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Examining the Extent of Professors' Use of Modern Communication Technologies in the Teaching Process at Balkh University.
(Case study of Balkh University students)

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ABSTRACT

Modern communication technologies have not only transformed patterns of communication and information exchange but also created both opportunities and challenges across different areas of human life, particularly in education. Educators and teachers who have integrated modern communication and educational technologies into the teaching and learning process have undoubtedly achieved more positive outcomes. In contrast, those who have not adopted these technologies often face restrictions in delivering effective education.University professors, as instructors and mentors in higher education institutions, are expected to play a more active role in integrating communication technologies into

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their teaching practices to improve students' understanding of academic subjects.

This study aimed to examine the extent of professors' use of modern communication technologies in the teaching process at Balkh University from the perspective of students.Aquantitative survey design was employed. The study population consisted of students from the sixteen faculties of Balkh University, and 367 respondents were selected using Cochran's sample size formula. Data were collected through a structured questionnaire and analyzed using descriptive statistics in SPSS. The theoretical framework was based on the Uses and Gratifications Theory, Social Learning Theory, and Technology Acceptance Theory.

The findings indicate that students generally expressed a relatively high level of satisfaction with professors' use of modern communication technologies in the teaching process. The results further show that professors make considerable use of these technologies to facilitate teaching and learning, while students recognize their positive contribution to improving learning quality and access to educational resources. On the other hand, the findings also reveal that professors devote comparatively less attention to raising students' awareness of the opportunities and challenges associated with emerging technologies such as artificial intelligence.

The study concludes that modern communication technologies have become valuable educational tools that can enhance teaching effectiveness and improve learning quality at Balkh University. Nevertheless, greater institutional support, continuous professional development for professors, and increased awareness of emerging educational technologies are necessary to promote their more effective integration into higher education.

Keywords: Modern communication technologies, teaching process, university professors, Balkh University, education, Technology Acceptance Theory.

1. INTRODUCTION

اَلْحَمْدُ لِلهِ رَبِّ العَالَمِينَ وَالصَّلَاةُ وَالسَّلَامُ عَلَى سَيِدِالْمُرْسَلِينَ وَعَلَى اٰلِهِ وَصَحْبِهِ اَجْمَعِينَ.

Modern communication technologies, along with their many advantages and opportunities for interaction and information exchange, have also created a suitable environment for achieving educational objectives. Many countries around the world have placed significant emphasis on integrating modern communication technologies into the educational process. Unfortunately, in Afghanistan, the opportunities provided by these

technologies are still used only to a limited extent in schools, universities, and other educational institutions during the teaching and learning process.

One of the important areas that can be examined in relation to the opportunities and challenges of using modern communication technologies in educational institutions is scientific research in this field. This issue has received limited attention. Conducting careful research and thorough evaluations of teaching processes, as well as studying educational communication in schools and universities across the country, is necessary for accurately identifying both opportunities and challenges. Such research can provide practical and evidence-based solutions for creating effective platforms to use modern communication technologies and, as a result, improve the quality of education.

The framework provided by modern communication technologies in the educational system can play an important role in improving the quality of education. However, the outcome depends on whether technology is accepted as a process of innovation and properly integrated into the learning environment, where it can function as a modern tool for educational improvement. It can help simplify the learning process and support a deeper and more accurate understanding of the subject matter.

This study focuses on Balkh University, one of Afghanistan's higher education institutions offering both undergraduate and postgraduate programs, to examine the extent to which professors integrate modern communication technologies into the teaching process. Professors and students at the university have increasingly used these technologies to facilitate teaching and learning. Nevertheless, inadequate awareness and inconsistent utilization of these technologies may limit educational innovation and reduce opportunities for improving teaching quality.

The present study examines the use of modern communication technologies as effective educational tools for improving teaching quality at Balkh University. Though many countries have successfully integrated information and communication technologies into higher education, their effective utilization in Afghan universities requires further empirical investigation. Understanding the current level of technology integration can assist higher education institutions in identifying existing opportunities, challenges, and appropriate strategies for improving teaching practices.

The utilization of modern communication technologies in student-centered learning enhances instructional effectiveness, facilitates knowledge acquisition, and supports the achievement of educational objectives. By providing interactive and multimedia learning environments, these technologies improve students' understanding of academic content and contribute to more effective teaching and learning

processes. Hence, examining their integration into higher education is essential for improving educational quality.

Modern communication technologies have provided valuable opportunities for improving teaching, learning, and access to educational resources across different academic disciplines. At the same time, their effective implementation requires continuous evaluation to identify existing limitations and develop practical solutions for improving educational quality.

This research is significant because many other countries implement virtual or electronic education systems using new communication technologies. Educational institutions have become smart by leveraging the opportunities provided by these technologies, and the teaching–learning process has moved beyond the limitations of time and space, making education accessible anytime and from anywhere. However, the relevance of this situation to higher education institutions in the country needs further examination. After a careful analysis and diagnosis, the strengths and weaknesses should be identified, and pathways for the growth and enhancement of the educational system's quality in its true sense should be articulated.

The primary objective of this study is to examine the extent to which professors at Balkh University utilize the opportunities provided by modern communication technologies in the teaching process. The sub-objectives of the research are:

- Identifying the opportunities of modern communication technologies in the educational process at Balkh University.
- Identify the challenges that have led to limited use or lack of use of modern communication technologies in the teaching process by professors at Balkh University.

- Identifying strategies for better use of modern communication technologies in the teaching process by the professors of Balkh University.

The main question of this research is: to what extent do the professors of Balkh University utilize the opportunities and facilities offered by new educational communication technologies in their teaching?

The sub-questions of the research are:

- What opportunities and appropriate conditions are available for Balkh University professors to use modern communication technologies in the teaching process?
- What challenges have contributed to the limited use of modern communication technologies in the teaching process of Balkh University professors?

- What solutions are there for the effective use of modern communication technologies by Balkh University professors in their teaching?

2.Literature Review

Bahara Bakhshi et al. (2014). A scientific research article entitled "Investigating the Consequences of New Communication Technologies on the Learning Process" was conducted in Iran. The research findings indicate that new communication technologies have facilitated the teaching process and provided better opportunities for the learning process. Based on the findings of this study, new communication technologies have improved the items related to learning in the teaching process (Bakhshi et al., 2014), such as enhancing student engagement, providing access to diverse resources, and enabling personalized learning experiences. This means that the role of new communication technologies in accelerating and facilitating the education process cannot be ignored.

Maryam Khorsand (2011) conducted her master's thesis, entitled The Role of New Communication Technologies (E-Learning) on the Learning Process, at Azad University, Central Tehran Branch, Iran. The findings of this research align with previous studies and show that new communication technologies improve the learning process and enhance its quality. Findings of this study indicate that modern communication technologies can improve students' learning mastery and shorten learning time. According to the findings of this study, new communication technologies can facilitate easy and quick access to educational resources for students, reduce human relationships, and often reduce the costs of education (Khorsand, 2011).

3.Research methodology

This study employed a quantitative survey research approach. Data were collected using a researcher-developed questionnaire, which served as the primary instrument for gathering the research data. A survey method was considered appropriate because it is widely used in audience research and is suitable for examining the level of use of communication technologies and measuring participants' perceptions and satisfaction (Haddadzadeh, 2013, p. 130).

The study population consisted of 8,194 students enrolled in the sixteen faculties of Balkh University. The required sample size was determined using Cochran's formula for a finite population. Based on a 95% confidence level ($Z = 1.96$), a 5% margin of error ($e = 0.05$), and $p = q = 0.5$, the required sample size was calculated as 367 students.

$$n = \frac{n_o}{1+(\frac{n_o - 1}{N}} \rightarrow n = \frac{384}{1+(\frac{384}{8194})} \rightarrow n = 366.8 \rightarrow n = 367$$

Participants were selected through purposive sampling from first-, second-, and third-year students across different faculties and academic disciplines. After the questionnaires were completed and collected, the data were coded and analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistical techniques, including frequencies and percentages, were used to analyze and interpret the collected data.

Conceptual and Theoretical Literature of the Research Topic

Education: Is a relatively complex process, and a simple or limited view of it can lead to the waste of resources and expenses without achieving the desired results, such as improved student outcomes and societal advancement. Education and the attainment of educational development in any society provide the foundation for building efficient and capable human resources. To achieve such progress, it is necessary to identify educational opportunities, align education with the needs of society, and create conditions that enable students and learners to reach their highest learning potential (Zeynali et al., 2020, p. 197).

Education occurs through teaching, observation, and experience. The teaching process consists of purposeful actions carried out by the teacher, which ultimately lead to student learning. The level of learning depends on the teaching models and methods used by instructors during the educational process. These methods should respond to students' academic needs and help achieve the intended learning outcomes. The most effective teaching models are those that improve the quality of education and support the continuous development of the learning process.

Modern Communication Technologies: Refer to a set of tools, systems, infrastructures, and programs that make the exchange of information possible through advanced methods based on broad and connected networks (Taghvaei & Akbari, 2010, p. 24). These technologies, with features such as speed, interactivity, artificial intelligence, and the removal of time and space limitations, have created a clear difference between modern educational communication and traditional teaching methods. Modern communication technologies also provide opportunities for lifelong learning, allowing people to use them according to their educational needs (Abbasi Asl et al., 2011, p. 96).

On the other hand, teachers undoubtedly play an important role in the teaching and learning process, and their effective use of the educational opportunities created by these technologies can greatly improve the quality of the educational system. Although Afghanistan still remains behind

many developed countries in the areas of education and academic development, making proper use of the opportunities and suitable platforms provided by modern communication technologies can bring significant benefits to the teaching process.

The Role of Modern Communication Technologies in Education: Modern communication technologies are connected to many areas of human life, and education is one of the most important among them. Without doubt, these technologies have played a major role in improving the quality of education. The opportunities and possibilities created by these technologies have greatly influenced educational quality and have increased the speed of educational development in different societies. In this context, modern communication technologies can be used effectively to improve educational efficiency. Their strength, flexibility, and compatibility with the changing needs of learners have helped create a highly interactive, creative, dynamic, inclusive, and unrestricted learning environment (Sheikhi & Gholami Harehdashti, 2014, p. 53).

At the same time, the issue of the digital divide, which is one of the factors that limits the realization of educational justice, cannot be ignored. On the other hand, these modern educational technologies provide learning opportunities for many individuals who, for different reasons, are unable to attend a physical place of study. They allow learners to benefit from the educational process without the limitations of time and place. Today, modern communication technologies, as important tools and platforms for empowerment in education, create new standards for evaluation, decision-making, monitoring, and planning (ibid., p. 49). These technologies have transformed the educational environment by reducing the restrictions of time and place, changing the relationship between teachers and learners, improving teaching and learning methods, modifying lesson content, increasing the speed of education, and influencing students' understanding and retention of academic subjects compared to the traditional educational system.

Opportunities of Modern Communication Technologies in Education: As mentioned earlier, one of the most important opportunities created by modern communication technologies in the field of education is the provision of a platform for lifelong learning. These technologies have the ability and advantage of making previously unknown visible many things or explained only through long verbal descriptions by teachers and educators. Today, students can directly observe these materials, which makes understanding course content easier and more effective (Rahmani et al., 2006, p. 52).

The opportunities created by modern communication technologies, such as network-based learning, interactive and participatory education, e-

learning, virtual classrooms, and distance education, have challenged traditional educational systems by removing the limitations of time and geographical boundaries. Modern communication technologies have entered the world of education in a powerful way, and one of the most important characteristics of information and communication technology in this field is its rapid development (Oladian & Norouzi, 2020, p. 200). Today, modern information and communication technologies have created a framework that can significantly improve the quality of education if teachers and instructors use it effectively. Through these technologies, they gain access to extensive educational resources and experience greater motivation in both teaching and learning processes.

Challenges of Modern Communication Technologies in Education: Abbasi Asl et al. (2011), quoting Artmir, outline two major obstacles or challenges in the use of modern communication technologies by professors and teachers. One is external barriers (access, time, support, resources, and internships) for teachers, and the other is internal barriers (beliefs, attitudes, activities, and resistance). According to him, even if all external barriers are removed, the second, or internal, barriers posed by teachers themselves will prevent the optimal use of new technologies in education (Abbasi Asl et al., 2011, p. 96).

In Afghanistan, these obstacles are evident. Among the most significant challenges are the lack of timely access to technology, persistent inequalities, insufficient funding, unclear objectives for using these technologies in education, and a low level of motivation to integrate technology in educational settings. These issues require detailed and practical research. A society that aims to achieve development based on knowledge and technology must begin by transforming its education system accordingly. This process involves studying and assessing the existing infrastructure, identifying barriers, and taking effective, practical steps to overcome them.

Today's educational systems have evolved from a simple structure into a complex process with the introduction of new educational technologies. While this complexity can lead to significantly greater efficiency compared to traditional methods, various obstacles, such as inadequate training and support for teachers, have reduced the attention and interest of teachers and educators in using modern communication technologies (Najafi et al., 2015, p. 85). Another challenge in using new communication technologies in education is the digital divide and the lack of educational justice, particularly considering our country's conditions. This issue stems from unequal access to technology among individuals who are educated within the same society but under different conditions of access (Sayyari

et al., 2012, p. 7). This challenge particularly impacts Afghan university students, necessitating serious attention and targeted solutions.

Theoretical Framework of the Research

The theoretical framework, or the literature foundation of this research, is based on three essential theories in the field of communication. The primary focus is on the use of new communication technologies and the level of user satisfaction with them (Uses and Gratifications theory). The second theory addresses the role of these technologies as tools for promoting better understanding and deeper learning (social learning theory). Finally, the framework explores the extent to which our society and educational institutions are prepared to adopt new communication technologies as educational opportunities and how optimistically they view them within the teaching–learning process (the Technology Acceptance Theory).

Uses and Gratifications Theory: Elihu Katz proposed this theory. Its core philosophy is to shift the focus of attention toward the recipient of the message and to examine how message producers deliver content to their audience through communication tools (Sorin & Tankard, 2009, p. 420). The theory emphasizes the active nature of the audience. Based on their information needs, audiences seek tools and sources they believe will fulfill those needs. In the uses and gratifications approach, the audience or message recipient is considered active and dynamic, making deliberate choices to satisfy their informational desires. The more the recipients feel their needs are met by a particular source, the more likely they are to continue choosing it (Windahl et al., 2007, p. 274).

Today's educational systems require the use of modern communication technologies to enhance the speed of understanding and comprehension. Proper and conscious use of these technologies, tailored to the needs of the subject matter, can maximize their effectiveness for both teachers and students and ultimately lead to greater satisfaction on both sides of the teaching-learning equation. Based on the theory of uses and gratifications, if the source that the recipient turns to fails to meet their informational needs, it will not result in audience satisfaction. Undoubtedly, in educational systems, if instructors and professors are unable to adapt to new educational opportunities and fail to provide services aligned with contemporary educational demands, student satisfaction is likely to decline.

Social Learning Theory: Social Learning Theory, proposed by Albert Bandura, explains that modern communication technologies, as emerging components of the media, can influence audience behavior and the way messages are received, leading to both behavioral and intellectual change. According to this theory, individuals learn through observation and

modeling. Learners observe the actions of others, examine their results, and then apply similar patterns in their learning process. Within the behaviorist perspective of this theory, four important elements are emphasized in education related to modern communication technologies as part of the media: the audience, the nature of the learner's behavior or performance, the conditions required for performing the behavior, and the criteria for its acceptability. This final element helps improve the clarity of the educational process and strengthens the positive changes created through the integration of technology (Ajagh, 2018, p. 231).

In education, modern communication technologies provide students with opportunities and suitable conditions to observe, practice, and apply many concepts directly through repetition and experience. This evidence shows that these technologies have changed not only teaching methods but also the learning process itself and the way learners engage with educational content (Pormohammad Baqer, 2008, p. 69). For example, in the traditional educational system, a teacher might explain the composition of chemical substances only by presenting formulas orally or writing them on the classroom board. However, in a modern educational environment supported by communication technologies, teachers can use videos to clearly present the stages and flow of these chemical processes. This approach helps students learn more quickly and increases their ability to understand and retain knowledge more effectively.

The Technology Acceptance Theory: The Technology Acceptance Theory is one of the most important theories related to users' acceptance of modern communication and information technologies. Fred Davis proposed this theory in 1989. Davis identifies two main factors that influence technology acceptance. The first is "perceived usefulness," which refers to the extent to which an individual believes that using a particular technology will improve performance and increase effectiveness in completing tasks. The second is "perceived ease of use," which refers to the extent to which a user believes that the technology can be used easily and without difficulty or complexity (Rezaei, 2010, p. 65).

In addition to these two factors, external variables such as users' personal opinions, attitudes, and willingness to use new technologies can also play an important role in the acceptance or rejection of technology. However, this theory has also been criticized because it pays less attention to social factors, which are often crucial in determining whether a society accepts or rejects a technology (ibid., p. 67).

Moreover, modern communication technologies provide valuable opportunities and suitable platforms for educational development, but they are sometimes rejected in modern educational systems because of social

factors, traditional values, religious beliefs, and other related conditions. In many developing countries, one of the main challenges lies with educators and teachers who, either because of limited skills and inability to use these technologies or because of neglect and lack of attention, are unable to align the educational process with the demands of contemporary education.

4.Research findings

The research findings are based on the perspectives of students at Balkh University, as stated in their responses to the questionnaire. These responses have been analyzed and broken down using the SPSS program and presented in both one-dimensional and two-dimensional tables. The sample size consists of 367 students, selected purposively based on the Cochran formula, and their responses have been thoroughly analyzed.

Table 1: Faculties Included in the Study

Faculties	Frequency	Percent	Faculties	Frequency	Percent
Law and Political Science	22	% .5.99	Science	14	3.8%
Medicine	21	5.7%	Agriculture	12	3.3%
Social Sciences	32	%8.71	Economics	11	3%
Islamic Studies (Sharia)	18	6.9%	Computer Science	20	5.4%
Journalism & Mass Communication	29	%7.9	Engineering	49	13.3%
Public Administration and Policy	32	%8.7	Mining and Environmental Engineering	30	8.2%
Education and Training	9	% 2.5	Pharmacy	19	5.2%
Language and Literature	37	%10.1	Veterinary	12	3.3%
Subtotal	200	%54.5	Subtotal	167	45.5%
Total	367				
Percent	100%				

Table 1 shows that students from all 16 faculties of Balkh University were surveyed in a targeted manner, which also depended on the level of cooperation between faculties and students within the departments. This means that the number of respondents from each faculty was based on the

number of departments and classes, so students from the first to third years in each class answered the questionnaires. Some classes did not cooperate for various reasons, while others may have responded to two or three additional questionnaires based on their interest and willingness to participate in this study.

Table 2: Examining the extent of the use of modern communication Technologies by Balkh University Professors Based on Student Respondents' Perspectives

Survey Questions		Very Low	Low	Moderate	High	Very High	Total
Do your professors use modern instructional communication tools such as projectors when needed during teaching?	Frequency	29	27	98	138	75	367
	Percent	% 7.9	% 7.4	% 26.7	37.6 %	20.4 %	100 %
	Cumulative Percent	7.9 %	15.3 %	% 42.0	79.6 %	100 %	
*How would you assess your students' interest in **using modern communication technologies in education?***	Frequency	16	22	89	141	99	368
	Percent	4.4 %	% 6	% 24.3	38.4 %	27 %	100 %
	Cumulative Percent	4.4 %	10.4 %	% 34.6	73 %	100 %	
To what extent do your professors encourage or assist you in joining virtual libraries and academic groups?	Frequency	51	76	90	104	46	367
	Percent	13.9 %	20.7 %	% 24.5	28.3 %	12.6 %	100 %
	Cumulative Percent	13.9 %	34.6 %	% 59.1	87.5 %	100 %	
How do you assess the benefits and opportunities offered by modern communication technologies in the learning process?	Frequency	12	37	80	156	82	367
	Percent	%3.3	%10.1	% 21.8	42.5 %	22.3 %	100 %
	Cumulative Percent	۳/۳ %	۱۳/۴ %	% ۳۵/۱	۷۷/۷ %	۱۰۰ %	
Have you noticed the role of smartphones in your study and learning process?	Frequency	11	18	66	146	126	367
	Percent	% 3	% 4.9	% 18	39.8 %	34.5 %	100 %
	Cumulative Percent	% 3	% 7.9	% 25.9	65.7 %	100 %	
How much have your professors taught and explained to you about the advantages and disadvantages of	Frequency	67	86	98	78	38	367
	Percent	18.3 %	23.4 %	% 26.7	21.3 %	10.4 %	100 %

using artificial intelligence as a new information and communication technology?	Cumulative Percent	18.3 %	41.7 %	% 68.4	89.6 %	100 %	
To what extent do your professors encourage you to use modern communication technologies in a safe and academic manner for learning or tasks?	Frequency	36	56	103	123	49	367
	Percent	9.8 %	%15.3	% 28.1	33.5 %	13.4 %	100 %
	Cumulative Percent	9.8 %	25.1 %	% 53.1	86.6 %	100 %	

Based on the findings of Table 2, this study indicates that the use of modern information and communication tools by professors of Balkh University in the teaching process shows greater satisfaction. The most selected option, chosen by 138 respondents (37.6%), was at the "high" level, while the least selected option was chosen by 29 respondents (7.4%). These statistics indicate higher student satisfaction with professors' use of modern communication and information tools in the teaching process. Although the use of tools such as projectors, WhatsApp groups, and other modern technologies to facilitate the teaching-learning process is also a quality assurance criterion constantly reviewed by the university's quality assurance board, it was expected that a higher percentage of respondents would select the "very high" option. Nonetheless, there is an above-average satisfaction rate in this regard, which is a positive sign for education supported by appropriate platforms for modern communication technologies.

Regarding the level of encouragement provided by professors for students to join WhatsApp groups and virtual libraries, as well as their cooperation in offering facilities such as sharing links from educational groups and virtual classes to improve students' learning and knowledge, the highest selected option was "high" with 104 respondents. This was followed by the option "medium," while the lowest percentage was recorded for "very low" at 13.9%. These findings are closely related to the results discussed in the previous paragraph, indicating that the level of encouragement for students to use modern information and communication technologies is mostly limited to the levels of "high" and "medium" rather than "very high." Although this level may not be fully sufficient for the teaching process of a well-established university aiming to meet global educational standards, it can still be considered relatively acceptable and somewhat encouraging.

Regarding students' optimism toward the use of modern communication technologies, the highest number of respondents selected the options "a lot" with 141 respondents (38.4%) and "very much" with 99 respondents

(27%), while the lowest number selected “very little” with 14 respondents (4.4%). These findings indicate that students clearly understand the important and positive role that modern communication technologies play in the teaching and learning process. In the suggestions section of the questionnaire, respondents also mentioned that education through these technologies not only makes learning faster and clearer but also significantly improves students’ understanding of academic subjects by providing evidence, examples, and related materials connected to lesson topics. Improving students’ understanding in this way can also play an important role in increasing their educational motivation.

According to the theory of use and satisfaction, professors utilize modern communication and information tools in their teaching process, which increases student satisfaction and prepares traditional educational structures in training centers to accept these new technologies. Thus, the accepted teaching-learning process confirms the prominent role of these technologies, aligning with the principal concept of the technology acceptance theory. Conscious use of modern communication and information technologies by both professors and students, along with a comprehensive understanding of their effectiveness, is a fundamental principle of the theory of use and satisfaction. This assumption has also been confirmed in this study by examining how students evaluate the opportunities and benefits of modern communication technologies in the educational process. The highest number of respondents selected these opportunities and benefits with the options a lot (156 people, 42.5%) and "very much" (82 people, 30.5%), while the lowest approval came from 12 respondents (3.3%) who chose "very little." It indicates the active and conscious role of professors and students in realizing the benefits and opportunities offered by modern communication technologies. Respondents clearly understand that using modern communication technologies provides a better environment for learning.

Smartphones play a valuable and effective role in education and serve as a suitable platform for enhancing educational capacity in the statistical population of this study. The highest proportion of respondents, 146 people (39.8%), selected the "high" option, followed by 126 people (34.5%) who chose the "very high" option, while the lowest proportion was 11 people (3%). It indicates that students clearly understand the effective role of smartphones as communication and information technology tools in facilitating and accelerating the educational process. However, this study's findings only assess smartphones' roles, so their effectiveness can't be wholly positive or negative. A mobile phone can also have a negative impact on a student, such as causing distraction through games for hours or days, which can lead to academic decline. The focus

here is to assess the extent to which the responding students consciously and accurately understand the role of smartphones. Consistent with other findings of this study, students demonstrate a fully conscious and active understanding of this new communication and information tool.

Artificial intelligence, as the newest and most advanced information and communication search engine, plays a prominent role in educational fields as well as other areas. This role, when combined with literacy in using artificial intelligence, certainly has positive aspects; however, unexpected or improper use can lead to plagiarism, educational laziness, and other negative phenomena in education. The role of professors in informing students about the advantages and disadvantages of this information and communication technology is essential and effective. However, the level of student satisfaction with professors' fulfillment of this responsibility is relatively low. The most selected option was "medium," chosen by 98 people (26.7%), followed by "low," selected by 86 people (23.4%), while the least selected option was "very high," chosen by 38 people (10.4%).

These findings indicate that less attention is paid to raising awareness and providing training on artificial intelligence and the effective use of information and communication tools for students. The issue must not be overlooked in the field of education. Overall, the general findings of this table show a relatively healthy and effective use of modern communication and information tools by professors at Balkh University in the teaching process. The only concern is artificial intelligence, which has received less focus when it comes to raising awareness and training students on its proper and responsible use. It is significant because artificial intelligence has become an indispensable auxiliary tool for students in scientific and educational research, professional activities, and other areas. However, it may also have contributed to making some students more passive, reducing their active scientific efforts.

Table 3: An Examination of Balkh University Professors' Ability to Use Modern Communication Technologies in the Educational Process, Based on the Views of Student Respondents

Questions		Very Low	Low	Moderate	High	Very High	Total
To what extent do you see your professors' ability to use modern communication technologies during teaching when needed?	Frequency	15	23	137	132	50	367
	Percent	4.1 %	% 9.0	% 37.3	36.0 %	13.6 %	100 %
	Cumulative Percent	4.1 %	13.1 %	% 50.4	86.4 %	100 %	
Have you ever noticed your professor's lack of motivation and	Frequency	38	109	108	79	33	367

interest in using some new communication technologies in the education process, and instead lecturing on important practical lessons because they do not understand them?	Percent	10.4 %	29.7 %	% 29.4	21.5 %	% 9	100 %
	Cumulative Percent	10.4 %	%40.1	% 69.5	% 91	100 %	

According to the findings of this study, students at Balkh University are moderately satisfied with their professors' ability to use modern information and communication technologies. The most frequently selected option in this regard is the moderate option, chosen by 137 people (37.3%), while the least selected option is “very low,” chosen by 15 people (4.1%). Considering the current needs in education for effective use of modern communication technologies, professors at Balkh University have not yet been able to fulfill the needs of students at the “high” and “very high” levels. If we look at the level of student satisfaction, students generally express satisfaction with their professors' use of modern communication technologies in education. However, when we examine these results in light of the need to assess professors' skills in using these technologies effectively, we should expect a higher level of proficiency.

According to the theory of technology acceptance, two factors influence individuals in a society to accept new technologies: one is "perceived usefulness," and the other is "ease of use." According to the findings of this research, both students and professors have understood well that modern communication and information technologies have significant usefulness in teaching and learning, offering the highest educational efficiency with minimal financial and time costs. Regarding the second factor, ease of use, scientific and academic centers either provide training on using complex technologies or require individuals to study writings, articles, and notes about their correct and effective use to ensure their proper application. Teachers' awareness of the healthy use of modern communication and information technologies in education is most important, regardless of their complexity. It means that, in addition to having the ability and skills to utilize these technologies, teachers should also be able to instruct students on how to use them correctly and responsibly, thereby strengthening their teaching and learning capacities. In this study, the issue provides students with a relatively high level of satisfaction.

When students were asked if they had noticed that their professors often showed little interest in using modern communication technologies in the classroom, even when necessary, due to a lack of proficiency, the majority of respondents (108 people, or 29.4%) selected the option "little," while the fewest respondents (33 people, or 9%) chose "very much." This

finding, which supports the previous one, also indicates that the level of use of modern communication technologies by professors at Balkh University during the teaching process is generally convenient. Professors pay attention to incorporating communication and information technologies in the teaching-learning process, and according to most respondents, their effort is satisfactory. However, a few respondents noted a lower use of modern communication technologies, which they attributed to their respective departments and fields of study. For example, the level of use was higher in faculties such as medicine, computer science, journalism, and engineering. In contrast, based on the research findings, the use of some technologies, such as projectors, was lower in faculties like Sharia, language, and literature. This variation can be attributed to the differing levels of need for technology use across these disciplines.

Table 4: Investigating the effectiveness of using modern communication technologies by Balkh University professors in the educational process, based on the perspectives of student respondents

Questions		Very Low	Low	Moderate	High	Very High	Total
Do you consider the use of modern communication technologies such as projectors, online groups, online classes, etc., by professors in teaching to be effective in promoting a healthy learning process?	Frequency	34	25	75	142	91	**367**
	Percent	**%** 9.3	**%**6.8	**%** 20.4	38.7 **%**	24.7 **%**	% **100**
	Cumulative Percent	**%** 9.3	16.1 **%**	**%** 36.5	75.2 **%**	**%**100	
How useful do you find virtual guild groups, such as WhatsApp groups, etc., in addition to the professor's lessons, in improving teaching and coordinating guild affairs?	Frequency	20	23	81	144	99	**367**
	Percent	**%** 5.4	6.3 **%**	**%** 22.1	39.2 **%**	**%** 27	% **100**
	Cumulative Percent	**%** 5.4	11.7 **%**	**%** 33.8	**%** 73	100 **%**	
In your opinion, how much faster is the learning	Frequency	20	30	77	128	112	**367**
	Percent	**%** 5.4	**%**8.2	**%** 21	34.9 **%**	30.5 **%**	% **100**

process through videos, observations, and practical demonstrations by the professor compared to the traditional lecture method?	Cumulative Percent	% 5.4	13.6 %	% 34.6	69.5 %	100 %	
In your opinion, how effective is the learning process in classes taught by professors who use modern communication technologies?	Frequency	16	30	85	151	85	**367**
	Percent	4.4 %	8.2 %	% 23.2	41.1 %	23.2 %	**100** %
	Cumulative Percent	4.4 %	12.5 %	% 35.7	76.8 %	100 %	
In your opinion, how effective is the learning process in classes taught by professors who do **not** use modern communication technologies?	Frequency	36	97	103	80	51	**367**
	Percent	9.8 %	26.4 %	%28.1	21.8 %	13.9 %	**100** %
	Cumulative Percent	9.8 %	36.2 %	% 64.3	86.1 %	100 %	
To what extent can the use of virtual classes and WhatsApp groups, etc., help speed up the resolution of your academic problems?	Frequency	21	37	65	139	105	**367**
	Percent	5.7 %	10.1 %	% 17.7	37.9 %	28.6 %	**100** %
	Cumulative Percent	5.7 %	15.8 %	% 33.5	71 %	100 %	

In Table 4, the findings of questions related to the effectiveness of using modern communication and information technologies in the educational process are presented from the perspective of the responding students, who have provided answers based on their experiences in various academic subjects in their fields. The research findings indicate that students

consider the use of modern communication technologies and networking opportunities to be effective in enhancing the learning rate of the educational process. The highest proportion of respondents—142 people (38.7%)—selected the option "a lot," followed by 91 respondents (24.7%) who chose "very much." The lowest proportion of respondents, 5.4%, selected the option "very little."

According to social learning theory, modern communication technologies can create better educational opportunities through observation, practice, and repetition, leading to a more effective learning environment. Although a minority of faculty members prefer traditional methods over modern teaching methods and communication technologies, such professors are few and receive limited support. However, the study found that students who participated in the survey indicated stronger belief than professors in the effectiveness of modern communication and information technologies in education and were more willing to use them whenever needed.

From the respondents' perspective, the speed of learning through observing examples and videos related to the subject, as well as their repetition in virtual groups and classes, can play a prominent role in the efficiency and convenience of learning. The most selected option in this regard was "a lot," chosen by 128 respondents (34.9%), followed by "very much" with 112 respondents (30.5%). The least selected option was "very low," chosen by 20 respondents (5.4%). Regarding the amount of learning students gain from lessons using modern communication tools, the highest number of respondents, 151 (41.1%), chose the "a lot" option. Notably, a small percentage of respondents, always a minority in this study, do not believe in the effectiveness of modern communication technologies in lessons and are often from fields such as the Faculty of Sharia. Given the nature of the topics they teach, they feel there is less need to use these tools and prefer that more notes are taken on whiteboards and oral explanations given to students.

Most respondents in this study, who are current students from various fields at Balkh University, believe that not using modern communication technologies in the educational process reduces the quality of learning. In this case, most respondents say the level of learning is "average" (103 respondents (28.1%)) and "low" (97 respondents (26.4%)).

The theory of technology acceptance is based on the principle that a new tool can provide satisfaction when users believe in its usefulness. Students confirm and believe that modern communication and information technologies, when used in the teaching-learning process, can enhance the level of learning and offer impactful and valuable benefits in education. These technologies, along with virtual groups and classes, provide

opportunities for observation, practice, and repetition, which can enhance the level of learning at any time and place. Additionally, they help minimize the time needed to solve students' problems. According to the respondents' perspective the speed of problem-solving using modern communication and information technologies, virtual groups, and classes compared to traditional teaching methods falls in the "high" category, selected by 139 respondents (37.9%), followed by the "very high" option, chosen by 105 respondents (28.6%). The lowest selection rate was for the "very low" option, selected by 20 respondents (5.7%).

The researcher's more than 13 years of teaching experience at Baghlan and Balkh universities have shown that insufficient attention is paid to building the capacity of university professors to improve their use of new communication and information technologies in education. Professors must initiate and make an effort to utilize these technologies. On the other hand, in a society like Afghanistan, people gradually develop faith in the acceptance of technology and its usefulness, a slow process often driven by the necessity to adopt new tools.

Professors with higher academic ranks and longer teaching experience often find it more difficult to adapt to new tools and usually prefer traditional teaching methods in universities. Although the acceptance and use of modern communication and information technologies in education have recently reached a satisfactory level in universities and continue to improve, students generally have limited experience with these technologies during their pre-university education, especially in Afghan public schools. This creates an educational challenge in the effective use of modern educational technologies.

Another aspect of th research data explored the connection between professors encouraging the use of modern communication and information technologies and students' awareness of the advantages of these technologies. Additionally, it examined how this encouragement impacts student learning outcomes. This relationship was analyzed using a two-dimensional chi-square table, and the findings showed a significant relationship between the variables ($p = 0.009 < 0.05$).

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	37.982[a]	20	.009
Likelihood Ratio	38.065	20	.009

Linear-by-Linear Association	10.077	1	.002
N of Valid Cases	367		

Based on the findings of this table, with a chi-square value of 37.982, 20 degrees of freedom, and a significance level of 0.009, it can be concluded that the level of significance is higher than 99%, while the probability of error is less than 1%. This means that professors can improve both the level and rate of students' learning by motivating and encouraging them, as well as by informing and educating them about the safe and correct use of modern communication technologies in education. According to the suggestions collected through the questionnaire, students of Balkh University emphasized that capacity building for the proper use of modern communication technologies in education is necessary for better understanding and for gaining greater benefit from these tools. They believed that professors should first receive this capacity building, which would then gradually transfer to students through short-term educational programs. In practical terms, before anything else educators must first develop the necessary skills and literacy in using modern communication technologies in education so they can apply them effectively and professionally across different academic disciplines.

DISCUSSION

The findings of the present study are generally consistent with those reported in previous research on the educational applications of modern communication technologies. Bakhshi et al. (2014) concluded that modern communication technologies facilitate the teaching process, enhance student engagement, and improve learning by providing broader access to educational resources. Similarly, the findings of present study indicate that students at Balkh University perceive professors' use of modern communication technologies as contributing positively to the teaching and learning process. In particular, students reported that these technologies improve learning effectiveness, increase access to educational materials, and support more interactive learning environments. The findings also support those of Khorsand (2011), who found that modern communication technologies improve learning quality, reduce learning time, and facilitate quick access to educational resources. Likewise, students participating in the present study considered rapid access to course materials, greater flexibility in the learning process, and reduced time and effort as important advantages of integrating modern communication technologies into university teaching.

These similarities suggest that the educational benefits of communication technologies identified in previous studies are also evident within the context of Afghan higher education. However, the present study extends previous research by providing empirical evidence from Balkh University, where limited research has examined professors' use of modern communication technologies from the students' perspective. While earlier studies primarily focused on the general educational benefits of technology, this study specifically evaluates the extent to which professors integrate these technologies into classroom teaching across sixteen academic faculties.

The findings demonstrate that although students express a relatively satisfactory level of satisfaction with professors' use of modern communication technologies, there remains considerable potential for improving their effective integration into teaching practices through continuous professional development, institutional support, and expanded digital learning opportunities. Overall, the consistency between the findings of this study and previous research suggests that modern communication technologies have become an essential component of effective higher education. At the same time, the results highlight that the successful integration of these technologies depends not only on their availability but also on professors' ability to apply them effectively in ways that enhance student learning and improve educational quality.

5.CONCLUSION

This study examined the use of modern communication technologies by professors at Balkh University in the teaching process from the perspectives of students across sixteen faculties. The findings indicate a relatively positive level of student satisfaction with professors' use of modern communication and information technologies in teaching and learning. Students recognized the educational value of these technologies and considered them essential tools for improving learning effectiveness, facilitating access to educational resources, and enhancing communication between professors and students.

The results further revealed that professors' use of modern communication technologies for the encouragement of students to utilize these technologies and their efforts to increase students' awareness of their educational value were generally rated as high or very high.

The findings are consistent with the theoretical framework of this study, suggesting that modern communication technologies support active learning, facilitate knowledge acquisition, and provide flexible opportunities for teaching and learning beyond the limitations of time and place. Students also identified several important benefits of integrating

modern communication technologies into higher education, including faster learning, easier access to educational materials regardless of time and location, improved understanding of complex topics, and opportunities for reviewing learning materials to access multiple educational resources. Nevertheless, a small proportion of respondents indicated that some professors still make limited use of these technologies. This may be associated with differences in teaching disciplines, individual technological skills, or preferences for traditional instructional methods.

Overall, this study contributes to the limited empirical evidence on the integration of modern communication technologies in Afghan higher education by providing students' perspectives from sixteen faculties of Balkh University. The findings suggest that, although the current level of technology integration is generally satisfactory, greater institutional support and continuous professional development are needed to strengthen professors' digital competencies and promote the more effective integration of modern communication technologies into university teaching. Such efforts can contribute to improving educational quality and better preparing higher education institutions to respond to the evolving demands of contemporary education.

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