Activating Artificial Intelligence Applications and Their Impact on the Professional Roles of Professors: A Sociological Study on a Sample of the Teaching Staff at the University of Khenchela

تفعيل تطبيقات الذكاء الاصطناعي وتأثيرها على الأدوار المهنية للأساتذة: دراسة اجتماعية على عينة من أعضاء هيئة التدريس في جامعة خنشلة

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- **Abstract:** This study aimed to analyse the sociological impact of rumours on the quality of performance in higher education institutions. The methodology relied on an extensive field study involving a sample of faculty members from the economic, commercial and management sciences disciplines at the University of Martyr Abbas Laghrour, Khenchela. The sample size was 100 professors.

The research tool was designed using a descriptive-analytical approach and data were collected via 100 questionnaires. Following a sorting and review process, the study used 72 valid questionnaires for analysis, while 28 questionnaires were excluded as they were unsuitable for statistical analysis. The data were processed and analysed using the Statistical Package for the Social Sciences (SPSS).

The analytical results yielded a set of key indicators showing a statistically significant effect of rumour prevalence on the quality of academic performance of faculty members in the aforementioned disciplines. The results also revealed statistically significant relationships between the use of rumours in various areas - namely academic relations, pedagogy, student affairs and administration, and scientific activity - and the quality of higher education at the institution in question.

- **Keywords:** rumours, sociology of rumours, quality of higher education, university performance, University of the Martyr Abbas Laghrour, Khenchela.

- **الملخص:** تهدف هذه الدراسة إلى تحليل الأثر السوسيولوجي للشائعات على جودة الأداء في مؤسسات التعليم العالي. اعتمدت المنهجية على دراسة ميدانية موسعة شملت عينة من أعضاء هيئة التدريس في تخصصات العلوم الاقتصادية والتجارية وعلوم التسيير بجامعة الشهيد عباس لغرور بخنشلة، حيث بلغ حجم العينة 100 أستاذ. تم تصميم أداة البحث بالاعتماد على المنهج الوصفي التحليلي، وجُمعت البيانات من خلال 100 استبيان. وبعد عملية الفرز والمراجعة، اعتمدت الدراسة على 72 استبياناً صالحاً للتحليل، بينما استُبعد 28 استبياناً لعدم صلاحيتها للتحليل الإحصائي. تمت معالجة البيانات وتحليلها باستخدام الحزمة

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الإحصائية للعلوم الاجتماعية (SPSS). خلصت النتائج التحليلية إلى مجموعة من المؤشرات الجوهرية التي تثبت وجود أثر ذي دلالة إحصائية لانتشار الشائعات على جودة الأداء الأكاديمي لأعضاء هيئة التدريس في التخصصات المذكورة آنفاً. كما كشفت النتائج عن وجود علاقات ذات دلالة إحصائية بين استخدام الشائعات في مجالات متنوعة - وتحديداً: العلاقات الأكاديمية، والجانب البيداغوجي، وشؤون الطلبة والإدارة، والنشاط العلمي- وبين جودة التعليم العالي في المؤسسة قيد الدراسة.

- **الكلمات المفتاحية:** الشائعات، سوسيولوجيا الشائعات، جودة التعليم العالي، الأداء الجامعي، جامعة الشهيد عباس لغرور، خنشلة.

Introduction:

Technological revolutions, from the First Industrial Revolution in the eighteenth century to the current Fourth Industrial Revolution, have been pivotal in reshaping the relationship between humans, work, and production. In the context of the Fourth Industrial Revolution, artificial intelligence has emerged as a prominent socio-technical phenomenon that has spread beyond pure scientific and technical fields to become a global tool that is shaping a new reality.

This has led to the emergence of the so-called 'digital divide', creating an urgent need for awareness programmes and training that enable individuals to acquire the digital competencies needed to navigate these complex software applications. These applications are often designed in languages and environments that may be obscure to the average user. This restricts their ability to adapt to content and outputs across various platforms.

Higher education is under increasing pressure to restructure in response to this transformation in order to meet the demands of the future labour market, which is characterised by dynamic environments with complex and evolving needs and competencies. Higher education institutions are therefore adopting strategies that enhance graduates' adaptability to technological innovations, particularly artificial intelligence technologies, to improve academic processes and enrich the experiences of students, professors, and researchers. The aim is to achieve an integrated educational system that can overcome the challenges posed by the realities and mechanisms of the digital age.

Research problem:

-Theoretical and Methodological Context:

This study is based on a theoretical framework derived from the sociology of higher education and the sociology of technology. It examines the impact of globalisation and digitalisation on the academic field. Data will be analysed using inferential statistical tests (such as the t-test or analysis of variance) to determine the significance level ($\alpha \leq 0.05$), ensuring the validity of the results.

Formulation of research questions:

Institutional perspective: Is there a statistically significant relationship ($\alpha \leq 0.05$) between using social media platforms as a tool for institutional communication within the university and faculty member satisfaction in the practical colleges (Economics, Engineering and Computer Science) at the University of Khenchela?

Professional perspective (academic): Is there a statistically significant relationship between using social media platforms for academic tasks (teaching and research) and faculty member satisfaction in practical colleges at the University of Khenchela?

Pedagogical perspective: Is there a statistically significant relationship ($\alpha \leq 0.05$) between using social media platforms as an additional educational tool and faculty member satisfaction in the practical colleges at the University of Khenchela?

Administrative and Service Perspective: Is there a statistically significant relationship ($\alpha \leq 0.05$) between using social media platforms to manage student affairs and guidance, and faculty member satisfaction in the practical colleges at the University of Khenchela?

Research perspective: Is there a statistically significant relationship ($\alpha \leq 0.05$) between using social media platforms for research activities (publication and communication) and faculty member satisfaction in the practical colleges at the University of Khenchela?

Study hypotheses:

Main hypothesis (H_0): There is no statistically significant relationship between using social media networks and improving administrative performance within the higher education system in its four dimensions (the educational process, pedagogy, administrative affairs and scientific activity) from the perspective of faculty members in the colleges of economic and commercial sciences and management sciences at the University of Khenchela.

Sub-hypotheses:

H_{01}: There is no statistically significant relationship between usage and improvement in teaching practices.

H_{02}: There is no statistically significant relationship between usage and improvement in pedagogical practices.

H_{03}: There is no statistically significant relationship between usage and improvement in administrative practices.

H_{04}: There is no statistically significant relationship between usage and improvement in scientific practices (scientific activity).

Objectives of the study:

To analyse the patterns and uses of social media by students in relation to educational practices.

- Assess the current state of quality in higher education and the mechanisms used to measure it within the university.

- To diagnose the contribution of social media to the quality of university education and construct an explanatory model of the social implications of student interaction with digital media on academic performance and institutional engagement.

Importance of the study: The significance lies in:

Theoretical importance: contributing to the construction of a sociological analytical model that explains the nature of the dialectical relationship between digital

communication practices (virtual discourse) and the value and performance system of higher education, thereby enriching the field of knowledge in educational sociology.

Practical importance: providing actionable recommendations and proposals for university management based on the results of the field study to maximise the positive potential of social media while avoiding the negative aspects in the context of improving educational outcomes.

Previous studies:

First study: Abdul Razzaq Mukhtar Mahmoud (2020): Artificial Intelligence Applications as a Gateway to Educational Development during the Pandemic**.** This study examined the new communication roles ('pioneering roles') that emerged during the pandemic in response to the crisis, from a sociological perspective. The study aimed to analyse how these roles were utilised to create meaning and legitimise educational practices within the context of forced digital transformation.

The analysis focused on a set of structural challenges facing the field of education, which included:

- Educational practices: the shift to a virtual model.

Educational administration: the reorganisation of the educational process.

- Digital content and tools: addressing the digital skills gap for teachers and learners and increasing reliance on innovative technological solutions.

The results showed that these 'roles' were pivotal in normalising and institutionalising the use of specific digital platforms and technologies in education. This included the promotion of platforms such as WhatsApp and Facebook, as well as immersive technologies like virtual reality (VR) and augmented reality (AR), and applications such as Layer and Aurasma, in order to address challenges arising from the crisis.

Second study: Mohamed Hamad Al-Atal (2021): 'The Role of Artificial Intelligence in Education from the Perspective of Students in the Faculty of Economic Sciences in Kuwait'**.** This study aimed to reveal the nature of the relationship between using

aromatic scents as a complementary therapy in healthcare institutions and various social factors. A descriptive analytical methodology was employed and applied to a sample of healthcare workers in Kuwait.

The results highlighted statistically significant differences (at the significance level of $\alpha \leq 0.05$) in the effectiveness of using fragrances in therapeutic work based on the variables of gender and educational level. Statistical analyses showed that these two variables served as significant social determinants influencing how healthcare practitioners evaluated this therapeutic practice.

Conversely, the study found no statistically significant differences attributable to the effects of fragrant scents on the healthcare practitioners themselves during work, nor regarding the variables of age and cultural/ethnic background. These latter variables (age and ethnic background) did not demonstrate a significant effect on practitioners' evaluation of the effectiveness of fragrances in the institutional therapeutic context.

Third study: Mawra Jabr Abdul Rahman Abd Al-Mawla and Karima Abd Al-Mawood Mustafa Sulaiman (2023): 'The Role of Media Transparency in Enhancing University Performance Quality from the Perspective of Faculty Members' (Field Study).

This study aimed to diagnose the degree to which media transparency mechanisms contribute to enhancing performance quality in university institutions, based on the views of a sample of faculty members.

The study employed a quantitative methodology and revealed, through statistical analysis, that there were statistically significant differences at the significance level ($\alpha \leq 0.01$). The results indicated that the effective implementation of media transparency mechanisms can enhance the quality of university performance by promoting academic integrity, fostering academic expertise, and revealing statistically significant differences in responses.

The study concluded that transparent media practices are a key driver of academic quality improvement, fostering a culture of community accountability and developing

scientific outputs. In light of this, the researchers provided several recommendations, emphasising the importance of adopting institutional media policies that promote transparency and accountability.

2. A critical sociological analysis of the role of artificial intelligence technologies in reproducing educational structures and quality standards.

Artificial intelligence can be defined from a sociological perspective through three essential definitions:

Elaine Rich defines it as "the science that aims to make computers perform tasks that require human intelligence to carry out" **(Al-Qadi, 2010)**.

Definition by Avron Barr and Edward Feigenbaum: They define it as 'a branch of computer science that focuses on designing intelligent systems that mimic human behaviour' **(Bisyuni, 1994)**, 'performing computational tasks, creating a sense of wonder and understanding, and stimulating curiosity, imagination, and creativity' **(Al-Sharqawi, 2011)**. From these definitions, a comprehensive definition of artificial intelligence can be derived as follows:

It is a branch of computer science built on linguistic foundations and rules aimed at creating intelligent machines and systems capable of simulating human thought when performing specific tasks such as learning, understanding and perception. These systems perform functions that were previously exclusive to humans, eliciting human reactions such as amazement and curiosity.

The importance of artificial intelligence:

From an analytical sociological perspective, artificial intelligence can be viewed not merely as a technological advancement, but as a 'crucial social force' that fundamentally reshapes social structures and relationships. It transforms the labour market by replacing routine jobs and generating new professions, thereby widening the digital divide and redefining the concept of 'human capital' within organisations. While artificial intelligence can be used to enhance institutional oversight and risk management, it also raises profound issues regarding privacy and individual

autonomy. Furthermore, it reshapes patterns of symbolic interaction by creating virtual communication spaces that transform social identity and collective consciousness.

From a critical perspective, it can be argued that AI has become a 'non-human social actor' that influences the distribution of power and the formation of social consciousness. This necessitates the development of regulatory frameworks and public policies that can address ethical challenges and promote social justice in the digital age. It is important to acknowledge that the impact of artificial intelligence is mediated by the social, economic and political context in which it evolves.

Fields of artificial intelligence:

The New Social Space (Cyberspace): Transforming the 'empty space' concept to indicate that digital platforms are real social environments with their own rules, systems and power relations, rather than mere technical tools **(Mansel, 2023)**.

Reshaping relationships and identities: interpreting the 'creation of things' and 'breathing illusions' as a social process in which individual identity (the self) is constructed and the nature of social connections (e.g. rapid, superficial or globalised) changes within these spaces **(Najari, 2020)**.

- The intertwining of physical and digital realities: rejecting the idea of a 'separate empty world', and emphasising that our digital lives are an integral part of our reality, affecting our economy, politics and culture.

- Reorganisation of time and space (Anthony Giddens): Explaining how these platforms have eliminated traditional barriers of time and space, creating a sense of continuous and instant communication. This can accelerate the pace of life and lead to instability.

- Alienation and separation: translating 'lostness' into a classical sociological concept (particularly in Karl Marx's view), indicating an individual's sense of disconnection from their surroundings, themselves, and the fruits of their labour (here becoming 'content' and 'data').

- Cultural and social bubbles (algorithms): Interpreting 'breathing illusions' as a process of constructing individual and collective consciousnesses that are directed. Here, algorithms present individuals with content that aligns with their previous beliefs, thus reinforcing societal divisions and escalating polarised discourse.

Production and reproduction of knowledge and discourse: transforming 'the news of science' into a critical concept that indicates these platforms are not neutral windows of knowledge but significant actors in shaping what we consider 'truth' and what is 'prevalent' in society, utilising Michel Foucault's concept of 'power discourse'.

- Human Self in the Digital Age: Transforming the philosophical question 'What are its most hideous achievements?' into a critical sociological question about the impact of these technologies on human identity formation and its relationship with surveillance capitalism and alienation.

Quality in Higher Education:

Within the framework of sociological analysis, quality can be defined as follows: 'The commitment to applying a set of socially agreed standards and requirements that ensure the needs of society and the demands of the labour market are met, whether relating to outputs (graduates), the product (knowledge) or the service provided' **(Dona, 2022)**.

Specifically, quality in higher education is defined as the integrated system of standards and characteristics that the educational system must embody when performing its functions. These standards are reflected in the institution's structural and operational components, including infrastructure, curricula, faculty and assessment methods. The system's overall aim is to achieve the highest levels of efficiency and effectiveness, ensuring the institution's ability to provide outstanding educational and research services, and to achieve the desired level of community development.

Components of quality in higher education:

The most important components of quality in higher education include:

1. Inputs: This includes students, faculty members, curricula and material and human resources.

2. Processes: This encompasses teaching methods, assessment, administration, student services and the overall educational environment.

3. Outputs: These include qualified graduates, scientific research and community services provided by the institution.

4. Feedback: This refers to the results of performance and output evaluations. These evaluations are used to continuously improve inputs and processes, ensuring the ongoing development of the educational system and helping it to achieve its set objectives.

II. Pedagogy: 'The Field Aspect'

The Transformative Role of Digital Platforms in Shaping the Educational Landscape: A Sociological Approach Digital educational platforms are an effective tool for producing educational practices characterised by flexibility and adaptability to individual needs. This contributes to a deeper understanding and enriches active learner interaction with educational content **(Al-Najawi, 2022)**.

In terms of classification, several patterns of these platforms can be distinguished. Some provide open-source educational models that are free and aim to democratise knowledge and remove economic barriers, while others adopt profit-driven models that are subject to market mechanisms and the logic of commercial exchange.

Among the most significant practical manifestations of this phenomenon in the digital space, representing various patterns of philosophy and business models, Boubida and Litim (2023) mention:

- Non-profit open education platforms such as Khan Academy, edX and Coursera.
- Market-driven education platforms such as Udemy.
- Emerging platforms in the Arab context, such as Edraak, Noun and Edunao.

- Institutional Learning Management Systems, such as Edmodo, Moodle and Blackboard.

- Specialised platforms for condensed educational content, such as Tarik and the Fahim Network.

Together, these platforms represent a significant sociological shift in educational structures, redefining the role of teachers and dismantling the geographical and temporal boundaries of traditional classrooms. They create new learning spaces that contribute to contemporary human and social capital **(**Badri**, May 2022, p. 176)**.

1. Methodological framework of the study: Society, Sample, Tools, and Data Analysis Mechanisms:

1.1 Methodology and Data Collection Tools:

Study community and sample:

The study adopted a quantitative methodology. The research community was represented by undergraduate students of social, economic, commercial and management sciences at the University of Martyr Abbas Laghrour in Khenchela. The total size of the study population was 505 students.

A representative sample was drawn from this population using random sampling techniques to ensure the representativeness of the sample. The procedures included administering the study tool (questionnaire) to 100 individuals from the sample. After reviewing the collected questionnaires, 72 valid questionnaires were used for statistical analysis, while 28 were excluded due to not meeting the validity criteria or incomplete data.

Study variables:

In the theoretical framework of the study, the main variables are represented within an analytical model focusing on the basic unit of analysis: the 'university institution' and its social environment. This is measured through the following indicators:

- Independent variable: use of social media in the university environment.

- Dependent variable: The university institution.

Figure 1: Dstribution of Study Variables - Processes

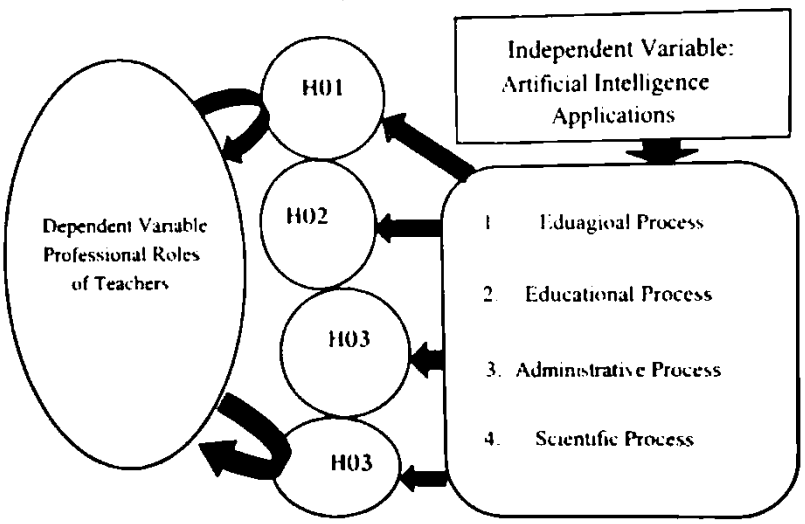


Figure 1 shows the distribution of the study variables in pedagogical processes.

Prepared by the researcher.

- Study Tools
- Data collection tools
- Methodology of the study

The study relied on a descriptive analytical methodology. A questionnaire consisting of 30 items was designed and distributed across two main axes. The aim was to measure and diagnose manifestations of value disruption in the university field.

Structure of the research tool (questionnaire):

- First Axis: Socio-demographic characteristics of respondents: This section aimed to capture the social and professional backgrounds of participants to provide a framework for understanding their perceptions of institutional corruption.

- Second Axis: Diagnosing Manifestations of Value Disruption in the University: This axis is divided into two sub-dimensions, each comprising a set of items measuring the attitudes of administrators and academics towards favouritism and social residues.

First Dimension: Institutional Internal Practices: This dimension measures the impact of informal social relationships (social residues) on the performance of core university functions, distributed across the following institutional areas:

- Academic Practices (Items 1–5).
- Pedagogical Affairs (Items 6 to 10).
- Administration and administrative transparency (items 11–15).
- Scientific and Research Activities (Items 16 to 20).

Second Dimension: Challenges of Unity and Academic Integration (Items 21 to 30):

This dimension focuses on measuring the impact of favouritism on the cohesion and unity of the university system from the perspective of faculty members (items 21–30).

Statistical Methodology and Data Analysis:

To achieve the study's objectives, quantitative data were processed using the Statistical Package for the Social Sciences (SPSS). The statistical analysis included the following methods:

- Pearson Correlation Coefficient: To measure the internal consistency and validity of the questionnaire items and verify their logical consistency.
- Cronbach's alpha: To verify the stability and reliability of the study tool as a whole.
- Frequencies and percentages: to describe the characteristics of the sample studied.
- Mode: To determine the most frequently occurring value in respondents' answers.
- Arithmetic mean (average): To measure the degree to which respondents agree or disagree with the study phenomenon.
- Standard deviation: To measure the dispersion of responses around the mean.

Validity and reliability of the study tool and testing for normal distribution:

Study on the impact of internal media advertising on the use of social networks in universities.

Table No. 1: Pearson correlation coefficient for items in each axis.

dimensions	Statements	Pearson Correlation Coefficient	Level of Significance	Statements	Correlation Coefficient	Level of Significance
Educational process	1	0,514**	0,000	4	0,634**	0,000
	2	0,746**	0,000	5	0,689**	0,000
	3	0,600**	0,000			
Pedagogy	6	0,707**	0,000	9	0,631**	0,000
	7	0,719**	0,000	10	0,635**	0,000
	8	0,632**	0,000			
Administrative Affairs	11	0,574**	0,000	14	0,706**	0,000
	12	0,682**	0,000	15	0,734**	0,000
	13	0,527**	0,000			
Scientific research	16	0,586**	0,000	19	0,681**	0,000
	17	0,645**	0,000	20	0,623**	0,000

Prepared by the researcher using SPSS.

The results of the statistical analysis revealed positive and statistically significant correlations at the 5% level between all dimensions of administrative support and job satisfaction. The strength of these relationships varied; certain dimensions, such as peer support and the organisational environment, had a direct and strong impact on explaining the variance in satisfaction levels, whereas the contribution of other dimensions, such as those related to procedures, was relatively lower.

Measurement of internal consistency validity for items in the higher education axis.

Table No. 02: Pearson correlation coefficient for quality of education items.

Statements	Pearson Correlation Coefficient	Level of Significance	Statements	Correlation Coefficient	Level of Significance
21	0,514**	0,000	26	0,621**	0,000
22	0,568**	0,000	27	0,695**	0,000
23	0,698**	0,000	28	0,634**	0,000
24	0,725**	0,000	29	0,447**	0,000
25	0,279*	0,000	30	0,506**	0,000

The correlation is statistically significant at a level of 0.370.01

Prepared by the researcher using SPSS.

It has been established that there is a statistically significant positive relationship (at the 0.05 level) between all items related to higher education, indicating a significant impact of these items.

Reliability of the study tool:

Table 3 shows the reliability of the study tool.

Axes	Statements	Cronbach's alpha coefficient
Use of AI applications in universities	20-1	0,860
- Quality of higher education	30-21	0,747
- Overall	29-1	0,875

The analysis results indicate that the Cronbach's alpha coefficient for the job performance questionnaire was 60%. The values of the coefficient for the subfields of the questionnaire ranged from 0.624 to 0.860, which are considered low. Similarly, the reliability coefficient for the main field (representing the tool's overall result) was also recorded as low. These results are based on the analysis of responses to items designed by the researchers from the study sample.

Testing for normal distribution:

Table showing the normal distribution of the study axes.

Kolmogorov-Smirnov			
Case Study	Z Value Sig	Sig*	Test Results
All Study Axes	0.565	0.907	Normal Distribution

Prepared by the researcher using SPSS.

Faculty members' attitudes towards the use of artificial intelligence technologies in university education.

First: Results and data analysis related to the survey study.

A Results of the questionnaire regarding the use of artificial intelligence technologies at the university.

In the academic and educational field:

Table 04 shows the distribution of responses from sample members regarding the educational use of artificial intelligence technologies.

number	Statements with mean scores:	Average	Standard deviation	Level of agreement	Rank
01	- Use of advanced computer programs	4,04	0,731	High	1
02	Use of electronic applications and platforms	3,28	1,078	Medium	5
03	- The necessity to adopt text summarisation applications	3,52	0,793	High	4
04	- Importance of virtual reality	3,77	0,887	High	3
05	- Educational robots can replace teachers.	3,90	0,950	High	2
Overall mean 3.70			07574	High	-

Prepared by the researcher using SPSS.

Statistical analyses reveal a correlation between the increased use of social media networks in educational contexts and the prevalence of deviant practices in awarding academic degrees. The mean values of the questionnaire items (between 3.28 and 4.04) and the overall average (3.70) on the Likert scale suggest that sample members collectively perceive a positive correlation between intensive use of these networks and the erosion of academic standards, as well as an increase in non-academic practices in student assessments.

Table No. 05: Results related to the pedagogical applications of artificial intelligence

number	Statements	Average	Standard deviation	Level of agreement	Rank
06	Electronic platforms are used to manage student affairs.	3,65	1,190	High	3
07	Faculty members interact with these platforms.	3,52	0,793	High	4
08	The shift towards electronic	3,77	0,887	High	2

	platforms is essential for acquiring information.				
09	- Electronic platforms are used to save time.	3,42	0,941	High	5
10	- Educational electronic platforms boost students' confidence and freedom.	3,80	1,124	High	1
Overall		3,63	0,656	High	-

Prepared by the researcher using SPSS

The study shows that educational use of social media networks is positively correlated with academic deviant behaviours among students. The results indicated a statistically significant relationship between increased usage of these platforms and the prevalence of non-academic practices, as reflected by the high arithmetic mean (3.63) and low standard deviation (0.656). This demonstrates a systematic behavioural pattern within the educational environment.

Table No. 06: Results of the Administrative Uses of Artificial Intelligence Applications

number	Statements	Average	Standard deviation	Level of agreement	Rank
11	Artificial intelligence applications contribute to transparency.	2,98	1,056	Average	5
12	Artificial intelligence applications assist university management.	4,04	0,731	High	4
13	- They provide a distinctive experience.	3,28	1,078	Average	1
14	University management attempts to eliminate barriers to artificial intelligence applications.	3,50	1,032	Average	3
15	University management strives to equip classrooms.	3,61	0,872	Average	2

Prepared by the researcher using SPSS.

The results indicate a significant correlation between increased use of social media platforms for administrative purposes and an increase in disclosures of organisational practices involving recorded violations. The arithmetic mean of the discursive dimensions was found to be 3.48, with a standard deviation of 0.608. This suggests that the revelation of illegal practices is positively correlated with the extent to which digital media are relied upon in institutional environments.

Table No. 07: Results of the use of artificial intelligence applications in scientific research

number	Statements	Average	Standard deviation	Average	Rank
16	Artificial intelligence and research methodologies.	3,30	0,953	High	5
17	Artificial intelligence applications facilitate the research process.	3,68	0,940	High	2
18	- AI applications can substitute for research papers.	3,61	0,856	High	3
19	- AI applications contribute to the dissemination of research.	3,75	0,999	High	1
20	- AI applications enhance visibility.	3.54	1,187	High	4
Overall		3,58	0,648	Average	-

Prepared by the researcher using SPSS.

The field study results revealed a statistically significant correlation between increased social media use in scientific discourse and a decline in students' conceptual understanding. The majority of the study sample showed a weakness in understanding the basic terminology of the curriculum (with values ranging from 3.30 to 3.75). Analysis of the prevailing discourse among students (with an average of 3.58 and a standard deviation of 0.648) confirmed a positive correlation between intensive

use of these platforms and a decline in theoretical comprehension. From a sociological perspective, this suggests a transformationin students' communicative environment that negatively affects the formation of their cultural and academic capital.

Presentation of results related to the second axis: quality of higher education.

Table No. 08 shows the results related to the quality of higher education.

number	Statements	Average	Standard deviation	Average	Rank
21	Teaching curricula align with students' understanding.	4,52	0,756	Very high	1
22	- Faculty members use modern curricula.	4,34	0,899	Very high	4
23	- Faculty members have the capacity to develop curricula.	3,92	0,967	High	6
24	- The quality of the curricula is linked to the job market.	4,52	0,846	Very high	1
25	The university encourages creativity and supports quality.	2,81	1,310	Moderate	9
26	- The university has specific methods for developing quality.	3,85	1,067	High	7
27	- The university provides material resources for scientific research.	4,40	0,983	Very high	3
28	Students embody a research spirit at the university.	4,15	0,942	High	5
29	- Assessment content reflects university activity.	4,44	0,810	Very high	2
30	- The university has a sufficient budget for scientific activities.	3,02	1,076	Moderate	8
Overall		4,00	0,540	High	-

Prepared by the researcher using SPSS.

The study results indicate a positive correlation between corruption and underdevelopment, as analysed in published scientific discourse during the period (2.81–4.52). The vast majority of this research showed strong positive correlations, peaking in relation to the economic dimension, where the correlation coefficient

reached 4.00 with a standard deviation of 0.540. This confirms the existence of a strong, statistically significant correlation between corruption and underdevelopment in the analysed scientific discourse.

Hypotheses: Confirmation and Negation Testing

First hypothesis:

A quantitative analytical study revealed a statistically significant positive correlation between student participation in extracurricular activities (e.g. clubs, cultural events and sports competitions) and an increase in their cumulative grade averages.

From a sociological perspective, this result suggests that school is not merely a space for traditional academic functions, but a comprehensive social space. Participation in these activities serves to:

- enhance students' social and cultural capital by expanding their networks and developing their skills;
- deepen their integration into the school system, increasing their sense of belonging and reducing the likelihood of dropping out.
- Build a balanced personality capable of achieving a balance between academic demands and life skills.

Thus, these activities are social practices that enrich the student's overall educational experience and indirectly contribute to improving learning outcomes. This supports the educational institution's function of preparing individuals for integration into society.

Second hypothesis:

The results of the study indicate a statistically significant correlation (at the significance level $\alpha \leq 0.05$) between the study variables. Statistical analyses showed a negative and inhibiting effect of higher educational levels on participation in the labour market within the context of the study community.

This inverse correlation can be understood through a sociological framework that considers community and structural determinants beyond the individual. While educational qualifications are considered human capital, they do not necessarily ensure integration into the labour market if obstructed by structural barriers within the local economic environment and employment system.

Third hypothesis:

This study aims to analyse the causal impact of curricula (the independent variable) on students' academic achievement levels (the dependent variable) in the context of higher education.

Employing a quantitative research methodology, the study revealed statistical results indicating a significant positive correlation between the quality and efficiency of curricula and improvements in academic achievement levels. This suggests that improvements to the educational structure (curricula) directly contribute to raising educational outcomes (achievement). From a sociological perspective, this result highlights the crucial role of the educational structure in shaping individuals' capabilities and academic outcomes, and emphasises the societal importance of adopting advanced curricula that align with contemporary demands as a prerequisite for achieving scientific progress at the level of the social system as a whole.

Fourth Hypothesis:

The results of the study indicate a statistically significant correlation (at the significance level $\alpha \leq 0.05$) between educational curricula and academic achievement levels. The results also reveal the clear impact of social and economic factors on educational performance. This affirms that disparities in academic achievement are not solely attributable to academic factors, but are shaped by a complex network of social and economic relationships that influence individuals' learning opportunities and educational outcomes.

Main hypothesis: The university is a critical institutional space for social mobility, enabling individuals and groups through human and cultural capital. This transforms the structure of the social hierarchy and enhances social justice.

General recommendations on the application of artificial intelligence in Algerian universities

1. Support for scientific research: utilise artificial intelligence tools for academic writing, data analysis and literature reviews, emphasising thorough human review and verification.

2. Enhance student creativity by encouraging participation in artificial intelligence-related competitions and hackathons organised by Algerian universities. These competitions serve as powerful motivators for innovation and the development of practical skills.

3. Utilising free resources: Promote the use of online training courses from platforms such as Coursera and edX, which offer foundational and specialised courses in artificial intelligence.

Conclusion:

Issues of quality occupy a central position in the discourse on the development of higher education, serving as a strategic entry point for improving universities' competitive standing. This can only be achieved by activating effective teaching mechanisms based on advanced pedagogical approaches that transition the educational process from a traditional, passive model to an interactive one that stimulates critical and creative thinking in students.

Consequently, this research aims to analyse how innovative pedagogical practices can improve educational outcomes and align them with the changing demands of the labour market and societal needs. The study also addresses structural and administrative challenges that hinder achieving the desired quality levels, such as curricula that are misaligned with emerging knowledge or inadequate infrastructure supporting learning.

The article is based on the hypothesis that developing the higher education environment and achieving academic excellence depend on adopting a comprehensive vision that re-engineers the educational system. This vision encompasses reviewing academic policies, developing curricula, adopting precise evaluation standards and investing in human capital by enhancing faculty members' competencies.

In conclusion, the study offers forward-looking recommendations for building a university education model based on quality, innovation, and sustainable competitiveness.

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