

The Role of Intelligent Digital Tools in Supporting Academic Studies: A Field Study on Students of Humanities and Social Sciences at Blida 2 University

Brahmi yassine

Abdelhamid Ben Badis University (Algeria)

Yassine.brahmi.etu@univ-mosta.dz

Soumission : 10/12/2025

Acceptation : 20/03/2026

Publication : 30-04-2026

Abstract

This study focuses on analyzing the role of smart digital tools in enhancing the educational process among students of humanities and social sciences, particularly by facilitating access to information and accelerating the completion of academic research. It also highlights the extent to which students use these tools. The descriptive-analytical approach was adopted, and a simple random sample was selected. In addition, a questionnaire was used as the data collection instrument. The study found that heavy reliance on smart digital tools leads to a decline in researchers' analytical and academic writing skills

.Keywords: Role, Smart Digital Tools, Digitization, Academic Studies, Students

Introduction

The world is currently experiencing rapid development across various fields, particularly in modern technology, which has played a significant role in bringing about fundamental changes within societies and has become an effective means of facilitating individuals' daily lives. A major aspect of this progress has emerged with the rise of information and communication technologies, which have introduced a qualitative shift in patterns of human communication and contributed to the faster dissemination of information and the spread of knowledge.

With this broad technological progress, what is known as **smart digital tools** has emerged. These tools represent one of the most recent innovations today and are now applied across various administrative and scientific fields, including medicine, education, economics, as well as scientific research and academic learning. They enable systems and applications to process information and support decision-making in ways that partially resemble human cognitive processes.

Smart digital tools are considered among the most significant contemporary technological innovations. Their use has become essential across various fields due to their ease of use and the wide range of advantages they offer, particularly in scientific research, which represents a key means of knowledge production and data analysis. With the continuous advancement of these tools, many university students have increasingly relied on them in their academic work. This reliance enhances the effectiveness of research skills and contributes to generating innovative solutions to the challenges associated with traditional research approaches.

However, despite their advantages, reliance on **smart digital tools** in students' scientific research remains an issue that warrants in-depth examination, particularly in terms of balancing their benefits and limitations. This is especially relevant with regard to their impact on the quality of academic work, students' intellectual independence, potential loss of originality, and the risk of plagiarism. Accordingly, this study focuses on the advantages and drawbacks of using smart digital tools among students at Blida 2 University in their scientific research, as well as on effective strategies that can guide students toward a more meaningful and responsible use of these tools.

Based on what has been presented, the main research question is: **What is the role of smart digital tools in supporting academic studies among students of the humanities and social sciences?**

Study Questions

1. To what extent do students of the humanities and social sciences use smart digital tools in their academic studies?
2. What are the main benefits of smart digital tools in supporting students' academic achievement?
3. What challenges or difficulties do students face in using smart digital tools in academic studies?

Study Objectives

1. To determine the extent to which students use smart digital tools in their academic studies.
2. To identify the main benefits of smart digital tools in supporting academic achievement.
3. To identify the main challenges faced by students when using smart digital tools.
4. To analyze students' attitudes toward the use of smart digital tools in the academic process.

Significance of the Study

1. It contributes to understanding the reality of the use of smart digital tools within the university environment.
2. It helps determine the extent to which students benefit from these tools in improving their academic performance.
3. It reveals the challenges and difficulties that students may encounter while using them.
4. It provides data that may assist teachers and researchers in developing teaching and research methods.

1. Study Concepts

The role:

The concept of **role** is defined as a set of expected behaviors, patterns, and functions from an individual occupying a specific position within a social or organizational structure. It reflects how this individual performs their duties in accordance with the requirements and expectations associated with their status within a group or institution. (Badawi, 1986)

Digitization is defined as the process of converting information and data from their traditional form (paper-based or analog) into a digital format that can be processed, stored, and retrieved through electronic media and modern technologies, thereby facilitating information exchange and ensuring faster access to data. (el shamari, 2012)

Academic research is defined as a systematic scientific activity carried out by a student or researcher within an academic institution, aimed at studying a specific problem or phenomenon according to a defined scientific methodology, in order to reach new findings and knowledge or to verify existing knowledge. (Abd al Rahman, 2012)

University Students

Dr. Mohamed Ali Mohamed defines university students as “a group of educated individuals in society, with hundreds or thousands of youth present inside higher education institutions” (yassine, 2023)

1. Research Method

Scientific research methodology is defined as any approach a researcher relies on to study a general phenomenon, through which the research problem can be addressed (Mohamed S., 2019, p.35).

To address the topic of our study, we relied on the descriptive-analytical method, which is defined as an approach used to describe the phenomenon under study using a correct scientific process in order to reach a deeper understanding and develop a strategic plan related to it (Mohamed S., 2019, p.46).

1. Study Population

Researcher Obeidat defines a study population as “all the units that the researcher studies in order to reach the results of the research; it represents a large and specific group of individuals” (Khalida, 2024, p.1124).

The study population consists of students of humanities and social sciences at Lounici Ali University in Blida Provinc.

1. Study Sample

A simple random sampling technique was adopted in this study due to its ability to provide equal selection opportunities for all members of the study population, thereby reducing bias and enhancing the objectivity of the results. It is also considered one of the simplest and most appropriate sampling methods for field studies targeting student populations.

A simple random sample is defined as a sample in which individuals are selected from the study population through a random process, ensuring that each member has an equal chance of being chosen, without any discrimination or bias.(Abidat. 2012)

Data Collection Tools

Data collection tools are used in scientific research to help researchers gather information about a specific topic. In our study, we used the questionnaire, which is defined as a set of varied questions designed according to the themes of the study and distributed either manually or electronically (Ahmed & Amin, 2023, p.304).

We distributed the questionnaire to a group of students—200 in total—and all questionnaire items were answered

Study Results

Presentation and Analysis of Results

Table 1. Gender

	Frequency	Percentage
Male	80	40%
Female	120	60%
Total	200	100%

From Table 1, it is clear that the largest percentage 60% is female, while males represent 40%. We conclude from the table above that the percentage of female students is higher. This is because female students tend to prefer continuing their studies and joining universities, unlike many male students who prefer to start working after obtaining the baccalaureate.

Table 2. Age

Age group	Frequency	Percentage
18-21 years	60	30%
22-24 years	95	47.5%
Above 25 years	45	22.5%
Total	200	100%

From Table 2, it appears that 47.5% of the students are between 22 and 24 years old. This is followed by 30% who are between 18 and 21 years old. The remaining 22.5% are students older than 25.

We conclude from the table that the 22–24 age group is the largest. This shows that most students in this age range are enrolled in Licence and Master programs, and many students at this age join university directly after obtaining the baccalaureate.

Table 3. Academic Level

Level	Frequency	Percentage
Licence	82	41%
Master	118	59%
Total	200	100%

From Table 3, it is clear that 59% of the students are in the Master level, followed by 41% in the Licence level.

We conclude that the majority are Master students. This is mainly because there are many specialties available at the Master level, which increases the number of students compared to Licence programs. Also, Master students tend to rely more on artificial intelligence in their research than Licence students.

Second Section The Extent of Using Smart Digital Tools in Academic Studies:

?To what extent do you use smart digital tools in completing your academic assignments

	Frequency	Percentage
Always	157	78.5%
Often	32	16%
Sometimes	00	00%
Rarely	00	00%
Never	11	11%
Total	200	100%

From the table 04 above, it is observed that 78.5% of the study sample always use smart digital tools, followed by 16% who use them often, while the remaining 11% reported never using them.

It can be concluded from the table that students rely on smart digital tools in completing their academic assignments due to their ability to facilitate access to diverse references, provide information in a very short time without the need to visit libraries, and their ease of use.

Table :05 The extent to which you rely on smart digital tools to understand lessons and complex concepts

	Frequency	Percentage
Always	69	34.5%
Often	78	39%
Sometimes	35	17.5%
Rarely	12	06%
Never	06	03%
Total	200	100%

From Table 05 it is observed that students' reliance on smart digital tools to understand lessons and complex concepts is most frequently reported as "often" at a rate of 39%, followed by "always" at 34.5%, then "sometimes" at 17.5%, and "rarely" at 6%, while the remaining 3% report "never".

It can be concluded from the table that students' use of smart digital tools to comprehend difficult lessons and concepts is generally high. This is largely attributed to the effectiveness of these applications in facilitating the understanding of complex problems—particularly those

related to IBM SPSS Statistics and computational methods—as they enable users to obtain results within a short time. Moreover, these tools contribute to resolving difficult and complex issues efficiently

Table 06.The extent to which you use smart digital tools to organize your study time:

	Frequency	Percentage
Always	00	00%
Often	15	7.5%
Sometimes	180	90%
Rarely	05	2.5%
Never	00	00%
Total	200	100

It is observed from Table 07 that 90% of the study sample report that they sometimes use smart digital tools to organize their study time. This is followed by 7.5% who often use them, while the remaining 2.5% rarely use such tools

It can be concluded from the table that students generally do not rely heavily on smart digital tools for organizing their study time. This suggests that they are accustomed to managing their schedules without resorting to digital applications. Moreover, some students do not place significant importance on these tools, particularly in terms of time management. Additionally their use of smart digital tools appears to be more oriented toward academic research rather than organizational purposes

Third Section Benefits of Using Smart Digital Tools in Scientific Research :

Table7Using Smart Digital Tools in All Academic Research .

Response	Frequency	Percentage
Always	180	90%
Sometimes	19	9.5%
Rarely	01	0.5%
Total	200	100%

From the table above, we see that 90% of students always rely on artificial intelligence in their academic research. Meanwhile 9.5% use it sometimes, and the remaining 0.5% use it rarely

We conclude that Smart Digital Tools is used in almost all academic research because it is easy to use and offers access to many sources such as books and articles, which facilitates the research process. It also helps researchers save time. In the past, a student had to make a huge

effort by visiting libraries and searching many websites. Now, with a few typed words, students .can quickly access diverse information

Table8Benefit of Using Smart Digital Tools in Scientific Research

Benefit	Frequency	Percentage
Obtaining accurate results	40	20%
Facilitating scientific research	115	57.5%
Helping in data collection	32	16%
Facilitating academic writing	13	6.5%
Total	200	%100

,From the table above57.5 say that the main benefit of using Smart Digital Tools in their % research is that it makes scientific research easier. Meanwhile, 20% believe the benefit is obtaining accurate results. Another16 say Smart Digital Tools helps in collecting % information, and the remaining6.5.say it facilitates academic writing %

We conclude that Smart Digital Tools is beneficial in scientific research because it makes it easier to search for different sources and references, saves time, and summarizes complex scientific papers. It can also generate ideas and information for new topics and supports the researcher in academic writing. Additionally, it helps obtain accurate results through applications such as Research Rabbit, which quickly identifies research related to a specific .topic

Table09The Most Useful AI Applications in Your Scientific Research .

	Frequency	Percentage
Literature Search	00	00%
Google Scholar	05	2.5%
Big Data	00	00%
ChatGpt	195	97.5%
and Review	00	00%
Total	200	%100

From Table09 it is clear that ,97.5 of students say the most useful Smart Digital Tools % application in their scientific research is ChatGPT, followed by2.5 who say Google Scholar % .helped them in their research

We conclude from the table that ChatGPT is one of the main Smart Digital Tools applications students rely on. This is because it is free, easy to access, rich in diverse information and references, and does not require creating an account. This makes students use it frequently. It also generates ideas by offering suggestions for different research topics and projects, which increases creativity and critical thinking

Fourth Section: Main Challenges Resulting from Using Smart Digital Tools in Scientific Research

Table 10 Excessive Dependence on Smart Digital Tools Tools in Research Makes You Lose Creativity

	Frequency	Percentage
Yes	183	91.5
No	17	8.5
Total	200	%100

From Table 91.5 confirm that excessive reliance on Smart Digital Tools tools in scientific research made them lose creativity. Meanwhile 8.5 say excessive reliance did not make them lose creativity

We conclude from the table that relying too much on Smart Digital Tools tools makes students lose their creative ability. This happens because the student stops thinking and innovating depending entirely on the tool to complete assignments and research. This eliminates deep thinking and personal effort, which are necessary for creativity

Table 11 Main Risks of Using Smart Digital Tools in Scientific Research

	Frequency	Percentage
Algorithmic bias	15	7.5%
Marginalisation of critical thinking	135	67.5%
Generating false content	35	17.5%
Inability to understand	15	7.5%
Total	100	%%100

From Table 67.5 say that marginalizing critical thinking is the most serious risk of using Smart Digital Tools in scientific research. Meanwhile 17.5 say AI creates false content. The remaining 7.5 believe that Smart Digital Tools leads to algorithmic bias and lack of understanding

We conclude from the table that the marginalization of critical thinking is the main risk. This happens because when students rely too heavily on Smart Digital Tools tools, they no longer

know what they are searching for. Their work becomes simple copying and pasting, without forming their own opinions, justifying their arguments, or making any personal effort. On the other hand, Smart Digital Tools may also produce false content by giving information with no sources, offering fake statistics, or generating inaccurate or fabricated data

Table12 'Heavy Dependence on Smart Digital Tools Tools Leads to a Decline in Researchers . Analytical and Scientific Writing Skills

	Frequency	Percentage
Yes	200	%100
No	00	%00
Total	200	%100

From Table , 100% of the students agree that heavy reliance on Smart Digital Tools tools leads .to a decline in researchers' analytical and academic writing skills

.We conclude from the table that heavy use of AI tools weakens analytical and writing skills Students become unable to analyse, lose motivation for scientific research, and their critical thinking becomes weaker. This leads researchers to accept results without checking or .verifying them, and prevents them from generating new viewpoints

Study Results

:Our study reached several key findings

-78.5% of the study sample always use smart digital tools

-39% of students often use smart digital tools to understand lessons and complex concepts.

-90% of the study sample report that they sometimes use smart digital tools to organize their study time.

-90% of students always rely on artificial intelligence in their academic research.

-57.5% say that the main benefit of using Smart Digital Tools in their research is that it makes scientific research easier.

-97.5% of students say the most useful Smart Digital Tools application in their scientific research is ChatGPT.

-91.5% confirm that excessive reliance on Smart Digital Tools tools in scientific research made them lose creativity.

-67.5% say that marginalizing critical thinking is the most serious risk of using Smart Digital Tools in scientific research.

-100% of the students agree that heavy reliance on Smart Digital Tools tools leads to a decline in researchers' analytical and academic writing skills.

Conclusion

Our study makes it clear that artificial intelligence has become a real revolution in the field of scientific research. It has significantly contributed to accelerating research processes collecting data, and analysing it. It has also helped students generate ideas and innovative solutions for various issues that previously required many years of human effort to reach specific results. However, this rapid development in Smart Digital Tools technologies and their multiple advantages has led students to rely on them extensively in their academic work creating a form of laziness and a decline in effort, independent inquiry, and critical thinking

:Among the most important recommendations highlighted by our study are

.The need to encourage students to use Smart Digital Tools tools correctly in scientific research

The need to develop modern applications that enable universities to detect researchers who used AI tools in their work

The necessity of organizing university conferences and seminars to enhance awareness about proper Smart Digital Tools use

.The need to introduce AI-related courses into university curricula

.The necessity of training university teachers in the field of artificial intelligence

References

-Al-Shammari, Abdullah bin Mohammed. (2012). Digitization and Information Management in the Modern Era. Riyadh: Al-Yazouri Scientific Publishing and Distribution House.

- Hamdi Zaki Badawi. (1986). Dictionary of Social Science Terms. Beirut: Lebanese Book House.

- Obeidat, Thoqan; Adas, Abd al-Rahman; Abd al-Haq, Kaid. (2012). Scientific Research Methodology: Principles, Stages, and Applications. Amman: Dar Al-Fikr.

- brahmi, Y. (2023). Asalib muwajahat al-sha'ayat 'abr mawaqi' al-tawasul al-ijtima'i [Methods of confronting rumors on social media]. Al-Risala Journal for Media Studies, (2).

-Hamidani, K. (2024). Al-mu'ayana fi al-bahth al-sosyoulouji: Tasawurat nazariya wa-namadhij [Sampling in sociological research: Theoretical perspectives and models]. Al-Mi'yar Journal, (1).