On 5 July, over 200 participants from 13 MENA and 26 OECD countries came together to discuss gender-sensitive education and skills development policies in the MENA region with a focus on developing girls’ digital skills in a post-COVID-19 world. The regional dialogue was the first of a new webinar series launched by the MENA-OECD Women’s Economic Empowerment Forum (WEEF) on “Women’s Empowerment and Digitalisation in the post-COVID-19 MENA economies” (Box. 1).

The regional dialogue began with keynote speeches and a presentation of the OECD’s Programme for International Student Assessment (PISA) results in the MENA region. Then, the panel discussed initiatives to develop girls and women’s digital skills and improve the role of gender-data in policy-making.

Main Findings

- Digitalisation can play a **catalyst role** for boosting women’s employment in the MENA private sector: the share of women in professional and technical jobs is estimated to double by 2030 through digitisation, online platforms and entrepreneurship.
- Women in the region have the **potential** to seize these opportunities: 34% to 54% of science, technology, engineering and mathematics (STEM) graduates in MENA countries are women. In addition, according to PISA, girls in the region do not lack confidence in their capacities and have positive attitudes towards competition.
- However, the gender gap in **access to technology and digital literacy**, limited access to **Vocational Education and Training** (VET), embedded **stereotypes** and a dearth of role models are holding women back from careers in the digital economy.

Key Outcomes

This first regional dialogue of the WEEF series on “Women’s Empowerment and Digitalisation in the post-COVID-19 MENA economies” concludes that:

- **Multilateral co-operation** is a catalyst for social change: working and responding collectively is key to building a more equal and resilient society;
- Stakeholders’ attention and investment need to **move from education to labour policies** to create real opportunities for women’s integration in the digital labour market, as both employees and entrepreneurs;
- MENA countries need to sustain their efforts to ensure that **enhanced women’s digital skills fully contribute to a sustained and inclusive recovery** by focusing on **5 priority policy areas**:
  1. Investing in gender-responsive digital infrastructure;
  2. Promoting women’s digital literacy;
  3. Encouraging girls’ access to STEM studies;
  4. Strengthening the public-private sector partnership through enhanced VET and apprenticeships;
  5. Using gender data to design informed education policies.
Opportunities for women’s economic empowerment in the digital age

Participants confirmed that COVID-19 accelerated the adoption of digital technologies by several years, transforming how businesses operate. Globally, companies have accelerated, by three to four years, the digitisation of their customer and supply-chain interactions, as well as their internal operations. Similarly, the share of digital or digitally enabled products in companies’ portfolios has accelerated by seven years.\(^1\) In the MENA region, businesses have accelerated moves towards direct-to-consumer strategies and e-commerce, doubling or tripling their online sales over 2020.\(^2\) The e-commerce sector grew by 52% in one year, reaching an annual gross merchandise value of $22 billion in 2020 (fig. 1).\(^3\) In addition, physical distancing measures prompted new ways of working for employees and entrepreneurs, with teleworking introduced whenever possible. In Morocco for example, while teleworking was rare before the pandemic, 56% of managers worked remotely during the first lockdown (fig. 2).\(^4\)

This provides a catalyst for **boosting women’s employment in the MENA private sector.** Speakers noted that by reshaping the workplace to provide family friendly flexibility, the current digital transformation could attract more women to the labour market, while in tandem reduce the size of female informal employment. Indeed, the share of women in professional and technical jobs is estimated to double by 2030 through digitisation, online platforms and

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\(^3\) Farrell, L. et al. (2021), *How COVID-19 Unlocked the Adoption of E-commerce in the MENA Region*, Massachusetts Institute of Technology and Wamda.

entrepreneurship. Furthermore, the digital transformation can enable women to bypass societal and cultural barriers that often restrict their economic participation. Currently, around 40 million women across MENA countries are either unemployed or out of the workforce due to cultural, infrastructural, and familial challenges.

The PISA presentation confirmed that MENA women have the potential to seize these opportunities:

- **Girls in MENA countries outperform boys in two essential digital skills:** multiple source text reading and metacognition, which is the ability to evaluate the credibility of sources. Girls’ outperformance is even more striking in the UAE and Qatar, with 54 and 64 score-point difference, compared to the OECD average of 26 score-point difference.

- **Girls in MENA countries do not lack confidence in themselves** (fig. 3). On average, across OECD countries, girls are slightly more likely to be under-confident than boys (9% versus 7%). In contrast, in MENA countries the gender gap was not statistically significant.

- **MENA girls have positive attitudes towards competition.** While on average OECD female students show discomfort with competition (-0.1), girls in Jordan (0.6), UAE (0.5), Saudi Arabia (0.4), Qatar (0.4) and Morocco (0.3) expressed positive attitude towards competition, being even more at ease than boys (fig. 4). With 34% to 57% of science, technology, engineering and mathematics (STEM) graduates in MENA countries are women, the region outperforms the OECD average (31%). For example, in 2016, more than 37% of Tunisian female graduates in tertiary-education level had a degree in STEM.

6 Ibid.
7 PISA usually includes eight MENA countries: Algeria, Jordan, Lebanon, Morocco, Qatar, Saudi Arabia, Tunisia and the United Arab Emirates. However, Algeria and Tunisia did not participate in PISA 2018.
9 Ibid.
10 Positive values of the index of attitudes towards competition mean that students expressed more favourable attitudes towards competition than did the average student across OECD countries. For more information, see methodology.
Regional challenges preventing women from engaging in the digital sector

Discussions drew attention to the regional paradoxical gap between girls’ enrolment in STEM subjects their subsequent representation in a STEM career. For example, women make up only 2% of researchers in Engineering and Technology in Saudi Arabia, 18% in Egypt and around 30% in Kuwait (fig. 5). Speakers identified three main reasons for this gap:

1. **Gender digital gap**: Participants highlighted that, despite progress, women still face persistent challenges in accessing digital literacy, technology and the internet in the region. Women are 56% less likely to use the internet than their male counterparts, while the gender gap in mobile phone ownership reaches 9% compared to -2% in Europe and Central Asia - where women are more likely than men to own a mobile.

2. **Girls’ careers aspirations and gender stereotypes**: PISA assessment displayed gender differences in career expectations: even the best female performers in mathematics and science do not favour careers in STEM fields, despite their great performance. In Lebanon for example, among students with high scores in mathematics or science, over 46% of boys reported that they wanted to be engaged in science and engineering professions in the future, while only 26% of girls reported so. Speakers notably explained gender pattern in aspirations by deeply embedded gender stereotypes and the lack of role models. STEM careers are usually associated with masculinity and defined as more appropriate for men. This can lead to self-censuring that begins in girls’ childhoods, which influences their educational and career choices.

3. **Young women’s restricted access to Vocational Education and Training (VET) and apprenticeships**: Experts explained that VET and apprenticeships ensure a greater skills match with labour market needs through work-based learning. They also facilitate school-to-work transition, which continues to be difficult for many young women in the MENA region. Speakers signalled that MENA youth, particularly young women, have very limited access to VET. For example, in 2019, 3.9% and 5.8% of respectively young women and men (15-24) were enrolled in VET in Arab States, and 6% and 8.4% respectively in Northern Africa. In comparison, these rates raised 8.2% and 10.5% in Northern America and Europe (fig. 6).

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15 Carboni, I. et al. (2021), Connected Women, The Mobile Gender Gap Report 2021, GSMA.
17 Arab States include Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestinian Authority, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen.
Five priority policy areas to develop MENA girls’ digital skills

In line with the 2021 MENA-OECD Ministerial Declaration (box. 2), the meeting called for a multi-stakeholder action plan and identified five priority policy areas to develop women and girls’ digital skills, increase their employability in high-productivity sectors and make them a catalyst for a sustained and inclusive digital recovery. Speakers from Egypt, France, Jordan, Mexico, Morocco, Sweden, the United Arab Emirates and OECD experts shared good practices to promote women and girls’ digital skills, involving both the private sector and civil society.¹⁹

Box 2: The MENA-OECD Ministerial Declaration: towards an inclusive and digital recovery

On 1 April 2021, the MENA-OECD Ministerial Conference “Designing a Roadmap to Recovery in MENA” set the strategic objectives for an inclusive and digital recovery in the region after the COVID-19 crisis.

The Ministerial Declaration endorsed by 18 OECD and 18 MENA governments asserted the need to invest further in digitalisation to contribute to the region’s economic recovery, boost resilience and promote environmentally sustainable growth. It emphasised the need to promote women’s economic empowerment and bring equitable digital economic opportunities for women to move towards resilient and prosperous economies.

The Declaration endorsed the 2021-2025 MENA-OECD Competitiveness Programme, notably on Gender.

Priority 1: Investing in gender-responsive digital infrastructure

Digital infrastructure investments should address the differing needs of both women and men to eliminate gender disparities in access to technology and achieve the target expressed by the Sustainable Development Goal 9c (to connect each woman to the Internet by 2030).

Best Practice Examples:

- Make digital technologies more affordable, as cost remains one of the key obstacles for women to access digital infrastructure. Good practices to consider include those of financial resources from universal service funds to support Information and Communication Technologies (ICT) access for women and girls in Argentina and South Africa, or incentives targeting female customers to foster the adoption of ICTs (e.g. discounts on mobile devices) in Australia.

Priority 2: Promoting women’s digital literacy

The lack of digital literacy skills is one of the main reasons women and girls are slower to utilise mobile internet and excluded from the financial, educational, social and health resources of digital technology.

Best Practice Examples:

- The government of Morocco is working to establish a digital culture in schools, to ensure an equal access to technology for girls and boys. For example, students participate in various training courses in computer science, such as the training "Scratch", a tool for coding and developing mobile application.

¹⁹ Speakers included: the WEEF co-chairs; H.E. Ms. Sybel Galván Gómez, Ambassador and Permanent Representative to the OECD, Mexico; H.E. Dr. Maya Morsi, President of the National Council for Women (NCW), Egypt; Ms. Miyako Ikeda, Senior Analyst, Directorate for Education and Skills, OECD; Dr. Dima Jamali, Dean, College of Business Administration, University of Sharja and WEEF focal point, United Arab Emirates; Mr. Adil Bajja, Director of Strategy at the National Education Department, Morocco; Ms. Claude Roiron, Ministerial delegate for gender equality at the Ministry of Education, France; Dr. Nayef Stetieh, CEO of the Business Development Center, Jordan; Ms. Basmah Osman, Senior Advisor at the Federation of Egyptian Industries, Egypt; Ms. Francesca Borgonovi, Head of the Skills Analysis team, OECD Centre for Skills; and Mr. Ulrik Knudsen, Deputy Secretary-General, the OECD. For more information, see the Agenda of the webinar.
In July 2021, the Egyptian Ministry of Planning and Economic Development launched the national initiative “She is for a digital future” in cooperation with the United Nations Development Program (UNDP) and the global company Cisco. The initiative aims at enhancing the role of Egyptian women in the digital transformation by bridging the gender divide and training women from universities and the government sector on digital and computer skills.

The Federation of Egyptian Industries (FEI) increasingly supports the digital transformation of Egyptian SMEs, with a specific focus on women-led enterprises. Through the program “Maharat min Google”, in partnership with the market research and customized training company Lumas, over 2 000 MSMEs will be trained on essential digital skills to expand to new markets and connect with customers online during the programme. Women-led SMEs will access over 100 lessons in digital marketing, covering topics like search engine marketing, social media, e-commerce, geo-targeting, and data analytics.

Priority 3: Encouraging girls’ access to STEM studies

Attracting all girls and keeping them at school is the first step towards empowerment. This notably includes establishing compulsory education, making basic education free, providing financial incentives to compensate opportunity cost of girls’ education in low-income families, delaying the age of marriage, communicating on the positive returns of girls’ education.

Best Practice Example:

- The Moroccan Ministry of Education provides conditional cash transfer to poor families, as long as their daughters are in school. Morocco also builds community schools in rural areas, with a boarding school or a free transport system.

Tackling gender stereotypes is essential to change girls’ careers expectations. Participants underlined that social norms shared by teachers, parents, individuals- including women and girls-, the private sector, media, etc. traditionally associate STEM jobs with men. Thus, eliminate discriminatory social norms and stereotypes requires a whole-of-society shift.

Best Practice Examples:

- The Mexican “NiñaSTEM Pueden” Initiative, launched in 2017, aims to combat negative stereotypes and addresses the need to introduce STEM fields to girls in secondary school grades. The Mexican Ministry of Public Education, the Mexican Academy of Engineering and the OECD created a series of actions including conferences, digital content, workshops and mentoring program to develop the interest of young Mexican women - and their parents - in STEM areas. By listening to the stories of STEM professionals, children find inspiring role models and consider these professions as viable options for their future.

Morocco took measures to include equality principles and eliminate gender stereotypes from textbooks. In addition, the Equality Program ICRAM 2 2017-2021 foresees the integration in primary and secondary education of initiatives to boost girls' self-confidence and ambition. This is crucial as female students’ interest and sense of confidence in a field tend to feed one another. Thus, enhancing girls’ self-confidence and ambition enable them to overcome socio-cultural barriers and gender stereotypes.

- The French Ministry of Education puts gender equality at the centre of its strategy and appointed a Ministerial delegate to gender equality. Based on her advices, the Directorate dedicated to digital education provides to teachers and staff of the French educational system with specific trainings to tackle their unconscious bias and gender stereotypes, notably regarding girls’ performance and careers opportunities in the digital sector.
Panel discussions highlighted the need to encourage girl’s orientation in STEM studies through specific incentive measures targeting girls.

Best Practice Examples:

- For instance, Egypt has strengthened national efforts to develop education opportunities for girls and has created scholarships to facilitate girls’ enrolment in ICT, STEM and artificial intelligence studies.
- Similarly, the French Ministry of Education creates scholarships and quotas to increase girls’ enrolment rates in STEM studies.

Priority 4: Strengthening the public-private sector partnership through enhanced VET and apprenticeship

Panellists highlighted the potential of public-private partnerships in providing women’s access to skills relevant to the future demand for labour and facilitating their transition to working life.

Best Practice Examples:

- The Jordanian Business Development Center (BDC) considers public-private partnerships as crucial for private institutions to respond to the public sector’s knowledge and capacity building needs. In this way, the BDC encourages private organisations to collaborate with universities to deliver effective business courses and reach female students directly, what further enhances women’s skills and employability.

VET may help address the mismatch between women’s skills and labour market needs.

Best Practice Examples:

- In Jordan, the BDC puts VET at the heart of its skills development strategy. The BDC launched the “Maharat Employment and Training” and “Sanad” Programmes to address gaps between supply and demand. These initiatives based on training for employment and entrepreneurship have benefited thousands of young students and graduates.
- The OECD Centre for Skills shared good practices from OECD countries. For instance, Austria and Ireland have created financial incentives for employers in the digital sector to propose VET programs to women and increase the number of female apprentices.

Priority 5: Using gender data to design informed education policies

Speakers recalled the central role of gender data for policy makers to be able to assess the situation and develop appropriate, evidence-based responses and policies. Ideally, such data must cover several years to track changes and take corrective action to promote gender equality in education, as well as use and access to technology.

Best Practice Examples:

- The OECD Centre for Skills draws on country studies, in-depth analysis and gender data to explore how skills can be effectively developed for successful careers. Gender disaggregated statistics are essential to its work, to provide suitable and effective policy advice and analytical insights.
Similarly, PISA includes gender at the core of its measurement tools. The programme reviews performance differences between boys and girls, what enables to identify gender gaps, explore the roots causes of inequalities and analyse the evolution of disparities over time. With the PISA data, it is possible to examine how the gender gaps are associated with family, school and societal factors, which is useful to develop policies and practice for both boys and girls to reach their full potential.

The Moroccan Department of Education has an information system that produces statistics and indicators by gender on a regular basis. It includes “MASSAR”, a student-tracking tool, “ESISE”, a reporting tool, “Cartesco”, a tool for the elaboration of the annual school map, and “PSP”, a multi-year school-planning instrument. The government uses these gender-disaggregated indicators to develop educational policies, evaluate their performance, plan and monitor gender issues.

In France, the Directorate of Evaluation and Forecasting evaluates and measures performance in the fields of education and training, and publishes an annual report that includes a gender stereotypical indicator. This analysis by gender provides a more detailed view of the results and orientation of girls, and informs the government to steer effective public policies.

Towards further co-operation and social change

This first regional dialogue of the WEEF series on “Women’s Empowerment and Digitalisation in the post-COVID-19 MENA economies” stresses that MENA countries need to sustain their efforts to ensure that enhanced women’s digital skills fully contribute to a continued and inclusive recovery. Stakeholders’ attention and investment should focus on labour policies in addition to education, to create real opportunities for women’s integration in the digital labour market, as both employee and entrepreneurs.

Multilateral co-operation is a catalyst for change. The WEEF will continue to enhance peer learning and will strengthen its attention to labour policies and to the inclusivity of rural women through two upcoming webinars. The series of regional dialogues will inform the WEEF annual meeting and its Board, to establish a road map for future work.