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SKILLS FOR THE FUTURE

Empowering Economic Transformation through Digital Learning: The case of FutureX in Saudi Arabia



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Executive summary

This case study examines Saudi Arabia's bold commitment to reimagining education and training through digital transformation, with FutureX as its flagship initiative. Across the globe, countries are working to equip their populations with skills needed for a rapidly changing world shaped by technological advancements, demographic shifts, climate challenges, and evolving labor market demands. Many regions, including Middle East and North Africa (MENA), face pressure from aging populations, climate risks, and quickly evolving labor market demands, requiring new approaches to educating and upskilling their populations. FutureX represents a strategic effort to respond to these challenges, offering a scalable, inclusive, and forward-looking model to equip learners with the skills needed to thrive in a rapidly changing world.

Digital learning has emerged as a transformative force for upskilling and reskilling the workforce at speed and scale. By offering flexible, scalable, and cost-effective pathways, it enables individuals to acquire relevant skills without the constraints of time or location, reshaping how talent is developed in the modern economy. In Saudi Arabia, this shift aligns closely with Vision 2030 —a national blueprint to diversify the economy beyond oil revenues and foster a dynamic, skilled workforce — and with its Human Capability Development Program (HCDP), a key pillar of the vision aimed at building a globally competitive workforce equipped for the future. Skills development is at the heart of this agenda, including the 'Future Skills' priority, which focuses on equipping the workforce with competencies aligned with emerging economic and technological trends. FutureX directly contributes to this priority, positioning itself as a core enabler of Saudi Arabia's future-ready workforce strategy, essential for economic diversification, innovation, and global competitiveness. Yet the country faces a dual challenge: preparing its large youth population for the jobs of the tomorrow while reskilling the existing workforce amid rapid technological and digital advancements. Ensuring a steady supply of relevant, market-aligned training programs is crucial, and digital learning offers the scale, flexibility and adaptability needed to meet this challenge.

FutureX is Saudi Arabia's strategic response to the challenge of workforce development in a rapidly changing world. As a national e-Learning hub launched by the National eLearning Center (NeLC), FutureX builds an integrated, centralized ecosystem for education and training that fosters lifelong learning and continuous skills development. Established in 2018 as an independent entity guided by Vision 2030, NeLC regulates and licenses all digital learning providers, ensuring quality, compliance, and alignment with the national strategies. FutureX connects learners to a wide catalogue of global and local resources, partnering with e-Learning platforms, content developers, technology vendors, and over 1,000 public, private, and educational organizations. As an interconnected ecosystem, FutureX accelerates the scale-up of digital learning, upholds quality and compliance standards, and positions digital learning as a central pillar of Saudi Arabia's national transformation agenda.



FutureX has reached over 3.4 million learners, delivering nearly 18 million learning hours, and continues to expand rapidly. It has primarily operated under a Business-to-Government (B2G) model, collaborating with government entities, and expanding rapidly into the Business-to-Business (B2B) sector. FutureX enables organizations to create customized learning pathways from over 131,000 courses across 100 fields, with more than 87,000 tailored learning paths developed to date. The platform is designed for agility, allowing for the swift adaptation and launch of learning programs. Most learners acquire foundational skills in Business Administration, Computers and IT, and Data Science.

FutureX translates strategy into tangible outcomes through initiatives like MicroX and nationwide teacher development programs. The MicroX initiative, a key component of the HCDP, aims to launch 350 industry-driven micro-programs focusing on emerging skills, offering flexible, digitally delivered, short, stackable, and outcome-based learning with recognized micro-credentials. NeLC regulates and coordinates MicroX, collaborating with universities, sectoral skills councils (SSCs), and employers. MicroX has launched 71 programs and enrolled over 8,000 learners, with strong demand in business, technology, and data management skills. The teacher professional development program run by the National Institute for Educational Professional Development (NIEPD) has trained over 300,000 educators nationwide through online pathways, focusing on digital learning and technology integration.

FutureX leverages data-driven insights to guide continuous improvement and inform national strategies and contribute to global development goals. Its comprehensive monitoring and evaluation (M&E) framework tracks participation, course advancement, completion, and credential attainment, generating microdata used to refine programs and align learning outcomes with labor market needs. This framework is embedded within NeLC's established standards, quality assurance mechanisms, and policy frameworks, ensuring that M&E functions as an integral part of national governance and system accountability, rather than as a set of standalone activities. FutureX directly supports Sustainable Development Goal (SDG) 4 (quality education), SDG 8 (decent work), and SDG 9 (innovation and infrastructure) through its systemic approach and large-scale impact. By reaching over 3.4 million learners and delivering 18 million learning hours, it expands access to inclusive, high-quality digital education (SDG 4), while its labor market-aligned pathways foster employability and decent work (SDG 8). At the same time, initiatives like MicroX and global partnerships strengthen digital learning infrastructure and innovation (SDG 9), positioning FutureX as both a cornerstone of Vision 2030 and a global model for advancing the SDGs.

Looking ahead, expanding its reach, deepening strategic partnerships, and advancing the sophistication of skills development across sectors will guide the path forward for FutureX. By engaging more learners, firms, universities, and training providers, enhancing recognition and portability of credentials, and delivering advanced, job-specific pathways that integrate technical and soft skills, the platform can cement its position as a globally recognized model for digital transformation in education and workforce development.



Definitions and terminology¹



Digitization of the education system refers to the process of **converting physical objects into a digital format**. Digitizing paper-based education data and document scanning are relevant examples. In these processes, text extracted from physical paper is converted to PDF or other digital formats, which are subsequently stored on the computer. Digitization organizes data into bits (units of information encoded into ones and zeros) that allow computers to process, store, and transmit analog data.



Digitalization refers to **converting analog processes to digital processes** such as automating existing processes or retraining workers on using computers. Digitalizing education data in an educational management information system (EMIS) is an example. Digitalization goes further than digitization but does not yet use digital technology to introduce systemic or organizational changes.



Digital transformation is the **redesign of the education ecosystem, including its operational, organizational, and cultural aspects**. It is complex, multi-causal, and constantly evolving. It requires integrating digital technology and data into daily life and effectively managing the resulting changes that they bring about. Digital transformation requires the organizational system to evaluate, reengineer, and reimagine its functions and strategic outcomes. An example is ensuring digitally and data-enabled decision-making in education at all levels using feedback loops. Such agility will facilitate ongoing digitalization initiatives but should not be confused with them. There is no well-defined endpoint for digital transformation, which involves continuous improvement by default.



Digital transitions refer to **the advancements along a continuum with characteristic distinctions between analog, digitized, digitalized, and digitally transformed systems**, with certain inflection points. For example, for countries/regions, this would mean considering who they are (context), what they want (ambition), why (rationale), where they are (readiness), and what they expect to achieve (results/outcomes) to clarify the digital transitions that may need to occur in the economy, in society and consequently in education, and what processes and pathways to follow and what related mechanisms are needed for governance.

¹ Definitions from Rajasekaran, S., Adams, T., Tilmes, K. 2024. "Digital Pathways for Education: Enabling Greater Impact for All". World Bank, Washington, DC., unless otherwise noted.



Digital learning refers to **the use of technology to deliver, support, and enhance education and training**. It encompasses a wide range of formats, tools, and methods—such as online courses, virtual classrooms, mobile learning apps, video tutorials, simulations, and AI-driven platforms—that enable people to learn anytime, anywhere.



EdTech refers to the **private market and innovation ecosystem including universities, research institutions, nonprofits, start-ups, and enterprises that develop commercial products, applications, and services for educational and skills development** stakeholders. These can include B2C (business to consumer), B2G (business to government), and B2B (business to business) products and services.



B2B (Business-to-Business) refers to transactions, products, or services exchanged between two businesses. In a B2B model, one company provides goods or services to another company rather than to individual consumers.



B2G (Business-to-Government) describes interactions or transactions between businesses and government entities. In a B2G model, a company provides products or services to public sector institutions, often through contracts, tenders, or partnerships.



Learning Management System (LMS): An integrated online system that provides a set of interactive services for managing and creating courses, providing learning and examinations tools, tracking learner performance and reporting.²



Artificial Intelligence (AI): The **simulation of human intelligence processes by machines**, especially computer systems, used in adaptive learning and personalized education.



Microlearning: Bite-sized learning modules that focus on specific learning outcomes, often delivered through digital platforms.



Learning Analytics: The analysis of data regarding learning performance, activities and interactions between learners and other parties in the learning process to contribute to the evaluation and improvement of learning.³

² NeLC eLearning terminology, available at [<https://nelc.gov.sa/en/resources/terminology>].

³ Idem.



1. Digital transformation for a changing world

Across the globe, countries are racing against time to equip their populations with the skills needed to thrive in a rapidly changing world. Technological advancements, demographic shifts, climate challenges, and evolving labor market demands are all reshaping the present and the future of work, requiring new approaches to education and skills development to catch up with this transformation. In the Middle East and North Africa (MENA) region, these transformations are particularly pressing, as aging populations, climate risks, and digital disruptions converge, and are reshaping labor markets and public services, demanding a bold rethinking of how to educate, skill, and protect people.⁴ The region stands at a critical crossroads, where the ability to acquire new skills, adapt to economic shifts, and build resilient systems will determine its development path. In this scenario, adaptation and flexibility is required to keep up and reap the benefits of this transformation.

Digital learning has emerged as a transformative force for upskilling and reskilling the workforce at speed and scale. By offering flexible, scalable, and cost-effective pathways, it enables individuals to acquire relevant skills without the constraints of time or location, reshaping how talent is developed in the modern economy. In Saudi Arabia, this shift aligns closely with Vision 2030—a national blueprint to diversify the economy beyond oil revenues and foster a dynamic, skilled workforce—and with its Human Capability Development Program (HCDP), a key pillar of the vision aimed at building a globally competitive workforce equipped for the future. Skills development is at the heart of this agenda, essential for economic diversification, innovation, and global competitiveness. Yet the country faces a dual challenge: preparing its large youth population for the jobs of the tomorrow while reskilling the existing workforce amid rapid technological and digital advancements. Ensuring a steady supply of relevant, market-aligned training programs is crucial, and digital learning offers the scale, flexibility, and adaptability needed to meet this challenge.

Digital learning is not just reshaping how education is delivered—it marks a transformative shift in how education and workforce development are conceived. With the potential to make learning more accessible, adaptable, and inclusive, digital learning can enable self-paced learning, expand opportunities for underserved populations, and enhance traditional classroom instruction through blended learning models. As a strategic policy lever, digital learning empowers nations to foster agile, future-ready talent by delivering scalable and personalized upskilling and reskilling pathways. The COVID-19 pandemic accelerated this transition, spotlighting both the promise and the challenges of digital learning. While technology offers powerful solutions, it also introduces risks such as digital inequality, data privacy concerns, misinformation, and cyber threats. To address these risks and ensure quality, national-level regulation—such as robust quality assurance

4 Morgandi, Koettl-Brodmann, Gentilini, Duran, Caillaud & Saadah (2025)..



frameworks and licensing standards—is essential. As digital learning becomes central to national human capital strategies, ensuring equitable access and protecting learners will require deliberate investment, responsible governance, and cross-sector collaboration.

Countries that embrace digital learning position themselves at the forefront of the global knowledge economy. More than just a delivery mechanism, digital learning is becoming a strategic lever for economic transformation—equipping individuals with the competencies needed in emerging sectors, supporting continuous professional development, enabling lifelong learning and allowing countries to respond swiftly to labor market shifts. When paired with strong institutional frameworks and demand-driven content, digital learning can play a central role in building resilient, future-ready workforces. eLearning facilitates industry-aligned training, reduces skill mismatches, and empowers individuals to participate in new and emerging sectors, such as AI, cybersecurity, and data analytics. For governments and businesses, digital education serves as a strategic investment in human capital, fostering innovation and economic resilience.

The key question remains on the “how.” While the potential for leveraging technology and innovation in education is vast, the real challenge lies in effectively implementing these solutions to create meaningful and sustainable change. How can nations, institutions, and organizations build ecosystems that truly integrate digital tools while ensuring they are accessible, inclusive, and aligned with the evolving needs of the labor market? How can educational systems adapt to rapidly changing technologies while maintaining the quality of learning and preserving the human element of education? Addressing these questions requires thoughtful strategy, collaboration across sectors, and continuous feedback loops to assess progress and adjust as needed. It also involves navigating challenges such as ensuring equitable access to technology, fostering digital literacy, and building capacity among educators and learners to use new tools effectively. Ultimately, the “how” is about balancing innovation with practical application to create models that are not only technologically advanced but also responsive to the needs of diverse learners and societies.

As nations seek to harness this opportunity, initiatives like FutureX in the Saudi Arabia provide valuable insights into how to create and sustain a learning ecosystem that can drive a large-scale transformation in education and training. Countries around the world are turning to innovative solutions to reimagine learning and address skill gaps, but there is no one-size fits all solution. Saudi Arabia is embracing this challenge by: (i) leveraging cutting-edge technology to establish a centralized digital education ecosystem that supports students, professionals, and lifelong learners; (ii) integrating features like AI-driven personalization, industry-aligned certifications, and collaborative partnerships with educational institutions and the private sector; and (iii) promoting accessibility and inclusivity to ensure that learners, regardless of location, can access high-quality, future-ready education. This initiative not only supports Saudi Arabia’s Vision 2030 goals but also offers valuable lessons for other countries seeking to reimagine education and skills development in an increasingly digital world.

This case study examines FutureX as a model of a digital transformation in education and training for workforce development at scale. Through a comprehensive review, stakeholder analysis, and structured interviews, we explore FutureX’s key achievements, its alignment with labor market demands, and its contributions to Saudi Arabia’s national development goals. The study also provides actionable insights for other nations looking to build resilient, future-ready workforces through digital learning.



2. Background and context: The challenge

Saudi Arabia has embarked on an economic transformation through Vision 2030, a comprehensive blueprint aimed at reshaping the nation's future. This vision aims to build a Vibrant Society, a Thriving Economy, and an Ambitious Nation, positioning the Kingdom as a global leader in innovation, sustainability, and economic diversification. At the core of Vision 2030 is the drive to reduce dependency on oil revenues by expanding other sectors such as technology, tourism, entertainment, and renewable energy. Vision 2030 also focuses on fostering a dynamic and skilled workforce that can adapt to the demands of a rapidly evolving global economy. Key initiatives under this vision include empowering women, improving healthcare, expanding digital infrastructure, and enhancing the quality of education and training to better align with market needs. By investing in human capital, fostering innovation, and creating an inclusive environment for all its citizens, Saudi Arabia aims to transform itself into a modern, competitive, and sustainable economy that thrives both regionally and globally.

Skills development is at the heart of Vision 2030, as a well-equipped workforce is essential for economic diversification, innovation, and global competitiveness. The transformation of key sectors—such as technology, renewable energy, tourism, and advanced manufacturing—requires a labor force with adequate skills and the agility to keep pace with an evolving landscape. Recognizing this, Saudi Arabia is shifting from occupational hiring to skills-based hiring, aiming that workers are assessed based on their competencies rather than just formal qualifications. This shift is complemented by the development of a National Skills Strategy, which aims to enhance workforce adaptability, foster lifelong learning, and align education and training programs with labor market demands. By prioritizing skills development and creating a more dynamic labor market, the Kingdom is not only preparing its citizens for the jobs of the future but also reinforcing its ambition to become a global hub for innovation and sustainable development.

Like other countries, Saudi Arabia faces a dual skills challenge: preparing future workers and reskilling the current workforce. For those already in the labor market -over 16.5 million workers⁵- the rapid pace of technological and digital advancements is creating an urgent need to upskill and reskill. The rapid pace of digital advancements are reshaping industries, which require continuous adaptation and the acquisition of evolving competencies like digital and green skills. Digital skills such as data analysis, AI, cloud computing, and cybersecurity are increasingly essential across sectors, with 1 in 3 jobs in MENA requiring at least one digital skill.⁶ At the same time, the transition to a greener economy is driving demand for expertise in renewable energy, sustainable construction, and circular economy practices across sectors. However,

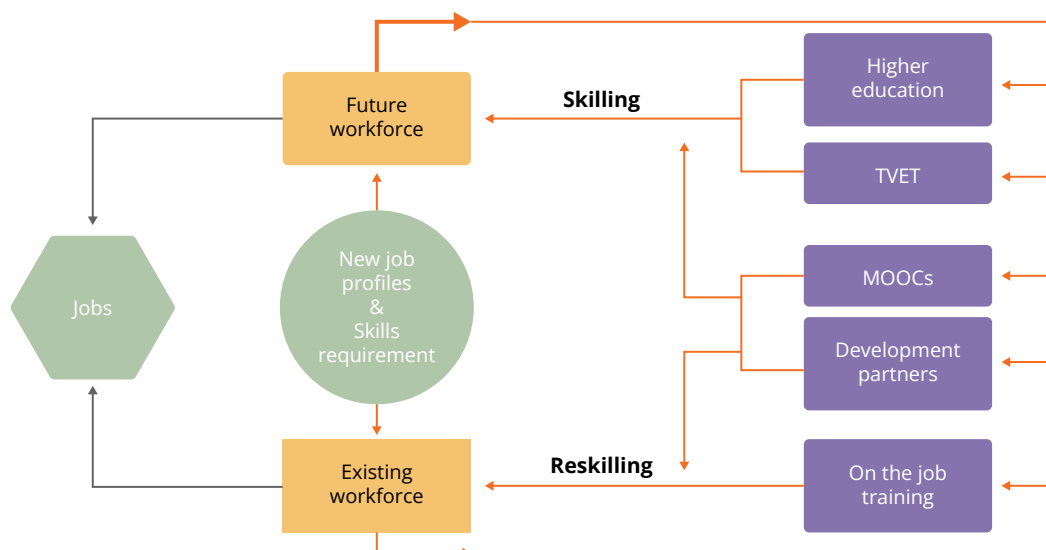
⁵ World Bank statistics (2024).

⁶ Sabarwal, Sribhashyam, Kadiri & Masood (2025).



FIGURE 1.

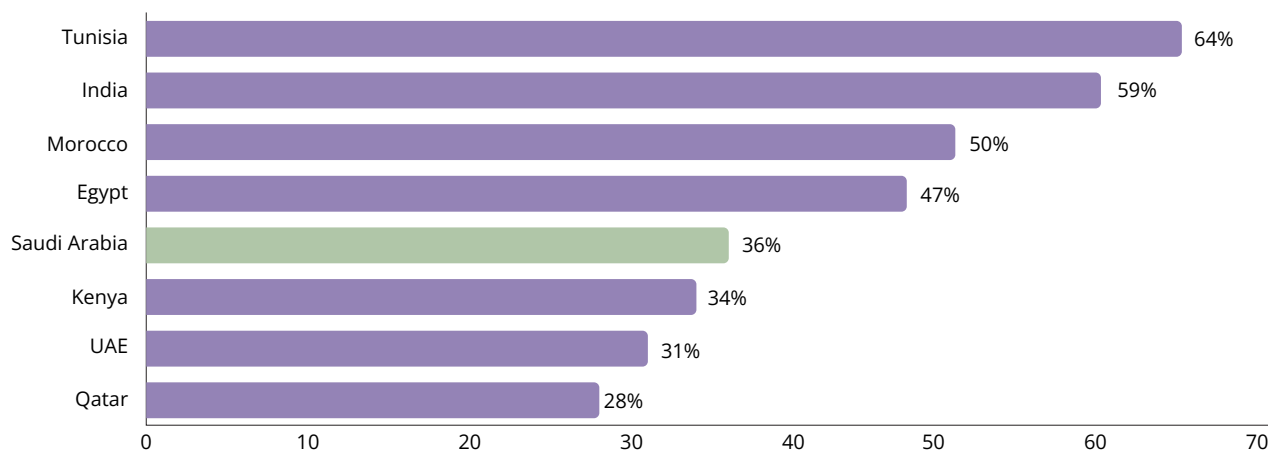
The dual skills challenge



Source: Adapted from Cao et al. (2024).

FIGURE 2.

Share of job postings that require digital skills



Source: Sabarwal, Sribhashyam, Kadiri & Masood (2025).

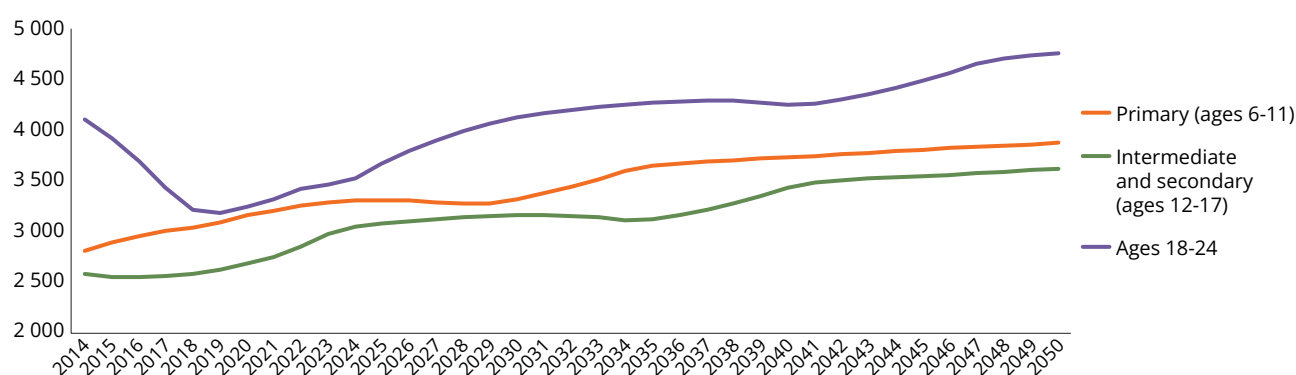
many workers face barriers to reskilling, including limited access to training, financial constraints, and the challenge of balancing learning with existing job responsibilities. Addressing these gaps through targeted upskilling and lifelong learning opportunities is crucial to ensuring a workforce that remains competitive and resilient in the face of rapid change.



At the same time, Saudi Arabia must continue preparing its large and growing youth population for the jobs of the future. It is expected that over the next 25 years, Saudi's labor market will need to absorb 1.3 million new entrants, as a significant share of the population is under 30. This demographic shift will place enormous pressure on schools, universities, and vocational institutions. As the education system expands to meet this demand, ensuring sufficient resources, infrastructure, and high-quality teachers will be essential. Moreover, as young people transition into the workforce, they will need an education system that equips them with future-proof skills aligned with the evolving job market. In response, the government is investing in educational innovation, digital learning platforms, and infrastructure to prepare the next generation for success. These efforts are key to realizing Vision 2030's ambition of a diversified, knowledge-based economy, where human capital drives sustainable growth.

FIGURE 3.

Population estimates 2014-2050 in Saudi Arabia, by age (million people)



Source: UNPOP.

Ensuring the supply of relevant, market-aligned training programs is crucial to the success of this transformation,⁷ and digital learning provides a scalable, flexible solution for upskilling and reskilling the workforce in line with Saudi Arabia's new economic model. To meet the demands of a fast-changing labor market, workers and jobseekers should be provided with training opportunities that are accessible, tailored to learners' needs and demand-driven. As labor market needs evolve, training must be accessible, responsive to learners' needs, and closely aligned with industry priorities. Digital learning is central to this effort, offering scalable and flexible pathways for individuals to build the skills required in emerging fields. By leveraging advanced technologies such as AI, adaptive learning platforms, and virtual reality, digital education can offer personalized, flexible, and accessible learning experiences tailored to diverse needs. Moreover, digital learning supports lifelong education, equipping workers with in-demand competencies in fields like cybersecurity, data science, and green technologies. By integrating digital learning into the broader Vision 2030 framework, Saudi Arabia is strengthening its human capital, bridging skill gaps, and fostering a knowledge-based economy capable of competing on a global scale.

7 OECD (2024), Training Supply for the Green and AI Transitions: Equipping Workers with the Right Skills, Getting Skills Right, OECD Publishing, Paris, <https://doi.org/10.1787/7600d16d-en>.

3. Saudi Arabia— innovating a way forward with Future X



Institutional setting

NeLC was established in 2018 as an independent entity to reshape digital learning and create a reliable and accessible eLearning ecosystem in Saudi Arabia. Back in 2009, NeLC was established under the Ministry of Education, and transitioned to an independent entity in 2018. Guided by Vision 2030, the center seeks to regulate, accelerate, and orchestrate digital learning practices across sectors, fostering a culture of lifelong learning and skills development. NeLC aims to ensure that learners, professionals, and public and private institutions have access to high-quality educational and training resources.

NeLC is envisioned as a global center of excellence in digital learning, ensuring that education and training align with evolving technological and market demands. Its mission is to accelerate the adoption of digital learning, enhance collaboration, and promote high-quality educational experiences. Through regulatory oversight, research, and technological advancements, the center supports the credibility and efficiency of eLearning. NeLC also plays a role in integrating digital education across public and private institutions, providing a unified framework that ensures consistency and quality across all levels of learning.

As the national authority for governance and quality assurance, NeLC develops and enforces eLearning standards, regulations, and competency frameworks to ensure system-wide quality and efficiency. It licenses educational and training institutions, accredits digital programs, and qualifies service providers. To date, over 940 institutions have been licensed to deliver digital learning, and more than 3,300 programs and courses have received official accreditation. This regulatory function raises the efficiency of service providers, strengthens private sector participation, and enhances the overall user experience.

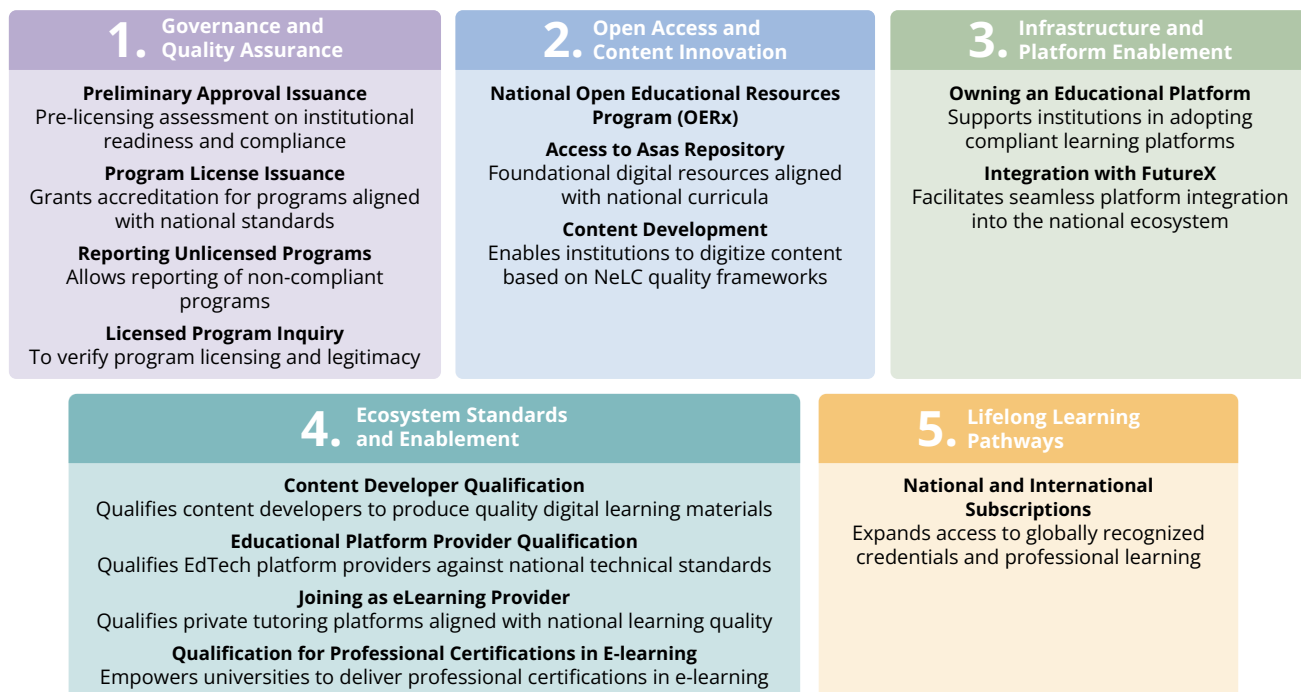
Beyond regulation, NeLC provides professional consultation, technical guidance, and shared digital infrastructure to accelerate adoption of best practices. Institutions benefit from access to national repositories and platforms—such as OERx for open educational resources, Asas for content hosting, and FutureX for integrating global and local learning opportunities. NeLC's enablement role ensures that all institutions operate within a standards-driven, equitable, and sustainable digital learning environment, improving the efficiency of government and private sector training through shared infrastructure and collaborative use. It also offers professional certificates in eLearning design, delivery, and quality assurance to build national capacity.

NeLC drives innovation and continuous improvement in digital learning through research, experimentation, and knowledge exchange. It leads initiatives such as the AI Sandbox for Digital Education, providing a safe space to test and evaluate emerging technologies, and organizes conferences, forums,



FIGURE 4.

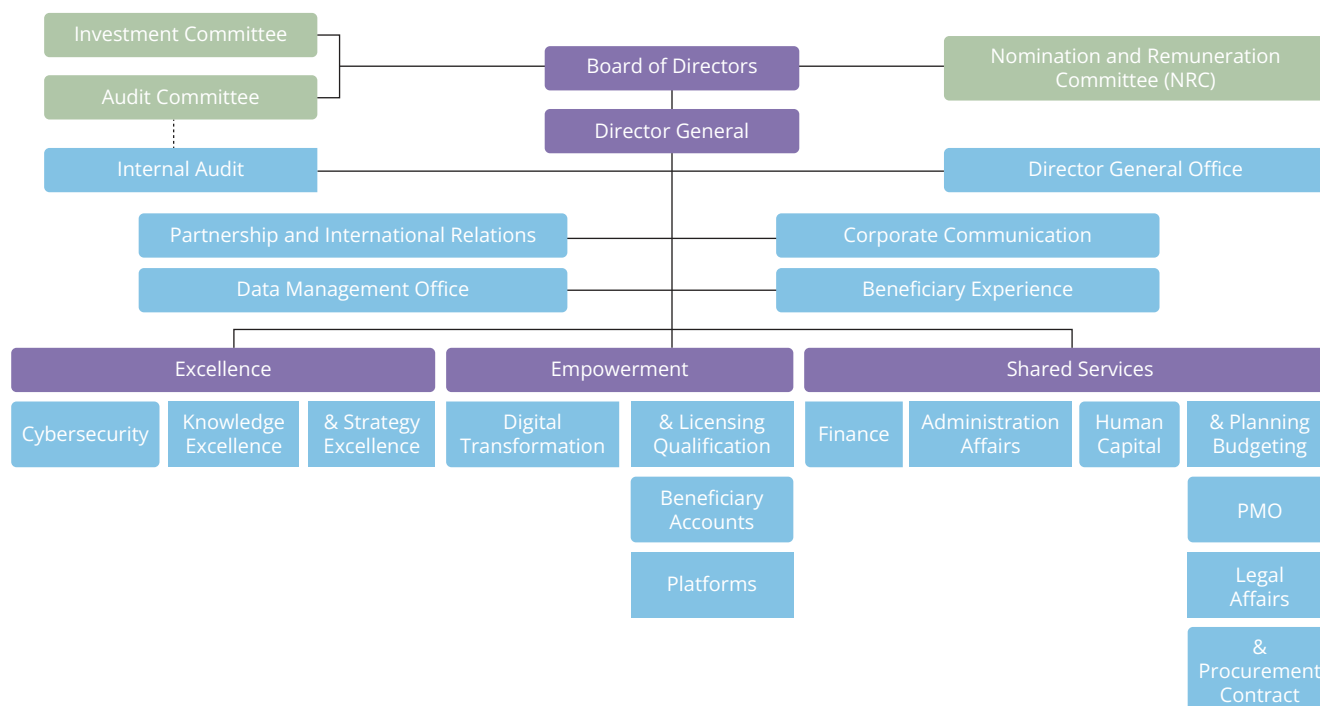
Roles of NeLC



Source: Authors' compilation based on NeLC.

FIGURE 5.

Organizational structure of NeLC



Source: NeLC.



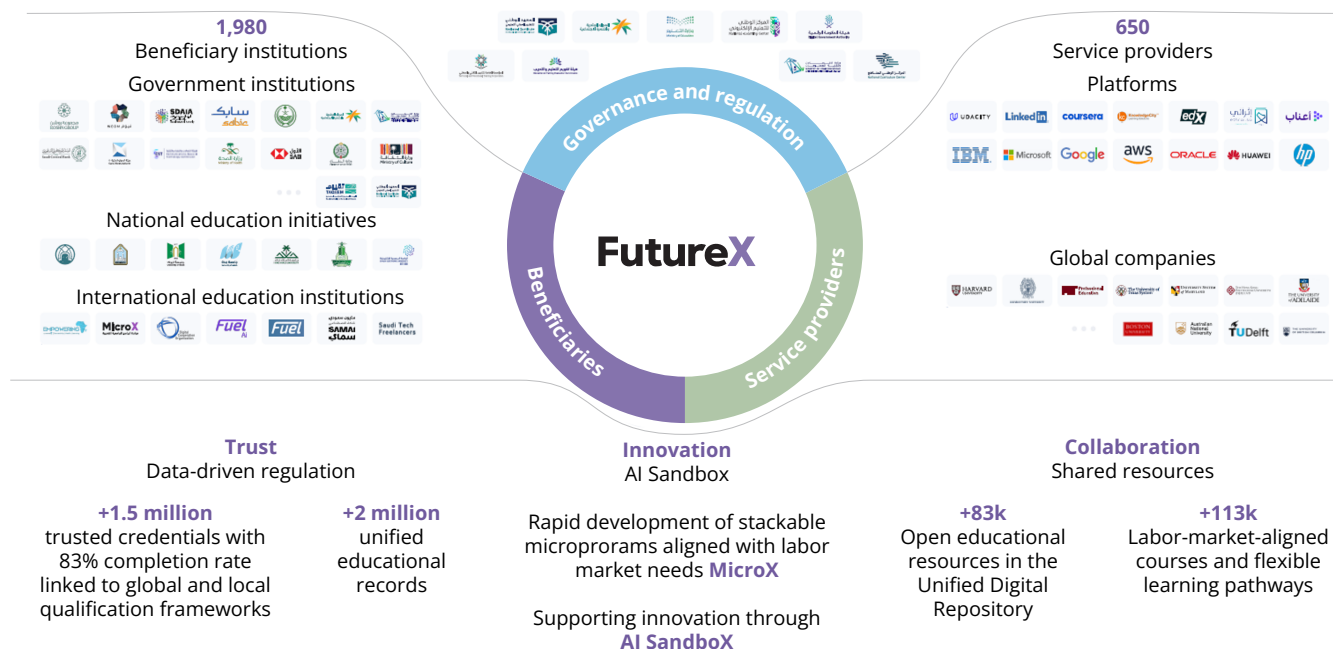
and workshops to foster collaboration across sectors. Through its focus on research and professional development, NeLC helps to advance digital pedagogy, strengthen institutional capacity, and position Saudi Arabia as a regional and global leader in digital learning.

FutureX design features

FutureX is Saudi Arabia's national eLearning hub, a flagship initiative from NeLC, designed to build an integrated, centralized ecosystem for education and training. It is a fully interoperable and integrated digital learning ecosystem built on a platform strategy that brings together providers and learners through institutional partnerships. It connects learners to a wide catalogue of global and local educational resources, offering opportunities for professional development, skill acquisition, and credentialing. All content published on FutureX complies with NeLC's national eLearning quality standards, ensuring consistency, credibility, and alignment with Saudi Arabia's national frameworks. Anchored in national policy, FutureX operates under regulations that require all digital learning in the Kingdom to meet NeLC's standards⁸—positioning it as a trusted gateway for high-quality, standards-aligned learning. To deliver on this mandate, FutureX partners with over 50 leading eLearning platforms, content developers and learning platform vendors to offer their content through FutureX. On the demand side, FutureX partners

FIGURE 6.

FutureX work model



Source: NeLC.

8 See <https://nelc.gov.sa/en/resources>.



with over 2,155 public, private, nonprofit and educational organizations, and provide them with access to the platform to meet their diverse education and training needs. These partnerships enable institutions to upskill their workforce, enhance academic offerings, and implement targeted training programs aligned with sectoral priorities. As a centralized, one-stop shop for digital learning, it streamlines access to diverse learning pathways and supports lifelong learning across sectors and skill levels.

FutureX directly supports Saudi Arabia’s Vision 2030, the HCDP, and the National Skills Strategy by serving as a national digital learning hub that expands access to high-quality, future-oriented education and training. Aligned with Vision 2030’s goals of economic diversification and human capital development, FutureX enables lifelong learning and broad access to skills development, helping to equip citizens for a rapidly evolving labor market. Under the HCDP, it plays a critical role in enhancing the quality and relevance of learning by connecting learners to global and local content, supporting skills acquisition in areas such as digital literacy, green skills, and language learning, and promoting inclusion across regions and demographic groups. FutureX also advances the National Skills Strategy by acting as a core platform for delivering priority skills training, fostering public-private partnerships, and generating data that can inform policy and workforce planning—positioning Saudi Arabia to build a dynamic, responsive, and resilient skills ecosystem. By doing so, FutureX directly contributes to the Future Skills agenda, a national priority focused on preparing Saudi Arabia’s workforce with the competencies needed for the jobs of tomorrow, ensuring the country builds a dynamic, responsive, and resilient skills ecosystem capable of driving long-term economic growth and innovation.

FutureX functions as an interconnected and dynamic learning ecosystem, offering tailored solutions for learners, organizations, universities, and industries. At the core of FutureX is its comprehensive skills framework based on National and Global Skills frameworks, which allows learning content alignment with evolving market demands. The platform also includes DNAx, a repository of reusable learning objects that can be customized for various educational requirements. FutureX provides a structured methodology for content creation, including tools for needs analysis, instructional design, and deployment, all aimed at delivering effective learning experiences. It also offers technical support, capacity-building initiatives, and collaborative spaces to foster continuous innovation, ensuring that learners and organizations remain adaptable to the demands of the labor market.

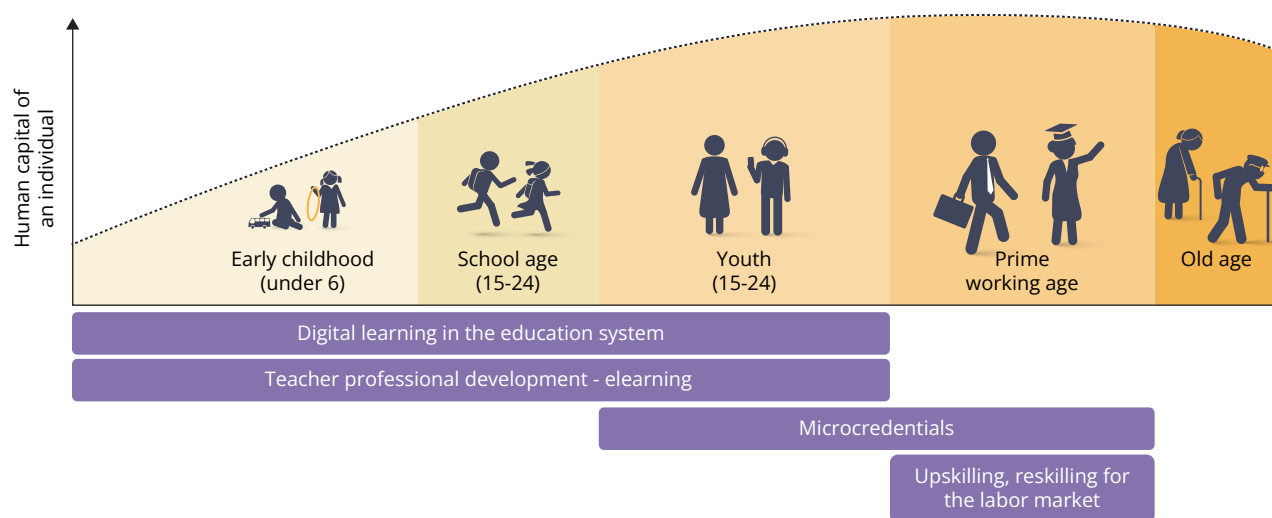


Scale and scope

FutureX has reached over 3.4 million learners, completing nearly 18 million learning hours, helping students, educators, and professionals to achieve their educational and career goals. Students use FutureX to develop their skills, earn certifications, and advance academically, while educators utilize the platform for professional development and instructional resources. Professionals across various industries use FutureX for upskilling and reskilling, ensuring they remain competitive in the job market. The platform continues to grow and expand, supporting lifelong learning and workforce development.

FIGURE 7.

A lifecycle approach to skills development and FutureX service delivery



Source: Authors' compilation.

So far, FutureX has operated mainly under a Business-to-Government (B2G) model, collaborating with government entities to align digital learning initiatives with workforce development goals. By working closely with public institutions, FutureX has contributed to enhancing accessibility, scalability, and effectiveness of educational resources, ensuring that the needs of the national workforce are met. 432 government institutions have used FutureX for their training needs, reaching over 1 million public sector workers, and while B2G remains the focus, FutureX is expanding into the Business-to-Business (B2B) sector to provide customized solutions for industries with specific workforce development needs.

In addition to FutureX, NeLC is driving several initiatives to enhance the accessibility and quality of learning in Saudi Arabia, such as the OERx program, which promotes open educational resources (see Figure 4). This program allows institutions and individuals to access, develop, and share high-quality learning materials freely. As mentioned above, NeLC also offers certification programs for eLearning and instructional design, ensuring that educators meet rigorous standards for delivering high-quality online education. These initiatives complement FutureX and contribute to a robust and comprehensive national learning ecosystem.



Course offerings, pathways curation and demand

FutureX enables organizations to create customized learning pathways that align with their specific skills and workforce development needs. The platform features a modular and reusable learning object repository, giving users access to high-quality content that can be tailored to specific learning goals. With support from NeLC and subject matter experts, organizations can curate learning paths from over 131,000 courses across 100 fields available through the platform. To date, more than 87,000 tailored learning paths have been developed through FutureX. These pathways allow organizations to enroll selected learners into learning pathways, ensuring a structured and targeted approach to skill acquisition. Organizations can also monitor progress and assess learning outcomes using data-driven insights. Chapter 4 provides examples of organization across various industries and sectors have implemented customized pathways to upskill employees in different industries and sectors, leveraging FutureX's tools to support continuous learning and workforce readiness.

FIGURE 8.

Ten most enrolled pathway fields



Source: NeLC.

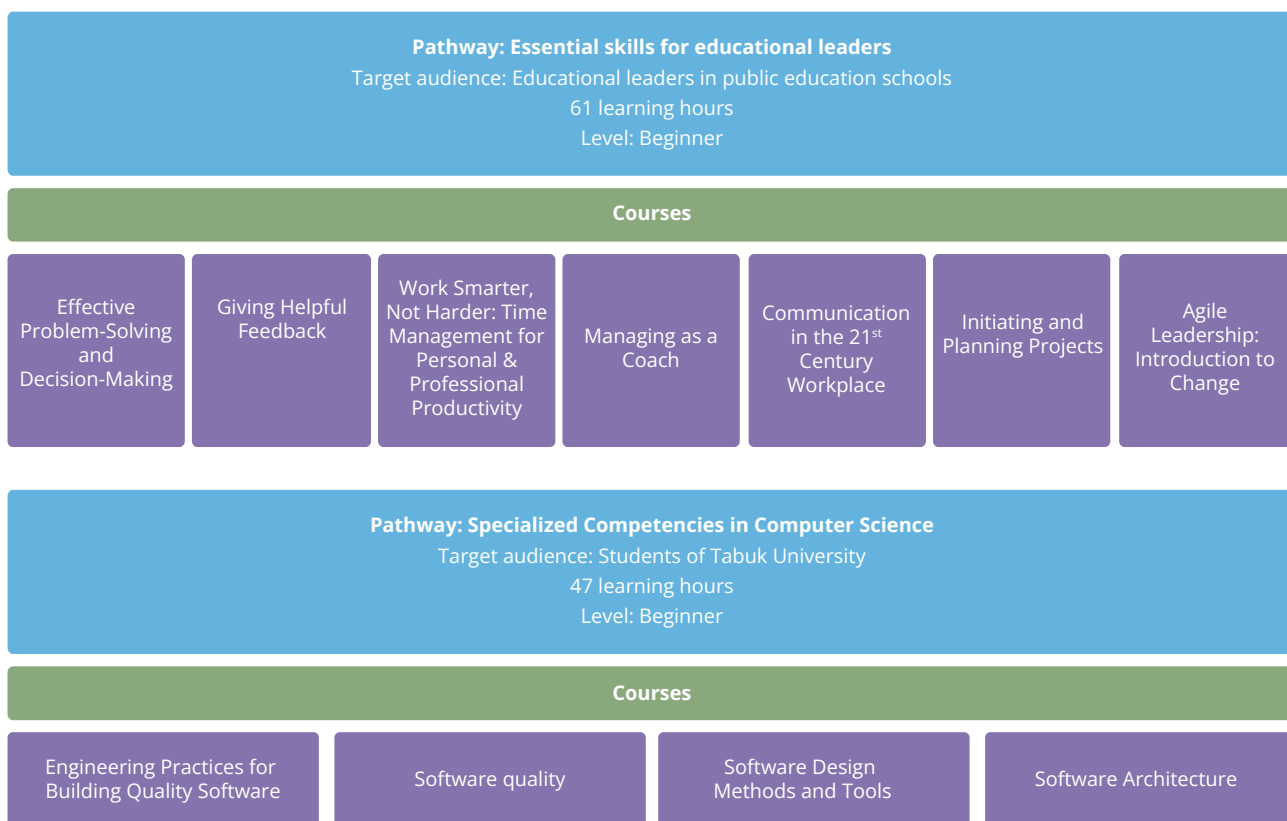
Speed is key when it comes to upskilling and reskilling, enabling organizations to rapidly respond to evolving workforce needs and emerging industry demands. FutureX is designed with agility in mind, allowing for the swift adaptation, curation, and launch of learning programs. With the support of NeLC and a structured design methodology, organizations can identify skills gaps, source relevant content, and build tailored learning pathways in a matter of weeks. On average, a fully curated and designed pathway can be developed within just three days, significantly accelerating the learning cycle. This fast turnaround empowers organizations to stay ahead in dynamic labor markets, ensuring that employees can gain the right skills at the right time.

NeLC enhances this process through AI-driven personalization and efficiency. Its AI-Based Skill Extraction System automatically analyzes course materials, job descriptions, and CVs to extract and categorize relevant skills, creating a unified skills database that ensures precise alignment between learners, content, and workforce needs. Complementing



FIGURE 9.

Examples of pathways



Source: NeLC.

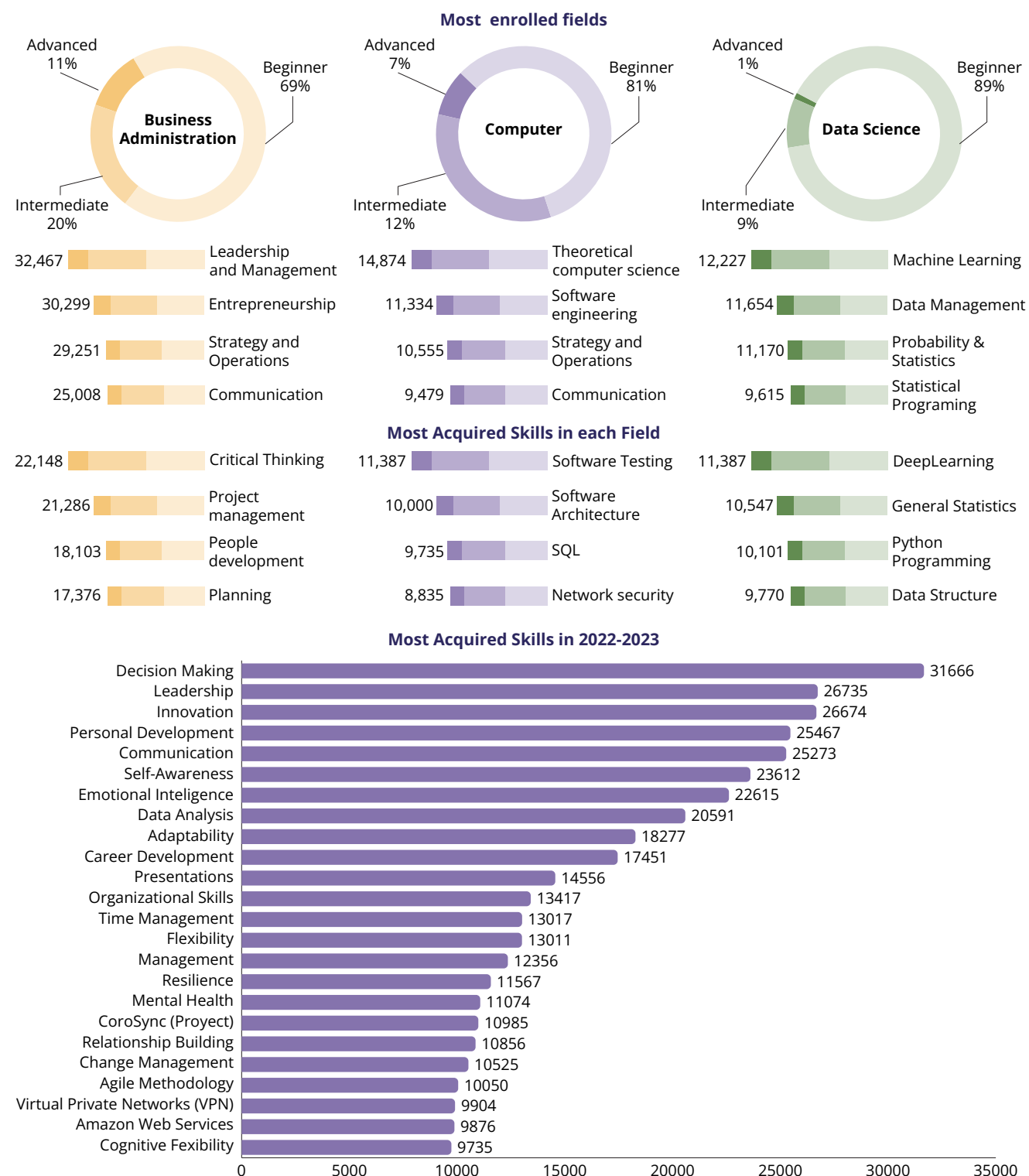
this, the AI-Driven Personalized Learning Pathways system uses these insights to identify individual skill gaps and generate optimized learning journeys in minutes—tasks that traditionally take weeks. To date, NeLC has developed 519 personalized learning pathways, illustrating the transformative potential of AI in delivering agile, data-informed, and learner-centered digital solutions.

Most learners on FutureX are enrolled in courses to acquire foundational skills in Business Administration, Computers and IT, and Data Science—fields that are in high demand across the Saudi labor market. As part of a broader effort to align education with labor market needs, FutureX is integrated with Saudi Arabia's National Skills Framework. Courses on the platform are mapped to required competencies using ONET, one of the world's largest open-source skills database. This mapping ensures that learning is standardized and aligned by sector, subsector, and specific skillsets, enabling learners and organizations to pursue structured, goal-oriented upskilling and reskilling pathways.



FIGURE 10.

Most enrolled fields, by skill level and most acquired skills in 2022/23



Source: NeLC.



Monitoring and evaluation

FutureX employs a comprehensive monitoring and evaluation (M&E) framework to track its goals and outcomes, inputs, activities, and results. This framework is grounded in NeLC's established standards, quality assurance mechanisms and policy frameworks, ensuring that M&E are embedded within a robust governance structure rather than standalone activities. The platform centralizes and analyzes detailed data on user participation, course advancement, completion rates, and credential attainment to assess progress over time. Learning monitoring and assessment tools are integrated at multiple levels of the learning experience. The learning evaluation methodologies vary depending on the structure and objectives of each course within a pathway. These include formative assessments embedded in course units, final assessments, practical projects, peer evaluations, and the issuance of completion certificates. Organizations can also use dashboards to monitor learner progress and outcomes, supporting evidence-based decision-making. This robust M&E system enables FutureX to continuously refine learning offerings, improve user experience, and ensure alignment with workforce development goals.

The microdata generated through FutureX's learning processes constitutes a gold mine for understanding how users are learning and developing new skills. This granular data captures learner behaviors, engagement patterns, completion trajectories, and assessment outcomes across diverse fields and demographic profiles. Such insights can inform not only improvements to course and pathway design, but also national strategies on adult education, workforce development, and lifelong learning. By analyzing this data, policymakers and educators can identify what works, for whom, and under what conditions—paving the way for more personalized, effective, and scalable learning models.



4. Ten features of FutureX

Structured interviews with stakeholders and user data from FutureX identified ten core features that make the platform effective in supporting large-scale digital learning. These features not only underpin FutureX's success but can also serve as valuable reference points for other systems or countries exploring the digitization of education and training pathways. From its centralized architecture and tailored learning pathways to its modular content, robust data tracking, and strong quality assurance mechanisms, FutureX offers a scalable model for advancing lifelong learning and workforce development in the digital age.

- 1. Alignment with National Goals:** FutureX's alignment with Saudi Arabia's Vision 2030 ensures that digital learning initiatives support the country's broader economic and social objectives.

By directly linking its goals with Vision 2030 and the HCDP, FutureX becomes more than just a digital learning platform; it is an integral part of the national transformation agenda. This alignment ensures that educational reforms address the skills gaps critical to achieving a knowledge-based economy. It aims to help the nation not only to meet its short-term educational goals but also to future-proof its workforce by developing the capabilities needed for long-term economic success. The platform also offers a solution for organizations to comply with their own strategies, which in order to be aligned to Vision 2030 include digital developments, which can be implemented through FutureX.

"FutureX aligns with the country's push for digital education as part of Vision 2030."

User organization

- 2. Integration with National Education System and Industry Needs:** The integration of FutureX into both the national education system and industry requirements can ensure students are equipped with relevant, in-demand skills.

FutureX aims to bridge the gap between education and industry by aligning its curriculum with the specific needs of the labor market. By doing so, it ensures that students are acquiring industry-relevant skills. This alignment makes learning more meaningful and ensures that graduates are ready to enter the workforce with the skills employers are actively seeking. It also supports the dynamic nature of industries by enabling rapid updates to curriculum content as industries evolve.

"The platform has helped institutions transition smoothly to digital formats."

User organization



- 3. Accessibility and Inclusivity:** FutureX is designed to address accessibility and inclusivity, aiming to ensure that learning opportunities are available to all, regardless of background or ability.

The platform's design prioritizes inclusivity by offering learning opportunities for a wide range of learners—whether they are in remote regions, come from underserved backgrounds, or have different abilities. Through tailored content, language options, and accessible features, FutureX ensures that all learners can engage with the material and benefit from high-quality education. This inclusivity is critical in closing the education gap, offering equal opportunities for personal and professional growth regardless of socioeconomic status, geography, or physical ability.

"We use this platform because it facilitates the training for us. As you know, the Kingdom of Saudi Arabia is a very vast country. It is hard to imagine training people in person or in small groups nationwide. So, we use FutureX as a national platform that facilitates online training for all."

User organization

- 4. Promotion of Lifelong Learning and Workforce Readiness:** FutureX fosters a culture of lifelong learning, ensuring individuals are always equipped with the skills needed for a rapidly changing workforce.

In today's fast-paced world, the need for continuous learning is more critical than ever. FutureX champions this concept by offering flexible, accessible learning that individuals can engage with throughout their lives. Whether seeking to advance in their current role, shift industries, or simply stay updated with new technological developments, users can access a wide array of courses designed to meet the needs of the modern job market. This approach not only helps individuals stay competitive but also prepares them for the uncertainty of a rapidly changing work environment.

"It (FutureX) is assisting the youth in developing their skills... It has very diversified courses, innovative courses as well—things that are a little bit out of the traditional training."

Partner university

- 5. Global Outreach Potential:** FutureX's digital platform has the potential to reach a global audience, extending Saudi Arabia's educational influence worldwide.

Beyond Saudi Arabia's borders, FutureX's digital model positions it as a potential global leader in educational innovation. The scalability of its platform allows it to reach learners around the world, offering access to high-quality education regardless of location. By exporting Saudi Arabia's knowledge and expertise in digital learning, FutureX plays a significant role in strengthening the country's global presence, while providing scalable educational solutions that can be adapted by other nations looking to enhance their own educational systems. This is particularly relevant for the MENA region, where disparities in educational access, quality, and infrastructure persist. FutureX's model offers a blueprint for addressing these challenges by leveraging technology to bridge gaps in teacher capacity, curriculum delivery, and lifelong learning opportunities.



Its emphasis on local content development, Arabic-language resources, and partnerships with regional institutions enhances its relevance and adaptability across diverse contexts. Recognized in 2025 as “Best Government Capacity Building Initiative” at the GCC Digital Government Awards, FutureX demonstrates growing regional influence while supporting Saudi Arabia’s Vision 2030 and HCDP, positioning it as a scalable, standards-aligned model for strengthening institutional capacity and workforce development across the Gulf.

By facilitating cross-border collaboration and knowledge exchange, FutureX can contribute to building a more interconnected and resilient regional education ecosystem, supporting broader goals of economic diversification and human capital development across the MENA region.

6. Partnership with Stakeholders: Successful digital learning initiatives like FutureX rely on strong partnerships built on trust, collaboration, and shared innovation.

The power of FutureX lies in its ability to forge deep, trust-based collaborations with key stakeholders, including government bodies, educational institutions, and industry leaders. These partnerships help ensure that the platform remains relevant, responsive, and innovative. By working together, these stakeholders can co-create a learning environment that supports both individual development and broader national goals. This collaborative approach ensures that FutureX can scale, improve, and deliver high-quality education that meets the evolving needs of learners and industries alike.

“They (NeLC) are organizing everything related to eLearning—from the user experience with providers to the types of courses developed and how they’re presented on the platform... They have lifted the standard, not only for the courses they provide but also for the systems they continue to improve with their partners in success.”

National provider

7. Scalability as a Solution for Upskilling and Reskilling: FutureX’s scalable model provides an efficient, cost-effective solution for upskilling and reskilling the population, addressing the demand for evolving skill sets.

As the job market rapidly evolves, the need for continuous upskilling and reskilling has become more pressing. FutureX offers a scalable solution that can reach a wide audience across various demographics, offering flexible learning paths for those looking to enhance their skills. FutureX has leveraged AI to design personalized learning pathways, enabling learners to address skill gaps efficiently and pursue targeted development. The platform’s scalability ensures that it can adapt to the growing demands of the workforce, providing workers across different sectors with the tools they need to stay competitive. This scalability is particularly crucial for developing economies, where access to high-quality education might otherwise be limited.



- 8. User-Centered Design and Experience:** The user-centered design of FutureX ensures an intuitive, engaging learning experience that can adapt to the unique needs of each learner.

By focusing on the needs and behaviors of learners, FutureX creates a platform that is not only functional but also engaging and easy to navigate. The platform's user-centered design ensures that learners of all levels, from beginners to advanced, can easily find relevant content and progress through courses at their own pace. Continuous feedback loops allow the platform to evolve based on real-time user experiences, ensuring it remains user-friendly and effective in helping learners achieve their goals. This personalized approach increases engagement and retention while enhancing learning outcomes.

- 9. Data-Driven Decision-Making:** Leveraging data analytics, FutureX continuously refines its content and learning experience to improve outcomes and meet learner needs. FutureX's use of data is crucial for driving improvements and tailoring the learning experience to the needs of individual users. By analyzing user data, such as engagement levels, learning progress, and feedback, the platform can make real-time adjustments to content and delivery methods. This data-driven approach allows FutureX to optimize the learning experience, ensuring that it stays relevant and impactful. Furthermore, it provides stakeholders with valuable insights into how the platform is performing, enabling evidence-based decision-making and continuous enhancement of educational outcomes.

"As a data-driven regulator, I've been able to see that feedback loop and the way that data are used to inform the impact of implementation against policy...this is something I think is at the top of the list... I'm not aware of any country that has done that as well."

International provider

- 10. The Role of Policy and Investment:** The achievements of FutureX emphasize the importance of sustained government policy and investment in educational innovation and digital infrastructure.

Government support, both in terms of policy and investment, is essential for ensuring the scalability and sustainability of digital learning initiatives like FutureX. With strategic investments in technology, infrastructure, and educator training, the government can create an environment where digital learning platforms can thrive. These investments help ensure that the necessary resources are in place for long-term success, from robust digital infrastructure to policies that support innovation and access. By prioritizing education in this way, governments can drive progress toward a more inclusive, skilled, and adaptable workforce.

"If we can understand the policy objectives of a given country as a vendor, there's a few things that we can do on the immediate side, we can help align what our capabilities are, with what their needs are. It just really reduces the amount of time in us trying to discover and guess sometimes what the objectives are."

International provider



5. FutureX at work: How are organizations using FutureX

This section highlights two practical examples of how FutureX is being used for delivering skills training. By leveraging FutureX's digital infrastructure and diverse learning pathways, these initiatives aim to improve workforce skills. These examples demonstrate the platform's flexibility and effectiveness in fostering continuous learning and workforce growth across different sectors.

Building skills for a dynamic labor market: MicroX 2024-2027

The MicroX initiative is a key component of the HCDP, designed to equip learners with emerging skills in alignment with labor market demands. The initiative aims to launch 350 micro-programs in collaboration with universities and industry leaders over four years, offering a flexible, accessible, and outcome-driven approach to education. By focusing on short, targeted learning, the initiative ensures that participants gain practical, applicable skills that enhance their employability and career growth. All micro-programs are delivered through FutureX. Ensuring unified access, national quality standards and learner tracking.

The design of the micro-programs follows global best practices, ensuring portability, flexibility, and industry relevance. Programs are digitally delivered, short, stackable, and outcome-based, allowing learners to earn micro-credentials recognized by academic institutions and employers. The modular structure enables learners to build upon acquired skills and pursue larger qualifications, aligning with the National Qualifications Framework (NQF) and the National Skills Framework. The digital delivery model increases accessibility, allowing participants to learn at their own pace while balancing professional and personal commitments.

The micro-programs cater to a diverse group, including high school and university graduates, job seekers, and employees seeking skill enhancement. These programs address market needs by rapidly equipping learners with relevant competencies, increasing graduate employability, supporting lifelong learning, and improving career prospects. By making education more accessible, the initiative aims to bridge skill gaps and strengthen workforce readiness. The stackable nature of the programs allows participants to accumulate credits toward larger qualifications, enabling continuous professional development and career advancement.

The NeLC plays a central role in regulating, coordinating, and monitoring the initiative. It establishes governance mechanisms, ensures academic quality, and fosters collaboration among universities, sectoral skills councils (SSCs), and employers. The implementation process follows a structured approach: identifying skill needs, developing and accrediting programs, launching courses, and continuously evaluating

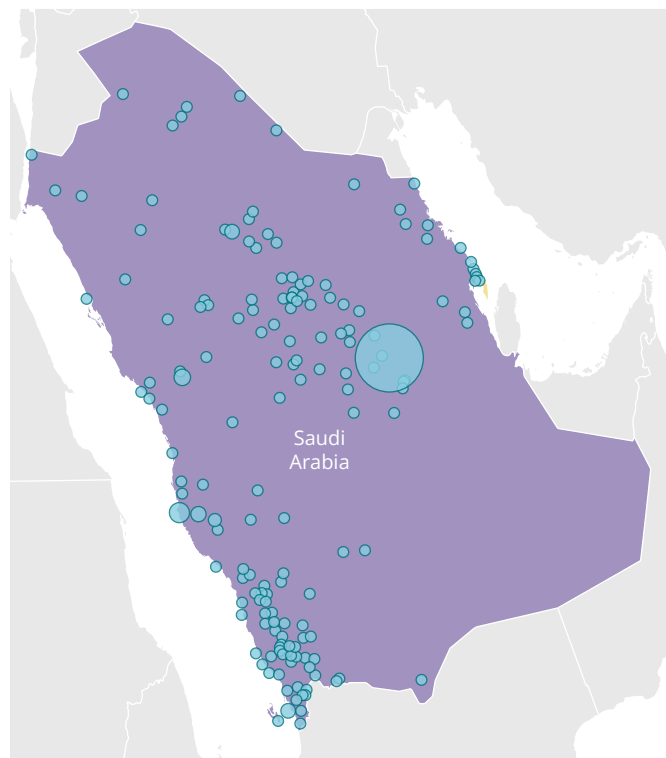


their impact on labor market alignment. NeLC also works closely with industry experts to ensure that curricula remain up-to-date and aligned with technological advancements and market demands.

SSCs play a central role in identifying the skills required in the labor market, prioritizing specific skills, aligning program content with market needs, and supporting the endorsement of certifications by employers. SSCs are integral in bridging the gap between education and industry by ensuring that training and offered programs are responsive to the evolving demands of the workforce. In the context of the selected sectors⁹, SSCs bring together industry leaders, education providers, and policymakers to collaboratively define and prioritize the skills that are most critical for current and future labor market needs. By aligning the curricula with these identified skill sets, SSCs ensure that training programs produce graduates with the competencies that employers require. Furthermore, SSCs play a crucial role in supporting the recognition of qualifications and certifications, ensuring that they are valued and recognized by employers across industries. This collaboration between education and industry strengthens the relevance of learning programs, boosts employability, and ensures that the workforce is ready to meet the challenges of a rapidly evolving job market.

FIGURE 11.

Geographical location of MicroX learners



Source: NeLC.

With 71 launched programs, over 8,000 learners have enrolled in MicroX, with 60% male and 40% female participants. Employees constitute the largest group (74%), followed by job seekers (14%) and students (7%). Bachelor's degree holders account for the majority (63%), reflecting the demand for upskilling among mid-career professionals. The vast majority (99%) of learners are based in Saudi Arabia, with Riyadh leading in registrations. The diverse demographic participation indicates strong interest from professionals seeking career growth and individuals aiming to increase their employability in competitive job markets.

There is strong demand for research, technology, and data management skills. The most popular programs include Ethics of Scientific Research (1,901), Innovation and Project Management (1,427 learners), and Data Analysis (982). The Saudi Electronic University (5,712 students) dominates institutional participation, followed by King Khalid University (1,442 students) and Princess Nourah bint Abdulrahman University (668 students). This distribution underscores the role of established institutions in delivering high-demand programs. Additionally, the high enrollment in technology and business-related courses demonstrates the growing need for digital and analytical skills across industries.

⁹ Security, professional and consulting, energy and public services, digital fields, finance and insurance, wholesale and retail, construction and real state, transportation and logistics, tourism and hospitality, culture and entertainment, manufacturing and health.



MicroX is a strategic effort to enhance workforce readiness and national competitiveness. By aligning education with labor market needs, the initiative contributes to economic growth and lifelong learning. Ongoing evaluation and collaboration with industry leaders will ensure continued relevance and impact, fostering a dynamic and skilled workforce for Saudi Arabia's Vision 2030. As the initiative expands, further integration with private sector employers, increased recognition of micro-credentials, and continuous adaptation to industry changes will be key to sustaining its long-term success.

Teacher professional development through FutureX

The National Institute for Educational Professional Development (NIEPD), in collaboration with NeLC, has developed and launched a comprehensive set of training pathways aimed at enhancing the skills of in-service teachers and school principals across the country. To date, over 300,000 educators have benefitted from these programs, which are delivered through FutureX, a powerful national platform designed to reach all the country's educators even in the most remote areas.

Recognizing the challenges of delivering training in a vast country, FutureX provides an online learning environment that is both cost-effective and easy to use. It serves as an ideal platform for scaling professional development, offering accessible training for educators across all regions. Teachers are already familiar with FutureX through their participation in other national platforms, making it a natural choice for this initiative.

In the 2023-2024 academic year, NIEPD's training programs were integrated into FutureX, with specialized bootcamps designed to enhance teachers' skills in digital learning and the use of technology in the classroom. These asynchronous courses are tailored to fit the needs and schedules of teachers and school managers, providing flexibility and a culture of continuous professional development. Educators select training paths based on their individual needs, considering their level of expertise, cultural suitability, and available time.

The partnership also focuses on co-designing programs. NIEPD collaborates with industry experts and academic institutions to develop content that is both relevant and culturally appropriate. The platform offers a wide variety of training options, with seven specialized tracks focusing on areas such as technology integration, leadership skills, special needs education, and pedagogical strategies. These tracks are broken down into levels and courses that cater to different stages of professional development. For example, popular courses include Special Needs Education, Educational Strategy, Supervision, Guidelines for Assessment, and Training for Teaching Math and Arabic. Each course is designed to ensure that teachers gain the skills they need to improve their teaching practice and, ultimately, the quality of education.

The collaboration between NIEPD and NeLC offers an innovative solution to the challenges of teacher professional development at scale, empowering educators with the tools they need to succeed in an evolving education landscape. With over 183,000 teachers trained and a growing number of programs available, this partnership is paving the way for a more skilled, adaptable, and digitally proficient teaching workforce.



6. The path forward

Expanding the reach

As FutureX continues to grow, scaling up its user base will be essential to maximizing its impact on learning and workforce development. With a digital infrastructure capable of supporting large-scale adoption, FutureX aims to expand its reach across key sectors:



Saudi Individuals: With over 1.3 million job seekers in the coming 25 years and 60% of the workforce requiring upskilling or reskilling to meet emerging industry demands,¹⁰ FutureX will play a critical role in equipping individuals with in-demand competencies.



Firms: Currently, FutureX collaborates with 490 companies of varying sizes, from Small and Medium Enterprises (SMEs) to multinational corporations. Expanding this engagement can support the training and development of employees in key sectors.



Organizations: FutureX is already utilized by 920 governmental and non-governmental organizations, both nationally and internationally. Increasing partnerships with regional and global institutions will enhance cross-sector capacity building and innovation.



Universities and Training Institutions: With over 27 universities and 700 training centers currently engaged, FutureX can further bridge the gap between education and industry by integrating digital learning into formal education pathways and vocational programs.

By leveraging its scalable infrastructure and adaptive learning pathways, and AI-enabled tools, FutureX has the potential to reach 1 million additional learners over the next two years. This expansion will further solidify its role in driving digital education, workforce readiness, and Saudi Arabia's transition to a knowledge-based economy.

10 World Economic Forum (2025). Future of Jobs Report 2025.



Deepening partnerships

Building strong, strategic partnerships is crucial for FutureX's continued growth and its role as a leader in workforce development. By deepening relationships with organizations and firms, FutureX can ensure its solutions remain relevant, scalable, and aligned with the evolving needs of the market. To strengthen its position as the partner of choice for workforce skills development, FutureX should focus on the following key recommendations:



Align with Business Strategies: FutureX could define and communicate the value of its ecosystem in directly supporting the business strategies of firms and organizations. By ensuring that its learning solutions are tailored to meet the specific strategic goals of each partner, FutureX can become an integral part of their workforce development plans. AI-enabled skills mapping and predictive analytics can strengthen this alignment by helping firms anticipate workforce needs and link training directly to productivity gains.



Encourage Repeat Engagement: FutureX recognizes that organizations returning for ongoing staff development is a desirable outcome. By focusing on delivering measurable, impactful results, the platform can ensure that organizations view FutureX as a long-term partner in their skills development efforts, encouraging repeat business and fostering lasting partnerships. Currently, over 90% of organizations that have engaged with FutureX for initial staff development programs have reported positive outcomes, leading to repeat engagement.¹¹

Enhancing skills sophistication

As economic growth increasingly depends on the ability to develop and apply advanced skills, FutureX has an opportunity to play a key role in equipping learners with the competencies needed to meet evolving industry demands. Skills that are valued by employers—such as job-specific technical skills, communication, leadership, critical thinking, problem-solving, and teamwork—are crucial for driving productivity and innovation across sectors. To ensure that the workforce is well-equipped for the future, the skills sophistication is key. This includes:



Focus on Job-Specific Technical Skills: FutureX should continue to prioritize and refine job-specific technical skills that are critical to industries' growth. These technical skills, highly valued by employers, should be integrated into the learning pathways, ensuring that learners acquire expertise directly relevant to their fields. This approach will help ensure learners meet industry-specific demands and are able to apply their knowledge in real-world settings.

¹¹ Source: NeLC user surveys 2024-2025.



Integrate Essential Soft Skills: In addition to technical expertise, soft skills—such as communication, leadership, critical thinking, problem-solving, and teamwork—are becoming increasingly vital in today's workforce. FutureX has integrated these skills into its learning pathways and will be relevant to continue doing so to support the development of well-rounded individuals who can work in diverse and dynamic environments. The demand for these skills has been rising, with many employers citing them as equally important as technical competencies. AI-based adaptive learning tools can personalize soft skill training through simulations and real-time feedback.



Enhance Pathways to Support Business Innovation: As firms grow and innovate, the sophistication of skills required also increases. To address this, FutureX's learning pathways should evolve to meet the changing demands of large organizations and innovative firms. Tailoring pathways to support higher-level skills will be critical in fostering business growth and ensuring that employees are prepared for the increasingly complex demands of large enterprises.



Continuous Skills Development through Advanced Pathways: With the rapid pace of technological advancement, the need for continuous skills development is increasing. FutureX should ensure that its pathways are designed for lifelong learning, enabling workers to stay up-to-date with the latest industry trends, tools, and techniques. These pathways should be dynamic and capable of adapting to technological shifts and new business needs, ensuring that workers can continuously enhance and apply their skill sets.

By advancing the sophistication of its learning pathways and embedding AI-powered personalization, intelligence and adaptability, FutureX can ensure that learners not only acquire the foundational skills needed for today's jobs but also develop the advanced competencies required for future career success. This will further strengthen the role of FutureX in fostering a highly skilled workforce capable of driving innovation and economic growth across sectors.

Maximizing the value of FutureX as a learning experience platform

To maximize FutureX's role as a national digital ecosystem and enhance its value for clients, several key strategies can be implemented to maximize its learning management system (LMS) capabilities, leverage data, foster knowledge sharing, and improve learning outcomes. These strategies would not only improve the platform's effectiveness but also help clients achieve their organizational goals more efficiently. By positioning itself as a national enabler of digital learning experiences, rather than a replacement for existing LMS platforms, FutureX can maximize its strategic value — fostering innovation, personalization, and lifelong learning across Saudi Arabia and beyond. The following recommendations support this objective:



Utilize Data Insights and Feedback Loops: FutureX can continue to build and refine its data analytics capabilities to provide real-time insights into learner progress, engagement, and overall performance. By creating robust feedback loops, FutureX can ensure that content and learning pathways are continuously optimized based on learner



behavior and feedback. Integrating AI-powered analytics and adaptive learning systems would further enhance this process, enabling predictive insights into skills gaps and tailoring pathways dynamically to each learner. This data-driven approach would enable clients to tailor their training programs to better meet the needs of their workforce and ensure higher learning effectiveness.



Enhance Recognition and Portability of Credentials: FutureX should continue prioritizing the development and recognition of credentials that are portable and widely accepted across industries, such as the MicroX model described above. By working with employers, educational institutions, and professional associations, FutureX can ensure that its certifications are recognized and valued globally. The portability of credentials will not only increase the platform's appeal to learners but also boost the credibility of FutureX's certification programs.



Strengthen Research on Result Monitoring and Evaluation: Investing in ongoing research and development focused on monitoring and evaluating learning outcomes will be key for FutureX's long-term success. By collaborating with educational researchers and industry experts, FutureX can refine its approaches to measuring learning effectiveness and track the real-world impact of its training programs. This will allow for data-backed assessments that demonstrate the return on investment for organizations using FutureX.



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