First International Conference
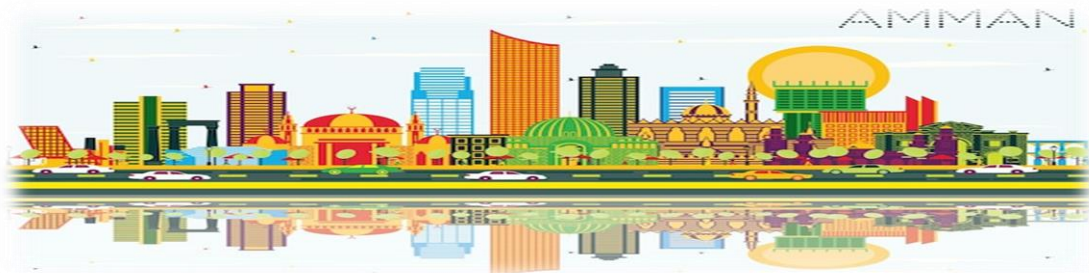
"Universities and Artificial Intelligence Technology"

Amman, Jordan

June 24-25, 2024

Book of Abstracts

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Welcome Message

Dear Distinguished Conference Attendees

I am thrilled to welcome you to the first International Conference on "Universities and AI Technology", taking place in Amman on June 24-25, 2024.

This conference marks a pivotal moment in shaping the future of education. As Artificial Intelligence rapidly transforms our world, universities must adapt and integrate this technology to enhance learning, research, and overall student experience.

This gathering brings together a distinguished group of academic leaders, researchers, AI developers, policymakers, and students from 14 countries. During the conference, we will engage in stimulating discussions, share cutting-edge research, and explore how AI can revolutionize higher education. Through keynote addresses, panel discussions, and oral presentations, we will delve into a variety of themes.

Furthermore, we will explore how AI can personalize learning, support faculty research, and streamline administrative processes. We will also address the ethical considerations and challenges associated with AI integration in universities. The conference serves as a platform for collaboration and knowledge exchange. It is an opportunity to build bridges between academia and the tech industry, fostering innovation and charting the course for the future of universities powered by AI.

We look forward to your active participation in this event. Let us embark on a journey of discovery together, as we shape the future of learning in the age of artificial intelligence.

Prof. Amr Ezzat SALAMA
Secretary General
Association of Arab Universities
Conference president

Conference Chair Statement

Dear Colleagues and Readers,

Welcome to the abstract e-book of the First International Conference on AI and Higher Education. It is my pleasure and privilege as the Conference Chair to introduce this compilation of exceptional research and innovative insights. This conference has brought together a diverse group of scholars, practitioners, and thought leaders to explore the transformative potential of artificial intelligence in the realm of higher education.

We received an impressive 178 submissions from around the world, demonstrating the global interest and active engagement in this critical field. Following a rigorous peer-review process, 53 papers were selected for presentation, each contributing valuable perspectives and advancements to our understanding of AI's impact on higher education. Additionally, the best papers from this conference will be selected for publication in international, indexed, refereed, and specialized journals, ensuring their dissemination to a wider academic audience.

The conference is organized into seven thematic tracks, ensuring comprehensive coverage of the many facets of AI and higher education. These tracks include AI in Teaching and Learning, AI in Educational Administration, Ethical and Societal Implications of AI, AI in Research and Development, AI for Accessibility and Inclusion, AI and Policy in Education, and AI in Global Educational Contexts. Each track offers a deep dive into specific areas, providing a rich tapestry of knowledge and innovation that addresses both opportunities and challenges.

I would like to extend my heartfelt gratitude to all the authors, reviewers, keynote speakers, and organizing committee members for their hard work and dedication. Your contributions have made this conference a resounding success and have significantly enriched the academic discourse in this burgeoning field.

As you explore the abstracts in this e-book, I hope you find inspiration, new insights, and opportunities for collaboration. Let us continue to push the boundaries of knowledge and harness the power of AI to create a brighter, more inclusive future for higher education.

Thank you for your participation and interest in the First International Conference on AI and Higher Education. I wish you all an enlightening and productive experience.

Sincerely,

Prof. Dr. Walid A. Salameh

Conference Chair

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Prof. Nagwa Elshenawy	Cairo University, Egypt
Prof. Zhang Zho	China Agricultural University, China
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- Association to Advance Collegiate Schools of Business
- Ministry of Digital Economy and Entrepreneurship, Hashemite Kingdom of Jordan
- University of Science and Technology, Yemen
- Zarqa University, Hashemite Kingdom of Jordan

Exhibition Participants

Program at a Glance

First International Conference

"Universities and Artificial Intelligence Technology"

Grand Hyatt Hotel, Amman 24-25 June 2024

Day 1: Monday, June 24th, 2024	
08:30 - 09:30	Registration desk Open
	OPENING CEREMONY Master of Ceremony: **Prof. Walid Salameh** Venue: **Iris Hall**
09:30 - 10:30	**Welcome by Conference Chairs** ▪ **HE. Prof. Amr Ezzat Salama**, Secretary General, Association of Arab Universities ▪ **Prof. Yan Chunhua**, Vice President, China Association of Higher education ▪ **Prof. Feras Hanandeh**, President, Ajloun National University ▪ **Prof. Ismail Abdel Ghafar**, President, Arab Academy for Science, Technology & Maritime Transport ▪ **H.E. Chen Chuandong,** Chinese Ambassador to Hashemite Kingdom of Jordan **Official Opening** ▪ **H.E. Mr. Ahmad Hanandeh**, Minister of Digital Economy and Entrepreneurship
10:40 - 11:30	**Exhibition tour** **Venue: Jasmine Hall**
11:30 - 12:00	**Coffee break**

	PLENARY LECTURES Venue: Iris Hall	
12:00 - 13:30	Lecture 1 **Prof. Jorge Marx Gomez,** University of Oldenburg, Germany **Beyond data: Federated learning as a bridge between machine learning and data protection** Lecture 2 **Prof. Nagwa Elshenawy,** Initiator & Professor of Digital Economy at Cairo University, Egypt. **"The importance of integrating digital economy into Arab Universities curriculum"** Lecture 3 **Prof. YAN Shi,** Vice Dean of the School of Information Science and Engineering at Lanzhou University **"Some progress and thoughts on Artificial Intelligence Technology "**	
Parallel sessions		
13:30- 15:00	Parallel Session 1 **Artificial Intelligence and the Quality of Higher Education** Session chair**: Prof. Amjad Daoud** Co-Chair: **Dr. Abdallah Qusef** Venue: **Room 1**	Parallel Session 2 **Emerging technologies and AI-powered learning** Session chair: **Prof. Feras Hanandeh,** Co-Chair: **Dr. Mohmmad Tamimi** Venue: **Room 2**
15:00-16:00	**Lunch**	
Parallel sessions		
16:00 -17:30	Parallel Session 3 **Practical experiences and entrepreneurial ideas** Session chair **: Prof. Ammar Odeh** Co-Chair : **Prof. Zhang Zho** Venue : **Room 1**	Parallel Session 4 **The ethics of using Artificial Intelligence and digital transformation in higher education** Session chair : **Prof. Basel Mahafzah** Co-Chair : **Prof. Yan Shi** Venue : **Room 2**

Day 2 : Tuesday, June 25th, 2024

09:30-10:30	Lecture 1 **Prof. ZHANG Zhao,** China Agricultural University (CAU), China **"AI powered Apple Production in China "** Lecture 2 **Prof. Nadia Badrawi,** President, Arab Network for Quality Assurance in Higher Education (ANQAHE) **"Artificial Intelligence in quality assurance in Higher Education"**

10:30-11:00	**Coffee break**
	Parallel sessions

11:00-12:30	Parallel Session 5 **The ethics of using Artificial Intelligence and digital transformation in higher education** Session chair**: Prof. Jorge Marx Gomez** Co-Chair: **Dr. Abdel Raoof Ishtiwi** Venue: **Room 1**	Parallel Session 6 **The future of higher education in light of Artificial Intelligence and digital transformation** Session chair: **Prof. Ibrahim Obeidat** Co-Chair: **Dr. Moa'ad Alawneh** Venue: **Room 2**

12:30 -14:00	Parallel Session 7 **The role of Artificial Intelligence in business** Session chair : **Prof. Qassem Al-Radaideh** Co-Chair : **Dr. Bajes Aljunaidy** Venue : **Room 1**	Parallel Session 8 **Miscellaneous 1 (On Zoom)** Session chair: **Prof. Zhao Zhang** Venue : **Room 2**	Parallel Session 9 **Miscellaneous 2 (On Zoom)** Session chair: **Prof. Nagwa Elshenawy** Venue: **Room 3**

14:00 –14:30	**Closing Ceremony** **Session reports / Global Discussion / Closing remarks**

14:30-15:30	**Lunch**

Day 3: Wednesday, June 26th, 2024 --- Optional

Cultural day organized by Ajloun National University (70 Km from Amman)

10:00 - 10:30	Welcome and reception
10:30 - 11:30	Lecture
11:30 - 14:00	Sightseeing Tour in Ajloun
14:30	Arrival at Ajloun Reserve
15:00 – 17:00	Lunch at the Reserve

Scientific Program

Monday 24th June 2024

Agenda Session 1
Venue: Room 1

Time 13:30- 15:00	Artificial Intelligence and the Quality of Higher Education Session Chair: Prof. Amjad Daoud Co-Chair: Dr. Abdallah Qusef
13:30 - 13:45	**1. The use of conversational (AI) robots in the preparation and publication of research papers.** Sihama Ghaffoori Ali,Tikrit university, Iraq. Huda Abbas Kanber, Baghdad University, Iraq.
13:45 - 14:00	**2. Enhancing GPA Prediction Accuracy Through Educational Data Mining: A Case Study at the Islamic University of Lebanon.** Ali Khalil Raad, Islamic University of Lebanon, Lebanon. Jamal Haydar, Islamic University of Lebanon, Lebanon. Walid Fahs, Islamic University of Lebanon, Lebanon.
14:00 -14:15	**3. Predicting Student Academic Performance Using Machine Learning Algorithms Based on Multi-Data Source.** Amal Khalifa Albohali, Sebha University, Libya. Almahdi Mohammed Almahdi Alshareef, Sebha University, Libya. Mohammed Shantal, Sebha University, Libya.
14:15 - 14:30	**4. Digital Transformation of Higher Education institutions: SCME as a case study** Mohammed Moreb, Smart University College for Modern Education, Palestine. Asia Qawami , Smart University College for Modern Education, Palestine.
14:30-14:45	**5.Teaching Nocode Automation and Data Analytics to Social Sciences and Humanities Graduate Students:A Case Study** Fadi Zaraket, Doha Institute for Graduate Studies, Qatar.
14:45 – 15:00	**التحديات التي تواجه البحث العلمي في عصر الذكاء الاصطناعي: البحث العلمي لدى طلبة الجامعات العربية نموذجًا. 6** Ibrahim Ahmed Melhem, United Arab Emirates University, United Arab Emirates. Roaa Bassam Ahmed Al-Khatib , Jordanian Ministry of Education ,Jordan .

Agenda Session 2
Venue: Room 2

Time 13:30 – 15:00	Emerging Technologies and AI-Powered learning Session Chair: Prof. Feras Hanandeh Co-Chair: Dr. Mohmmad Tamimi
13:30 - 13:45	**1. Empowering Student Potential: A Guide Framework for Using Generative AI Chatbots in Competency-Based Learning** Hamdy Ahmed Ashour, Arab Academy for Science and Technology, Egypt .
13:45 - 14:00	**2. Development of an Augmented Reality Application in Teaching Undergraduate Courses** Mutaz Mohammed Abuhashish, khazar university, Azerbaijan. Leyla Muradkhanli, Baku Higher Oil School, Azerbaijan. Mohammad Ali AlQudah, khazar university, Azerbaijan.
14:00 -14:15	**3. التعليم الديني والفتوى والذكاء الاصطناعي: مواضع التلاقي والافتراق** Fidauldeen Nusaibah Sakr, Global University, Lebanon.
14:15 - 14:30	**4. Towards Analysis Detection of Deepfake Video via Deep Learning Models: A Survey** Shahed Ammar AL Tamimi, Prince Sumaya University for Technology, Jordan. Walid Salameh, Prince Sumaya University for Technology, Jordan.
14:30 – 14:45	**5. Predicting Wheat Crop Productivity in Jordan Using Time Series Forecasting Models** Shahed Nabeel Mohammad Al-khateeb, Yarmouk University, Jordan. Mohammad Al-khateeb, Amman Arab University, Jordan. Maram Alwardat, Yarmouk University, Jordan.
14:45 – 15:00	**6. Investigating the Effect of AI-Powered Short-Form Videos on Student Attention Span and Academic Performance in the Digital Transformation Era: An Empirical Study.** Hanein O. Mohamed Shareif, Libyan International University, Libya. Ayyah A. Fadhl, Libyan International University, Libya. Tawfiq Mohammed Abdel Aziz, Libyan International University, Libya**.**

Agenda Session 3

Venue: Room 1

Time 16:00 - 17:15	Practical Experiences and Entrepreneurial Ideas Session Chair: Prof. Ammar Odeh Co-Chair: Prof. Zhang Zho
16:00 -16:15	**1.Tailoring Pharmacology and Pharmacogenomics Education: A Multimodal Approach with AI** Alaa Yehya, Yarmouk university, Jordan. Christopher L Shaffer, University of Nebraska Medical Center, United States of America.
16:15 - 16:30	**2. Forecasting the Spread of Viral Diseases in Jordan Using the SARIMAX (Seasonal Autoregressive Integrated Moving-Average with Exogenous Regressors) Model** Shahed Nabeel Mohammad Al-khateeb, Yarmouk University, Jordan.
16:30 -16:45	**3. Infield honeysuckle detection based on improved YOLOv5s under natural lighting** Zhaoyu Rui, Ministry of Education, China. Z., Zhang, China Agricultural University, China. C. K. Saha, Bangladesh Agricultural University, Bangladesh.
16:45- 17:00	**4. الأغنية العربية وصراع الهوية في ظل التحول الرقمي** Motasem Adileh, Dar Al-Kalima University, Palestine.
17:00 -17:15	**5. أثر التحول الرقمي على جودة الخدمات الجامعية في الجامعات الفلسطينية بالمحافظات الجنوبية "دراسة تطبيقية على جامعة الأزهر- غزة وجامعة الأقصى"** Hamdouna Alaa, Ahed Abu Ata, Al-Azhar University – Gaza, Palestine **Recorded video presentation**

Agenda Session 4

Venue: Room 2

Time	The Ethics of using Artificial Intelligence and Digital Transformation in Higher Education Session Chair: Prof. Basel Mahafzah Co-Chair: Prof. Yan Shi
16:00 - 17:45	
16:00 – 16:15	**1. An AI Policy Framework for the Libyan International University (LIMU): a Pilot Study** Jeenan Adel Ibrahim Abdalla Altawaty, Libyan International University, Libya. Bilal Aljabour, Libyan International University, Libya.
16:15 -16:30	**2. رؤية أخلاقية في استخدام أدوات الذكاء الاصطناعي في التعليم العالي والبحث العلمي** Heba Atef tahboub , Birzeit university, Palestine. Saly Marwan Shatarah, Birzeit university, Palestine.
16:30 - 16:45	**3. Awareness of the ethics of artificial intelligence in universities among students of e-learning and distance learning at the University of Science and Technology in Yemen** Raja Mohammad Deeb Aljaji, University of Science and Technology, Yemen.
16:45 –17:00	**4. A Proposed Digital Transformation Policy in Education (DXP@EDU): A Policy Paper** Yousef W. Sabbah, Birzeit University, Palestine.
17:00 – 17:15	**5. تطور قوانين الأمن السيبراني في مصر وأثره على منظومة التقاضي (الفرص والتحديات)** Mostafa Ali Elokaby, Police academy of Egypt ,Egypt .
17:15 – 17:30	**6. أثر الذكاء الاصطناعي في الإثبات الجنائي** Iyad Ahmad Mohammad Ibrahim, Alwasl University, United Arab Emirates. Zahraa Ahmad, Alwasl University, United Arab Emirates.
17:30 – 17:45	**7. Fostering Collaborative Innovation by Bridging the Engineering-Design Gap in Egypt: HCD&E Integration and Visionary Design with AI integration in Education** Ahmed Tarek Mohamed Fathy, Badr University in Cairo, Egypt. Salwa El Ghareeb, Helwan University, Egypt. Yasser Shabaan, Helwan University, Egypt.

Tuesday 25ᵗʰ June 2024

Agenda Session 5

Venue: Room 1

Time 11:00 – 12:30	Topics Related to Digital Transformation Session Chair: Prof. Jorge Marx Gomez Co-Chair: Dr. Abdel Raoof Ishtiwi
11:00 – 11:15	1. الذكاء الواعي Ibtisam Ibrahim Baydoun, Global University, Lebenon.
11:15 - 11:30	**2. The Impact of Digital Transformation on the Society** Nidhal Khdhair Abass El Abbadi, Al Mustaqbal University, Iraq.
11:30 – 11:45	3 أثر الرقمنة على التغطية الإعلامية لحرب غزة: دراسة حالة للتحول الرقمي والتفاعل الاجتماعي Issa Mustafa Ibrahim Abu Srour, Dar Al-Kalima University, Palestine.
11:45 – 12:00	4 (التكييف الفقهي لاعمال الانسان الالي (الروبوتات الذكية وتطبيقاتها المعاصرة Ahmed Shaker Mahmoud, University of Baghdad, Iraq. Yassin Khader Mujbil, University of Baghdad, Iraq. Ibrahim Jalil Ali, University of Baghdad, Iraq. Asmaa Abdul Jabbar, University of Baghdad, Iraq. Hanaa Mohammed Hussein Ahmed, University of Baghdad, Iraq.
12:00 –12: 15	5. توظيف الذكاء الاصطناعي في التصميم الجرافيكي وتأثير ذلك على المتلقي -حرب غزة نموذجًا Ghawi Khaleel , Dar Al-Kalima University, Palestine.
12:15 –12:30	6. تقييم فهم طلاب الجامعات المحلية في الدول النامية لمفاهيم الذكاء الإصطناعي Hilda Narch ، Modern University for Business and Science, Lebanon.

Agenda Session 6 **Venue: Room 2**	
Time **11:00 – 12:30**	**The future of Higher Education in Light of Artificial Intelligence and Digital Transformation** **Session Chair: Prof. Ibrahim Obeidat** **Co-Chair: Dr. Moa'ad Alawneh**
11:00 – 11:15	**1. Empowering University Entrepreneurship: Joining AI and Intellectual Property Strategies** Laila Barqawi, Al-Zaytoonah University of Jordan, Jordan. Sarah Al-Arasi, Al-Zaytoonah University of Jordan, Jordan. Mohammad Abdallah, Al-Zaytoonah University of Jordan, Jordan. Firas Akram Rifai, Al-Zaytoonah University of Jordan, Jordan.
11:15 - 11:30	**نحو رؤية مستقبلية للجامعات التكنولوجية في الوطن العربي في ضوء بعض الخبرات الدولية 2** Mohebat Abu Amera, Ain shames university, Egypt.
11:30 – 11:45	**3. Using AI to Improve the Quality of Education and Reduce the Risks of Learning** Mohammed Moreb, Smart University College for Modern Education, Palestine. Tasnim Swaitti, Smart University College for Modern Education, Palestine. Asia Qawasmi, Smart University College for Modern Education, Palestine.
11:45 – 12:00	**مستقبل التعليم الجامعي في مجال الإعلام في عصر الذكاء الاصطناعي 4** Murad Nassar, Dar Al-Kalima University, Palestine.
12:00 –12 :15	**التحول الرقمي لتيسير عملية التعليم ـ الجامعات الفلسطينية أنموذجاً 5** Alaa Dayeh, Dar Al-Kalima University, Palestine.
12:15 –12:30	**6. The Possibility of Artificial Intelligence Ruling the World between Contemporary Science and Holy Scriptures Comparative study** Imad Mohammed Farhan, Al-Imam Aladham University, Iraq. Saadi Shartooh Sharqi, University of Anbar, Iraq.

Agenda Session 7

Venue: Room 1

Time 12:30 – 14:00	The Role of Artificial Intelligence in Business Session Chair: Prof. Qassem Al-Radaideh Co-Chair: Dr. Bajes Aljunaidy
12:30 – 12:45	**1. The Future of AI Integration to Redefining Decision-Making** Aws Sami Abu Eid, Arab Open University, Jordan.
12:45 - 13:00	**2. The use of artificial intelligence programs and technologies in the provision of Iraqi Islamic banking services: the banks of Al-Nahrain and Islamic Asia as a model** Hudaa Abass Kanber, University of Baghdad, Iraq. Sanaa Oleiwi Abdlsada, University of Baghdad, Iraq.
13:00 – 13:15	**3. The impact of using design thinking for visual communication in Interactive advertising campaigns** Deema Hussein Al-Rifai, jadara university, Jordan**.** Ahmad Eid, jadara university, Jordan.
13:15 – 13:30	**4. AI-Oriented Mobile App for Governmental Services Digitization via Generative AI** Mazen Aziz,Arab Academy for Science and Technology and Maritime Transport, Egypt. Salma Alrabeiy,Arab Academy for Science and Technology and Maritime Transport, Egypt. Alaa Abdulfatah,Arab Academy for Science and Technology and Maritime Transport, Egypt. Nervana Atef, Arab Academy for Science and Technology and Maritime Transport, Egypt. Ahmed Hany, Arab Academy for Science and Technology and Maritime Transport, Egypt. Osama Badway, Arab Academy for Science and Technology and Maritime Transport, Egypt. Mohamed Saad, Arab Academy for Science and Technology and Maritime Transport, Egypt.
13:30 – 13:45	**5. Data-driven Contribution-based Program Evaluation System** Zusheng Li, Nanchang University, China. Zicheng Xu, Nanchang University, China. Ke Xu, Nanchang University, China.
13:45 – 14:00	**6. Employing AI Applications and Their Importance in Higher Education: A Study from the Perspective of Lecturers at Palestine Polytechnic University and the Use of ChatGPT as a Model of AI in Serving Higher Education** Abdalfatah Najjar, Palestine Polytechnic University, Palestine.

Agenda Session 8

Venue: Room 2

Time 12:30 – 14:00	Miscellaneous 1 (On Zoom) Session Chair: Prof. Zhang Zhao
12:30 – 12:45	**1. A Review of Educational Knowledge Graph Construction from MOOCs** Laila Shoukry, Alamein International University, Egypt. Islam Elgedawy, Alamein International University, Egypt.
12:45 - 13:00	**2. Perspective of Higher Education on Integrating AI Concepts, Ethics and Applications Across All Study Fields** Mohammed Alaa Hussein Altemimi, University of Baghdad, Iraq. Bahaa Ansaf, University of Baghdad, Iraq.
13:00 – 13:15	**3. MyClassBot: A RAG-based Audio Chatbot guiding Students and Faculty navigate their Schedules** Moeman Ayman, Alamein International University, Egypt. Ahmed Khaled Eladl, Alamein International University, Egypt.
13:15 – 13:30	**4.Few-Shot Learning approach for Arabic scholarly paper classification using SetFit framework** Khalid AlZamel, Kuwait University, Kuwait. Manayer Hammad Al-Ajmi, Kuwait University, Kuwait.
13:30 – 13:45	**5. Integrating Virtual and Augmented Reality for Immersive Learning Environments** Huanan Song, Beijing University of Posts and Telecommunications, China. Li Cheng, Beijing University of Posts and Telecommunications, China.
13:45 – 14:00	**6. AIQ – RAG-based Generation of Questions for Dynamic MOOC Assessments** Ahmed Khaled Asaad Hamed Eladl, Alamein International University, Egypt. Mohamed Soliman, Alamein International University, Egypt. Islam Elkabani, Alamein International University, Egypt. Laila Shoukry, Alamein International University, Egypt.

Agenda Session 9
Venue: Room 3

Time 12:30 – 14:00	Miscellaneous 2 (On Zoom) Session Chair: Prof. Nagwa Elshenawy
12:30 – 12:45	**1.Utility of a Convolutional Neural Network in Cardiovascular Risk Appraisal: Identification of Novel Frequencies for Risk Stratification according to Sex, Age, and Metabolic Disease** Nour-Mounira Z. Bakkar, American University of Beirut, Lebanon. Ahmed Eladl, Alamein International University, Egypt. Abdalrhman Mostafa, Mansoura University Hospitals, Egypt. Mohamed Abdelhack, Center for Addiction and Mental Health, Canada. Ahmed F. El-Yazbi, Alamein International University, Egypt.
12:45 - 13:00	**2. Innovation in Engineering Education during Crises: "The Virtual Labs Model at Al-Neelain University's Faculty of Engineering"** Dalia Mahmoud, Al-Neelain University, Sudan. Mohamedalfateh Saeed, Istanbul University-Cerrahpaşa, Turkey, Al-Neelain University, Sudan Ahmed Hakim, Hacettepe University, Turkey, Al-Neelain University, Sudan. Mazen Mohammed Abass, Al-Neelain University, Sudan.
13:00 – 13:15	**3. How Retrieval-Augmented Generation can Revolutionize Education** Laila Shoukry, Alamein International University, Egypt.
13:15 – 13:30	**4. Mindful Muscle "Empowering Student Wellness and Success with AI Gym Coaching"** Karim Mahfouz, Alamein International University, Egypt. Moaz AlSaadani, Alamein International University, Egypt.
13:30 – 13:45	**اشكاليات استخدامات الذكاء الاصطناعي في البحث العلمي: تحديات وحلول مبتكرة 5** Suzan Elkalliny, Ain-Shams University, Egypt. Heba El-Deeb, Liwa College, United Arab Emirates
13:45 – 14:00	**6. High-Dimensional variance matrix estimation using the OGK genetic algorithm** Fatimah AL-Bermani, University of Baghdad, Iraq.

Plenary Lectures

Prof. Ing. Jorge Marx Gómez

Dr.-Ing. Jorge Marx Gómez is Full Professor and the Head of the Chair of Business Information Systems (Very Large Business Applications) at the Carl von Ossietzky University of Oldenburg (Germany). He is the Director of the Center for Environmental and Sustainability Research (COAST) at Oldenburg University and board member of the Energy Group at OFFIS-Institute (Oldenburg).

Prof. Nagwa Ibrahim Elshenawy

Highly accomplished scholar and advisor, currently serving as a Professor of Digital Economy at Cairo University and an Advisor for Informatics and Data Analytics at the Ministry of Communications. Her expertise spans the vast domains of digital economy, informatics, and data analytics, making her a sought-after expert in these rapidly evolving fields

Prof. Yan Shi

Yan Shi is a professor, doctoral supervisor, and vice dean of the School of Information Science and Engineering at Lanzhou University, and also a Distinguished Professor of "Feitian Scholar" in Gansu Province.

Prof. Zhao Zhang

Dr. Zhao Zhang is currently a professor with College of Information and Electrical Engineering, China Agricultural University (CAU). Before joining CAU, he worked with Department of Agricultural and Biosystems Engineering, North Dakota State University (NDSU)

Prof. Nadia Badrawi

Prof. Badrawi is the main founder and currently the president of the Arab Network for Quality Assurance in Higher Education (ANQAHE).Prof. Badrawi is a Board Member of: The Advisory Council of the CHEA International Quality Group (CHEA/CIQG), Currently Dr. Nadia is a member of the board of trustees of the Al-Alamein international University, she is also a board member of Medical Sector Committee for Planning and Development. Prof. Badrawi is the founder of the Egyptian Association of Neonatology and currently, she is the president of this society.

Abstracts

Digital Transformation of Higher Education institutions: SCME as a case study

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ABSTRACT

Recently, the challenge of lifelong learning and guidance for new paradigms in higher education institutions has become significant. More than ever, educational institutions are expected to play an important role in the provision of innovative teaching and learning processes, and counseling services to learners navigate recurrent transitions in students' education and learning. This paper introduces a real case study institution called Smart University College for Modern Education (SCME) as a digital transformation institution, which uses digital technologies to transfer as a digital institution using a set of tools and compares the tools and frameworks that apply from the European vision to university governance. As a modern and new higher education, SCME uses digital technologies to tackle career changes and connect the learning and skills life cycle to develop a process to support professional and personal development projects. The results show digital technologies are used from a global perspective and are the primary factors used in digital technologies in education, digital technology and infrastructural investment. The results will support higher education decision-making, for educators, financial investors, and policymakers, to use digital transformation in education, and which Educational Technologies to invest in modern technologies to support long-term products.

Predicting Student Academic Performance Using Machine Learning Algorithms Based on Multi-Data Source

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ABSTRACT

Educational Data Mining (EDM) is an emerging field concerned with mining and exploring useful patterns in educational data. This paper primarily provides a comparative analysis of seven classifiers: Support Vector Machine (SVM), Random Forest (RF), Logistic Regression (LR), Decision Tree (C4.5), K-Nearest Neighbors (KNN), Naive Bayes (NB), and Neural Network (NN). Our aim is to utilize these machine-learning algorithms, along with preprocessing algorithms, to predict students' performance and to determine the most effective classifier based on metrics such as the confusion matrix, accuracy, precision, and sensitivity. The dataset was extracted from Sebha University in Libya. It includes 6 attributes from the SIS system and 43 attributes from answered questionnaires, totaling 6000 records related to students' information; the data only includes students in the scientific department. The empirical results indicated that the Random Forest (RF) algorithm was the most appropriate data mining technique used to predict students' performance; the experiments were somewhat satisfactory, with noticeable improvements observed in the model after the processing and selection processes. The evidence from this study could assist new students by helping them choose an appropriate program, potentially affecting students' performance, and acting as an early warning system for predicting students' failures and low academic performance

Enhancing GPA Prediction Accuracy Through Educational Data Mining: A Case Study at the Islamic University of Lebanon

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Abstract

Educational institutions strive to enhance their rankings, a goal achievable through the application of educational data mining (EDM). EDM employs techniques to predict student outcomes based on educational, personal, and social data. This study explores the use of EDM to predict the GPA of engineering students at the Islamic University of Lebanon. Data samples were collected from the university, and six different classification algorithms were tested. Results indicate that the highest prediction accuracies were obtained with data sets excluding students with low and very low GPAs. Additionally, improving the quality of the data samples generally increased accuracy. Among the algorithms tested, LMT and Naïve Bayes demonstrated the highest accuracy in predicting student GPAs.

Teaching Nocode Automation and Data Analytics to Social Sciences and Humanities Graduate Students: A Case Study

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Abstract:

This paper discusses the development and offering of a course series on data, automation, fundamental digital skills, and analytical methods offered to graduate students with bachelor's degrees from Arab universities in humanities and social sciences. The paper reflects on advances in technology that rendered automation and data driven approaches highly accessible to nontechnical personnel including professors, researchers and students in social sciences and humanities. It discusses experiences with automation as an agent of knowledge and data driven approaches as methodologies for knowledge analysis and synthesis within course work frameworks. It also discusses the implications of these skills and capacities on the future careers of students graduating now. The paper also compares between modalities of delivery: online versus present courses, 14 weeks courses versus condensed workshops, and assigned project topics versus free selection projects. The comparison reports excellent results in terms of student performance on projects, accessibility to technical concepts in order of technical difficulty, and learning objectives compatibility across disciplines. The paper highlights areas of improvement including accessibility to data and compute resources and blended learning by instructors from mixed technical and nontechnical disciplines.

The use of conversational (AI) robots in the preparation and publication of research papers

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ABSTRACT

The research aims to explore artificial intelligence and its applications in scientific research. It focuses on conversational AI robots in the preparation and publication of scientific research. Additionally, it investigates the knowledge of academics regarding conversational AI robots and their use in research preparation and publication. The research methodology employed a descriptive approach using a survey distributed among the research community, consisting of professors from the College of Arts and the College of Sciences at Tikrit University. The findings indicate that the majority of professors from both colleges have knowledge of using conversational AI robots in preparing research papers. There is a high level of acceptance and belief in their use in scientific research, although there are initial differences in the utilization of conversational AI robots between professors in scientific and humanities disciplines. The research recommends incorporating the topic of artificial intelligence and highlighting its application areas in scientific research within the curriculum for undergraduate and graduate students in universities and educational institutions, while optimizing its utilization.

Challenges Facing Scientific Research in the Age of Artificial Intelligence: Scientific Research among Arab University Students as a Model

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Abstract

This study aims to explore the challenges facing scientific research in the era of artificial intelligence, represented by what is provided by websites supported by artificial intelligence technologies, the most important of which are: TGPT chat and Google Bard, and their effects on the ethics of scientific research and on the progress of scientific research. The future of the Arab library, and the impact of all of this on Arab society. The research was divided into four axes: the first represents a prelude to the research, which is the movement of scientific research from paper to artificial intelligence, the second: challenges imposed by artificial intelligence on scientific research, and the third: the impact of artificial intelligence on the future of scientific research. The fourth axis focused on proposing some mechanisms to set new standards for the ethics of scientific research in this context. In this study, the researchers relied on the descriptive analytical method. It presents the phenomenon and its problems, and analyzes its various aspects with the aim of arriving at logical results on which proposals and recommendations can be built that limit the exacerbation of the risks of these emerging challenges. The study tool, the questionnaire, was applied, consisting of (30) items distributed over (5) areas, which are: (technical and ethical challenges). (legal, financial, administrative, organizational, and academic) on a sample of postgraduate students at Yarmouk University from the colleges of human and scientific sciences, numbering (600) students. The results of the study showed that the challenges facing scientific research in the era of artificial intelligence were high, and showed that there were no statistically significant differences ($\alpha = 0.05$) due to the effect of gender, and the presence of statistically significant differences ($\alpha = 0.05$) due to the effect of academic qualification, which came in favor of Scientific colleges. The study recommended strengthening the technical infrastructure in Arab universities to ensure that students fully benefit from modern technological tools, and to support scientific research efforts in the age of artificial intelligence more effectively, and the need to direct special attention to addressing the ethical and legal challenges related to the ethical use of artificial intelligence applications, and developing a framework for action. It includes guidelines and policies that enhance privacy and security in scientific research, and the need to enhance financial and technical investments in developing smart applications that contribute to reducing the financial costs of scientific research, and improving the support of governmental and private institutions for scientific research in the fields of artificial intelligence.

Investigating the Effect of AI-Powered Short-Form Videos on Student Attention Span and Academic Performance in the Digital Transformation Era: An Empirical Study

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ABSTRACT

The emergence of AI-driven short-form video platforms, such as Instagram Reels, TikTok, and YouTube, has opened up new ways to consume and share content. These platforms have evolved to refine user experience through engagement metrics, such as view time, by analyzing likes and shares, utilize advanced algorithms to increase user satisfaction and engagement, but also evaluate academic concerns. This empirical study aims to explore the consequences of reels on concentration and academic performance among undergraduate students. given easily accessible bite-sized content and stimulating algorithms available on various platforms. Using mixed methods, a survey was conducted for Libyan undergraduate students that assessed frequency and duration of use of the reels, concentration, and selfdirected academic achievement reported to explore student perceptions of reel use. Semi-structured interviews were also conducted to explore, and its impact on thinking. The study findings a significant association between increased exposure to reels and diminished attention, suggesting that students who devoted more time to watch reels experienced a decline in concentration. Moreover, it was found that there was a statistically significant inverse relationship between reel exposure and academic performance, implying that higher use of reels was linked to poorer academic outcomes. Accordingly, the study suggests embracing cutting-edge technologies and AI-driven learning strategies as potential solution to offset the detrimental consequences of reels on student performance. Keywords AI-powered short form video addiction, Attention span, Avoidance learning motivation, Learning commitment, Academic performance.

Empowering Student Potential: A Guide Framework for Using Generative AI Chatbots in Competency-Based Learning

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ABSTRACT

The development of effective academic learning might be hampered by the possible lack of flexible and efficient support systems in traditional educational approaches. New generative AI Chatbots technology can cause a radical change in the educational landscape and pedagogy, by significantly influencing academic practices and experiences. The main objective contribution of this paper is to introduce a methodical framework, based on the competency structure learning (CBL) approach, for enhancing student academic practices through the assistance of generative AIpowered chatbots, accompanied with corresponding guided prompt examples. This framework seeks to offer a useful road map for making the most of large language models (LLMs) to assist learners in their academic work, aiming to improve student knowledge, skills, and attitudes; and consequently, strengthen overall learning outcomes. The effectiveness of the introduced framework has been evaluated in a focusing group creative task. Additionally, the primary challenges of utilizing such technology are emphasized, as well as a list of advices to limit the effects of such concerns are finally recommended.

Predicting Wheat Crop Productivity in Jordan Using Time Series Forecasting Models

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ABSTRACT

In today's transforming environment, specifically forecasting future trends is vital. This explains why the Auto-Regressive Integrated Moving Average (ARIMA) model has grown in popularity. ARIMA is a statistical method for analyzing time series data and making predictions. ARIMA has proven to be quite valuable in a variety of industries and applications. The ARIMA model was employed in the agriculture industry to estimate wheat production over a five-year period using real data from the Jordanian Department of Statistics, with 90% of the data being trained and 10% tested. The mean squared error (MSE) rate was 54504509. The ARIMA model estimates wheat productivity from 2023 to 2027. We notice Wheat productivity will peak in 2023, after which it will drop.

Towards Analysis Detection of Deepfake Video via Deep Learning Models: A Survey

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ABSTRACT

 The core of deepfake technology is the technique of altering the reality of the images and videos, where Deep Learning (DL) models can confirm the authenticity of digital media. Videos produced by these sophisticated advancements can seem to be created from actual photos, which might have consequences for security, entertainment, and politics. This increasing issue has experts investigating deepfakes using DL techniques. Starting with hybrid designs, Recurrent Neural Networks (RNNs), and Convolutional Neural Networks (CNNs), To deal with deepfake. Where deepfake detection techniques are categorized according to their working mechanisms. Success in deepfake detection depends on the resolution of three main problems: model stability, dataset collection and modification, and generalization of new changes. This paper provides a comprehensive overview of the study of deepfakes for video detection, making it useful to researchers, professionals and politicians in the field of cybersecurity. The goal of this study is to encourage further research and development in safety by demonstrating how deepfake can detection more effectively via DL

Forecasting the Spread of Viral Diseases in Jordan Using the SARIMAX (Seasonal Autoregressive Integrated Moving-Average with Exogenous Regressors) Model

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ABSTRACT

This study examined the effectiveness of Seasonal Autoregressive Integrated Moving-Average with Exogenous Regressors (SARIMAX) in predicting the spread of viral diseases caused by air pollution in Jordan. The study used actual infection data to predict the annual time series. The model's efficiency was evaluated using a variety of statistical metrics, including Mean Absolute Error (MAE) and Mean Squared Error (MSE). The research focused on two illnesses that had the highest prevalence of infection in Jordan in 2022: chickenpox and mumps. Several tests were conducted, with the data divided into different quantities and the various outcomes noted. The SARIMAX time series model generated encouraging findings even though the mumps data only covered the years 2018–2022, which does not cover many years. The SARIMAX model used to forecast total mumps cases in Jordan is based on a real dataset. The dataset is divided into a 78% training set, a 9% validation set, and a 13% test set, with a seasonal order of (1, 1, 1, 3), yielding an MSE of 3602 and an MAE of 47. The best results were obtained by dividing the Mumps viral disease data into three portions, with the lowest error rate recorded. The Jordanian Ministry of Health can take preventative actions in emergencies like the fatal COVID-18 pandemic by forecasting the appearance of viral infections in Jordan's several governorates, reducing human casualties.

Infield honeysuckle detection based on improved YOLOv5s under natural lighting

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Abstract：

Honeysuckle detection through machine vision is an important task for picking honeysuckle timely and efficiently by the picking robot. In this study, image-based object detection methods, including image processing, machine learning (ML), and deep learning (DL), were used to detect honeysuckles in the field to support the vision system of honeysuckle picking robot. A handheld low-cost RGB camera was used to capture 2242 original images containing honeysuckle flowers in different light, angles, and scales. The dataset was expanded to 20,178 using data augmentation where image datasets of 14,747 and 5,431 were used for training and validation, respectively. Three honeysuckle detection models were constructed based on image processing, ML, and DL. The image processing method segments the honeysuckle from the background by color thresholding, hole filling, and corrosion expansion. ML(support vector machine, SVM) and DL (YOLOv3-tiny, YOLOv5s, YOLOv6s, YOLOv7-tiny, and YOLOv8s) models were trained and validated. To solve the difficulties in detection of small targets of honeysuckle, and the imbalance of positive and negative samples, the original YOLOv5s model was improved by fusing the three modules to get an improved YOLOv5s model. The experimental results showed that the overall performance of the improved YOLOv5s model outperformed that of the other methods, with a smaller model size (18.4 MB) and a higher average precision (86.88%). The detection precision was 88.97%, the F1 value was 84.14%, and the detection speed was more than 30 fps. This study demonstrated that the improved YOLOv5s model can be used as a real-time, reliable, and robust detection method for honeysuckle in the field.

Tailoring Pharmacology and Pharmacogenomics Education: A Multimodal Approach with AI

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Abstract :

Pharmacology and pharmacogenomics encompass vast and intricate knowledge, encompassing drug mechanisms, interactions, and individual genetic variations that influence drug responses. Traditional teaching methods often struggle with resource constraints, limiting the availability of diverse learning materials and personalized support. Aim: This study aimed to leverage Artificial intelligence (AI) applications to develop a personalized learning platform that addresses these challenges, and enhances the learning experience in pharmacology and pharmacogenomics. Methodology: The research utilized AI to create a multi-layered learning experience through various modalities for all four learning styles: visual, auditory, reading/writing, and kinesthetic. A blend of AI image processing, audio enhancement, and design capabilities was applied to accommodate various learning preferences and deliver a comprehensive learning experience. Results: The study compared the platform's content and approach to existing resources in pharmacology, and pharmacogenomics education. This analysis revealed the platform's strength in the variability of approaches, and accessibility, potentially overcoming some of the resource limitations in traditional education settings. Conclusion: The research showcased the application of AI in developing a diverse learning strategy for pharmacology and pharmacogenomics. Future exploration and enhancement could broaden the platform's functionalities to cover a wider array of topics and tasks, leading to a more comprehensive and efficient landscape for healthcare education.

An AI Policy Framework for the Libyan International University (LIMU): a Pilot Study

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 ABSTRACT

The emergence of using AI generative tools such as ChatGPT, Gemini, Sora, Gamma, Co-pilot, etc. among university students in generating academic content led to questions about academic misconduct and academic integrity. Research has shown that using AI tools diminishes students' skills in critical thinking, problem solving, and analysis. Hence, developing a policy for using AI tools in higher education is essential. Designing such a policy requires a pre-defined framework. Aim: This study aims to generate a framework for designing an AI policy for LIMU, and understand the experience, perceptions, and effectiveness of using generative AI tools by educators and students. Method: A cross-sectional survey has been conducted, targeting Libyan International University educators and students. The data has been collected using Google Forms. The thematic analysis approach has been used to analyze qualitative data, while SPSS software v.23 has been used to analyze the quantitative data. Results: The AI policy framework consisted of 6 themes and 28 subthemes. Most teachers and students believe in the effectiveness of GenAI, however, they lack sufficient information and hold many concerns about it. Conclusion: The framework consists of six main areas that need to be considered in generating an AI policy for education at LIMU

Fostering Collaborative Innovation by Bridging the EngineeringDesign Gap in Egypt: HCD&E Integration and Visionary Design with AI integration in Education

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Abstract

This paper addresses a key challenge in Egypt's Educational sector: the mismatch between engineering education and the needs of modern design-focused companies. This gap hinders the development of user-friendly products and the sector's competitiveness. To bridge this divide, the paper proposes collaborative design training for engineers and industrial designer. This paper will equip them with Human-Centered Design and Engineering (HCD&E) and Visionary-Driven Design Research (VDDR) skills. By understanding user needs and developing solutions for the future, engineers can create a stronger link between education and industry. The paper will explore specific points to improve collaboration between engineers and designers, the potential of Artificial Intelligence (AI) to accelerate design processes, and ultimately, how to empower engineers to solve societal challenges and drive innovation in Egypt.© 2024 [The International Arab Journal of Information Technology (IAJIT)]. All rights reserved

Awareness of the ethics of artificial intelligence in universities among students of e-learning and distance learning at the University of Science and Technology in Yemen

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ABSTRACT

The study aimed to identify awareness of the ethics of artificial intelligence in universities among students of e-learning and distance education at the University of Science and Technology in Aden, where the ethics of artificial intelligence were determined by choosing common ethics among the following three bodies: (UNESCO, 2022; Saudi Data and Artificial Intelligence Authority, 2023; Smart Dubai, 2022) This effort ended with the identification of five morals: (justice and fairness, transparency, privacy protection, responsibility and accountability, and interpretability), and they were defined terminologically and procedurally, the scale was built for each of the five morals, it included 15 situations distributed into five Ethics, and each situation requires an answer by choosing one of three answer alternatives. The questions and hypotheses that the study seeks to answer were identified by measuring the level of awareness of the ethics of artificial intelligence in universities using the descriptive quantitative approach by measuring means, standard deviations, and tests of differences between independent groups. The sample size reached 141 male and female students distributed over three demographic variables (gender, specialty, location (The results of the study showed a decrease in students' awareness of the ethics of artificial intelligence in universities, and the absence of statistically significant differences between demographic variables. The study also recommended the necessity of spreading awareness of the ethics of artificial intelligence among students as a modern mission for universities.

The development of cybersecurity laws in Egypt and its impact on the litigation system (opportunities and challenges)

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Abstract

Recently, Egypt has been enhancing its cybersecurity legislation to counter the increasing digital threats. This includes the enactment of the Personal Data Protection Law and the Information Technology Crimes Law, reflecting Egypt's commitment to combating cybercrime and generally protecting data. This study delves into the influence of these legal advancements on the judicial system, covering multiple facets. The cybersecurity laws establish a legal framework for punishing those responsible for cybercrimes and bolster capabilities in investigating and collecting digital evidence. Furthermore, the new legislations facilitate effective security measures for safeguarding sensitive data. Despite these advancements, the judicial system confronts challenges arising from this progress. These include aligning the infrastructure with swift technological advances, enhancing expertise for understanding and implementing new laws, as well as tackling privacy and electronic bias concerns. These issues necessitate modifications in the criminal procedure law to match the pace of this rapid technological evolution.

The Impact of Digital Transformation on the Society

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ABSTRACT

The digital transformation has brought about massive changes in societies worldwide. This transformation has impacted all aspects of daily life, from communication and interaction to the economy, education, and culture. Due to the advancement of digital technology, information has become readily available like never before, leading to fundamental changes in how people think and behave. However, this transformation has not come without challenges. Social inequality has increased between different social classes, as individuals' abilities to access and use technology have varied. Nonetheless, digital transformation also presents significant opportunities for economic and social development by providing new educational and economic opportunities, and by empowering individuals and communities to grow and develop. Analyzing the impact of digital transformation on society reveals a pressing need for public policies and economic and social strategies aimed at enhancing equal access to technology and its effective use. Considering that digital transformation is an inevitable reality, achieving a balance between exploiting opportunities and addressing challenges will be crucial for achieving sustainable and equitable development in contemporary societies

Assessing the understanding of local university students in developing countries of the concepts of artificial intelligence (an applied study on some local universities in Lebanon)

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Abstract

This research aims to clarify the gap between the current era of change and the artificial intelligence revolution and the ability of local university students in Lebanon to keep pace with these changes and acquire artificial intelligence skills and applications. To achieve the objectives of this research, the researcher highlighted the importance of artificial intelligence in the educational sector, especially higher education, and measured the extent of understanding and awareness of local university students in Lebanon of the basic goal of artificial intelligence and how to apply it. In order to reach results and recommendations that serve the main research objective, the researcher relied on two basic hypotheses, which are to identify the extent of local university students in Lebanon's familiarity with artificial intelligence skills on the one hand, and the extent of these students' familiarity in the targeted universities with the importance of artificial intelligence applications on the other hand. In order to achieve the goal, the researcher used the descriptive analytical approach to gain knowledge of all aspects of the subject, relying on a number of studies centered on the subject of the study in the theoretical section, and using the questionnaire in the applied section, which was applied to a random sample of students from the relevant universities in Lebanon to determine the extent of their knowledge of skills and applications. artificial intelligence. Finally, the researcher reviewed the most prominent results that were reached through analyzing the questionnaire items. Statistical treatments were performed for the data collected from the study questions using the Statistical Packages for Social Studies program. Statistical Product and Service Solutions (SPSS).

An ethical vision for the use of artificial intelligence tools in higher education and scientific research

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Abstract:

With the advancement of artificial intelligence and its ability to transform the educational landscape, and its adoption by many higher education institutions around the world, it has become necessary for stakeholders to work together to face the challenges and produce a set of ethical principles to ensure that these tools are used responsibly in higher education and scientific research. There is no secret to the great benefits of using artificial intelligence in scientific research, represented by the advanced research tools it provides that support researchers to enhance their learning and obtain better results. While artificial intelligence has the potential to revolutionize learning and teaching methods, its use in higher education concerns many researchers and opponents as a new colonial tool.

Despite its many benefits, its misuse leads to ethical and social disasters, especially those related to privacy, data security, and the possibility of algorithm alignment. Therefore, universities must adopt ethical principles that guarantee the safety and privacy of students. After reviewing several studies to explore the ethical challenges associated with the use of artificial intelligence, the ethical principles for the use of artificial intelligence can be summarized as follows: the principle of transparency and accountability, The principle of governance and supervision, the principle of sustainability, the principle of privacy and the principle of inclusive and justice. These principles are of critical importance to policymakers, developers, and universities because they have a role in evaluating and adapting their policies and practices to ensure that ethical considerations remain at the forefront of technological progress

Aware Intelligence

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Abstract:

Since the dawn of humanity, humans have sought to build their environments in a quest to equip themselves with optimal means of luxury and ease through accurate and intricate execution of macro as well as micro tasks in the most time and energy efficient ways possible. From this reality arises the importance of the phenomenon commonly referred to as artificial intelligence, as it is being adopted increasingly within various fields, and consequently having significant effects on more lives directly as well as indirectly, to the point where many aspects of our lives fell under its control. Therefore, some problematics need to be addressed: is this phenomenon a double-edged sword? Does it connect yet disconnect? Does it facilitate yet complicate? And does it refine yet ruin?

From an educational standpoint it is favored to integrate our children into these new technologies, but only after shielding them with knowledge and awareness. The first step, then, is to understand the origins of this phenomenon by means if a thorough research and an intricate analysis, as this so-called artificial intelligence is but a derivative from natural intelligence, and thus is supposed to serve as a complementary agent rather than an alternative.

In this research, I employed an inductive, analytical and derivative method to find the fine line between safe levels of dependency and violating forms of control and deceit.

In conclusion: of course, it is necessary for us to reap the benefits of the technological revolution without disregarding its many hazards, as blind consumption and appropriation would lead to intellectual, social, and educational ruin. We are witnessing today how easy it has become to spread poisonous ideas and conduct fraudulent activities, steal money, hack accounts, compromise personal information, and fabricate videos of people saying things they never have said, therefore awareness is a must, along with moderation in use.

Using AI to Improve the Quality of Education and Reduce the Risks of Learning

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 ABSTRACT

Recently, the challenge of lifelong learning and the guidance of new paradigms for higher education institutions have been significant. More than ever, implementing Artificial Intelligence (AI) for education institutions is expected to play a new important role in the provision of innovative teaching and learning processes and higher education institutions. AI is having a significant impact on the quality of higher education. AI in Palestine higher education has expanded access to education by breaking geographical and economic barriers. It has also personalized learning by adapting the educational process to the individual needs of students through intelligent tutoring systems and AI-based platforms, Furthermore, AI has improved the efficiency of higher education by automating administrative tasks and enabling data analysis for evidence-based decision-making. Using AI can significantly enhance educational quality and mitigate learning risks. AI-driven tools like Moodle and Canvas offer personalized learning paths, while platforms such as Second Life and VirBELA provide immersive experiences. Additionally, AI-powered tutoring systems like Carnegie Learning and Knewton offer tailored feedback, and tools like Grammarly and Turnitin are used in writing to improve plagiarism detection. Chatbots like IBM Watson Assistant and Azure Bot Service automate support, and platforms like Coursera and Khan Academy recommend personalized learning materials, collectively contributing to a more enriching and safer learning environment. However, the use of AI in higher education also presents ethical and privacy challenges that need to be addressed. Despite these challenges, integrating AI into higher education has the potential to enhance education quality, equity, and social interaction. It is important to regulate and manage the use of AI in higher education to maximize its benefits and mitigate any potential risks.

The Possibility of Artificial Intelligence Ruling the World between Contemporary Science and Holy Scriptures Comparative study

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ABSTRACT

This research aims to shed light on the nature of simulating human intelligence through machines, or computer systems, referred to as "Artificial Intelligence" or AI, which has become a prominent concern in. Such simulation processes consist of: A. learning (i.e., acquiring information and rules for using the information). B. inference (i.e., using rules to estimate or arrive at specific conclusions). C. self-correction. The goal behind creating artificial intelligence is to be able to perform tasks that typically require human intelligence, such as understanding natural languages, pattern recognition, decision-making, and problem-solving in general. Many scientists have speculated about the unknown and potentially perilous future that awaits us if machines ever dominate life on this earth, surpassing and ruling over humans. This ominous scenario has been portrayed in numerous films, with one of the most famous being the Terminator series. However, looking at this issue from another perspective, considering religious viewpoints, the three Abrahamic religions may have prophesied and anticipated the future of humanity, including the possibility of machines controlling the world. If this were to be the case, what would be the future of humanity then? As for the methodology of this research, it adopts a descriptive analytical comparative approach. This research will attempt to answer all questions regarding the perspective of the Abrahamic religions on the future of humanity in the face of tremendous scientific advancement. The most significant results that the research will reach, based on scientific material, will be divided into an introduction and three main sections. The first section will address theoretical concepts, including digital transformation and artificial intelligence, and the importance of the religious role in understanding technological advancement. Then, there will be a review of the Abrahamic religions and their positions on technology and scientific advancement. The second section will highlight the impact of the digital transformation on society, positively or negatively, as well as the possibilities and challenges associated with artificial intelligence. The third section will present the most important findings to illustrate the extent to which religious texts in Judaism, Christianity, and Islam are related to the future of humanity in the context of rapid scientific development, and whether there is evidence to support this. In conclusion, the researcher expects to find in the religious texts of the Abrahamic religions support for the results reached. The Quran is the book of God and a great miracle, and success is from God.

Empowering University Entrepreneurship: Joining AI and Intellectual Property Strategies

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ABSTRACT

The integration of artificial intelligence (AI) and Intellectual Property (IP) into the academic ecosystem is currently gaining memontum as it has the potential to stimulate the convergence of innovation and entrepreneurship. The aim of this study is to investigate the potential of leveraging AI and implementing IP rights in higher education to nurture entrepreneurial endeavours among university students. The hypothesis is that the integration of AI-driven tools and a robust IP framework can significantly enhance the innovation ecosystem within universities, leading to increased student engagement in entrepreneurial activities. Preliminary findings indicate that AI-driven tools, such as patent analysis software and market research algorithms, can streamline the IP management process and identify commercially viable innovations. Additionally, universities with strong IP policies and support systems have shown higher rates of student engagement in entrepreneurial projects. Ultimately, the integration of AI and IP rights within the academic sphere creates a culture of innovation and entrepreneurship among students. By providing the necessary tools and legal framework, universities can create an environment that encourages students to pursue entrepreneurial ventures, eventually contributing to economic growth and global competitiveness.

The Future of AI Integration to Redefining Decision-Making

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ABSTRACT

Modern organizations face increasing challenges, requiring the integration of artificial intelligence (AI) and the Internet of things (IoT) to achieve cost savings and productivity gains This integration heralds a new era for decision support systems (DSS), applying machine learning and AI algorithms to expanding IoT data storage. The convergence of IoT data and AI decision-making systems is ongoing, promising significant improvements in decision-making capabilities. However, this shift towards AIdriven decision-making could lead to a redistribution of decisionmaking power from human managers to automated systems, resulting in business process-altering changes in management practices.

AI-Oriented Mobile App for Governmental Services Digitization via Generative AI

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ABSTRACT

Global e-government initiatives are becoming increasingly interested in improving the accessibility, efficiency, and transparency of public services worldwide. However, with the country's strongly increasing population, broad smartphone use, and assistance from the government, several barriers continue to exist, most notably the use of papers and the complexities of bureaucracy. In this paper, we present a novel approach that utilizes generative AI models to address these challenges. Inspired by previous research, it aims to revolutionize administrative procedures. Our system facilitates remote interaction between citizens and government entities. Through the digitization of personal documents and integration with official systems, the system ensures a seamless user experience. Upon application, users can effortlessly submit their IDs, facilitating the extraction of digitally written Arabic information (e.g., name, address, and date of birth) and identity photos. Furthermore, despite the effectiveness of PyTesseract and EasyOCR for Arabic text extraction achieving an accuracy increasing over 81.5%, their results were not satisfactory for Arabic numbers. Due to this, we developed and customized a deep learning model from scratch to extract Arabic numbers (i.e., national ID numbers), achieving an accuracy exceeding 99.5%. Furthermore, we employed the SUGAN model for the data augmentation of Arabic numbers, thus enhancing the diversity of the training dataset. In addition, the DCGAN model is utilized to generate synthetic data for fraud detection and document verification. However, the initial results are suboptimal. Subsequently, we explored the effectiveness of StyleGAN2-ADA, which yielded better outcomes, particularly after augmenting the training data by injecting Gaussian and Salt&Pepper noise and adjusting the lighting variations. Later on, the synthetic data will serve as a separate class for our CNN classifier, aiming to tell the difference from the real IDs, in order to improve the automation of document verification process by detecting fraudulent documents.

Data-driven Contribution-based Program Evaluation System

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ABSTRACT

A scientific program evaluation system is essential for advancing educational developments. Educational reform emphasizes the need for a scientific and thorough evaluation approach to steer educational program development, prioritizing practical contributions; in contrast, conventional evaluation systems often prioritize theoretical research outcomes. In addition, the rapid growth of evaluation data takes considerable effort and time from educational workers to conduct a comprehensive program evaluation. To solve these challenges, we propose a data-driven contribution-based program evaluation system considering both theoretical and practical contributions to offer a scientific evaluation report. The proposed evaluation system uses a contribution-based assessment method to form a correct evaluating direction, guiding program development to serve societal needs. Our system utilizes intelligent technologies to implement an efficient evaluation processing, significantly reducing the workload of educational workers by automating information collection and analysis. The paper provides a specific implementation plan for the combination of contribution evaluation theory and intelligent technologies, providing high- quality educational developments

The use of artificial intelligence programs and technologies in the provision of Iraqi Islamic banking services: the banks of Al-Nahrain and Islamic Asia as a model

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ABSTRACT

The research aims to find out about Islamic banks in Iraq, demonstrate the use of artificial intelligence programs and technologies used in providing Islamic banking services, how to promote and advertise their financial services electronically, and find out the laws and legislation of the banking system require the use of artificial intelligence in line with the principles of Islamic Sharia. And identify the challenges and obstacles facing the use of smart programs and technologies for the two research samples. The researchers selected two banks, one of which is government (Nahrain Islamic Bank) and Private (Asia Islamic Bank), to achieve the objectives, the descriptive research adopted the survey style interview and questionnaire data collection tools, as well as the internet, sources and references. Among the conclusions of the study: the Islamic banks (Nahrain and Asia) use artificial intelligence programs and technologies in providing their services, namely: cybersecurity, accounting programs, (ATM) electronic payment cards, Electronic instruments. As well as Using smart systems and technologies to manage employees and customers and archiving bank data. Among the recommendations: professional qualification of employees in Iraqi Islamic banks by providing them with opportunities to participate in training courses and workshops on information technology and smart technologies held inside and outside the country. Strengthen cooperation between Islamic banks, the Central Bank of Iraq and other banks in order to develop legal and legitimate policies and legislation to protect their financial data

The impact of using design thinking for visual communication in Interactive advertising campaigns

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Abstract:

The research aims to raise awareness among the local community about the importance of design thinking for visual communication in the field of interactive advertising campaigns. Design thinking plays a crucial role in the success of interactive advertising campaigns by helping companies stand out from their competitors, communicate with their target audience, and effectively convey the visual communication message in the field of advertising and promotion. Through this research, we will discuss the importance of design thinking and its impact on interactive advertising campaigns, as well as And its impact on interactive advertising campaigns, and its impact on raising awareness in the local community and thus achieving the goal of companies to stand out and compete. The research also addresses the importance of interactive 2 campaigns in the current era, and how companies can achieve more success and profitability by using design thinking. It clarifies the importance and fundamental role of design thinking in visual communication and in interactive advertising campaigns, and we will explain the reason behind that. Additionally, we will study and apply an advertising campaign for an educational platform. The researcher adopted the descriptive, analytical, and experimental approach to achieve the research goal. The research resulted in findings and recommendations

AIQ – RAG-based Generation of Questions for Dynamic MOOC Assessments

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ABSTRACT

Massive Open Online Courses (MOOCs) have revolutionized education, offering flexible and accessible online learning. However, traditional static assessment methods often struggle with MOOCs' dynamic nature. While Multiple Choice Questions (MCQs) are common in MOOCs due to their efficiency, creating high-quality MCQs in large numbers is time-consuming for instructors, limiting assessment adaptability. The proposed framework, AIQ, addresses this by introducing a novel system that generates MCQs for MOOCs directly from course videos. It leverages Large Language Models to extract relevant information and generate contextually relevant MCQs to provide diverse assessments for different learners. By automating MCQ generation, instructors can dedicate more time to other course aspects and MOOC platforms can increase the credibility of their certificates. Learners also benefit from a diverse assessment experience that reinforces their understanding. The system goes beyond generation, incorporating a user interface for ease of use, a feedback mechanism for continuous improvement, and functionalities for system integration, deployment, testing, and MCQ evaluation. In this paper, the design and implementation of AIQ are described.

A Review of Educational Knowledge Graph Construction from MOOCs

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Abstract

The abundance of educational data generated by Massive Open Online Course (MOOC) platforms provides unprecedented opportunities for knowledge organization and utilization. This literature review aims to investigate and synthesize the methodologies, techniques, and applications employed for the construction of Educational Knowledge Graphs from MOOCs. Relevant studies were analyzed to provide a thorough understanding of the state-of-the-art approaches in this evolving field. The review explores key aspects of Educational Knowledge Graph construction, including data collection and preprocessing techniques, knowledge extraction methodologies, ontology and schema design, knowledge graph construction algorithms, and diverse applications. It also identifies challenges faced by researchers and proposes potential future research directions to enhance the effectiveness and utilization of educational knowledge graph construction from MOOCs.

Few-Shot Learning approach for Arabic scholarly paper classification using SetFit framework

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ABSTRACT

Focus on the few-shot approach has increased recently for TC as it is competitive with fine-tuning models that need a large dataset [14]. In NLP, the process of using PTMs to classify new data is preferable to the expensive process of training a model from scratch. This can be considered a kind of TL, i.e., it focuses on reusing knowledge of PTMs to solve different problems, as long as the pre-training data is appropriately comparable. Transferring knowledge allows the model to circumvent the lack of data and enable FSL as a low-cost solution. To clarify, the term shot refers to a single example that is used for training, and the number of examples available for training is equal to N in N-shot learning. The focus of this study is on few-shot classification, which involves distinguishing between N classes using K examples of each. In this approach, N-way-K shot classification implies that each task involves N classes with K examples. In FSL, the model is able to predict a new class based on a few new examples [11] by transferring knowledge and contrasting examples. Such contrastive learning [5] has shown its effectiveness in different studies of various NLP tasks [20]. However, as far as we know, no previous studies have applied contrastive learning to standard Arabic for multi-class classification. This study aims to apply few-shot learning using a Siamese Network-based model(SN-XLM-RoBERTa [6]) to classify MSA texts in predefined classes labelled with the most common ministries' names. For this study, we extracted a new dataset from an AI-powered research tool. The model was fine-tuned by K examples per class. We experimented with various K values, including 10, 20, 50, 100, and 200. The results show that the accuracy in distinguishing between 6 classes using 200 examples of each is 91.076%. Moreover, the results indicated that employing few-shot learning, as in SN-XLM-RoBERTa, in classifying MSA texts can be a promising solution in case of an insufficient dataset or uncertain labelling. Few-Shot Learning (FSL) may contribute to the research domain by automating the classification process.

Integrating Virtual and Augmented Reality for Immersive Learning Environments

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ABSTRACT

This study delves into leveraging Virtual Reality (VR) and Augmented Reality (AR) within education, challenging traditional teaching inefficacy by creating immersive learning environments. As these technologies offer dynamic, interactive experiences far beyond conventional methods, they significantly boost students' engagement, enjoyment, and comprehension of complex subjects. Through a mixed-methods approach, combining quantitative learning outcomes with qualitative student feedback, the research confirms VR and AR's capacity to enhance pedagogical effectiveness markedly. It also provides a strategic guide for educators to integrate these technologies effectively with educational goals, suggesting a transformative impact on teaching methodologies. This exploration highlights the crucial role of innovation in educational evolution, suggesting further investigation into VR and AR's potential to redefine global learning experiences.

MyClassBot: A RAG-based Audio Chatbot guiding Students and Faculty navigate their Schedules

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ABSTRACT

The future of higher education is evolving towards smart universities, and at the heart of this transformation lies a connected and intelligent campus experience powered by Artificial Intelligence. One of the challenges encountered by new students, especially at the beginning of every semester, is adjusting to an unfamiliar academic environment. This paper introduces the development and pilot implementation of an AI audio chatbot deployed on an in-campus device to help enhance student and staff experiences within a university setting, helping them navigate their daily schedules through the campus. MyClassBot was developed relying on the speech-to-text and text-to-speech functionalities provided by the AI-Mavin device by Hanback Electronics functioning as an immediate voice-enabled assistant which can be installed in any university building, enabling students to quickly know where to go next to follow their personal schedule and group registration. The design and implementation of the RAG-based system and its deployment on the device are described in this paper. The proposed solution exemplifies the potential of AI technology to streamline university life, thereby enhancing student experiences through personalized guidance and support delivered directly on campus.

Perspective of Higher Education on Integrating AI Concepts, Ethics and Applications Across All Study Fields

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ABSTRACT

Today, higher education is changing fast from accreditation to sustainable education models, which have forced colleges and universities to examine the fundamentals, also grappling with the changing needs of the national and globalized workforce, including the shift to understanding Artificial Intelligence (AI) principles and ethics in the higher education ecosystem. Also, the modern higher education ecosystem is working to achieve the 4th Sustainable Development Goal: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Meanwhile, AI has begun to influence teaching and learning styles in different contexts as new administrative, teaching, and learning activities and tools are used across all the education sectors. This work describes the systematic efforts of embedding AI in various study programs at the University of Baghdad based on each discipline's scientific and academic nature to reduce the gap in understanding and productivity. There are two key needs in this scope: to prepare all students to understand better how AI works and its ethics in their field of study for living in a world increasingly impacted by it and to encourage and prepare more teachers to leverage AI in future undergraduate projects and dissertations. To accomplish a safe and systematic transformation to an AI-based education system, in this paper, we analyzed the study programs learning outcomes and problems that can be approached using AIbased solutions and tools. In addition, we surveyed some of the state-of-the-art AI hardware kits and AI-based cloud resources designed for undergraduate AI labs and research that professors and teachers can easily access and use in different study fields. The initiative project is targeted at developing AI fundamental subjects and resources based on the needs of each study discipline, including the colleges and departments that have no previous knowledge about AI, and enhancing the scientific programs for teachers and students.

Utility of a Convolutional Neural Network in Cardiovascular Risk Appraisal: Identification of Novel Frequencies for Risk Stratification according to Sex, Age, and Metabolic Disease

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ABSTRACT

Early detection and intervention with metabolic disease-associated cardiovascular dysfunction remains an unmet goal despite considerable efforts towards the development of reliable risk assessment scores. Cardiovascular signals exhibit inherent variability attributed to the competitive contribution of multiple biological systems to hemodynamic homeostasis. Assessment of cardiovascular variability using frequency or time-domain analysis, entropy measures, or detrended fluctuation analysis provides significant information about the status of cardiovascular control mechanisms. However, the available variability parameters have been associated with shortcomings and are thus incapable of providing sufficient risk stratification. In an attempt to unveil characteristic disparities in blood pressure (BP) control for use in risk appraisal, we acquired invasive, beat-to-beat BP signals from young (16 weeks) and old (28 weeks), male and female prediabetic Sprague Dawley rats and their control counterparts. The obtained time series were transformed into spectrograms and scalograms using short-term Fourier and Morlet transforms, respectively. We trained a convolutional neural network consisting of 5 convolutional layers (CNN-5) separated by ReLU activation and max pooling, a dropout layer, and a fully connected layer to classify the different BP renderings according to sex, age, and diet. The CNN-5 successfully performed binary (eg. control vs. prediabetic) and dual class (e.g. prediabetic male vs. healthy female) classifications with testing accuracies over 90%. However, similar accuracies for multiclass (eg. young prediabetic males vs. old healthy females) classification was only possible using an extended CNN with 10-layers (CNN-10). Time-averaged salient frequencies utilized by the model for classification were identified using backward propagation of model scores and saliency analysis. Interestingly, the obtained salient frequencies were much higher than the ones typically used in frequency domain analysis with power spectral densities that are lower than those corresponding to sympathetic and parasympathetic control of BP. Successful classification of BP time-series using a CNN reveals the presence of sex- and age-specific aberrations of BP control mechanisms in prediabetes beyond sympathetic and parasympathetic modulation. Comparison of power spectral densities at the salient frequencies identified by CNN-10 using 3-way analysis of variance and/or principal component analysis should reveal the utility of such frequencies in providing comprehensive risk separation.

High-Dimensional variance matrix estimation using the OGK genetic algorithm

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Abstract

In this research, a high-dimensional variance matrix was estimated when the number of variables is greater than the number of observations. The OGK genetic algorithm was applied to find the variance matrix. A modification for the genetic algorithm OGK was proposed depending on the regular parameter ρ and the target matrix T, It was called the (Orthogonalized Regularized Gnanadesikan – Kettenring) it can be written briefly (ORGK) . The data was taken from four stations representing the monthly rates for a group of polluted for air the gases for one year. The monthly rates were measured four types of gases (Methane gas, Carbon Monoxide gas CO, Nitrous gas, Sulfur Dioxide gas) . In this study, a comparison was made between genetic algorithm OGK, ORGK and MRCD by finding the determinant of the covariance matrix and identifying the most polluting gasses Carbon Monoxide CO was the main caus of pollution. And the ORGK algorithm for dependent of the regular parameter and target matrix, it has a clear effect in obtaning the lowest determinant of the covariance matrix which is called (Orthogonalized Regularized Gnanadesikan – Kettenring) ORGK .

Innovation in Engineering Education during Crises: "The Virtual Labs Model at Al-Neelain University's Faculty of Engineering"

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ABSTRACT

Applied colleges heavily rely on practical aspects; therefore, the universities consistently focus on developing the laboratories of engineering and other applied colleges labs to align with professional associations' standards. Although e-learning has recently become a relied-upon approach, the implementation of the practical component remains insufficient as it relies on simulation platforms suitable for training students in lower grades due to the simplicity of the used approaches. There is still a challenge in training upper-level students in more specialized laboratories. Moreover, implementing customized system is expensive and time consuming. This scientific paper presents a comprehensive view of the Faculty of Engineering at Al-Neelain University's experience implementing virtual laboratories, representing a digital shift in delivering practical educational content under extraordinary circumstances. Due to recent security conditions in Sudan, the faculty faced the challenge of providing practical sessions to its students as these conditions hinder the use of actual laboratories. To address this challenge, the faculty turned to an innovative solution involving renting a cloud server to install specialized simulation software covering various engineering fields. The study demonstrates how these programs were installed to provide an effective and interactive practical experience that simulates working in real labs, with facilitated access via mobile phone, tablet, laptop, or desktop devices. In addition, the cloud servers not only support multiple users enabling mentors to assist and monitor students directly, but also provide high internet speed access which is typically available in low speed in Sudan, and it is inadequate for attending live sessions. The paper highlights the academic evaluation of this approach by collecting data from students and professors regarding the effectiveness of learning and overall satisfaction levels. Furthermore, regarding accessibility and ease of use, 74% of participants found accessing the server easy. In terms of session assessments, 87% of participants were satisfied with the provided resources. For tools and content assessments, 97% of participants rated the software tools as efficient. Finally, in technical support and overall experience, 86% of participants were satisfied with the availability and responsiveness of technical support. It worth to mention that the implemented system served over 1400 students of 4 batches from 4 different departments. Additionally, it provided access to 19 subjects using different simulating packages. The paper concludes with a set of recommendations for universities that may face similar circumstances, emphasizing the importance of strategic planning for engineering education and the development of technological infrastructure to ensure the continuity and quality of education, even in the toughest conditions.

Mindful Muscle "Empowering Student Wellness and Success with AI Gym Coaching"

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ABSTRACT

In this paper, we present a comprehensive AI-based system for tracking and enhancing student training in a university gym. The system leverages computer vision and IoT technologies to monitor exercise correctness, provide real-time feedback, and track students' health metrics. Using advanced pose estimation models, the system calculates joint angles to determine the accuracy of movements. Additionally, it integrates various health sensors to ensure the well-being of students during their workouts. The system is designed to interact with students through voice recognition, providing a seamless and motivating training experience. Furthermore, it aligns physical fitness goals with academic incentives, encouraging students to maintain a healthy lifestyle while excelling academically.

How Retrieval-Augmented Generation can Revolutionize Education

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ABSTRACT

Generative AI models like GPT, LLaMa, Mistral and other large language models are trained on a massive dataset to mimic human conversation and generate creative text. These models have the potential to revolutionize education by creating personalized learning materials, offering sophisticated tutoring systems, and enhancing engagement in e-learning platforms. However, traditional LLMs, despite their capabilities, can struggle with factual accuracy. Retrieval Augmented Generation (RAG) is a recent advancement in large language models (LLMs) that leverages external knowledge bases to improve the accuracy of generated text. RAG addresses LLM shortcomings by allowing the model to access and integrate relevant information from credible sources during text generation. This is particularly valuable in higher education, where factual accuracy and in-depth knowledge are essential. This review explores the potential of RAG technology to support learning, instruction and assessment in higher education. Since this is an emerging technology, the survey will pave the way for more research in this promising field.

Problems of using artificial intelligence in scientific research: Challenges and innovative applied solutions

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Abstract

This study aims to monitor the challenges and identify the issues facing Arab researchers in the use of artificial intelligence techniques in scientific research. The study relies on a survey approach through a field survey of Arab researchers with the aim of identifying the reasons that led to the occurrence of the phenomenon. The study community consisted of Arab researchers, and the study sample consisted of 400 respondents from Arab researchers. The results of the study concluded that the majority of Arab researchers in the study sample did not use artificial intelligence techniques in scientific research. As for the users among Arab researchers, the greatest use of artificial intelligence techniques was by researchers in the field of humanities and social sciences, and it was significantly reduced in applied sciences. The results of testing the hypothesis of the study revealed the validity of the hypothesis which states: "There are statistically significant differences between the countries to which Arab researchers belong and the reliance on artificial intelligence techniques in preparing scientific research for the benefit of the Gulf Cooperation Council countries." In light of these results, the study suggests the following: Training Arab researchers on the uses of artificial intelligence tools in scientific research. Developing researchers' awareness of the ethics of using artificial intelligence in scientific research through workshops and specialized training, and developing new smart technologies programmed in the Arabic language to serve the goals of scientific research. Based on the findings and proposals of the study, it was activated by creating a personal bot in the Arabic language for Arab researchers as a personal assistant to use in scientific research, in addition to launching an academic platform for training and education on the steps of scientific research using artificial intelligence techniques.

Religious Education, Fatwa and Artificial Intelligence: Points of Convergence and Divergence

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Abstract

Summary While some institutions and edict issuing houses may opt to incorporate artificial intelligence in education and edict issuance, this research highlights that despite technological advancements and the potential benefits in certain areas, there are aspects where machines cannot replace the roles of the mufti and the teacher. One such aspect is the human element, which is crucial in religious education due to the significance of the role model for students of religious knowledge. Additionally, the religious responsibility involved in teaching or issuing edicts cannot be delegated to a machine. The mufti takes into account various factors when teaching and providing answers that machines cannot independently consider, such as the questioner's state, the appropriate response based on their level of knowledge, and whether to provide a brief answer or a detailed explanation, including citing evidence or omitting it. The mufti also evaluates the potential outcomes of responding to the questioner. Furthermore, the mufti must consider the religious values in different contexts, taking into consideration the questioner's understanding of terminologies and norms in their country, as well as the mufti's familiarity with those norms. This does not negate the significant opportunities to leverage technology in various aspects and specific cases, but emphasizes the importance of maintaining oversight by knowledgeable individuals. This research aims to establish an analytical and textual framework to provide guidance on utilizing technology in religious education, while also addressing situations where its use may not be appropriate.

Development of an Augmented Reality Application in Teaching Undergraduate Courses

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ABSTRACT

Creating an Augmented Reality (AR) application for teaching undergraduate courses has intriguing opportunities to improve the learning experience. Augmented reality (AR) technology enables students to engage with virtual objects and information within realworld settings, enhancing the educational experience by creating a more immersive and captivating learning environment. Augmented Reality (AR) enables pupils to perceive intricate concepts, examine three-dimensional models, and engage in interactive simulations, rendering abstract ideas more tangible and comprehensible. There are multiple ways to utilize this technology, such as providing remote support for practical tasks, expediting the onboarding process for new employees, teaching field service professionals, imparting product knowledge, and conducting training for handling high-risk scenarios. By incorporating augmented reality (AR) into undergraduate courses, educators may establish dynamic and interactive learning environments that encourage active engagement, foster critical thinking, and enhance knowledge retention. The implementation of augmented reality applications in undergraduate education has several advantages, such as improved learning experiences, heightened student involvement, and practical application in real-life scenarios. Nevertheless, in order to achieve successful implementation, it is important to tackle difficulties such as infrastructural requirements and teacher training. The applications of augmented reality (AR) in different fields showcase its capacity to transform undergraduate education and offer students novel and engaging learning experiences.

الأغنية العربية وصراع الهوية في ظل التحول الرقمي

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الملخص

لقد بدا واضحاً في السنوات الأخيرة تزايد سرعة وتيرة ونفوذ التحول الرقمي، فعلى الرغم من أنه وسع الخيارات المتاحة أمام مواطني العالم إلا أنه أوجد في الوقت نفسه شعوراً بعدم الأمان، إذ أن القيم الثقافية التي ميزت المجتمعات المحلية تبدو مهددة بخطر التلاشي والاندثار خاصة عند فئة الشباب، ما يضع المجتمع العربي أمام خطر فقدان الهوية الثقافية. ذلك أن مفهوم الهوية يعتبر من المفاهيم الهامة التي ترتبط بالوجود والذات والمكان وبالتالي بالتراث، وحين يبدو مؤكداً أن لكل ثقافة تراثها الموسيقي الذي يمثل هويتها، فهو مؤكد أيضاً أن لكافة الظروف المحيطة بهذا التراث آثاراً على نوعية الموسيقى المتوافرة للمستهلك، وكذلك على ظروف إنتاجها. ومن هنا تظهر الحاجة ملحة للوقوف والتفكّر في دور التحول الرقمي، وأثره في المشهد الموسيقي الغنائي العربي الراهن، وذلك لضمان الحفاظ على هوية هذا المشهد في مرحلة تتسم بالضبابية.

فالأغنية العربية، والتي تعتبر جزءا أصيلا من الإرث الثقافي العربي لها مكانتها في تحديد ملامح الهوية الثقافية العربية، يتهددها العديد من الأخطار في ظل ما يشهده العالم من هيمنة رقمية ساعدت في إنتاج ونشر نماذج غنائية تهدد هوية هذه الأغنية تحت شعار تطور العصر. وعليه تطرح الورقة البحثية السؤال التالي: كيف ستتمكن صناعة الموسيقى العربية في عصر التحول الرقمي من ايجاد مكان لها في السوق العالمي، بالموازاة مع الحفاظ على خصوصية هويتها الثقافية؟ فالموسيقى كأحد أهم وسائل التواصل والتعبير الفني تعتبر جزءاً أصيلاً وانعكاساً حقيقيا لثقافة المجتمعات التي نشأت فيها. من هنا تكمن أهمية هذه الورقة البحثية في سعيها للتعرف على الأخطار التي تهدد هوية الأغنية العربية وسبل التصدي لها، في ظل تحول رقمي اخترق مفهومي الزمان والمكان، وحمل في طياته تداخلات ثقافية متعددة.

توظيف الذكاء الاصطناعي في التصميم الجرافيكي وتأثير ذلك على المتلقي -حرب غزة نموذجًا

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الملخص:

هدفت الورقة البحثية إلى معرفة تأثير توظيف الذكاء الاصطناعي في التصميم الجرافيكي على المتلقي"حرب غزة نموذجًأ"، حيث استخدم الباحث المنهج الوصفي التحليلي من خلال تحليل مجموعة من الصور المولدة بفعل تقنيات الذكاء الاصطناعي والتي استخدمت في حرب غزة وتأثيرها على المتلقي، وتوصل الباحث إلى أن أدوات الذكاء الاصطناعي تفتقد لأهم عنصر من عناصر خلق التصميم وهو التفكير"العقل البشري"، وهذا ما يجعل المصمم في حالة خضوع للخوارزميات التي أنتجها أشخاص لم يعيشوا ظروف الحرب على غزة، وبالتالي سيكون المنتج النهائي مهزوز ولا يشبه الواقع بل يثير الجدل والشكوك. وبهذا يمكن أن يقع المخزون الفكري والصوري في فخ الخذلان أثناء توثيق الأحداث والتعبير عن المعاناة التي يعيشونها. وأن الصور التي تصنع بواسطة الذكاء الاصطناعي لتوثيق الأحداث الحقيقية لحرب إسرائيل على غزة مشكوك فيها، وأن ما يقومون بتوثيقه ليس حقائق موضوعية، فقد أخفق بعض مستخدوا الذكاء الاصطناعي في إيصال الرسالة والسردية، فهناك العديد من الصور في غزة لا تحتاج إلى تقنيات تجميلية ولا لإثارة صورية ومشاعرية للتعاطف معها، فهي كفيلة بأن تعبر عن الواقع دون كلمات. ويوصي الباحث أن الاستخدام الأمثل لأدوات الذكاء الاصطناعي يجب أن تكون تحت مراقبة حثيثة من المستخدم أو صانع المحتوى أو المصمم ولا يخضع لتأثير الإنبهار بالدمج الصوري الذي يقوم به الذكاء الاصطناعي أثناء الخلق. إضافة إلى أنه يجب التركيز على الرسالة ومضمونها وفكرتها وما تحتويه من مصداقية بدلًا من الإنبهار بالمحتوى التي ظهر أمامه أثناء استخدامه لأدوات الذكاء الاصطناعي.

أثر الرقمنة على التغطية الإعلامية لحرب غزة: دراسة حالة للتحول الرقمي والتفاعل الاجتماعي

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الملخص:

في عصر التقدم التكنولوجي وانتشار وسائل الاتصال الرقمية، تلعب وسائل الإعلام دورًا حاسمًا في تشكيل وجهات النظر وفهم الأحداث العالمية، وخاصة في معالجة التحديات الإنسانية مثل الصراع والحرب، تُعد الحرب في غزة إحدى الصراعات التي تجتاح العالم، وتطرح أسئلة مهمة حول كيفية تغطية وسائل الإعلام لها في سياق التحول الرقمي السريع.

يعتبر فهم تأثير التحول الرقمي على التغطية الإعلامية لحرب غزة أمرًا بالغ الأهمية لتحسين جودة التغطية الإعلامية وزيادة الوعي العام بالأحداث الدولية، تهدف هذه الدراسة إلى استكشاف هذا التأثير وفهم مدى تأثير التحول الرقمي على الصحافة وتفاعل الجمهور مع التغطية الإعلامية للحروب مثل حرب غزة.

تستكشف الدراسة كيفية تأثير التحول الرقمي على الصحافة وتفاعلات الجمهور مع التغطية الإعلامية للصراعات الدولية، كما استخدمت الدراسة أساليب تحليلية لجمع البيانات من مصادر متعددة، بما في ذلك مراجعة الأبحاث والدراسات السابقة، ووسائل التواصل الاجتماعي، والمواد الفيلمية.

تسلط الدراسة الضوء على الأثر الاقتصادي للتحول الرقمي، مثل تأثيره على الوسائط الرقمية واستراتيجيات الإعلان والتسويق الرقمي. كما تسلط الضوء على كيفية استخدام التكنولوجيا لتحفيز الاقتصادات وتعزيز النمو الاقتصادي أثناء الصراعات. علاوة على ذلك، يمكن أن يقدم البحث توصيات حول كيفية تطوير استراتيجيات إعلامية واقتصادية متكاملة لمواجهة التحديات والفرص التي يوفرها التحول الرقمي في سياق الصراعات الدولية، مما يساعد على تحسين التواصل الاجتماعي والوعي العام ودعم النمو الاقتصادي.

تأثير التحول الرقمي على تغطية وسائل الإعلام لحرب غزة، هو موضوع حيوي في عصرنا الحالي، تعتبر أهمية هذه الدراسة في أن وسائل الإعلام تلعب دوراً كبيراً في تشكيل الرأي العام وفهم الأحداث الدولية، ولذا فإن فهم تأثير التحول الرقمي على هذه العملية يعد أمراً ضرورياً لتحسين جودة التغطية الإعلامية وزيادة الوعي العام.

تسعى الدراسة إلى الإجابة على السؤال الرئيسي: (كيف أثر التحول الرقمي على تغطية وسائل الإعلام لحرب غزة؟) من خلال البحث في هذا السؤال، يمكن للدراسة أن تقدم رؤى عميقة حول كيفية تطوير استراتيجيات إعلامية فعالة لمواجهة التحديات الجديدة في ظل التحول الرقمي.

مستقبل التعليم الجامعي في مجال الإعلام في عصر الذكاء الاصطناعي

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الملخص:

تعمل كليات الإعلام بشكل عام على تخريج طلبة قادرين على تحقيق متطلبات سوق العمل في ظل المنافسة الشديدة والتطور التكنولوجي الهائل، بحيث يدرس الطالب في كلية الإعلام أحد الجوانب العملية في مجال الاعلام مثل: الاعلام الإذاعي بفروعه، الإعلام الجديد، الكتابة الصحفية بمستوياتها المختلفة، الإعلام التلفزيوني، المونتاج الإذاعي والتلفزيوني، الصورة الصحفية، صفحات الويب الإخبارية، التغطيات الخاصة، فنون الإعلان، بحوث الاعلام، النشر الإلكتروني وتقنياته، كما يتعلم الطالب إنتاج الرسوم والفيديو. لكن مستقبل التعليم الجامعي في كليات الإعلام أزداد ضبابية، بعد انخراط الذكاء الاصطناعي في مجالات الإعلام المختلفة، حيث يعتبر الذكاء الاصطناعي نظام ناتج عن تطور علوم الحاسوب والبرمجيات، يهدف إلى انتاج تقنيات وآلات قادرة على محاكاة الأداء البشري بعد تزويدها بالبيانات، ويظهر على هيئة تطبيقات وظيفية متعددة، كالروبوتات ومنصات إنترنت الأشياء بالإضافة إلى أجهزة الهواتف المحمولة العالية الدقة، وتقنيات كشف المواقع، وتطبيقات التوثيق وكشف الاحتيال والتزوير، بالإضافة إلى الطباعة الثلاثية الأبعاد، وأجهزة تحليل البيانات والخوارزميات المتقدمة، وتقنيات جمع المعلومات، وغيرها من التطبيقات الذكية. فالميزة الأساسية للذكاء الاصطناعي هي قدرته على التعلم وتحليل البيانات وحل المشكلات والتكيف مع كل جديد، والقدرة على إنتاج الأخبار بسرعة من خلال تحليل البيانات الضخمة وقدرات معالجة اللغة، ولهذا السبب أصبح عنصر جذب هام جدًا في وسائل الإعلام، وبات أحد أبواب المنافسة بين وكالات الإعلام المختلفة. إذ استفاد الإعلام من هذا النظام بشكل كبير في عدة مجالات. ففي الهند على سبيل المثال لا الحصر- قدّمت مذيعة تعمل بتقنية الذكاء الاصطناعي نشرة الأخبار، في أبريل 2023، واسمها "سانا"، وناقشت أهمية إبقاء الصحفيين الحقيقيين. وعليه تأتي هذه الورقة البحثية للإجابة عن التساؤل التالي: فإذا تمكنت أدوات الذكاء الاصطناعي من جمع الأخبار وتحليلها وتحريرها وتصويب الأخطاء وإذاعتها، وصناعة مقاطع الفيديو وتصميم الصور والرسومات.. فما هو مستقبل التعليم الجامعي في مجال الإعلام؟، حيث تهدف هذه الورقة إلى الوقوف على استخدامات الذكاء الاصطناعي في مجال تدريسي الإعلام بالجامعات عموماً بحكم انها أصبحت تنافس البشر على الوظائف في المستقبل، والتي تؤثر بشكل مباشر بمستقبل التعليم الجامعي في الإعلام بما يتضمنه من مناهج دراسية ومساقات نظرية وتطبيقية. ولتحقيق هدف الدراسة استخدم الباحث منهج تحليل المحتوى، وذلك من خلال دراسة وتحليل ثلاث تطبيقات للذكاء الاصطناعي في مجال الإعلام وهي: البحث وتحرير النصوص، صناعة الفيديو، المذيع الافتراضي. ومقارنة النتائج بالأداء البشري. ولقد خلصت النتائج إلى أن الذكاء الاصطناعي يعمل بكفاءة تضاهي المعدلات البشرية في مجال البحث وتحرير النصوص، أما صناعة الفيديو، المذيع الافتراضي، فتعتمد جودة مخرجاتها على عمليات الإدخال وتزويدها بالبيانات. وفي ضوء النتائج يوصي الباحث بإعادة النظر في المناهج الدراسية لكليات الإعلام، ويحث المسؤولين عنها إلى استحداث مواد دراسية جديدة تتعلق بتعليم الآلة.

التحول الرقمي لتيسير عملية التعليم - الجامعات الفلسطينية أنموذجاً

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الملخص :

تتناول الدراسة موضوع التحول الرقمي كأداة لتيسير العملية التعليمية بالجامعات الفلسطينية، وخاصة فترة حرب "طوفان الاقصى" حين أغلق الاستعمار الصهيوني الطرق بين القرى والمدن الفلسطينية بالضفة الغربية.

تبين الدراسة كيف استفادت الجامعات من تجربتها بالتحول الرقمي فترة كورونا واستطاعت التعامل معه كأداة لسد الشرخ الاستعماري، فحاولت اعادة التواصل بين طلبة غزة وجامعات الضفة عن طريق استضافتهم الكترونياً بجامعاتها، وعن طريق الدراسات السابقة والمقابلة مع احد المحاضرين والطلبة نستطيع استشراف مدى فاعلية التحول الرقمي بظروف الحرب على غزة، والخروج بتوصيات من شأنها تيسير العملية التعليمية بشكل متكافئ.

نحو رؤية مستقبلية للجامعات التكنولوجية في الوطن العربي في ضوء بعض الخبرات الدولية

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الملخص :

يعتبر التوسع في الجامعات التكنولوجية أحد التوجهات للعديد من الحكومات العربية وعلى رأسها جمهورية مصر العربية من خلال وزارة التعليم العالي التي نجحت في وضع خطة زمنية حتى عام 2030' تشمل التوسع في إنشاء العديد من الجامعات التكنولوجية لمواكبة سوق العمل ولمن يسأل عن الفرق بين الجامعات التكنولوجية والجامعات الحكومية والجامعات الخاصة'الجامعات التكنولوجية الجديدة تهدف الى إعداد وتأهيل خريجين متخصصين في الفروع التكنولوجية التطبيقية تجعلهم قادرين على المنافسة في سوق العمل محليا"وإقليميا"ودوليا"

وتتناول الورقة البحثية المحاور التالية :

المحور الأول : الملامح المشتركة لبرامج الجامعات التكنولوجية في بعض الدول العربية

المحور الثاني : التجارب والخبرات الدولية في الجامعات التكنولوجية

المحور الثالث : رؤية مستقبلية للجامعات التكنولوجية في الوطن العربي

أثر الذكاء الاصطناعي في الإثبات الجنائي

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الملخص:

أدى التطور الرهيب الذي شهده العالم في الآونة الأخيرة إلى ظهور ما يسمى بالذكاء الاصطناعي والذي يهتم بتطوير الأنظمة والبرمجيات التي تظهر قدرات تشابه تلك القدرات التي يمتلكها الإنسان، كالتعلم، والتفكير، واتخاذ القرارات وغيرها من الصفات التي كانت من زمن بعيد خاصة بالإنسان وحده، ولقد رأينا للذكاء الاصطناعي منذ ظهوره بصمات في مجالات شتى، والتي كان من بينها المجال الجنائي، الذي لا بد له من أن يتطور مع تطور الجرائم، ليستطيع الوصول إلى المجرمين ومعاقبتهم، وليتم نشر الأمن في المجتمعات، فكان لابد من معرفة دور الذكاء الاصطناعي ووسائله المستخدمة في الإثبات الجنائي وبيان مدى مشروعيته من الناحية الفقهية، لذا جاء هذا البحث مستعيناً بالمنهج الوصفي والتحليلي لبيان ماهية الذكاء الاصطناعي وأنواعه ومميزاته وأهم تقنياته المستخدمة في عملية الإثبات الجنائي، إضافة إلى المنهج المقارن لتوضيح آراء الفقهاء في مسألة الأخذ بالقرائن، التي يعد الذكاء الاصطناعي نوعاً من أنواعها ويجلس تحت ظلها، وخلصت الدراسة إلى معرفة الحكم الشرعي لاستخدام تلك التقنيات في الإثبات الجنائي، وذلك ببيان أن الفقه الإسلامي مواكب للعصر وتطوراته العلمية، وأن أدوات الذكاء الاصطناعي تعتبر دليلا قويا في إثبات الجريمة، ومن ثم معاقبة المتهمين بناء على نتائجها ودلائلها. وقد أوصت الدراسة بضرورة الاعتناء بالذكاء الاصطناعي ووسائله في الإثبات الجنائي، والعمل على اعتبار نتائجه دليلاً معتبرا في إثبات الجريمة ومعاقبة مرتكبيها، وعدم الاقتصار على طرق الإثبات العادية من الشهادة والإقرار؛ التي يستطيع كثير من المجرمين اجتنابها والاحتياط من ثبوتها عليهم، وبالتالي الإفلات من العقوبة، وانتشار الجريمة في المجتمع مما يؤثر على الأمن العام فيه.

أثر التحول الرقمي على جودة الخدمات الجامعية في الجامعات الفلسطينية بالمحافظات الجنوبية

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ملخص الدراسة:

هدفت الدراسة إلى التعرف على أثر التحول الرقمي على جودة الخدمات الجامعية في الجامعات الفلسطينية في المحافظات الجنوبية، واعتمدت الدراسة على المنهج الوصفي التحليلي، واستخدمت الاستبانة كأداة لجمع البيانات، ووزعت على عينة مكونة من (280) عضواً من أعضاء الهيئتين الأكاديمية والإدارية في الجامعات المستهدفة: (جامعة الأزهر – غزة، وجامعة الأقصى). وتوصلت الدراسة إلى مجموعة من النتائج أهمها: توافر التحول الرقمي في جامعة الأزهر – غزة وجامعة الأقصى بدرجة عالية بمتوسط نسبي بلغ (72.56%)، ومستوى جودة الخدمات الجامعية في الجامعتين مرتفع بمتوسط نسبي بلغ (75.14%). كما أشارت النتائج إلى وجود أثر للتحول الرقمي على جودة الخدمات الجامعية في جامعة الأزهر – غزة وجامعة الأقصى، وأن أكثر المتغيرات المستقلة تأثيراً على المتغير التابع هو الموارد البشرية، وأقلها متغير الاستراتيجية.

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