolingo, Busuu, Memrise, vocabulary learning programs Quizlet, Anki, Memorion, etc.

Educational videos that can be found at the following links are usually well received by students:

Deutsch Global: Weekly training videos that are well suited for exam preparation (ÖSD, Goethe Certificates).

Deutsch lernen mit der DW: Deutsche Welle's video channel offers didactic films for learning German. Among them, there are the popular DW series "Jojo sucht das Glück", "Ticket nach Berlin" and "Bandtagebuch EINSHOCH6."

DW: Nicos Weg: A series that can also be watched with subtitles and at a slower pace. It is accompanied by exercises and printable dialogues.

Hallo Deutschschule: Here are collected more than 200 videos to learn German. German lessons are arranged in playlists, according to individual levels of German language proficiency (A1-C1). In the videos, you will learn important aspects of conversational formulas, questions, answers, sentence structures and pronunciation, all of them, through dialogues.

Digital media, various learning applications and tools useful for learning German can also be found in the "Digital Box" at the following link:

http://magazin.sofatutor.com/lehrer/2016/05/02/digitaler-werkzeugkasten-apps-und-tools-fuer-den-unterricht/.

CONCLUSION

Modern information and communication technologies have taken the possibilities of research and study of the German language to a new stage. They have inspired hitherto unknown ways, means and approaches. The German language is one of the most advanced languages in terms of providing Internet products and resources. The article reviews the scientific and educational literature provided in a digital format, emphasizes the potential and effectiveness of multimedia in the study of various aspects of the German language, as well as in its study and teaching; it also reveals the importance of finding, selecting and using Internet resources to meet the modern demands and challenges of science. The Internet makes available materials from world-renowned science centers/libraries and, consequently, creates the conditions for a better performance of academic activities.

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Information about the author: Irina Kruashvili – PhD, associate Professor for German linguistics at Sokhumi State University (Tbilisi), Scholarship holder of the DAAD and the Goethe-Institut, member of the International Association for German Studies (IVG), member of the German Teachers ' Association in Georgia (DVG), member of the Academic Council of the Faculty of Humanities of Sukhumi State University, author of more than 50 scientific publications in German, English, Russian and Georgian. (Georgia).
e-mail: i.kruashvili@sou.edu.ge

Сведения об авторе: Ирина Круашвили – Доктор филологии, ассоциированный профессор Сухумского Государственного Университета (Тбилиси), стипендиат DAAD и Гете-Института, член Международной Ассоциации Германистики (IVG), член Ассоциации Учителей Немецкого Языка в Грузии (DVG), член Ученого совета гуманитарного факультета Сухумского государственного университета, автор более 50 научных публикаций на немецком, английском, русском и грузинском языках. (Грузия).
e-mail: i.kruashvili@sou.edu.ge