



## The EdTech startup landscape in the MENA region: the sleeping giant

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**Abstract:** Despite being overlooked in the global education technologies (EdTech) landscape, the MENA region holds immense potential with over 250 million children and youth. Enhancing regulatory frameworks, technology access, and data protection can ensure quality education for all learners in the region.

Globally, the shutdown of educational institutions during the COVID-19 pandemic forced [1.6 billion learners](#) to shift to distance learning, which accelerated the development of education technologies (EdTech) tools, with [41 percent of companies](#) advancing their AI strategies during this time. The MENA region was no exception, witnessing significant growth in EdTech startups such as Jordan's [Abwaab](#), KSA's [Noon Academy](#), UAE's [Lamsa](#) or Tunisia's [GoMyCode](#). To address inequalities during the COVID-19 pandemic, governments from the region [partnered with startups](#) to create online learning platforms. According to [MAGNiTT \(2021\)](#), MENA startups saw a record \$1 billion in investments in 2020, up 13 percent from 2019, with five regional startups receiving more than \$20 million in total funding. This proliferation reflects the region's growing digital skills among its

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youth, promoting innovation, creating high-quality jobs and addressing graduate unemployment.

The MENA region is home to over [400 million people](#), including more than [250 million children and youth](#) aged 0-24. The population is generally younger than the global average, presenting a huge potential for digital transformation and growing demand for realising the right to education as enshrined in Article 13 of the International Covenant on Economic, Social and Cultural Rights ([ICESCR](#)) as well as [Article 28](#) and [Article 29](#) of the United Nations Convention on the Rights of the Child ([UNCRC](#)), and Article 24 of the Convention on the Rights of Persons with Disabilities ([CRPD](#)).

Despite these favourable conditions, the MENA region is often overlooked in the global tech landscape, particularly in EdTech, which still lags behind other regions in terms of both investment and innovation. This post explores the opportunities and challenges of the EdTech startup landscape in the region by focusing on ensuring that disadvantaged populations are not left behind.

## **MENA's challenges in the EdTech sector**

### *Data protection and safety*

Data protection policies are [scarce](#) and face many implementation challenges. The emergence of EdTech startups that rely on AI, which in turn rely on large data sets, negatively impacts the right to privacy and freedom from attacks on one's reputation of the region's citizens, which is guaranteed under Article 12 of the United Nations Declaration of Human Rights ([UDHR](#)), Article 17 of the International Covenant on Civil and Political Rights ([ICCPR](#)), and Article 16 of the Arab Charter on Human Rights ([ACHR](#)). Several startups collect data on student progress to tailor content accordingly, raising concerns about the use of such data by private companies.

### *Language barriers*

The scarcity of Arabic content in AI training datasets raises concerns about the reliability of AI-generated knowledge about the MENA region and potential biases. Most AI datasets are trained in English, and EdTech tools primarily use English, hindering accessibility for those that are not proficient in English. For AI systems to be useful for the region's population and to minimise bias, they need to be trained in Arabic-language data.

### *Equity and inclusion*

Despite progress, inequalities in internet access in the region are among the [highest globally](#). The shift to distance learning exposed these [inequalities](#), leaving many children without the necessary tools for online education. [UNICEF](#)

[estimates](#) that only 55 percent of students aged 5-17 in Algeria, Egypt, Jordan, Qatar, Morocco, Syria and Tunisia had access to some form of distance learning during the pandemic.

Unequal access to technology between and within countries excludes many from the opportunities offered by EdTech startups, impacting their right to equitable and inclusive quality education, which also constitutes [SDG4](#), and is recognised under the 1960 UNESCO [Convention against Discrimination in Education](#), the first legally binding international instrument dedicated to the right to education, among other relevant instruments. Moreover, the for-profit nature of some EdTech initiatives may hinder equitable access to education and exacerbate existing inequalities.

One of the most outstanding contributions of EdTech is inclusive technology that improves accessibility for learners with disabilities. This could contribute to promoting the right of persons with disabilities to be provided with educational services suited to their needs, which is enshrined in Article 40 of the [ACHR](#) besides Article 24 of the [CRPD](#). However, in practice these devices remain inaccessible and unaffordable for the large bulk of the population.

In addition to these challenges, EdTech startups in the region often [face](#) a regulatory landscape that does not enable innovation, with market fragmentation and difficulties in digital payments. Political instability and weak rule of law discourage investments.

## **MENA's potential in the EdTech sector**

### *Favourable demographics and youth perceptions of EdTech*

The MENA region has one of the largest youth populations in the world, with [UNESCO estimating](#) up to 100 million school-age students. This makes the addressable market for EdTech startups very large. In addition, surveys show that [young people believe](#) that the internet will play an important role in their education.

### *Rapid digital transformation*

Despite persistent inequalities, the rapid increase in internet penetration in recent years, with a regional [internet access rate](#) of 66 percent by 2023, as well as [smartphone penetration](#), which is one of the highest in the world at 97 percent, confirms that online learning options are viable.

### *Contributing to more meaningful learning*

MENA countries often lag in [global education assessments](#) due to outdated teaching methods and curricula. By providing innovative tools, such as project or game-based learning pedagogies that make learning more enjoyable, EdTech

startups can increase student engagement and motivation, potentially improving rankings in global assessments. While EdTech tools are not a panacea for the problems of the region's education systems, they are prompting education stakeholders to consider how to create more meaningful learning.

### **Is EdTech going to replace teachers?**

Concerns that EdTech will lead to the replacement of teachers are not unique to the MENA region and have been present since the release of ChatGPT in November 2022, as highlighted in [UNESCO's journal](#). EdTech can automate teachers' administrative tasks, which could be particularly beneficial for public schools with high student-teacher ratios and improve the learning process by allowing for the customisation of educational content, but the demand for human teachers will not disappear.

EdTech tools can enhance learners' experience by providing personalised instant feedback. However, learners value the human connection with teachers and look for someone who can understand them and how they feel. In the MENA region, the lack of Arabic training content in AI datasets adds complexity, making it difficult for EdTech tools to understand cultural cues and context of learners in the region. Until now, EdTech is not able to replicate human qualities such as critical thinking, creativity, emotions, making teachers irreplaceable. Human interactions with educators and peers are crucial for [children](#) and learners to develop the social, emotional and communication skills necessary to build healthy social connections. It is therefore important to see EdTech as a tool to enhance, rather than replace, traditional face-to-face education.

### **Policy recommendations**

To unlock the potential of the EdTech sector in the region and ensure accessibility in low-resource environments, the following human rights-based recommendations are proposed:

*For national governments:*

- Establish partnerships with startups to ensure access to technology under user-centred and inclusive initiatives, such as investing in low-bandwidth or offline EdTech tools accessible on smartphones.
- Improve policy and regulatory frameworks to facilitate startup foundation and innovation, retaining talent in the region.
- Establish effective safety and privacy policies to protect learners, especially children.
- Establish bodies that evaluate EdTech solutions developed by startups.

*For the private sector and donors:*

- Promote mentorship programmes and funding opportunities for startups to scale up their initiatives.
- Fund surveys to understand young people's perceptions of EdTech and how young people across the region would like to see digital transformation in the education sector.

*For tech startups:*

- Prioritise inclusion from project conception and focus on offline-accessible AI tools.
- Ensure a safer online environment for children by allocating resources to make EdTech tools safe.
- Establish safeguards against algorithmic discrimination.