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# Technology enhanced learning in the MENA region: Introduction to the Special Issue

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## 1. Introduction

This special issue of the journal Studies in Technology Enhanced Learning is the result of collaboration between the Centre for Technology Enhanced Learning, Lancaster University (UK) and the Centre for Research in Digital Education, the British University in Dubai (UAE). Both centres wish to recognise that 'technology enhanced learning' (TEL) is a deeply contextualised phenomenon: socio-culturally, historically and economically. This special issue therefore focusses very specifically on TEL in the Middle East and North Africa (MENA), a region with a rich history of TEL initiatives and connections to the global economy yet with many contextual particularities.

In recent decades, governments and other influential actors across the MENA region have expressed the desire to move from 'oil-reliant' to 'knowledge' economies, and have invested heavily in education and technology as a consequence. Technology is thus positioned as a 'key element in modernization and reform of education' (Lightfoot, 2016). Examples from across the region abound. In Saudi Arabia, the Tatweer Project initiated in 2007 aims to improve the educational competence of the Saudi population (Nurunnabi, 2017), with Tatweer Smart Schools set up to improve teachers' professional development, increase the quality of education and integrate ICTs into teaching and learning (Wiseman et al., 2013). In Bahrain, the King Hamad

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Project for Future Schools places a similar focus on technology in education, and likewise the Omani government sees technology as essential to improving the quality of education. Indeed, the Omani Ministry of Education has deployed a comprehensive set of guidelines for technology-assisted instruction across all grades and levels of the entire national curriculum (Oxford, 2017).

They are not alone. The UAE, 'the Middle East's power broker' (England & Kerr, 2017), is not content with regional recognition, and with Vision 2021 the UAE has made clear its desire to become a leading player on the world stage. A central pillar of this vision is a 'First-Rate Education System' feeding educated human capital into a 'Competitive Knowledge Economy' (UAE, 2010). The UAE Ministry of Education has implemented a bold series of five-year plans, Education 2020, to transform education and ensure that the UAE's youth are able to compete internationally at both universities and in the global marketplace. In 2012, the federal universities in the UAE launched a specific iPad Initiative, which saw more than 14,000 students across the country issued with Apple's well-known tablet computer — a move that was expected to revolutionise teaching and learning (Cavanaugh et al., 2013b; Cavanaugh et al., 2013a). Similarly, in 2016 Oman signed a memorandum of understanding with the national telecom provider, Omantel, to provide 3,500 Huawei tablets for distribution across a certain number of schools in the country. While technologies change, the aspirations remain reassuringly familiar. Laptops may have replaced tablets in the UAE, yet classrooms across the region remain 'Smart'; teachers and students are connected to Learning Management Systems and the future of education is very firmly invested in technology. That situation has only been intensified in the wake of the COVID-19 pandemic with moves to online learning in schools and universities across the MENA region.

Globally, the world of education has not been slow to embrace technology, from 'prehistoric paintings flickering in the light' (Duval et al., 2017) teaching ancestral children to hunt, to the fully-online delivery modes adopted by modern universities in the post-COVID 19 world. The prevailing view of education policy makers has been that the introduction of technology is 'a desirable outcome that will lead to more learning' (Scanlon & Issroff, 2005). Governments in the MENA region have been at the forefront of "putting their money where their mouths are", and the subsequent investment and political will to promote TEL has seen the region become an area of real interest where the use of TEL in practice across all education sectors is concerned. It is worth mentioning that many of the imported education systems mentioned here rely on English as the language of

instruction, and are 'based on a Western model that is now the global cultural ideal' (Spring, 2008, p. 334). The importation of Western models of education has also necessitated the recruitment of large numbers of expatriate education professionals. These individuals come from not just MENA, but the world as a whole, and this multicultural group is also importing its own TEL practices, pedagogy and beliefs.

It is this rich context that this special issue aims to explore. The geographical boundaries within which the papers in this issue focus their attention reflect the vast experience and expertise that exists among TEL practitioners in the Middle East and North Africa.

As previously mentioned, this special issue of the journal is the result of a collaboration between the Centre for Technology Enhanced Learning (CTEL), Lancaster University, UK and the Centre for Research in Digital Education (CRDE), the British University in Dubai, UAE. CRDE, given its location, has an obvious interest in TEL in the region; indeed, its interdisciplinary work and consultancy places heavy emphasis on the specific needs of the MENA region. CTEL, on the other hand, is an international network that has benefited from the input of members in the region over many years, and also places heavy emphasis on TEL as a situated phenomenon in its fundamental approach. The editorial collective for the special issue—consisting of Tendai Charles and Christopher Hill (CRDE), and Sebah Al-Ali, Rob Miles, and Brett Bligh (CTEL)—represents not only both centres, but also the diversity of TEL in the Middle East and North Africa. Collectively, we aimed to exploit our prior experience and connections with institutions in the region to bring the special issue to fruition. As is evident from the range of authors who responded to the call, many TEL practitioners and researchers in the region are in fact non-nationals in those countries where they live and research, and this unique situation also contributes to the diversity of TEL in the region, where the influence of Anglocentric education systems is brought into contrast with the cultures they interact with.

The call for papers generated considerable interest, and following the peer review process a total of 14 papers have been included in this special edition. The 14 papers that have been published are as diverse as TEL and its practitioners in the region, with papers from Egypt, Kuwait, Qatar, Oman, Saudi Arabia and the United Arab Emirates all included here. Similarly, a wide cross-section of the education sector is included, from K12 to tertiary education at both public and private institutions.

The papers have been grouped into four clusters in an

attempt to give a sense of progression and direction to the special edition. Doing so is, of course, a pursuit fraught with danger given the number of different ways in which the papers could be categorised. Even where we have constructed relatively simple clusters, as below, many papers could certainly fit into more than one. Our priority in doing so was to try to support a conversation to emerge about a range of different issues affecting TEL in the region. We also sought commentaries on the papers in order to further support that conversation, which is part of the remit of Studies in Technology Enhanced Learning (Bligh & Lee, 2020). We look forward to continuing that conversation for some time to come, and we would like to thank the authors of all the articles and commentaries that have been included in the issue

# 2. Strategic issues for teaching

The first group of papers falls under the title of 'strategic issues for teaching'. By 'strategic issues for teaching' we are referring to how technology is associated with attempts to challenge and reshape what 'teaching' means, and how that can be understood conceptually and strategically.

In the first paper, Hurley (2021) examines how dialogic learning in a Gulf-Arab women-only university context can be theorized. As the COVID-19 pandemic has pushed Gulf higher education classes online, the author investigates how dialogism occurs for Arab female learners, given the socio-political and contextual factors at play. The author contests the view that dialogism occurs solely in Western terms and develops a framework that theorises Gulf-Arab women's learning practices. The paper concludes that online learning is not automatically dialogic. Instead, dialogism occurs at individual, social, technological and gendered levels. This is a fascinating and important contribution to pedagogy and TEL in the MENA region in particular.

The reaction of education institutions and practitioners to the COVID-19 pandemic is, of course, an emerging theme. As classes in the region were forced to move online, the use of technology to facilitate and effectively teach has been called into focus. In the second paper, Johnson (2021) highlights this fact. As a result of COVID, teachers in the UAE have had to quickly adopt remote learning, and have faced challenges relating to student engagement, the use of new tools and the need to adapt face-to-face teaching to the online environment. Furthermore, English teachers have also been called upon to integrate 21st century skills into curricula that has suddenly moved online. In both cases, clear strategy has not been present as teachers have had

to react quickly to the new reality. The author argues that instructional design should be the focus of professional development, not technology. For Johnson, instructional design can be the catalyst for a dynamic and engaging learning experience that better prepares students for their academic and professional lives, and can provide teachers with the strategy to reshape their teaching effectively.

The third paper in this first section is Coutet's (2021) commentary on one school in Saudi Arabia's approach to Continuous Professional Development (CPD) that aimed to improve teachers' online teaching proficiency. The author recognises the importance of successfully implementing effective instructional practices in the wake of the COVID-19 move to remote teaching, but also highlights how this experience can have relevance in longer term planning for CPD. At the same time, Coutet warns against making over-generalisations. The solutions to the sudden problems caused by COVID, argues, Coutet, cannot necessarily be applied to different contexts.

The papers thus far have largely been concerned with teaching where English is the medium of instruction. The final paper in this cluster, however, takes the TPACK Model, a key concept in TEL, as its theoretical framework, and focuses on teachers of Arabic as a foreign language (AFL). Essam (2021) finds that AFL teachers prefer trainers who can help them incorporate technology with a strong pedagogical foundation into their classes. The paper goes on to suggest a model for designing professional development programs, and also discusses theoretical implications for the TPACK model.

#### 3. Introducing novel tools and pedagogies

The papers in this section are loosely grouped under the title of 'introducing novel tools and pedagogies'. By 'introducing novel tools and pedagogies' we are referring to specific initiatives to develop and reimagine pedagogy on particular programmes and courses, and how those can be understood in relation to their specific pedagogical objectives

Taylor (2021) also examines the UAE's shift to remote learning in the COVID pandemic. The author explores 4 pieces of student work as case studies: specifically role-play, virtual protest and collaborative reading projects. Each of these were produced using the web-based tool VoiceThread in ways that aimed to create Communities of Inquiry. The paper finds that in all cases content, collaboration and community exist in both synchronous and asynchronous



modalities, creating high impact, innovative student learning in the face of COVID-19.

The second paper in this section is concerned with the introduction of novel tools. In this case study, Balliammanda (2021) explores the perceptions of teachers in Oman regarding the use of mobile devices such as smart phones, iPads and tablets in higher education classes. Taking a qualitative approach, the participants are able to express their opinions and perceptions based on personal experience and understanding. The findings take a realistic and critical stance. While there are perceived benefits, the author highlights a number of issues such as students deviating from tasks and highlights the need for continued testing and development of m-learning within Oman's educational system.

The final paper in this section, "High School Students' Experience of a 3D Printing Station at a Bilingual School Makerspace in Kuwait" (Eldebeky, 2021) sets out to examine the impact of 3D printers on the skills of high school students in Kuwait. Two theoretical models are used, the 21st century learning framework and the Dynamic Decision-Making Model. While the participants studied reported improvements to their skills in collaboration, communication and technology, the author also found a lack of connection between the technology and instructional value. Reasons for this are also suggested, namely the under-development of 3D printing resulting from its very novelty may in fact be at the root of this disconnection.

# 4. Supporting online and blended learning

In grouping the next set of papers under 'supporting online and blended learning' we are referring to attempts to move and support learning online, and the different challenges for teacher professional development and student engagement that doing so poses.

The first paper under this heading returns to dialogism, and sees Al-Ali (2021) describe the experience of one tutor in higher education in Kuwait. This paper goes against the mainstream feminist scholarship that sees silence as a negative aspect of dialogue in relation to voice, where silent women are therefore depicted as powerless and oppressed. The author argues, however, that silence is in fact an important aspect of dialogical interaction. Al-Ali takes an autoethnographic approach, and examines an email exchange with a student in dialogical terms. In the findings, silence emerges as intersubjective and dialogic, and as in need of collaboration as voice.

The next two papers both also address issues of student engagement. Saliba (2021) investigates students' lack of engagement in online classes at a medical university in Qatar. An information literacy course at the university used blended learning, and while students engaged in the face to face component, the lack of engagement in the online classes led the author to adopt a case study approach in order to identify the causes behind this. Using surveys and in depth interviews the findings presented suggest that where students do not attach importance to a topic they disengage. Students prefer just-in-time, online and asynchronous access with optional face to face attendance as opposed to the blended model currently employed by the institution.

Fazza and Mahgoub (2021) examine the challenges faced by a university in Qatar as COVID-19 caused the adoption of online and blended learning across the institution. In particular, it investigates faculty perceptions of a lack of student engagement in online classes. The paper takes a case study approach, and uses the Community of Inquiry Framework as a theory to guide the research.

Staying with the impact of COVID-19, Tuffnell (2021) again highlights that the pandemic has forced teaching online, and teachers have consequently faced a steep learning curve. Tuffnell argues that informal communities of practice can be quickly mobilised to provide support and training in order to ensure effective online teaching. The author suggests that that faculty learning communities thrive when experienced members facilitate learning through shared goals alongside collective input, participation and collaboration in the community.

#### 5. Roles of technology in assessment

In the final section, 'roles of technology in assessment', we are intending to focus on that specific aspect of education involved in accrediting learning outcomes, which is so important given that gaining credentials is an increasingly central motivation for students to pursue education in the region.

The first paper, "Study Less, Learn More: Utilising Activity Theory to Advance Understanding of Game-based Learning as a Formative Assessment Tool within UAE Higher Education" (Minton & Bligh, 2021) utilizes activity theory as the theoretical framework, and focusses on students studying English in the UAE. This explanatory case-based study investigates digital game-based learning (DGBL) and its use in formative assessment. The specific platform under investigation is Kahoot. Interestingly, the author draws the



conclusion that in the specific context of this research DGBL did not, in fact, motivate students to study out of class, suggesting there are strong demographic and contextual influences on the success of DGBL as a formative assessment tool.

Remaining with the UAE, AlOkaily (2021) looks into the benefits of using device agnostic recording tools in order to provide students at a private online university in the UAE with speaking practice. While the paper highlights benefits such as improved fluency and confidence in spoken English, it also identifies three main barriers, namely technical, motivational and cultural issues that highlight the need for further research.

Finally, Nasseif (2021) examines the introduction of e-portfolios at a university in Saudi Arabia. Taking the technology acceptance model (TAM) as its framework, it explores the university's readiness to adopt e-portfolios, and the acceptance of these among faculty and students. The author finds that technology skills and awareness play a large part in the acceptance, and the study also highlights the need for proper training and support.

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