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Ethical Interaction with Artificial Intelligence Applications and Its Relationship with Digital Well-Being among University Students in Jerusalem

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Abstract: The present study aimed to identify the relationship between ethical interaction with artificial intelligence and digital well-being among university students in Jerusalem. The descriptive correlational method was employed, whereby the Ethical Interaction Scale and the Digital Well-Being Scale were administered to a research sample of 250 male and female university students in Jerusalem. The data were collected and analyzed using the Statistical Package for the Social Sciences (SPSS). The study concluded that there was a statistically significant positive relationship between ethical interaction and digital well-being among university students in Jerusalem ($rp = .523$, $p < 0.01$). The mean score for the level of ethical interaction among the students was 4.39, indicating a high level. The mean score for the level of well-being was 4.40, also indicating a high level. No statistically significant differences were found in the level of ethical interaction among university students in Jerusalem attributable to the variables of gender, academic year, specialization, frequency of use, and training. Likewise, no statistically significant differences were found in the level of digital well-being among university students in Jerusalem attributable to the variables of academic year, specialization, frequency of use, and training. However, statistically significant differences were found in the level of digital well-being among university students in Jerusalem attributable to gender, in favor of males. The study recommended requiring developers to exclude technologies that contain deceptive and dark patterns, training and preparing teachers on how to deal with artificial intelligence tools and applications, and conducting further studies in the Arab context.

Keywords: Ethical Interaction, Digital Well-Being, Artificial Intelligence, Classroom Environments.

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مجلة العلوم الإجتماعية
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التفاعل الأخلاقي مع تطبيقات الذكاء الاصطناعي وعلاقتها بالرفاهية الرقمية لدى الطلبة الجامعيين في القدس

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ملخص: هدفت الدراسة الحالية إلى التعرف على العلاقة بين التفاعل الأخلاقي مع الذكاء الاصطناعي والرفاهية الرقمية لدى الطلبة الجامعيين في القدس. واستخدمت الدراسة المنهج الوصفي الارتباطي، حيث طبق كل من مقياس التفاعل الاخلاقي و مقياس الرفاهية الرقمية على عينة بحثية مكونة من (250) طالبًا وطالبة من الطلبة الجامعيين في القدس. وتم جمع البيانات وتحليلها باستخدام الحزمة الإحصائية للعلوم الاجتماعية (SPSS). وتلخصت الدراسة الى وجود علاقة إيجابية ذات دلالة إحصائية بين التفاعل الأخلاقي مع الذكاء الاصطناعي والرفاهية الرقمية لدى الطلبة الجامعيين في القدس (معامل الارتباط .523,و مستوى الدلالة <0.01). وقد بلغت متوسط درجات مستوى التفاعل الأخلاقي لدى الطلبة 4.39، وهذا يشير الى مستوى مرتفع. وقد بلغ متوسط درجات مستوى الرفاهية الرقمية 4.40 ,وهذا يشير أيضا الى مستوى مرتفع. لم تظهر النتائج فروقا ذات دلالة إحصائية على مستوى التفاعل الأخلاقي بين طلاب الجامعة في القدس وهذا يعزى الى متغيرات الجنس، السنة الدراسية، التخصص، معدل الاستخدام، و التدريب، و بالمثل، لم ترصد فروق بدلالة إحصائية على مستوى الرفاهية الرقمية بين الطلاب الجامعيين في القدس ويعود ذلك الى المتغيرات التالية : السنة الدراسية، التخصص، معدل الاستخدام، والتدريب. مع ذلك وجدت فروق ذات دلالة إحصائية على مستوى الرفاهية الرقمية تعزى لمتغير الجنس، وكانت لصالح الذكور، وقد أوصت الدراسة بضرورة إلزام المطورين بإستبعاد التقنيات التي تتضمن أنماطا خادعة أو أنماط مظلمة، وتدريب المعلمين على كيفية التعامل مع أدوات الذكاء الاصطناعي و تطبيقاته, و إجراء المزيد من الدراسات على البيئة العربية.

الكلمات المفتاحية: الفاعل الأخلاقي، الرفاهية الرقمية، الذكاء الاصطناعي، البيئة الصفية.

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1. General Framework of the Study

1.1 Introduction

The contemporary world and major institutions, particularly educational institutions, have undergone significant transformation as a result of rapid digital development and technological advances, with Artificial Intelligence (AI) emerging as one of the most significant developments. The traditional role of modern technologies as technical and supportive tools has expanded considerably, as they have increasingly become sources of information and interactive tools capable of performing a wide range of tasks and addressing problems that were previously handled primarily by humans. AI tools can generate, develop, and organize content, while also supporting data management, decision-making, and monitoring processes. These technologies are increasingly being integrated into educational contexts, where they continue to shape educational practices and influence students' approaches to learning and their overall learning experiences.

With the rise of AI in education, there have been worries about students' analytical and critical thinking skills, anxiety, and mental distraction. AI applications within education no longer just an option, but a vital part of modern teaching and learning. As a result, students and educators need to be mindful of the ethical implications and best educational strategies when using and engaging with these technologies. Kuang and Gao (2026) argued that the unclear usage of the AI tools in the classroom and inadequate institutional support could result in a rise in the digital academic anxiety of learners and their attention distraction.

This technological change has raised many complex challenges for the education system regarding the way to manage, regulate and steer fast-changing technological use. Consequently, more focus is now being placed on education, ethics, and strategies that can help promote positive technology use and help to mitigate potential negative impacts, such as distraction, anxiety, psychological pressures and over-reliance on modern technology, for learners. This can foster responsible and ethical behaviours, and contribute to the digital and mental health of learners.

Kuang and Gao (2026) in their paper presented the idea of learners' psychological well-being and its connection with the use of generative Artificial Intelligence tools. This was taken up in the study when discussing how students are learning, how they think and how they are

using contemporary digital technologies. The AI in Classroom Management review by Fütterer et al. (2025) also emphasized the need to consider the ethical aspects of technology use in classrooms, as well as the technical ones.

However, digital acceleration can present a range of issues for students, including social isolation, imbalance and diminished engagement with materials. Thus, digital well-being becomes a key consideration in developing appropriate digital classroom and facilitating learning outcomes in the digital era learning environments. Thus, the ethical involvement of students for modern technologies and their adaptation to smart tools with digital and psychological well-being is an important focus of research to understand the students' adaptation to the modern technological changes.

The aim of this research therefore is to understand this relationship and analyse its scope between ethical interaction with contemporary technologies supported by Artificial Intelligence and digital well-being. To accomplish this, there will be a questionnaire that will gather data and observations from the students within the classroom space to formulate a framework and make recommendations for regulatory mechanisms that may help promote the effective, responsible and well-informed use of Artificial Intelligence and its applications in the educational process.

1.2 Statement of the Problem

Even with the emergence of Artificial Intelligence technologies in education, and the spread of generative Artificial Intelligence in the classroom, there is still a lack of clarity about the rules and procedures that should be followed to use them appropriately. The sudden digital transformation has also revealed the lack of awareness of learners about technology ethics in the classroom as well as in everyday life. This awareness gap can be demonstrated in students' attitude, beliefs and behaviors, and in their daily classroom practice.

Numerous studies in the Arab context have also shown that excessive dependence on AI tools to create content and draft sentences could be linked to the erosion of basic skills and innovation, especially if students rely on AI-generated content without reading, evaluating, and verifying it. These behaviors have raised concerns about academic integrity, personal responsibility and responsible use of Artificial Intelligence technologies.

The problem in the present study is therefore the lack of clarity in the classroom regarding the ethical, administrative and organizational procedures that govern the use of modern technologies in the field of Artificial Intelligence by the students, as well as inadequate legislation regulating the interaction of students with these technologies in a suitable manner. These rules are essential to foster the growth of competent technological and AI-related skills, while ensuring academic honesty, ethical behavior, and digital wellness among learners.

Digital well-being is a desired outcome but also an ability that should be nurtured in students to ensure proper cognitive and psychological functioning in AI-related learning environments. The lack of regulation and guidance in classroom use of technology can be linked to the decreased levels of cognitive awareness among students (Michal Černý, 2025). This can thus be seen from five major points, namely cognitive dependence, plagiarism and academic dishonesty, mental fatigue and problems with digital information, introversion and social isolation, and reduced credibility and uncertainty of automated assessment.

1.3 Research Objectives

The current study seeks to find out the relationship between ethical interaction and digital well-being among university students in Jerusalem; the level of ethical interaction and digital well-being among university students in Jerusalem; and differences in the level of ethical interaction and digital well-being among university students in Jerusalem according to the variables of gender, academic year, specialization, frequency of use and training.

1.4 Significance of the Study

The significance of this study from a theoretical point of view is related to the examination of ethical interactions with Artificial Intelligence applications and the significance of digital wellbeing in the classroom environment in relation to students. It is one of the latest and scarce Arab studies, with novelty and linkage to Artificial Intelligence. It also plays a role in developing theoretical models that can explain the behavioral consequences ensuing from the technological infiltration of the classroom and in its guidance and direction of students.

Its applied value is because of its pragmatic approach for educators, educational institutions and decision makers, which is easily applicable in

smart classroom environments. Through this plan, educators seek to regulate students' digital and psychological behavior in digital classrooms, thereby contributing to providing evidence and guidelines for the use of Artificial Intelligence in the classroom environment. This improves the teaching learning process, increases the safety of the learners, and prevents digital and psychological burnout, social isolation of learners. This aligns with the needs of international organizations and local bodies that are urging the protection of the impacts of Artificial Intelligence and the regulation of its use through a safe and secure educational environment.

The study is limited due to the following factors:

The study is limited to examining the relationship between ethical engagement and digital well-being among university students in Jerusalem during the 2025/2026 academic year.

Theoretical Framework and Previous Studies

The framework and philosophical concepts underlying the study are summarized in this chapter, which is organized around two main axes: ethical principles governing the use and interaction with Artificial Intelligence, and learners' digital well-being. The purpose of this literature-based review is to explore the gaps in procedural and knowledge aspects in AI-supported classrooms, review and analyse the latest literature and previously published studies on these gaps.

2.2 Ethical and Behavioral Challenges of Artificial Intelligence in Education

1- Generative Artificial Intelligence Tools and Applications and Their Position in the Classroom Environment:

Artificial Intelligence tools stand as one of the most notable and significant innovations by humans. They have introduced a qualitative change and a radical reorientation of the educational process and have opened new educational possibilities and resources that have never existed. The use of AI tools like Gemini, Claude, GPT, and others has become prevalent in classrooms and revolutionized the way education is delivered as a quick and alternate mode of instruction for teachers and students. Furthermore, Artificial Intelligence helps to establish an objective educational environment in the smart classroom that can inspire

teachers to continuously reflect on their own learning experiences and reflect critically on their educational practice. Alfathiah et al. (2026) highlighted the need for responsible and ethical use of Artificial Intelligence in order to support good academic performance and the wellbeing of the student.

At the current rate of technology advancement, AI tools & applications have revolutionized the way things have been done in the past. They are not only sources of information and content deliverers, but are also content generators and curriculum creators, who plan the whole learning path by completing assignments, helping with challenging tasks, creating content and mapping curricula. They have thus become an indispensable interactive partner. This integration and too much authority of the Artificial Intelligence tools in the classroom spaces have led to some issues about digital and behavioral integrity, despite this superiority and advancement, without having any controls, laws and rules to guide the use of their applications and tools. According to Bittle and El-Gayar's study (2025), the swift adoption of generative Artificial Intelligence in education is accompanied by numerous potential benefits and inherent risks that teachers and educational institutions should consider. These include unprecedented educational opportunities for improving education, in addition to challenges related to academic integrity.

2. Excessive Reliance on Digital Tools and the Decline of Higher-Order Thinking Skills:

One of the most dangerous educational habits of the contemporary times is excessive and irresponsible use of Artificial Intelligence (AI) tools, which results in a lack of willingness to use the brain in research and exploration even at the price of the basic concepts, and this makes the learners unable to use the basic skills they are supposed to use, such as analysis, criticism, thinking etc. The learner's need for instant answers to classroom tasks and assignments adds to the end of active thinking and fosters the learner's expectation of being handed the information. This attitude breaks down the learner's cognitive schema, reduces the learner's cognitive capacity, and leads to a paralysis in thinking, criticizing and analyzing, thereby impacting academic performance and the nature of the product that we desire. This was seen in systematic reviews, including Saúde et al. (2024), which suggested that modern applications and tools for AI in education are not automatically focused on improving academic outcomes, but rather require consideration of the algorithmic approach, which is a clear indication concerning the differences' awareness in the

learning outcomes. Other research like that of Chen et al. (2024) and Ventura and Lopez (2024) found that the lack of ethical and cognitive understanding of how and how different ways of using Artificial Intelligence tools and applications negatively affects the transformation of Artificial Intelligence into an excessive dependence and a substitute for thinking and analysis.

3- Scientific Misconduct and Academic Plagiarism:

As a result of the ease of accessing previous studies and scientific research, and the use of intelligent software that is able to falsify data and scientific research and produce simple ideas, tasks and studies to complex and complete reliance on Artificial Intelligence applications, the phenomenon of "academic plagiarism" or "digital scientific misconduct" has emerged and recently spread in academic circles. One push of a key on a computer keyboard can produce assignments, research, and a job that would, in reality, take many days or months to come to fruition, and that such a person might claim as his or her work even though it was not actually created by him or her. This undermines the backbone of academic honesty. This study was addressed by Chen et al. (2024) that revealed the emergence of new academic dishonesty (e.g., data fabrication and text plagiarism with the help of AI algorithms). Such practices jeopardize valid science, and may lead to misinformed science. In the absence of ethical deterrent, digital controls and disappearance of classroom standards and regulations, the pace of these developments has increased and challenges are becoming more prominent. Put differently, this dual approach towards the question is a worry that makes the educators and decision makers think about the low ethical level and poor behaviors of the students in the educational system and feel the urgent need to prevent the collapse of the educational system as a result of the enactment of laws, regulations and codes of conduct in the classrooms and in the educational interactions, which will preserve the scientific status of the education system.

4. Technology Bias and Fairness in the Automated Assessment of Students:

The use of Artificial Intelligence applications fully in educational practices carries with it ethical and academic risks in educational contexts. The assessment of academic performance from intelligent applications, the correction of homework and the preparation of assignments do not always account for fairness and transparency and may

be a source of algorithmic bias and mechanisms of decision making. The lack of the teacher in this position and failure to provide human educational management, undermines students' trust in the educational system and lack of principle of fairness and equality. Algorithms are based on the previous data that had been prepared beforehand, contributing to biases and preferences that can result in biased future decisions, based on several criteria, religious, racial, gender, class, etc., as mentioned by Hamdi (2023) in his study. If one relies on biased machines, there is social injustice, and doubts as well about the capacity of algorithms to guarantee users' privacy. Therefore, algorithms are deemed to be human biases.

5- Human Agency and the Teacher's Responsibility in Classroom Decision-Making:

The teacher's role in the classroom procedures and education system is very important as a human being who is able to observe and make decisions. Nothing can take the place of the teacher's guidance and direction in the applications and intelligent tools. The idea of the teacher's responsibility in classroom management and in raising students' academic level is manifested in the teacher's possession of agency, freedom and awareness in decision making while taking into account factors that are external to the teacher.

2.3 Second Axis: Digital Well-Being and Psychological Safety within the Classroom Environment

1- The Concept of Digital Well-Being and Its Educational Dimensions:

Digital well-being in educational context is the topic that discusses how the student can interact and adapt to technology and Artificial Intelligence in an ethical, sound, and productive way to derive the maximum benefits from educational activities without causing harm to psychological well-being, social status, and cognitive structure and awareness. Digital well-being is not something we can have if we want to, it's something that has become a critical determinant of education and its impact. Digital well-being has three aspects: Cognitive and perceptual dimension (maintaining the cognitive structure), psychological dimension (avoiding anxiety caused by digital technology), and social dimension (maintain social relationships and direct communication). Recent literature has confirmed this, and has pointed to digital well-being being an essential part and a

core aspect of educational policies and educational practices. The need remains, however, to think more conceptually about the phenomenon, especially taking into account the fast and successive technological advances and their psychological and social impact on learners (Černý, 2025).

2- Cognitive Stress and Anxiety Arising from Digital Machines:

Excessive and irresponsible use of Artificial Intelligence tools and applications by students in AI-enhanced classrooms leads to psychological pressures and burdens, which is known as digital cognitive stress. The pressure and burden these bring about are due to the amount of information, updates, the need for real-time monitoring and analysis of the information, and the speed at which algorithms respond to immediate demands. The continuous interaction and collaboration with Artificial Intelligence applications constantly stimulate the learner's brain while constantly distracting it, leading to high levels of anxiety and fear of being unable to cope and keep up. Finally, it leads to digital burn-out and a decrease in the student's intrinsic motivation to learn. This was demonstrated by the results of structural modeling in the study conducted by Wang et al. (2026) which revealed that the overuse of the Artificial Intelligence application in a digital educational environment is fundamentally an integral factor in the creation of psychological pressures.

3- Technological Isolation and Loss of Social and Emotional Skills:

When the use of Artificial Intelligence tools and applications is excessive and disproportionate in the classroom, particularly when students alternate among them for most of their learning activities without formal restrictions, controls, or clear guidance, they may move away from an interactive and collaborative learning environment in which they engage with peers and teachers through modern teaching methods. Instead, they may become increasingly dependent on technology-mediated and individualized forms of learning, potentially reducing opportunities for interpersonal interaction and collaboration. In this way, AI-assisted applications/devices and smart screens may become students' primary sources of support and main focus of attention. This pattern of use may be associated with reduced knowledge retention, weaker interpersonal relationships among students, decreased cognitive engagement, and weaker basic and teamwork skills, as well as reduced opportunities for dialogic communication and increased social isolation. Reduced social

interaction and limited opportunities for collaboration may, in turn, contribute to feelings of psychological pressure, frustration, and tension among learners, particularly when students experience reduced social support and engagement in the classroom. These psychological and social pressures may contribute to emotional responses, including states of anger that can affect students' overall classroom experience and interactions.

2.4 Previous Studies

In this section, the knowledge framework, tools and most significant results of previous studies are described, regarding the topic and the variables of the current study.

Darwish (2026) conducted a study to explore the reality of the use of Artificial Intelligence (AI) and the degree of digital psychological support and mental health among university students. The study also examined the effect of Artificial Intelligence and digital psychological support in order to improve the students' mental health in universities. A descriptive-analytical approach was used, and a sample of 300 male and female students of Al-Zaytouna International University was used. The findings indicated that Artificial Intelligence was used with a high level among the university students. Also, the students' level of digital psychological support and mental health were above the average. The research also showed that there was an effect on the mental health of university students when using Artificial Intelligence and digital psychological support.

Oh et al. (2026) examined the impacts of two modes of algorithmic literacy: ethical awareness and technical understanding of AI algorithms, on users' sense of agency regarding AI and their trust in it. Data obtained from the two surveys revealed that having a sense of agency is directly linked to a sense of trust and that both technical knowledge and ethical awareness have an inverse relationship with the sense of agency, as the former lowered the sense and the latter increased it. The second study revealed that these psychological impacts were regulated by a negative sense of agency, which is when users feel that they are under the control of Artificial Intelligence and its tools.

In the context of the campaigns for proper regulation and for protecting students' psychological and digital health, Al-Maliki's research (2026) recommended the formulation of strong policies and limitations based on sustainable standards and regulations to enable a conscious retreat, as far

as possible, from screens and smart applications and to make this a part of curricula and school activities. The aim was to promote discipline and basic skills by increasing students' levels of concentration, analysis, and academic achievement. The study highlighted the importance of designing the guidelines and the standards in a flexible manner to enable the learners to manage their time effectively when utilizing modern technologies and to help them overcome challenges related to their over-reliance on smart devices. The study also highlighted the need to implement joint initiatives between the school and the family, in order to create a "safe and safe" space for a child to educate and grow, a place where he can seek a balance between the demands of digital life and lived reality.

Buelens et al. (2026) set out to develop a contextually appropriate quality assessment framework for digital care and to evaluate the quality of psychological care and digital support, with the goal of achieving balance and equality between the technological, organizational, professional and ethical aspects. The study used three rounds of Delphi model, interviews, literature review and complementary focus groups. The study resulted in a contextually shared quality assessment framework that was able to balance technological aspects and robustness.

Wang (2026) set out to explore how the integration of digital well-being and the use of Generative Artificial Intelligence (AI) tools could contribute to students' academic success, while simultaneously fostering engagement and awareness of the Sustainable Development Goals (SDGs). A quantitative cross sectional design was used for data collection and a set of measures were used to gather data on digital well-being, AI, academic performance, educational engagement, and SDG awareness. The number of participants was 440. The findings indicated that both tools played a positive role in improving academic interactions and academic outcomes, highlighting the importance of incorporating digital well-being and AI tools in the education curriculum to equip students with the skills necessary to meet the challenges of today's world.

Al-Bouhniya's study (2025) aimed to build an educational proposal to help increase value-based and ethical awareness of the applications of Artificial Intelligence among the stakeholders in the educational process in Saudi Arabia. The researcher used descriptive analytical method by analysing three main documents namely: The Ministry of Education and SDAIA Guide of 2024, the UNESCO Recommendation on the Ethics of Artificial Intelligence 2021, and the Organization of Islamic Cooperation

Charter for Education, Science and Culture 2019. The study highlighted the importance of adapting intelligent systems to digital privacy regulations, refraining from using technology as a replacement for teachers and reaffirming the role of teachers, and improving the importance of advanced training programmes focused on ethics in technology and Artificial Intelligence programmes in curricula and educational practices.

Lotfi (2025) in the study titled Artificial Intelligence and Digital Wisdom: Ethical and Existential Challenges between Engineering and Philosophy used a critical-analytical method and considered the reciprocal relationship between the technologies of Artificial Intelligence with the philosophical thought. The researcher concentrated on the study of the influence of intelligent algorithms on the cognitive and decision-making processes of an individual. The study shows that, although Artificial Intelligence is rapidly developing, it is still far from being ethically autonomous and has never had the ability to take decisions on its own, thus calling for a profound need of intervention in the field of philosophy and legislation for the use of Artificial Intelligence to be framed within adequate rules.

The findings of the study conducted by Amasha (2025) indicates that the use of Artificial Intelligence tools, such as predictive analytics and intelligent data management systems, can improve decision making, increase transparency and oversight of the use of AI, if there are flexible regulations and clear policies developed to tackle legal and ethical challenges. The study suggested that training programs for leaders and teachers should be developed and existing school policies should be updated to incorporate Artificial Intelligence in a safe and effective way that would improve education quality and sustainability.

Čiževska (2025) conducted a thorough scientific review of the detrimental impacts of technology from (2022) to (2025), and found real-world consequences that impact students' abilities. The results showed dual effects of these technologies. Although they help complete tasks and may provide prewritten information, the growing dependence on Artificial Intelligence reduced the results of thinking tests by over 17% and recall of concepts and passing tests by 22%. This duality brings about undesirable side effects such as students' unwillingness to use their minds, and the existence of greater fears, anxieties and stress. Shifting simple thinking, analysis and problem-solving away from intelligent systems and

tools leads to a loss of cognitive and mental skills and abilities and the resulting deficiency to the lack of transparency in intelligent systems.

The goal of this study was to understand the concept of digital well-being associated with AI from the university students' point of view (Černý 2025). The study was based on a questionnaire given to 474 university students. It was found that effective interaction and digital awareness are the nucleus of an educational environment that aims at empowering student and consequently the right balance and integration between the human and the technical elements. The study also has suggested that critical thinking, innovation and autonomy have to be fostered and that the sense of responsibility should be strengthened, and that humans and machines, both living and thinking, share an existence in today's academic environment.

Eke (2023) explored how to use Artificial Intelligence in higher education, which comes with significant challenges. They may also threaten students' critical thinking and analysis since it can produce text and ideas in seconds, leading to educational plagiarism and academic dishonesty. It also places the burden of detecting this misconduct and cheating on teachers and educators, which requires the development of training and guidance programs for teachers to enable them to deal with these programs more clearly and efficiently.

The purpose of the study carried out by Kong and Zhu (2025) was to create and validate the AI Ethical Awareness Scale (AIEAS) and examine how the problem-solving method impacts the formation of AI ethical awareness in secondary and university students. The study participants were a total of (573) male and female students from Hong Kong. The results revealed that the scale had three factors, human autonomy, beneficence and justice, and the reliability and the validity coefficient were good (0.70). The findings also showed that there was an increase in students' ethical awareness and technological practices after the program, which is an indication of the effectiveness of incorporating problem solving and reflective programs in improving digital ethics.

The study by Alhaj Hamdan (2025) focused on determining the role of the applications of Artificial Intelligence in improving academic aspirations of class 10 students in the schools in the University District. The researcher used descriptive-analytical approach and the number of respondents was (383) male and female students. The findings indicated that the level of academic aspiration was very high while the level of

students' use of Artificial Intelligence applications was at a moderate level. It also showed that Artificial Intelligence applications play a very prominent role in improving academic aspirations.

Sharma's (2025) focus was to find a missing link in the methodology between technological regulation and ethical and psychological aspects of human well-being. The study proposed a framework for digital well-being governance that draws from five interrelated dimensions: ethical accountability, algorithmic transparency, human oversight, psychological safety and inclusive policymaking, thus laying the foundations of governance based on compliance and the creation of digital environments that are good for people. The research moves beyond the perspective of AI ethics and adds social and psychological considerations to the field of governance theory to redefine digital well-being as a public good. It demands the creation of policies to safeguard emotional sovereignty and intellectual autonomy in algorithmically controlled spaces. The results highlighted the importance of changing the ethical governance of Artificial Intelligence from focusing on protecting data privacy to protecting cognitive and emotional safety.

In the study, Abdel Qader (2026) sought to determine the acceptance of secondary school students for using Artificial Intelligence (AI) applications in the mental health context as a first step to supporting mental health, as well as the most prominent ethical and privacy issues in their view in relation to using AI applications. The method used in the study was descriptive-analytical, with instruments being a questionnaire, which was distributed to a sample of secondary school students. The students' responses towards the use of these applications in Psychological Support were noted as moderate to high. But distinct worries arose about the issues of data confidentiality and also the extent to which these apps can be relied on.

2.5 Commentary on Previous Studies

This research presents educational and psychological thought in the process of the development of ethical interaction and digital well-being. Review of past and recent research revealed that they have concurred to explore the positive and negative impacts of modern technologies and AI on students and the educational system. The studies have been centered on the following issues: the digital and psychological health of students is safeguarded through using the mechanisms of their discipline, and educational support mechanisms are activated to ensure digital and

psychological well-being for students. They have also stressed the use of time set aside for the use of these tools to maintain the acquired basic skills. The researcher gained the benefit of their theoretical frameworks in setting up the current research and researching the questions for this research. Some studies were carried out in various foreign settings and others were carried out in local Arab settings. Some previous studies used a descriptive-analytical approach in which an in-depth literature review was used, while other studies used the quantitative cross-sectional approach using the questionnaires. The majority of studies were devoted to the students as the main sample and as users of Artificial Intelligence tools.

Some studies including, Buelens et al. (2026), Al-Bouhniya (2025), and Lotfi (2025) agreed with the current study on the need for principles, laws, and regulations when using intelligent tools in the classroom environment, taking into account students' well-being and privacy, protecting their psychological and emotional well-being from harm, preventing social isolation and ensuring that the intelligent tools are used as much as possible without entering a vicious circle of addiction, anxiety and stress due to their implementation. This can be achieved by having a safe and sound environment that includes psychological well-being and strives for digital well-being accompanied by guidance and counseling for students.

Al-Bouhniya's study (2025) helped to make the balance and harmony between modern technologies and technology on the one hand, and personal data and information on the Internet on the other, and to create technical and legal rules and standards to protect the student when using these technologies.

2.6 Research Gap

It becomes clear to the researcher that there is no research or studies that have examined the relationship between ethical interactions in the era of Artificial Intelligence and the digital well-being directly, and that the researcher has not found in the Arab world so far. The focus of the previous studies was on ethical awareness and intelligent tools as user behavior in general, while the present study restricts the measurement and application to the classroom environment. Previous studies have mainly concentrated on how digital well-being relates to students' well-being and the present one is unique in giving a quantitative treatment by using a practical scale to assess the direct link between digital and psychological

well-being and ethical commitment. It also incorporates ethical interactions with Artificial Intelligence and digital well-being and is specifically oriented towards students. To date, this study is believed to be the first study to employ the use of both of the preceding scales and investigate the relationship between ethical interaction and digital well-being and their interaction within one single study in an Arab classroom environment.

2.7 Main Research Question

Is there a statistically significant relationship between ethical interaction and digital well-being among university students in Jerusalem?

Sub-questions

1. What is the level of ethical interaction with Artificial Intelligence among university students in Jerusalem?
2. What is the level of digital well-being among university students in Jerusalem?

2.8 Study Hypotheses

1. There are statistically significant differences in the level of ethical interaction among university students in Jerusalem attributable to the variables of gender, academic year, specialization, frequency of use, and training.
2. There are statistically significant differences in the level of digital well-being among university students in Jerusalem attributable to the variables of gender, academic year, specialization, frequency of use, and training.
3. Study Methodology and Procedures

3.1 Study Method

The study adopted the descriptive-correlational approach in accordance with its nature. The descriptive-correlational approach is considered the most appropriate and suitable for describing the practices and awareness of the participating sample members according to the study variables and subsequently identifying the nature of the relationship and association between ethical interaction as an independent variable and digital well-being as a dependent variable among students in classroom environments.

3.2 Study Population and Sample

The study population consisted of university students from the city of Jerusalem during the 2025/2026 academic year.

The research sample consisted of (250) male and female university students from the city of Jerusalem during the (2025/2026) academic year. They were selected using simple random sampling.

Table (1): Frequencies and Percentages of the Study Sample According to Demographic Variables

Variable	Category	Frequency	Percentage
Gender	Male	100	40.0
	Female	150	60.0
	Total	250	100.0
Academic year	First year	71	28.4
	Second year	46	18.4
	Third year	38	15.2
	Fourth year or above	95	38.0
	Total	250	100.0
Specialization	Scientific/technical specializations (engineering, computer science, sciences, etc.)	205	82.0
	Humanities/literary specializations (education, languages, Sharia, law, etc.)	45	18.0
	Total	250	100.0
Daily frequency of using Artificial Intelligence tools (e.g., ChatGPT, Claude, Gemini)	Less than 1 hour per day	111	44.4
	From 1 hour to less than 3 hours	78	31.2
	3 hours or more	38	15.2
	I do not use them daily (only when needed)	23	9.2
	Total	250	100.0
Have you previously received any training or guidance on the ethical and safe use of Artificial Intelligence?	Yes, I received a formal course or guidance	114	45.6
	Through my interactions on social media platforms	64	25.6
	No, I deal with them based on personal judgment	72	28.8
	Total	250	100.0

3.4 Research Instruments

Three questionnaires were used: the first was used to examine the background variables, the second to examine the level of ethical interaction, and the final instrument was the digital well-being scale.

The first questionnaire: The first questionnaire was with regard to the demographic variables of study sample members, such as gender, academic year, specialization, frequency of use, and training. (See Appendix 1).

The level of students' ethical awareness and practices on using Artificial Intelligence was measured by the use of the Artificial Intelligence Ethical Awareness Scale (AIEAS) which was adapted from Kong and Zhu (2023) study. The scale was modified to (8) items after a review of the original items and elimination of items with similar content, to minimize repetition and enhance scale internal consistency. The scale was a 5-point Likert scale ranging from: (Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree = 1). (See Appendix 2).

• Digital Well-Being Form – Dependent Variable: It was designed to measure the digital well-being and adapted from the study of Tuncer & Dikmen (2022). It included 12 items and the scores on the scale items were given on a 5-point Likert scale (Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree = 1). (See Appendix 3, p.).

The reliability and validity of the study instruments is shown as follows:

Ethics of the helping relationship and the helper

The internal consistency coefficient has been used to assess the reliability of the ethical interaction scale with Cronbach's alpha. Correlations of each item with the total score of the scale were also run to determine degree of consistency of each item with the scale. The reliability coefficient of the scale in final form was (0.88) indicating acceptable level of internal consistency of the scale.

Table (2): Reliability Coefficients (Cronbach’s Alpha) and Correlation Coefficients of the Ethical Interaction Scale Items with the Total Score

Item No.	Pearson Correlation Coefficient	Significance Level	Item No.	Pearson Correlation Coefficient	Significance Level
1	0.343**	0.00	5	0.471**	0.00
2	0.444**	0.00	6	0.491**	0.00
3	0.511**	0.00	7	0.605**	0.00
4	0.587**	0.00	8	0.615**	0.00

Note: ** Statistically significant at the (0.01) level.

The correlation coefficients of the ethical interaction scale items with the total score ranged from (0.343–0.615), and all were statistically significant at the (0.01) level. This indicates statistically significant correlations between the items and the total score of the scale and confirms the consistency of the items with the scale and their ability to measure the concept for which they were designed.

- Reliability and Validity of the Digital Well-Being Scale

The reliability coefficient of the digital well-being scale was (0.81), a value that provides the researcher with confidence in the study instrument. The correlation coefficients for each item of the digital well-being scale were also calculated, as shown in Table (3).

Table (3): Reliability Coefficients (Cronbach's Alpha) and Correlation Coefficients of the Digital Well-Being Scale Items

Item No.	Pearson Correlation Coefficient	Significance Level	Item No.	Pearson Correlation Coefficient	Significance Level
1	.628**	.00	7	.295**	.00
2	.646**	.00	8	.427**	.00
3	.524**	.00	9	.297**	.00
4	.655**	.00	10	.715**	.00
5	.544**	.00	11	.656**	.00
6	.628**	.00	12	.635**	.00

** Significant at the level = 0.01

Significant at the level = 0.05

The correlation coefficients for the items of the digital well-being scale ranged from (**0.295–**0.715), indicating a high degree of correlation

for each dimension of the scale with the total score of the scale at the level = 0.01.

3.6Study Procedures

The current study problem is identified, the current study questions are formulated and the current study hypotheses are developed based on the current study variables. The literature review and analysis of past research included examining the literature and studies on ethical engagement and digital wellness in the era of AI. The Ethical Interaction Scale (Kong & Zhu, 2023) and the Digital Well-Being Scale (Tuncer & Dikmen, 2022) were adapted and linguistically translated in an appropriate way for the Arab classroom context. Face validity of the instrument was checked by showing the preliminary version of the instrument to some expert referees and making changes in the items according to their suggestions. The final questionnaire was prepared in the form of an electronic questionnaire (Google Forms) and sent to the students in the study sample. The data obtained were then entered and statistically analysed by using the Statistical Package for the Social Sciences (SPSS) to show and discuss the results.

3.7 Research Ethics

The researcher in conducting the research has followed a set of standards: ensuring that all information presented in the study was attributed to its original sources and the researcher did not attribute to himself any information that did not come from him. The researcher did not influence the results of the research, with no one forced to participate, but the researcher also ensured the confidentiality of the participants' information. The researcher also ensured the integrity and objectivity in the discourse of the results.

3.8 Data Analysis

The quantitative analysis technique was used to determine the arithmetic mean, standard deviation, and percentage of the study samples' responses to the questionnaire items. Reliability coefficient was also computed to ensure the statistical validity and reliability of the instrument used, as well as the Pearson correlation coefficients. In addition, the t-test was used, all within the Statistical Package for the Social Sciences (SPSS).

In this module, the study findings will be presented and discussed, and the key study findings will be summarized in a written report.

The aim of this part of the study was to find the relationship between the ethical interaction and digital well-being of university students in Jerusalem. The quantitative research results are presented, in addition to the results obtained from the data analysis that was carried out on the data collected from the research sample (250) male and female university students from universities in Jerusalem. The data of the study questions were answered through the use of the Statistical Package for the Social Sciences (SPSS) namely; calculation of arithmetic mean and standard deviation, Pearson's correlation test, and one-way analysis of variance.

The study results are discussed below based on the literature reviewed in the study.

Presentation of the Statistical Analysis Results:

4.1 Presentation of the Results of the Main Research Question: Is there a statistically significant relationship between ethical interaction and digital well-being among university students in Jerusalem?

To answer the main research question, "Is there a statistically significant relationship between ethical interaction and digital well-being among university students in Jerusalem?", Pearson correlation coefficients were calculated between the research variables, as shown in Table (4).

Table (4): Pearson Correlation Coefficients between Ethical Interaction and Digital Well-Being among University Students in Jerusalem

	Digital Well-Being
Ethical Interaction	.523**

The table above shows a positive (direct) statistically significant relationship between ethical interaction and digital well-being (r_p = .523**, $p < 0.01$).

4.2 Presentation of the Results of the Study Questions

1) What is the level of ethical interaction among university students in Jerusalem?

To answer the first question, the arithmetic means and standard deviations of ethical interaction were calculated, as shown in Table (5).

Table (5): Arithmetic Means and Standard Deviations of Ethical Interaction

Item	Mean	Standard Deviation
Total Ethical Interaction Score	4.39	0.32

It is observed from the table above that the arithmetic mean of the level of ethical interaction was (4.39), with a standard deviation of (0.32), indicating a high level.

2) What is the level of digital well-being among university students in Jerusalem?

To answer the second question, the arithmetic means and standard deviations of the level of digital well-being were calculated, as shown in Table (6).

Table (6): Arithmetic Means and Standard Deviations of Digital Well-Being

Item	Mean	Standard Deviation
Total Digital Well-Being Score	4.40	0.40

It is observed from the table above that the arithmetic mean of the level of digital well-being was (4.40), with a standard deviation of (40.0).

4.3 Presentation of the Results of the Hypotheses

4.3.1 First Hypothesis: There are statistically significant differences in the level of ethical interaction among university students in Jerusalem attributable to the variables of (gender, academic year, specialization, rate of use, and training).

The first hypothesis was divided into the following sub-hypotheses:

(A) There are statistically significant differences in the level of ethical interaction among university students in Jerusalem attributable to the gender variable.

Table (7): Results of the t-Test for Differences in Ethical Interaction According to Gender

Ethical Interaction	Males N=100		Females N=150		t-value	Significance
Total Score	Mean	Standard Deviation	Mean	Standard Deviation		
	4.38	0.31	4.40	0.33	-0.49	0.625

The results indicate that there are no statistically significant differences in the level of ethical interaction among university students in Jerusalem according to the gender variable, as the t-test value was (-0.49) at a significance level of (0.625), which is not statistically significant at the (0.05) level. The arithmetic means of males (4.38) and females (4.40) were also close, indicating a similar level of ethical interaction among the sample members regardless of gender.

(B): There are statistically significant differences in the level of ethical interaction among university students in Jerusalem attributable to the academic year variable.

Table (8): Results of the One-Way Analysis of Variance Test for the Significance of Differences in the Arithmetic Means of the Total Score of Ethical Interaction among University Students in Jerusalem Attributable to the Academic Year Variable

	First Academic Year N=71		Second Academic Year N=46		Third Academic Year N=38		Fourth Academic Year and Above N=95		F-value
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	
Ethical Interaction	4.43	0.38	4.39	0.24	4.36	0.27	4.36	0.33	0.61

The results in Table (8) indicate that there are no statistically significant differences in the level of ethical interaction among university students in Jerusalem attributable to the academic year variable (F = 0.61, p > 0.05). The level of ethical interaction among university students in Jerusalem in the first academic year was (Mean = 4.43, Standard Deviation = 0.38). The level of ethical interaction among university students in Jerusalem in the second academic year was (Mean = 4.39, Standard Deviation = 0.24). The level of ethical interaction among university students in Jerusalem in the third academic year was (Mean = 4.36, Standard Deviation = 0.27). The level of ethical interaction among university students in Jerusalem in the fourth academic year and above was (Mean = 4.36, Standard Deviation = 0.33).

(C) There are statistically significant differences in the level of ethical interaction among university students in Jerusalem attributable to the specialization variable.

Table (9): Results of the t-Test for the Level of Ethical Interaction among University Students in Jerusalem Attributable to the Specialization Variable

Ethical Interaction	**Scientific/Technical Specializations (Engineering, Computer Science, Sciences, etc.) N=205**		**Humanities/Literary Specializations (Education, Languages, Sharia, Law, etc.) N=45**		**t(98)**
	Mean	Standard Deviation	Mean	Standard Deviation	
Ethical Interaction	4.38	0.32	4.41	0.34	*-0.5*

The results indicate that there are no statistically significant differences in the level of ethical interaction among university students in Jerusalem attributable to the specialization variable (t = -0.5, p > 0.05). The level of ethical interaction among university students in Jerusalem with scientific specializations was (Mean = 4.38, Standard Deviation = 0.32), while the

level of ethical interaction among university students in Jerusalem with humanities/literary specializations was (Mean = 4.41, Standard Deviation = 0.34).

(D) There are statistically significant differences in the level of ethical interaction among university students in Jerusalem attributable to the usage rate variable.

Table (10): Results of the One-Way Analysis of Variance Test for the Significance of Differences in the Arithmetic Means of the Total Score of the Level of Ethical Interaction among University Students in Jerusalem Attributable to the Usage Rate Variable

	Less than One Hour Daily N=111		From One Hour to Less Than 3 Hours N=78		3 Hours or More N=38		I Do Not Use Them Daily (As Needed) N=23		F-value
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	
Ethical Interaction	4.34	0.31	4.45	0.36	4.41	0.30	4.38	0.26	1.74

The results in Table (10) indicate that there are no statistically significant differences in the level of ethical interaction among university students in Jerusalem attributable to the usage rate variable ($F = 1.74$, $p > 0.05$). The level of ethical interaction among university students with usage of (less than one hour daily) was (Mean = 4.34, Standard Deviation = 0.31). The level of ethical interaction among university students with usage of (from one hour to less than 3 hours) was (Mean = 4.45, Standard Deviation = 0.36). The level of ethical interaction among university students with usage of (3 hours or more) was (Mean = 4.41, Standard Deviation = 0.30). The level of ethical interaction among university students with usage of (I do not use them daily (as needed)) was (Mean = 4.38, Standard Deviation = 0.26).

Table (11): Results of the t-Test for the Level of Digital Well-Being among University Students in Jerusalem According to the Gender Variable

Variable	Males *N=100*		Females *N=150*		*t(248)*	Significance Level
	Mean	Standard Deviation	Mean	Standard Deviation		
Digital Well-Being	*4.38*	*0.39*	*4.42*	*0.41*	*-0.78*	*0.437*

The results indicate that there are no statistically significant differences in the level of digital well-being among university students in Jerusalem according to the gender variable, as the t-test value was (-0.78) at a significance level of (0.437), which is not statistically significant at the (0.05) level. The arithmetic means of male students (4.38, with a standard deviation of 0.39) and female students (4.42, with a standard deviation of 0.41) were also close, indicating a similar level of digital well-being among the sample members regardless of gender.

(B): There are statistically significant differences in the level of digital well-being among university students in Jerusalem attributable to the academic year variable.

Table (12): Results of the One-Way Analysis of Variance Test for the Significance of Differences in the Arithmetic Means of the Total Score of the Level of Digital Well-Being among University Students in Jerusalem Attributable to the Academic Year Variable

Digital Well-Being	First Academic Year N=71		Second Academic Year N=46		Third Academic Year N=38		Fourth Academic Year and Above N=95		F-value
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	
Digital Well-Being	4.46	0.47	4.41	0.35	4.43	0.31	4.33	0.38	1.8

There are no statistically significant differences in the level of digital well-being among university students in Jerusalem attributable to the academic year variable (F = 1.8, p > 0.05). The level of digital well-being among university students in Jerusalem in the first academic year was (Mean = 4.46, Standard Deviation = 0.47). The level of digital well-being among university students in Jerusalem in the second academic year was (Mean = 4.41, Standard Deviation = 0.35). The level of digital well-being among university students in Jerusalem in the third academic year was (Mean = 4.43, Standard Deviation = 0.31). The level of digital well-being among university students in Jerusalem in the fourth academic year and above was (Mean = 4.33, Standard Deviation = 0.38).

(C) There are statistically significant differences in the level of digital well-being among university students in Jerusalem attributable to the specialization variable.

Table (13): Results of the t-Test for the Level of Digital Well-Being among University Students in Jerusalem Attributable to the Specialization Variable

Digital Well-Being	Scientific/Technical Specializations (Engineering, Computer Science, Sciences, etc.) N=205		Humanities/Literary Specializations (Education, Languages, Sharia, Law, etc.) N=45		t(98)
	Mean	Standard Deviation	Mean	Standard Deviation	
Digital Well-Being	4.38	0.38	4.48	0.44	-1.51

The results indicate that there are no statistically significant differences in the level of digital well-being among university students in Jerusalem attributable to the specialization variable (t = -1.51, p > 0.05). The level of digital well-being among university students in Jerusalem with scientific specializations was (Mean = 4.38, Standard Deviation = 0.38), while the level of digital well-being among university students in Jerusalem with humanities/literary specializations was (Mean = 4.48, Standard Deviation = 0.44).

(D) There are statistically significant differences in the level of digital well-being among university students in Jerusalem attributable to the usage rate variable.

Table (14): Results of the One-Way Analysis of Variance Test for the Significance of Differences in the Arithmetic Means of the Total Score of the Level of Digital Well-Being among University Students in Jerusalem Attributable to the Usage Rate Variable

Digital Well-Being	Less than One Hour Daily N=111		From One Hour to Less Than 3 Hours N=78		3 Hours or More N=38		I Do Not Use Them Daily (As Needed) N=23		F-value
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	
Digital Well-Being	4.35	0.37	4.47	0.45	4.41	0.38	4.37	0.33	1.47

There are no statistically significant differences in the level of digital well-being among university students in Jerusalem attributable to the usage rate variable ($F = 1.47$, $p > 0.05$). The level of digital well-being among university students with usage of (less than one hour daily) was (Mean = 4.35, Standard Deviation = 0.37). The level of digital well-being among university students with usage of (from one hour to less than 3 hours) was (Mean = 4.47, Standard Deviation = 0.45). The level of digital well-being among university students with usage of (3 hours or more) was (Mean = 4.41, Standard Deviation = 0.38). The level of digital well-being among university students with usage of (I do not use them daily (as needed)) was (Mean = 4.37, Standard Deviation = 0.33).

4.5 Discussion of the Results of the Study Questions

What is the level of ethical engagement among university students in Jerusalem?

The average score (4.39) and the standard deviation (0.32) show that the ethical engagement is at a high level. It is a strong sign of the ethical attitude of the university students toward the use of artificial intelligence in Jerusalem. The study by Al-Bouhniya (2025) reinforced the importance of an alignment between the intelligent systems and digital privacy standards, the idea of substituting teachers with technological systems, and the role of advanced training programs focused on technology and artificial intelligence ethics in educational curricula and practices. The

study by Čiževska (2025) shows that artificial intelligence technologies have not reached a stage of ethics and can't yet decide independently, so there is a need for ethical and philosophical intervention and regulation in the use of AI tools in a proper framework. These technologies enable task completion and offer an abundance of information, but regular use of artificial intelligence resulted in a drop of over 17% in scores on the thinking test, and a 22% decrease in the capacity to recall concepts and pass tests. This duality creates negative effects such as lack of mind engagement among students, and fear, anxiety and stress among students. By handing over simple mental tasks to intelligent tools and programs, such as thinking, analyzing and problem-solving, capacities and basic skills are being diminished, and it is blamed on the opacity of the intelligence systems. The results of the present study corroborate those of Abdul Qader (2026) who found that students had obvious concerns about data confidentiality and reliance on such tools was restricted.

What is the digital well-being of university students in Jerusalem?

The mean (SD) of digital well-being was (4.40) (40.0). The researcher remarks on the high degree of digital well-being among University students in Jerusalem. This finding is in line with the findings of Darwish (2026) whereby AI usage was high and significant among university students and digital well-being and mental health were also high among the same sample. However, the research by Černý (2025) came to the opposite conclusion that good engagement and digital awareness are the foundations of an educational environment aimed at empowering students, and therefore, finding the right balance and integration of the human and technical components. The study also revealed that critical thinking, innovativeness, autonomy need to be promoted and attention be given to increasing the sense of responsibility and to highlighting the co-presence and consciousness of human and machine in today's academic environments, with positive effects on digital well-being. To acknowledge the role of AI tools and digital well-being, Wang's study (2026) validated that AI tools can play a key role in boosting academic performance and scholarly interactions, which underscores the necessity of incorporating digital well-being and AI tools into the educational system to equip students with the skills needed to handle modern challenges.

The Results of the Study

The gender variable did not show any statistically significant differences between the level of ethical involvement in the University students in

Jerusalem. This is because the content that is provided by the artificial intelligence applications doesn't consider gender differences, and the ethical framework that has been proposed by the artificial intelligence companies don't consider gender differences; they treat both genders equally. This, in turn, is why there are no gender differences in ethical involvement.

The academic year variable showed no statistically significant difference in the level of ethical engagement among university students in Jerusalem. This finding may indicate that ethical engagement is not substantially influenced by students' academic year. A possible explanation is that students across different academic years are exposed to similar academic expectations, institutional norms, and ethical standards regarding the use of Artificial Intelligence. Consequently, their ethical engagement may remain relatively consistent across academic levels.

The specialization variable does not have any statistically significant effect on the level of ethical involvement among the students in the university of Jerusalem. The researcher thinks that there is no difference on the specialization variable due to the following reasons: 1) Specialization is not related to ethical engagement, because the use of artificial intelligence covers all educational fields and specializations and has not been limited to any specific specialization; 2) The ethical framework has not differentiated between specializations in science and humanities.

The variable of the usage rate showed no statistically significant differences in the level of ethical involvement that existed between university students in Jerusalem. The researcher thinks that the lack of differences is due to the fact that the level of ethical engagement of the university students is not correlated with the usage rate, irrespective whether low or high, the ethical framework is not correlated with it.

The results revealed statistically significant differences in the level of digital well-being among the students of the university in Jerusalem based on gender ($t(248) = 2.47$, $p < 0.05$), with males having higher scores. The differences in favor of males are considered as a result of the nature of Arab societies where males are given more opportunities to access digital applications than females because of the societies' customs and traditions.

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Appendix (1): Demographic Data Questionnaire

Dear Student,

Peace, mercy, and blessings of Allah be upon you.

The researcher is conducting a scientific study aimed at identifying: **"**Ethical Interaction with Artificial Intelligence Applications and Its Relationship with Digital Well-Being among Students in the Classroom Environment." Since you are the central component of the educational process and direct users of contemporary technologies, your actual opinions and experiences constitute the cornerstone of the success of this research. This questionnaire aims to understand the extent of your awareness of responsibility and ethical integrity when using artificial intelligence tools in your studies, as well as the impact of this digital engagement on your psychological balance, health, and technological satisfaction (digital well-being). We kindly ask you to read the 21 items carefully and select the response that truthfully reflects your actual situation. Please note that the questionnaire will take only 3 to 5 minutes of your valuable time. The correct answer is the one that honestly represents your personal opinion. All your responses will be treated with complete confidentiality and will be used solely for scientific research purposes. Thank you very much for your cooperation and for your valuable time in supporting the advancement of scientific research and the development of the educational environment.

An-Najah National University
Faculty of Graduate Studies

PhD Program in Education and Learning

Researcher: Anas Riyad Hamdan

First: Preliminary Data

Please place a (√) mark next to one of the alternatives that applies to you:

Gender: Male **Female**

Academic Year

First academic year Second academic year

Third academic year Fourth academic year or above

Academic Specialization

Scientific / technical specializations (Engineering, Computer Science, Sciences, etc.)

Humanities / literary specializations (Education, Languages, Sharia, Law, etc.)

Daily Usage Rate of Artificial Intelligence Tools (e.g., ChatGPT, Claude, Gemini) for Study

Less than one hour daily

From one hour to less than 3 hours

3 hours or more

I do not use them daily (only when needed)

Have you received any previous training or guidance on the ethical and safe use of artificial intelligence?

Yes, I received a formal course or guidance

Through my interaction with social media platforms

No, I rely on my own judgment

Appendix (2): Ethical Interaction Scale

Please place an (X) mark in the box that represents your opinion for each of the following statements, with complete honesty and objectivity, according to the following scale:

Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree = 1

Number	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	People interacting with artificial intelligence systems should be treated as independent individuals who have the ability to make their	5	4	3	2	1

	own decisions.					
2	Artificial intelligence systems should not replace the ultimate human responsibility for decisions and the outcomes resulting from their use.	5	4	3	2	1
3	Artificial intelligence systems should be designed in a manner that preserves human autonomy and does not unjustifiably limit people's ability to make decisions.	5	4	3	2	1
4	Artificial intelligence systems should provide benefits to humans while minimizing the potential risks and harms resulting from their use.	5	4	3	2	1
5	Necessary measures should be taken to prevent the use of artificial intelligence systems in ways that may cause harm to individuals or society.	5	4	3	2	1
6	Artificial intelligence technologies should contribute to achieving justice and preventing discrimination among individuals.	5	4	3	2	1
7	Developers of artificial intelligence systems should reduce social and technical biases that may affect the outcomes of these systems.	5	4	3	2	1
8	Equality in access to artificial intelligence systems, data, knowledge, and the skills necessary to use them should be ensured.	5	4	3	2	1

Appendix (3): Digital Well-Being Scale

Please place an (X) mark in the box that represents your opinion for each of the following statements, with complete honesty and objectivity, according to the following scale:

Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree = 1

Number	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	I can easily adapt to new digital technologies.	5	4	3	2	1
2	I enjoy spending time using digital technologies.	5	4	3	2	1
3	I am interested in engaging in new digital experiences that provide me with different experiences.	5	4	3	2	1
4	I feel that my digital skills are consistent with those of the people around me.	5	4	3	2	1
5	I care about my digital reputation when using electronic platforms.	5	4	3	2	1
6	I make sure not to engage in behaviors that disturb other users on social media.	5	4	3	2	1
7	I use digital technologies in	5	4	3	2	1

	purposeful and meaningful ways.					
8	I always make sure to be cautious of any risks I may encounter in the digital world.	5	4	3	2	1
9	I feel comfortable knowing that others will see my posts on social media.	5	4	3	2	1
10	I feel happy when the posts, stories, or statuses I share receive likes.	5	4	3	2	1
11	I feel angry when I encounter a technical problem that I cannot solve.	5	4	3	2	1
12	I believe that if I express myself freely on social media, I will be rejected by some people in my social networks.	5	4	3	2	1