



Pic: Getty Images

TRANSFORMING EDUCATION THROUGH GAMIFICATION

CRAIG SHOTLAND, CEO OF MATIFIC, SAYS THE TRADITIONAL 'ONE-SIZE-FITS-ALL' APPROACH TO EDUCATION IS NO LONGER PRACTICAL AND WHY GAMIFICATION HOLDS THE KEY TO ENHANCING THE LEARNING EXPERIENCE

The global push to enhance science, technology, engineering and mathematics (STEM) education and foster a skilled workforce is gaining traction across continents. With Microsoft Data Science projecting the creation of 149 million new jobs globally in the technology sector by 2025 and United Nations anticipating that 75 per cent of jobs in the world will be STEM-related by 2050, the adoption of innovative strategies in the MENA region is crucial to bridge the STEM talent gap. The traditional 'one-size-fits-all' approach to education is no longer practical and gamification has emerged as a powerful force in revolutionising education.

INTERACTIVE EXPERIENCES

Gamification proves highly effective in boosting student and teacher engagement in math education. Gamification in education, implemented through various digital platforms,

classroom activities, educational games, or online learning platforms, transforms traditional educational approaches into interactive and engaging experiences. The integration of gamification principles into pedagogical practices bridges the divide between formal and informal education by recognising the value of 'play' as a powerful catalyst for learning. Market research indicates that by the end of 2026, game-based learning will generate global revenue of \$29.7bn. This underscores the rising significance of gamified learning as students increasingly seek more interactive and engaging forms of instruction.

Despite being in its nascent phase, edtech, particularly gamification, demonstrates the potential to tailor the education curriculum to match students' individual capabilities. This method encourages active participation, problem-solving, and critical thinking but also caters to the nuances of each country's educational environment.



CRAIG SHOTLAND

OVERCOMING UNIQUE CHALLENGES

The region possesses diverse educational landscapes, which present unique challenges to STEM education. For instance, at the onset of the global pandemic, countries in the region struggled to adapt to remote learning, hindering progress in STEM. In the UAE however, the government, together with other e-learning platforms, launched specialised edtech portals to support remote learning. Almost overnight, the UAE successfully moved 1.2 million students online.

According to McKinsey, educational outcomes vary considerably within the region. Among MENAP countries, only the UAE has achieved a primary education level of over 60 per cent for children.

In addition, a lack of skilled talent in STEM fields hampers innovation, stifles economic growth, and exacerbates socioeconomic disparities, according to the report. As the tech-driven region continues to experience exponential growth, the demand for skilled STEM talents intensifies.

According to PwC's *Middle East Workforce Hopes and Fears 2022* survey, a substantial number of employees in Kuwait (75 per cent), Qatar (60 per cent), Saudi Arabia (58 per cent), and the UAE (46 per cent) expressed a strong awareness of the need for specialised skills in areas such as maths and technology in their respective countries.

This widening gap between demand and supply highlights the urgency to cultivate a robust pipeline of STEM professionals.

COLLABORATIVE EFFORTS FOR A SUSTAINABLE PIPELINE OF STEM PROFESSIONALS

However, there is room for optimism as governments in the region amp up their efforts to address both edtech innovation and bridging the gender gap in specialised fields.

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courses accessible to Arab youth worldwide. In addition, according to research by UNESCO, 57 per cent of graduates in STEM fields in Arab countries are women. In the UAE specifically, an impressive 61 per cent of university students pursuing STEM disciplines are female.

To fully address the challenges in the STEM field and education, it is imperative for governments, educational institutions and industry leaders to collaborate and invest in the development of gamification in STEM programmes.

Prior to the Covid-19 pandemic, the UAE lacked a comprehensive digital education system. However, in a proactive response to the crisis, the government swiftly implemented Matific and 15 other platforms within just two months.

This rapid implementation not only ensured uninterrupted learning for over 100,000 students but also showcased the power of collaboration between the government and edtech platforms, setting a global benchmark for efficient digital education integration.

As per research by HolonIQ, the education sector stands as one of the largest industries globally, contributing to over 6 per cent of the world's GDP, with a projected potential to reach \$404bn by 2025.

This forecast highlights the tremendous opportunities for embracing edtech. By fostering an innovative ecosystem that nurtures STEM vocations, the region can create a sustainable pipeline of skilled professionals that are equipped to tackle the challenges of the future. 🌐



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