

# PUBLIC SECTOR SKILLS DEVELOPMENT THEMATIC AREA NARRATIVE IN ENGLISH ARABIC FRENCH PORTUGUESE AND SPANISH

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*IDRC GRANT / SUBVENTION DU CRDI : - GLOBAL INDEX ON RESPONSIBLE ARTIFICIAL INTELLIGENCE*

# Global Index on Responsible AI

Dimension: National Responsible AI Capacities

Sub-dimension: Competencies

Thematic area: [Public Sector Skills Development](#)

## Definitions

[Skills development](#) can be defined as the ‘acquisition of work-related skills and competencies through employment education and training’. Although skills development can be generally understood as ‘basic education, initial training and lifelong learning’, in the context of the workforce, it refers to the development of [competencies](#) that are necessary to perform ‘a trade or occupation in the labor market’.

In the context of AI, skills development refers to the technical knowledge, capabilities and proficiencies that are required to ‘[successfully integrate AI into functions](#)’ across various industries, in both the public and private sectors. This should not be interpreted to include educational curriculum provided at the tertiary level, which will be covered under the Education Thematic Area.

Skills development programmes could be in the form of:

- Capacity building programmes for civil servants or government personnel working in units/departments deploying AI systems
- Training programmes for judges and other members of the judiciary on AI-related laws and regulations
- Change of competency requirements to include AI-related skills
- Introduction of courses such as coding, robotics, programming, etc. for civil servants specifically
- Provision of bursaries and scholarships on AI courses to civil servants outside of the tertiary education environment
- Introduction of activities such as tech challenges, competition, tech events, apprenticeship, internships that encourage the uptake of courses, in relation to AI, across the civil service, e.t.c.

Justification

Concerns about the impact of AI systems and tools on the labor market are just as formidable as questions about the skills that will be required to successfully integrate AI technologies into the core functions of various industries. Because AI can be applied across a range of fields and sectors, there has been increased attention towards increasing levels of [AI literacy](#) across various sectors, not just for people involved in Science, Technology, Engineering and Mathematics (STEM). Further, the rapid uptake of AI use by governments across the world demands that basic skills such as [computing, coding, programming and robotics](#), be fully integrated into skills development programmes in the civil service to ensure personnel not only understand how to use these [systems](#), but also understand how to apply them in a responsible manner. Accordingly, skills development programmes in AI not only need to focus on building the technical competencies, but also knowledge around AI ethics principles and practices.

The Organisation for Economic Cooperation and Development's (OECD) AI Principles identifies [building human capacity](#) and preparing for labour market transformation as one of its key recommendations for policymakers. Specifically, the OECD calls on governments to 'work closely with stakeholders to prepare for the transformation of the world of work... and empower people to effectively use and interact with AI systems across the breadth of applications by equipping them with the necessary skills'. In addition, the OECD sets out that governments should roll-out training programmes to prepare workers for the deployment of AI and to 'work closely with stakeholders to promote the responsible use of AI at work' to ensure the benefits of AI are 'broadly and fairly shared'. In addition, AI raises new legal questions and concerns and therefore requires judges and court officials to be capacitated in how to interpret and apply AI-related laws and regulations and on how to deal with the potential integration of AI technologies into the legal practice itself.

Furthermore, in 2022, UNESCO released a report entitled [Artificial intelligence and digital transformation: competencies for civil servants](#) (report), which presents an AI and Digital Transformation Competency Framework that identifies the key competencies for AI and digital transformation that are needed in the public sector. In addition, the report provided two specific recommendations to governments. First, to 'take a holistic approach when using the framework by developing a digital strategy at country level, then a digital action plan to strengthen the digital competencies included in this framework'. Second, to test the framework by including capacity-building programs and training in digital projects and initiatives'. Further, in April 2023, UNESCO rolled out an [introductory course](#) through its Global Massive Open Online Course (MOOC) in an attempt to strengthen the capacities of judges around AI application and rule of law.

## Identification

This thematic area measures steps countries have taken to support skills development in relation to responsible AI within the civil service and judiciary. In particular, evidence must account for: (1) frameworks relating to skills development programmes for the civil service and judiciary, specifically in the responsible use of AI systems and tools and the governance thereof; (2) government actions to develop, implement and/or support skills development programmes for responsible AI in priority sectors, as well as by the judiciary, including through the development of jurisprudence to ensure responsible AI principles are enforceable in practice; and (3) non-state actors working to promote skills development programmes for responsible AI across the civil service and judiciary. As mentioned before, this is separate from AI-related curriculum at the tertiary level, which is not targeted specifically at building the competencies of civil servants. That material should be captured under the Education Thematic area.

*Frameworks* may take the form of adopted policies, strategies, white papers, or guidelines calling for the rollout of AI literacy programmes across the civil service to ensure a basic level of competency. *Government actions* may include the development of draft policies, strategies or guidelines that aim to improve the capacity of civil servants in AI technologies and to understand its implications in law. Government actions can also involve setting up governmental bodies, such as oversight entities, which are tasked with offering policy recommendations on specific issues and/or enforcing regulations, or implement policies that aim to build AI literacy. *Non-state actors* (NSAs) may include non-governmental organisations (NGOs), but also multinational corporations, private military organisations, media outlets, organised ethnic groups, academic institutions, lobby groups, labour unions or social movements to advocate for the importance of building competencies related to AI across the civil service.

## Examples:

### *Frameworks*

The [UK Science and Technology Framework](#) identifies five critical technologies that are critical for positioning the United Kingdom to become ‘the most innovative economy in the world’, of which AI is one. To create an environment for these technologies to flourish in the UK, the Ministry of Science and Technology has committed to addressing skills gaps and providing opportunities for civil servants to enhance their AI-related skills through training and upskilling programs.

### *Government Actions*

In March 2022, the UK government released its Digital, Data and Technology ([DDAT](#)) training skills programme which aims to upskills more than 5,500 senior civil servants in data and artificial intelligence (AI). The programme was developed ‘in response to a [global government problem](#)’ of senior leaders lacking the capability ‘to optimise the opportunities of fast-moving, world-changing technology that has implications for

global security and economic dominance and for the services delivered to citizens'. The [Central Digital and Data Office](#) is responsible for leading the skills development programme and has been working to develop a DDat Essential standards for upskilling senior civil servants, and released five core competencies it aims to build: (1) data essentials; (2) technology essentials; (3) digital essentials; (4) users first; and (5) innovation mindset. The Office has established a working group and issued a public call for people to get involved in the shaping of the programme.

#### *Non-State Actors*

The [Global Government Forum](#) is an independent organization based in the UK which provides publications, events and research that helps senior civil servants around the world to meet global challenges by building their expertise, knowledge and connections. In 2022, it released a report which found that [only 5% of civil servants had received training in AI](#), and that 'while 78% of respondents would like more digital skills training, many do not feel confident in their own or in their department's digital skills'.

## Research Guidance

With regard to relevant frameworks, start by identifying any law or enabling statute that provides for skills development programmes in AI. It may be helpful to consult laws that provide educational or competency requirements for civil service personnel and whether any accountability mechanisms are in place to ensure that civil servants and government personnel are capacitated to use AI systems and tools in a responsible manner. Check if there might be guidelines or minimum standards for skills development programmes for responsible AI or core competencies for employees or government officials, or requests for proposals from service providers.

In relation to government actions, start by searching for skills development programmes led by a government department or ministry (e.g. Ministry of Economics, Ministry of Technology, Ministry of Justice, etc.) and identify parliamentary or congressional hearings, monitoring mechanisms or information related to skills development in AI, including building the competency of the judiciary in the interpretation and application of laws that govern the use of AI.

To identify non-state actors involved in supporting skills development in responsible AI, start by looking at whether any private sector companies or civil society organisations have done any work to support the upskilling of civil service personnel through the development of programmes. Moreover, national civil organisations or academia working on skills development in AI across the civil service and judiciary would be useful.

### Some useful sources

- The [OECD Artificial Intelligence Policy Observatory - OECD.AI](#) provides information on AI policies and developments across the globe.
- UNESCO's 2021 Report on [Understanding the Impact of Artificial Intelligence on Skills Development](#)
- UNESCO's 2022 Report on [Artificial intelligence and digital transformation: competencies for civil servants](#)

### Search

- Existing frameworks on building skills in AI for civil servants, including judiciary
- Policies and strategies on strengthening skills development in AI for civil servants, including judiciary
- Existing literature (i.e., reports, articles, policy briefs, whitepapers) on the importance of improving AI competencies in AI for civil servants, including judiciary
- Parliamentary or government records for recent mentions of 'skills development and AI', 'curriculum and AI', 'capacity-building and AI', 'preparation and AI', etc. for civil servants, including judiciary
- General google searches for 'skills development in AI + civil servants + [country]', 'skills deficit in AI + civil servants + [country]', etc. (can also add terms 'training', 'programmes', 'courses', etc., etc.). Be sure to include members of the judiciary in your searches.
- Academic search engines ([Google Scholar](#), [arXiv](#), [ResearchGate](#), etc.) for recent papers on 'skills development in AI + civil servants + [country]', 'training courses in AI + civil servants + [country]', etc. Be sure to include members of the judiciary in your searches.

### Consult

- Government officials responsible for assessing current competencies in AI amongst civil servants and developing plans for enhancing these capabilities.
- Lawyers associations involved in promoting the need to improve skills in AI competencies for members of the judiciary.