Comprehensive Journal of Science
Volume (10), Issue (39), (March, 2026)
ISSN: 3014-6266

مجلة العلوم الشاملة
المجلد (10) العدد 39 مارس 2026
ردمد: 3014-6266

Academic Conferences as Transitional Learning Infrastructures: Supporting AI Engagement and Professional Learning in Libyan Higher Education

Mohamed Abushafa
Department of Education and Psychology, Faculty of Education, Abu Issa, University of Zawiya, Libya
m.abushafa@zu.edu.ly

تاريخ الاستلام:2026/01/18– تاريخ المراجعة: 2026/02/15– تاريخ القبول: 2026/02/25– تاريخ للنشر : 2026 /03/26

Abstract

The rapid growth of artificial intelligence (AI) in education has intensified pressure on higher-education systems to develop digital capacity and pedagogical innovation. In post-conflict Libya, opportunities for academics to engage in opportunities for professional development remain limited and academic conferences may play a role in enabling knowledge exchange and institutional collaboration. This paper examines the perceptions of participants at the First Libyan Scientific Conference on E-Learning and Information Technology held at Zawia University and explores how academic conferences can contribute to professional learning and digital transformation within Libyan higher education. Using a mixed-methods approach, this study combined a quantitative survey of 113 participants with qualitative analysis of their reflections. The evaluation framework drew on Kirkpatrick's model of training evaluation and communities-of-practice theory to analyse perceived learning, networking, and professional engagement. Participants showed a high level of satisfaction with academic content, perceived learning and opportunities for networking. Responses highlighted the role of the conference in enhancing their understanding of AI and in providing an occasion for collaboration across institutions. There were, however, a number of organisational and infrastructural challenges, including internet connectivity and coordination, which may have had an impact on the overall experience of some participants. The study suggests that in context like Libya, where formal professional development structures are fragile, conferences may operate as transitional learning infrastructures that compensate for the gaps in institutional capacity. This paper contributes empirical evidence from an under-represented context and presents practical suggestions for universities and policy makers aiming to enhance digital transformation through strategically designed academic events.

Key Words: Academic conferences; Professional learning; Libyan higher education; Digital transformation; Artificial intelligence in education

1. Introduction

The rapid expansion of artificial intelligence (AI) and digital learning technologies has created significant pressure on higher-education systems to transform their teaching practices, curricula, and also their institutional cultures. Across the Middle East and North Africa (MENA), many universities are seeking ways of being able to participate in the global knowledge economy while at the same time they need to respond to local development priorities. In Libya, after years of political instability, higher-education infrastructure has been disrupted, and this has limited opportunities for professional development and both national and international academic interaction. Despite growing national emphasis on digital transformation, many Libyan academics continue to encounter AI primarily through informal learning opportunities rather than structured institutional programmes. Within this context, it has been noted that academic conferences can be important spaces for rebuilding communities, sharing innovations, and strengthening digital capacity. As an organiser of a recent conference in Libya, the researcher was also aware that there was a strong need for participants to engage with international discussions on AI in education.

Conferences have traditionally been seen as venues for disseminating research; however, recent literature suggests they are informal environments for professional learning that support transfer of knowledge, networking, and help with the formation of professional and personal identity (Rowe, 2018). For academics in contexts where access to sustained training is limited, conferences may provide an opportunity to find out more about emerging fields such as AI in education. They can also enable academics to explore practical applications and develop collaborations beyond their own institution. Despite this potential, little research has examined how participants in MENA contexts experience such events.

Libyan higher education faces particular challenges and studies have highlighted gaps in digital competence among faculty, uneven access to technology, and limited exposure to international research networks (Rhema & Miliszewska, 2014). Although Libyan national strategies increasingly emphasise e-learning and AI as mechanisms for improving their education systems, previous studies indicate that implementation across the country remains uneven (Mrgin & Abdulqader, 2024). By understanding how academic events such as conferences can influence academic perceptions and readiness, it is possible to design initiatives that are effective in capacity-building.

The First Libyan Scientific Conference on E-Learning and Information Technology was organised by Zawia University with the aim of promoting awareness of AI and connecting Libyan academics with regional developments. Organisers promoted the conference as being *Towards an Advanced Future*. The event brought together university staff, students, and practitioners to discuss the future of education in the AI era. Being able to evaluate the experiences of participants at this conference offers the opportunity to examine the role of academic gatherings in post-conflict contexts such as Libya. For most participants, this was the first time they had been able to engage with international perspectives on benefits and concerns relating to AI.

This study investigates perceptions of the conference as a learning space and examines the factors that influence its impact on the participants. By combining both a quantitative and qualitative approach, this paper explores how attendees interpret the educational significance of an AI-focused event such as this. The study addresses the following research questions:

1. How do participants evaluate the educational value of an AI and e-learning conference in the Libyan/MENA context?
2. Which dimensions of the conference most influence perceived professional learning and understanding of AI in education?
3. How do participants perceive the role of such conferences in supporting digital transformation within Libyan higher education?

The paper contributes to three areas of scholarship. First, it provides evidence on conferences as sites of professional learning from a context which is rarely mentioned in the literature. Second, it offers insights into how higher education in Libya considers AI and digital futures, and third, it provides practical guidance for universities and policy makers seeking to strengthen academic capacity through event-based initiatives such as conferences.

2. Literature Review

Digital Transformation and Higher Education in Libya and the MENA Region

Across the MENA region, higher education systems are undergoing significant pressure to modernise in response to global technological change. Local governments are increasingly putting digital transformation at the forefront of economic diversification and human-capital development. However, progress has been uneven, mainly due to differences in infrastructure, governance, and faculty readiness (Al Lily et al, 2020). In Libya, the higher-education sector has faced prolonged disruption which has resulted in limited investment in infrastructure, including digital platforms. The access that others may have to reliable internet connection has not been available to Libyan academics. This has resulted in professional development of staff being limited, and emerging technologies have rarely been integrated into teaching practice (Elzawi & Wade, 2012; Rhema & Miliszewska, 2014).

Even when they have some knowledge of digital technologies, faculty members often report uncertainty about how to integrate AI and e-learning tools, and universities struggle to provide systematic training because of a lack of capacity (Holmes et al, 2023). Luckin et al. (2016) state how international exposure and interaction are viewed as critical mechanisms for rebuilding local academic capacity, but Libya has not had the benefit of such interactions due to political instability. Interventions such as conferences, workshops, and seminars have recently been seen as valid forms of continuing professional development (CPD) and a way of keeping academics informed (Rashia & Bariham, 2025).

Academic Conferences as Professional Learning Environments

Conferences are often presented as sites of professional learning which enable participants to engage in dialogue and are beneficial for educators with limited access to structured CPD, although some studies question whether perceived learning translates into sustained pedagogical change (Mair & Frew, 2018). Empirical studies demonstrate that participation in conferences can influence teaching beliefs and expand professional networks (Mair & Frew, 2018; Rowe, 2018). Models such as Kirkpatrick’s evaluation framework (Kirkpatrick & Kirkpatrick, 2006) suggest that conferences primarily operate at the levels of participant reaction and perceived learning, yet these stages form the basis for longer-term behavioural change. Much of the existing literature assumes that conferences take place within stable institutional environments and there is very little research available on post-conflict higher education systems. The learning that occurs at conferences is often social and experiential rather than formally assessed, but it still represents learning. In contexts like Libya, where formal training infrastructures remain fragile, the developmental role of conferences may be particularly significant.

AI in Education: Opportunities and Perceptions

Artificial intelligence (AI) is much discussed within global education policy, as it promises personalised learning, analytics-driven decision making, and efficiency in administrative tasks. Nevertheless, educators’ understandings of AI are influenced by local realities. Research from the MENA region indicates a mixture of enthusiasm and concern: teachers recognise AI’s potential to enhance learning but worry about ethical issues, job displacement, and inadequate technical support (Holmes et al, 2023).

Recent studies highlight that attitudes toward AI are influenced by exposure, experience, professional development and opportunities for dialogue (Dellello & Liew, 2025; Ghimore, Prather & Edwards, 2024). Events that help to translate abstract concepts into practical and accessible examples can reduce anxiety and increase self-efficacy in academics. Consequently, conferences dedicated to AI and e-learning may function as places that help educators make sense of global narratives and interpret these in relation to their own classrooms and institutions.

Quality Dimensions of Educational Conferences

The effectiveness of conferences depends not only on academic content but also on organisational and technological conditions (Caffarella & Daffron, 2013; Mair & Frew, 2018). There are multiple quality dimensions such as relevance of themes, credibility of speakers, opportunities for interaction, digital infrastructure, and logistical support. However, in developing contexts, weaknesses in internet connectivity, scheduling, and communication can undermine learning outcomes even when scholarly content is strong. Few studies have explored these quality dimensions from the perspective of participants in post-conflict or resource-constrained settings, such as Libya. Understanding which aspects most influence perceived impact can guide organisers to more context-sensitive design of academic events. For Libyan universities trying to rebuild international engagement, such evidence is much needed. There is no shortage of conferences being promoted by Libyan universities, all denoting that they are international conferences, although they may not attract the desired global attention. The digital infrastructure remains a significant barrier to international collaboration efforts, even through engagement in virtual conferences (Glessa et al., 2025).

Research Gap and Conceptual Framing

Existing literature provides valuable insights into digital transformation and AI in education, yet there are three research gaps which can be identified. First, there is limited empirical research on how Libyan academics experience AI-focused conferences and what they perceive as educational benefits. Second, there are very few studies of conference impact that integrate quantitative satisfaction data with qualitative narratives in MENA contexts. Third, the role of conferences in supporting national digital strategies has not been sufficiently theorised. This study addresses these gaps by framing the conference as an informal CPD intervention and positions it within the efforts to modernise and improve Libyan higher education. Through this lens, participant feedback becomes a window into how educators interpret AI, professional growth, and institutional change.

3. Methodology

A mixed-methods design was used in this study to explore participant perceptions of the First Libyan Scientific Conference on E-Learning and Information Technology. The approach combined a survey measuring satisfaction and perceived learning with open-ended responses capturing reflections of participants in their own words. This approach is appropriate when the numerical ratings alone cannot explain underlying meanings as it offers more depth and insight. The conference was designed to promote understanding of artificial intelligence (AI) and digital education within Libyan higher education. Participants included university staff, postgraduate students, schoolteachers, and practitioners from related sectors. Data were collected immediately after the event to capture fresh impressions of academic content, organisation, and perceived professional impact. The researcher was also involved in the academic context of the conference, which provided contextual understanding but required careful attention to ensuring neutrality when analysing and interpreting the data.

Instrument

A structured questionnaire was developed by the conference organising committee and distributed electronically. The instrument consisted of four sections:

1. Participant background – role in the conference and previous experience of similar events.
2. Rating scales (5-point Likert) covering:
    - quality of keynote speakers
    - relevance to sustainable development
    - alignment with AI and education themes
    - quality of research papers
    - schedule management
    - organisational and logistical services
    - digital infrastructure
    - hospitality and facilities
    - perceived learning and networking value
3. Overall evaluation and recommendation to others.

4. Three open-ended questions inviting comments on what participants liked most, aspects needing improvement, and suggestions for future development.

The instrument therefore addressed both educational value and operational quality, enabling analysis of how these dimensions interacted in shaping the experience of the conference participants.

Participants

A total of n = 113 valid responses were received. Respondents represented a range of roles, including university lecturers, students, administrators, and external professionals. Approximately half reported that they had previously attended a conference, therefore there was a mixture of experienced and first-time participants. Participation in the survey was voluntary and anonymous. No identifying information was collected beyond general role categories. Data were used solely for research and quality-improvement purposes. Given the post-conflict context and sensitivity around institutional critique, findings are reported without attributing comments to individuals or specific institutions.

Data Analysis

The analysis of perceived learning drew on Kirkpatrick's first two levels of reaction and learning (Kirkpatrick & Kirkpatrick, 2006), while interpretation of networking outcomes was informed by communities-of-practice theory (Wenger, 1998). Likert-scale items were analysed using descriptive statistics (means and distributions) to identify key dimensions of satisfaction and perceived learning. Items were grouped into thematic domains regarding academic quality, organisation and logistics, digital and technological support and personal learning impact. Overall satisfaction was calculated as the average across rating items. The analysis sought to identify which aspects most strongly contributed to positive evaluations.

Open-ended responses were originally provided in Arabic and a two-stage translation process was undertaken. All comments were translated into English by the researcher with knowledge of local dialect and educational terminology. Translations were then reviewed for contextual accuracy to avoid literal rendering that might distort meaning. Analysis of the dataset was conducted using thematic content analysis with responses being coded to identify recurring patterns related to academic value, networking and social interaction, organisational strengths and weaknesses and expectations regarding AI and future conferences. Quantitative and qualitative findings were then combined to provide a holistic interpretation. Given the researcher's familiarity with the Libyan higher education environment, interpretation of findings was informed by contextual understanding of institutional constraints. The researcher was involved in organisational planning but not in participant evaluation or scoring processes.

4. Results and Findings

A total of n = 113 valid questionnaires were analysed. Participants represented a range of roles, including university lecturers, students, and educational practitioners. Many respondents reported that they had prior experience of attending academic conferences, indicating that their evaluations were informed by being able to compare with similar events. Responses showed a high level of satisfaction with the conference, especially in relation to its academic and educational aspects.

Quantitative Findings: Participant Ratings

Across all Likert-scale items, the mean score was higher than 4.0 on a 5-point scale, indicating strong overall satisfaction. The majority of respondents rated the conference as *"excellent"* and indicated that they would recommend attending future such conferences. Items relating to academic content received the highest ratings. Efficiency and clarity of keynote speakers, the quality and depth of scientific research papers, alignment of conference themes with AI and education and clarity of conference objectives were consistently rated highly by participants. This suggested that the conference met its primary educational purpose. There was strong agreement on the impact of perceived learning, with respondents indicating that they had gained new knowledge from the conference and more understanding of AI in education. These findings support the interpretation of the conference as an effective professional learning environment rather than merely a dissemination event.

Academic networking and professional engagement were also positive, although slightly lower than the academic value. Many participants agreed that the conference enabled them to build professional and academic relationships. This reflected the importance of social interaction and community building within the Libyan higher-education context, where opportunities for such contact are often rare.

In contrast, items related to logistics and infrastructure were not so positive, although ratings were still above the midpoint of the scale. General organisation during sessions and breaks was rated positively, but comparatively lower scores were recorded for adherence to the timetable, internet connectivity and logistical services (such as facilities and technical support). These results indicate that operational factors posed challenges that may have had an impact on the overall experience for some participants.

Qualitative Findings: Thematic Analysis of Open-Ended Responses

Analysis of the open-text comments produced four dominant themes that complement the quantitative results. Participants frequently highlighted the scientific papers, presentations, and discussions as the most valuable aspects of the conference. One participant noted the "*quality of the presentations, contributions and participations*" and another valued "*the discussions and interventions*." Comments referred to the strength of the research, clarity of ideas, and relevance to students and society: "*It addressed the interests of students and society*", stated one participant. Several respondents emphasised that the conference addressed real educational needs and contemporary challenges related to AI. This theme reinforces the high quantitative ratings for academic quality and indicates that participants perceived the conference as intellectually credible and relevant.

Many respondents valued opportunities to meet new people, exchange ideas, and engage with academics from different institutions. In a context where opportunities for networking and collaboration are limited, this was regarded as a very welcome outcome. "*Getting to know new people*" was a frequently used comment from participants. These comments reveal that the conference contributed to the development of academic social capital, supporting its role as a community-building space.

Consistent with the quantitative findings, participants identified areas requiring improvement related to organisation. Comments referred to the need for clearer organisation, improved management of student volunteers, quieter environments during sessions plus better scheduling and coordination. "*Reduce the number of student organisers and train them in guest handling and communication etiquette*," commented one participant. Another stated: "*Improve organisation by reducing the number of students: teamwork is better than the individual-dominated behaviour seen at times*." Several participants explicitly mentioned internet connectivity and technical services as constraints. Although these issues did not overshadow the academic value of the event, they were perceived as factors that reduced comfort and efficiency. It was noted that the comments relating to academic value were more detailed than those concerning logistics, which points to the intellectual engagement being considered more important than organisational limitations.

Participants offered constructive suggestions for future conferences, including "*cooperation with foreign universities"*, earlier and wider advertising, a longer duration for the conference, more focus on practical applications of AI, and a higher level of selectivity in accepting research papers. One participant said: "*Send more invitations and allow a longer conference duration*", while another suggested "*Accept stronger research papers and focus on the practical aspect*." These comments reflect a forward-looking perspective and indicate that participants see such conferences as a strategy for improving the quality of Libyan higher education.

Triangulation of qualitative and quantitative data shows a strong alignment between numerical ratings and narrative comments. The high satisfaction with academic quality and learning is reinforced by positive qualitative reflections, while logistical challenges appear consistently across both sets of data. However, participants did not frame organisational limitations as reasons to devalue the conference. Comments do suggest a distinction between strong intellectual content and developing institutional capacity, which highlights the challenges faced in post-conflict higher-education environments.

5. Discussion

The findings of this study show how academic conferences can be sites of professional learning within Libyan higher education, although there is often little recognition of this. In contexts where institutional CPD structures remain fragile, conferences may be used on a temporary basis in place of formal professional development systems. Participants perceived the event not merely as a venue for presenting research but as a space where they could interact with others and develop communities built around the emerging field of AI in education. Conferences may function as transitional learning infrastructures, compensating for gaps in formal professional development systems.

Conferences as Informal Professional Learning

High ratings for the impact of academic quality and perceived learning suggest that the conference was operating at the first two levels of Kirkpatrick’s model, showing positive reaction and perceived learning. Participants reported gaining new knowledge and more understanding of the future of AI in education. These outcomes align with studies describing conferences as a stimulus for reflective practice and pedagogical renewal (Cheng & Zhao, 2023), especially when formal CPD structures are limited. Conferences create spaces where participants can collaborate, exchange knowledge and develop their practice (Brown, 2017; Zwozdiak-Myers, 2012). In the Libyan context, universities face constraints in sustained training and international engagement, but such short-term events may be a way of strengthening capacity through professional development. The emphasis on the value of scientific papers and keynote presentations in the responses from participants indicates that they were seeking guidance on emerging technological change. This supports regional research (Zaidan & Ehsan, 2024) suggesting that exposure to credible academic discourse can reduce uncertainty surrounding AI and digital tools.

Building Academic Communities and Social Capital

Qualitative comments highlighted networking and meeting “new people” as central benefits. Communities-of-practice theory emphasises that learning is socially situated; knowledge emerges through interaction rather than transmission alone. For Libyan educators who have experienced years of institutional fragmentation, there is the opportunity to reconnect across universities. The strong emphasis on networking supports the argument that conferences generate social capital essential for innovation (Rowe, 2018; Wenger, 1998). Such conferences can also be regarded as Communities of Practice (CoPs) in the way they can contribute to professional development. A primary motivation for attending a conference is a desire for professional growth, alongside an opportunity for networking, which aligns with how CoPs support shared interests and collaboration (Harris & Jones, 2010; Saint-Onge & Wallace, 2012).

The data therefore position the conference as a community-rebuilding mechanism, contributing to the formation of professional identity and collective purpose around digital transformation. Such social capital is increasingly recognised as essential for the adoption of educational innovation. Without networks of trust and collaboration, technological initiatives often remain isolated experiments.

The reflections of participants demonstrate that conferences serve as places where narratives of AI can be interpreted through local educational realities. Respondents valued discussions that linked AI to the "*interests of students and society*," indicating a need for perspectives linked to their own context. This echoes MENA literature where educators sway between enthusiasm for the promise of what AI can do and concern about infrastructure, ethics, and relevance (Al-Zahrani & Alasmari, 2025; Rayka, 2024). The promise relates to the benefits afforded to students, yet there are still concerns relating to the realities of their own Libyan society.

The Tension Between Academic Ambition and Institutional Capacity

Despite strong academic evaluations, organisational and technological limitations emerged as recurring themes in both quantitative and qualitative data. Lower ratings for internet connectivity, scheduling, and logistics illustrate the structural challenges facing Libyan higher education. These findings echo regional studies noting that digital transformation is constrained not by willingness but by infrastructure and governance (Al-Zahrani & Alasmari, 2025; Traidi, 2024). The participants did not interpret these weaknesses as failures of the conference itself as comments showed they were noted as capacity gaps to be addressed in future events. This distinction is a demonstration of how the event succeeded in generating intellectual engagement but revealed the need for stronger institutional support. While there was acknowledgement that the conference had achieved its aim in providing knowledge and encouraging collaboration, there was still acceptance that more was needed from their institutions to take such events forward.

6. Implications

The findings of this study provide implications for universities, conference organisers, and national education authorities seeking to strengthen digital transformation in Libya and the wider MENA region.

Implications for Universities

Universities should recognise academic conferences as a legitimate form of continuing professional development rather than optional extracurricular activities. The strong evidence of perceived learning and networking suggests that participation in such events can complement formal training programmes, particularly where institutional CPD systems remain underdeveloped. Ways of strengthening the benefits of conferences as learning sites could include integrating conference attendance into staff development plans, encouraging cross-institutional collaboration initiated at events, creating post-conference seminars where participants share learning with colleagues and linking conference themes to curriculum review and e-learning strategies. Universities can then benefit from the added value of conferences becoming sustainable professional development events that provide the opportunity for pedagogical change.

Implications for Conference Design

For organisers, the study highlights the need for an approach that balances academic ambition with operational capacity. Participants valued the quality of papers and speakers, but logistical and digital limitations affected the overall experience. Future conferences should therefore prioritise reliable internet and technical infrastructure, professional training for volunteers and support staff, clearer pre-event communication and scheduling, and stronger peer-review processes to maintain research quality. The inclusion of practical workshops demonstrating AI applications would have enhanced this Libyan conference and suggests that participants would benefit from not just knowing what to do but demonstrations of how to do it. Attention to these factors will increase the educational impact and integrity of future events.

Implications for National Digital Strategy

At policy level, conferences can provide visible spaces where universities, ministries, and industry partners can align priorities and disseminate innovations. This study suggests that sustained investment in academic events can accelerate digital readiness and collaboration with both regional and international universities should be expanded. With online access for such collaborations now available, more efforts should be made to include different perspectives. Outcomes and recommendations from conferences should then feed into national planning. In post-conflict contexts, it can be seen that such gatherings can play a role in helping to rebuild academic confidence and reconnect Libyan scholarship with regional and global networks.

7. Limitations and Future Research

Several limitations should be acknowledged. This study examined a single conference, and findings may not be applicable to all academic events in Libya or the MENA region. Data relied on self-reported perceptions rather than objective measures of behavioural change and the research design was able to capture immediate impressions but could not assess long-term impact.

Future research could carry out a longitudinal study tracking how conference learning influences classroom practice. Conferences carried out in different universities could be compared, and the perspectives of organisers related to local logistics could be explored. Such studies would deepen understanding of how events such as conferences contribute to the transformation of educational systems.

8. Conclusion

This study examined how participants experienced an AI and e-learning conference within the Libyan higher-education context and what role such events play in supporting digital transformation. The findings demonstrate that the conference was perceived as valuable from an educational aspect, that it enhanced understanding of AI, provided new knowledge, and enabled academic networks. Taken together, these findings position conferences as significant instruments of professional learning in contexts where formal CPD opportunities remain limited.

However, organisational and infrastructural challenges remind us that intellectual ambition must be matched by institutional capacity. Digital transformation is not achieved through technology alone but through building communities, skills, and supportive systems. Academic conferences can serve as meeting points where these factors combine and merge.

For Libya and the wider MENA region, investing in high-quality academic gatherings represents more than event management as it is an investment in the professional and personal development of faculty. By strengthening the link between conferences, universities, and national strategies, such initiatives can contribute to a more confident, connected, and digitally capable higher-education sector.

References

Al Lily, A., Ismail, A., Abunasser, F., & Alhajhoj Alqahtani, R. (2020). Distance education as a response to pandemics: Coronavirus and Arab culture. *Technology in Society*, 63, 101317.

Al-Zahrani, A.M. and Alasmari, T.M. (2025). A comprehensive analysis of AI adoption, implementation strategies and challenges in higher education across the Middle East and North Africa (MENA) region. *Education and Information Technologies,* 30 (8), 11339-11389.

Abushafa, M. (2014). *Changing practices in a developing country: The issues of teaching English in Libyan higher education* (PhD thesis). De Montfort University, Leicester, United Kingdom.dora.dmu.ac

Brown, C. (2017) *Achieving evidence-informed practice in education: Research learning communities.* London: Routledge.

Caffarella, R.S. & Daffron, S.R. (2013). *Planning Programs for Adult Learners: A Practical Guide.* 3rd edn. San Francisco: Jossey-Bass.

Cheng, C. & Zhao, J. (2023). The impact of professional learning communities on pre-service teachers' professional commitment, *Frontiers in Psychology,* 14.

Delello, J.A. & Liew, J. (2025) AI in the Classroom: Insights from Educators on Usage, Familiarity and Professional Development Needs, *Education Sciences*, 15(2).

Elzawi, A., & Wade, S. (2012). Barriers to ICT adoption in quality of engineering education in Libya. *International Journal of Emerging Technologies in Learning*, 7(3), 42–46.

Ghimire, A., Prather, J. & Edwards, J. (2024) Generative AI in Education: A Study of Educators' Awareness, Sentiments, and Influencing Factors, *ArXiv*.

Glessa, S., Elmehdawi, R. & Elfakhri, M. (2025). Libyan Universities: Navigating the global ranking maze. *Thieme Open Access.*

Harris A., Jones M. (2010). Professional learning communities and system improvement. *Improving Schools*, 13(2), 172–181.

Holmes, W., Bialik, M., & Fadel, C. (2023). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.

Kirkpatrick, D. L., & Kirkpatrick, J. D. (2006). *Evaluating training programs: The four levels* (3rd ed.). Berrett-Koehler.

Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*. Pearson.

Mair, J., & Frew, E. (2018). Academic conferences: A review of the literature. *Event Management*, 22(6), 919–931.

Mrgin, H.S. & Abdulqader, A. (2024) 'Application of quality and accreditation standards in Libyan government universities: facts, challenges and development potential (2008–2023)', *Arab Journal for Quality Assurance in Higher Education*, 17(62), 122–137.

Rakya, Z.H. (2024). Exploring ethical implications and ethical consideration of AI in eLearning in UAE higher education using UTAUT and social constructivism: an exploratory study of UAE postgraduates. *Studies in Technology Enhanced Learning,* 4 (1).

Rashida, A.T. & Bariham, I. (2025). Perceived impact of continuous professional development (CPD) on lecturers' performance at Tamale Technical University. *Social Sciences & Humanities Open,* 12, 101754

Rhema, A., & Miliszewska, I. (2014). Analysis of student attitudes towards e-learning: The case of engineering students in Libya. *Issues in Informing Science and Information Technology*, 11, 169–190.

Rowe, N. (2018). 'When you get what you want, but not what you need': The motivations, affordances and shortcomings of attending academic/scientific conferences. *International Journal of Research in Education and Science*, 4(2), 714–729.

Saint-Onge H. & Wallace D. (2012). *Leveraging communities of practice for strategic advantage*. Routledge.

Traidi, A. (2024). AI integration in education in the MENA region: will it be a driver of social inequality? *Global Campus Policy Briefs*, 2024

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge University Press.

Zaidan, E.A. and Ehsan, M.M. (2024). Educational trends and challenges in the MENA region amid global crisis, *Research in Globalization*, 8, 100225.

Zwozdiak-Myers, P. (2012) *The Teacher's Reflective Practice Handbook.* London: Routledge.