Innovation Challenge

in Digital Learning

Future Skills From Gaps to Growth

National eLearning Center

Challenge Partner

Human Resources and Social Development

Supporting Partner

ntdp البرنامج الوطني لتنمية تقنية المعلومات National Technology Development Program

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Introduction

As Saudi Vision 2030 advances, developing human capabilities remains a cornerstone for strengthening the national economy. Yet, a key challenge persists: the limited ability to accurately identify skills gaps. This often results in broad training programs that fail to address the specific needs of individuals, sectors, or the labor market.

To address this, the Ministry of Human Resources and Social Development, in collaboration with the National eLearning Center (NeLC), is launching an open challenge through the AI SandboX in Digital Learning initiative.

The challenge seeks innovative solutions to better pinpoint skills gaps and connect individuals with tailored digital learning opportunities. The goal is to elevate workforce skills across both the government and private sectors and ensure alignment with the demands of the future labor market.

Challenge Statement

How can we leverage accurate and intelligent approaches to identifying skills gaps, in order to guide individuals toward personalized digital learning pathways that strengthen workforce competitiveness and meet future market requirements?

Background

Despite the wealth of digital training programs available, skills gap assessment methods largely rely on outdated or imprecise approaches. This mismatch weakens the link between training programs and workforce needs, creating significant challenges:

Government Secto

Training efforts often fail to deliver measurable improvements in institutional performance.

Private Sector

Employers struggle to align workforce skills with fast-evolving market demands.

Global best practices demonstrate that harnessing data analytics and artificial intelligence (AI) enables the creation of accurate competency maps and personalized training pathways. This ensures stronger returns on training investments while producing tangible impact at both the individual and institutional levels.

Case Example

In one sector, management allocated millions of riyals annually for training and development, contracting multiple providers to deliver a wide range of courses and workshops. While most employees participated, the outcomes fell short. Core competencies remained stagnant, and productivity showed little to no improvement.

Upon review, it became clear that training programs had been designed without an accurate analysis of actual skills gaps. Employees were enrolled in generic and repetitive courses unrelated to their roles or emerging market needs. As a result, employees grew frustrated with the lack of relevance, while management struggled to justify the significant investment due to the absence of measurable performance gains.

This challenge is widespread across both government and private institutions. It is further compounded by insufficient data on evolving labor market requirements, making training plans reactive and short-lived. Consequently, training is often perceived as an additional activity rather than a strategic investment in human capital that drives measurable performance improvement and prepares the workforce for the future.

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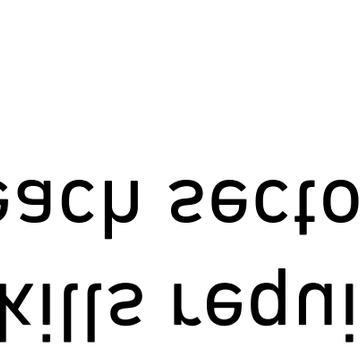
Objectives

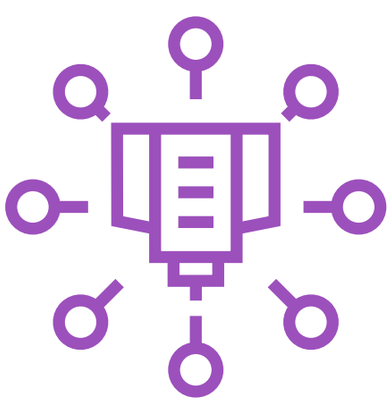
Improving training proposals and digital programs to meet the actual needs of each sector.

Empowering government and private institutions to accurately and objectively identify skill gaps.

Supporting stakeholders in designing data-driven strategies regarding the skills required in each sector.



Encouraging investment efficiency in training and achieving a sustainable impact on the performance of individuals and institutions.



Expected Outcomes

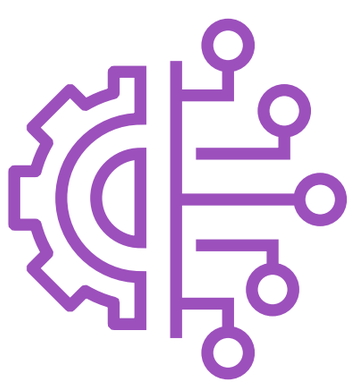
AI-based technical solutions and data analytics to identify skill gaps.

Models that connect results with tailored digital learning programs for professional growth.

Concepts and models that can integrate with human resources and training systems across both government and private sectors.

Interactive tools that support decision-making at the level of government and private institutions.

Target Audience



EdTech companies.

Research and consulting centers specializing in human capability development and learning.

AI and data analysis teams.

Academics and researchers in future skills.

Optimal Solutions Criteria

01 Data-driven and seamlessly integrated with digital training programs.

02 Customizable to the specific needs of government and private sectors.

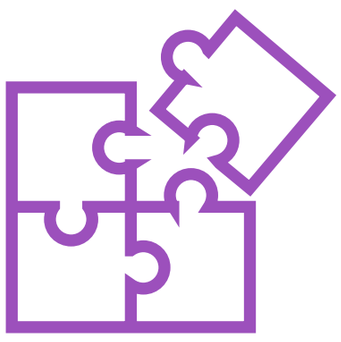
03 User-friendly for HR teams and decision-makers.

04 Aligned with data privacy and governance standards.

05 Equipped with clear key performance indicators (KPIs) to measure improvement.

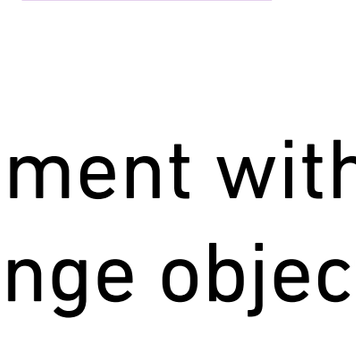
Participation Process

Proposals are to be submitted through the AI SandboX platform and will undergo a multi-phase assessment based on:

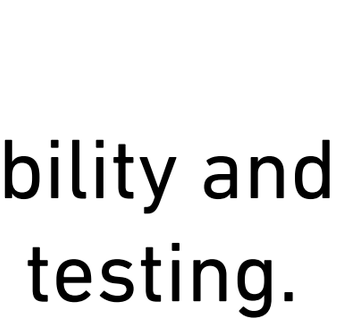


Alignment with the challenge objectives.

Feasibility and pilot testing.



Creativity and added value.



Scalability at the national level.

Participant Journey

01 02 03

01	Discover and Join-in Phase	5 weeks

Duration: November 10 – December 14, 2025

1.Participants must review and accept the terms and conditions, including:

- Alignment of the solution with AI and digital learning.
- Availability of a Minimum Viable Product (MVP) or a feasible technical concept.
- Commitment to intellectual property rights and data governance.

2. Submit the participation form through the platform.

02	Initial Screening Phase	2 weeks

Duration: December 15– 28, 2025

1.All applications are reviewed according to screening criteria:

- Relevance of the solution to the challenge.
- Creativity and added value.
- Feasibility and implementation

Participant Journey

03	**Acceptance**	**1 week**

Duration: December 29, 2025 – January 4, 2026

1. Qualified participants are notified and invited to proceed to the next stage.

04	**Support and Enablement Phase**	**2 months**

Duration: January 5– March 4, 2026

1. MVPs are tested within a safe AI Sandbox environment.

Teams receive:

- Technical support.
- Expert supervision and consultation.
- Hands-on experimentation with partner institutions or with designated experimental environments.

2. Impact is measured through performance tracking, beneficiary outcomes, and monitoring added value.

Participant Journey

01 02 03

05	Documentation and Closure Phase	2 weeks

Duration: March 5 – 18, 2026

1.After the experimentation ends, the winning team shall:

- Document the entire experience.
- Participate in announcing the final results.
- Receive official recognition from the National eLearning Center and the Ministry of Human Resources.

2. Final reports are issued including lessons learned and success stories.

06	Scaling Up and Growth Phase

1. Exceptional solutions are expanded in collaboration with stakeholders and funding partners to support wider adoption and implementation.

Privileges and Benefits

Support provided for solutions during the experimenting phase:

Accepted solutions during the testing phase receive the following support:

Technical support:

Access to a secure, flexible cloud environment and AI models required for solution development.

Specialized consulting support:

Guidance and mentoring from AI and solution development experts.

Practical Experimentation:

Opportunities to test the solution with relevant government institutions to refine the MVP and validate proof of concept (POC).

Evaluation and impact measurement:

Collaboration with specialized researchers to assess the experiment's success and measure expected impact

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