

▶ AI impact on jobs and skills demand

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Skills taxonomy

SUBCATEGORY	EXAMPLES OF KEYWORDS & EXPRESSIONS
1. Cognitive skills	
(1) Core cognitive skills	Planning, designing, problem solving, strategic thinking, analysis, measuring, informing
(2) Sophisticated cognitive skills	Evaluate, research, statistics, data analysis
(3) General computer skills	Computer, excel, internet skills
(4) Software (specific) skills & technical support	Programming language, web development, computer repair
(5) Machine learning & AI skills	automation, neural networks, deep learning
(6) Financial skills	Budgeting, accounting, finance
(7) Writing skills	Writing, editing, reports
(8) Project & process management skills	Project/process/product/supply management
2. Socio-emotional skills	
(9) Character skills	Organized, energetic, time management, reliable
(10) Social skills	Communication, teamwork, empathy, advice, presentation
(11) People management skills	Supervisory, leadership, mentoring, staff development
(12) Customer service skills	Client, patient, selling, buy, purchase
3. Manual skills	
(13) Finger-dexterity skills	Picking, sorting, packing, equipment, control machine
(14) Hand-foot-eye coordination skills	Attending animals, driving, renovate, repair, cleaning
(15) Physical skills	Resistance, carrying loads, physical strength, walking

1. Cognitive skills: “Dealing with information”

Generative and predictive capabilities of LLMs boost productivity, but the workers need to be able to “use” it, and the “last-mile” accuracy and reliability count.

- ✓ Advanced digital skills:
 - **Python** notably more prominent
 - **OJA requiring AI / ML skills has doubled** in Brazil, Russian Federation and South Africa
- ✓ Basic/intermediate digital skills:
 - Ability to **integrate** and **use** Big Data predictive analytics tools in the workflow (e.g. credit-scoring algorithms)
- ✓ Higher-order thinking / Sophisticated cognitive skills:
 - **Rationalize** outputs generated by technology
 - **Mitigate biased** outputs
- ✓ Sectors: e.g. finance, media & culture



▶ Figure 2. Evolution of job roles caused by digitalization in the financial services sector

	Convergence or displacement of roles	Augmentation of roles	Complementary roles	New roles
Manual tasks that can be impacted by technology	High-frequency and low-complexity tasks are more likely to be converged	Repetitive tasks requiring data entry, and analysis of large amounts of data can be automated using AI and algorithmic analytical tools	Client-facing roles requiring human interaction and relationship management have limited exposure to technology	Roles required to integrate and use technology throughout the financial services value chain
Value addition through technology	Such tasks will be replaced by technology. Job roles will then need to evolve to include subjective decision-making where needed	The availability of accurate and timely data trends would free up more time for employees in these roles to graduate to data-led decision-making	Digital tools such as predictive analytics based on market trends, and past portfolio performance would enable better decision-making and advisory capabilities	Tools such as Big Data analytics, Internet of Things, AI and ML as well as blockchain, will lead to an increase in technology-based roles as well as sustainability policy roles
Examples	Claims assessor Bank teller Customer service representative	Portfolio manager Advisory services Sales manager	Relationship manager Private banker Agent banking Wealth management	ESG roles Cybersecurity roles Data scientists Risk analysts

2. Socio-emotional skills: “Uniquely human”

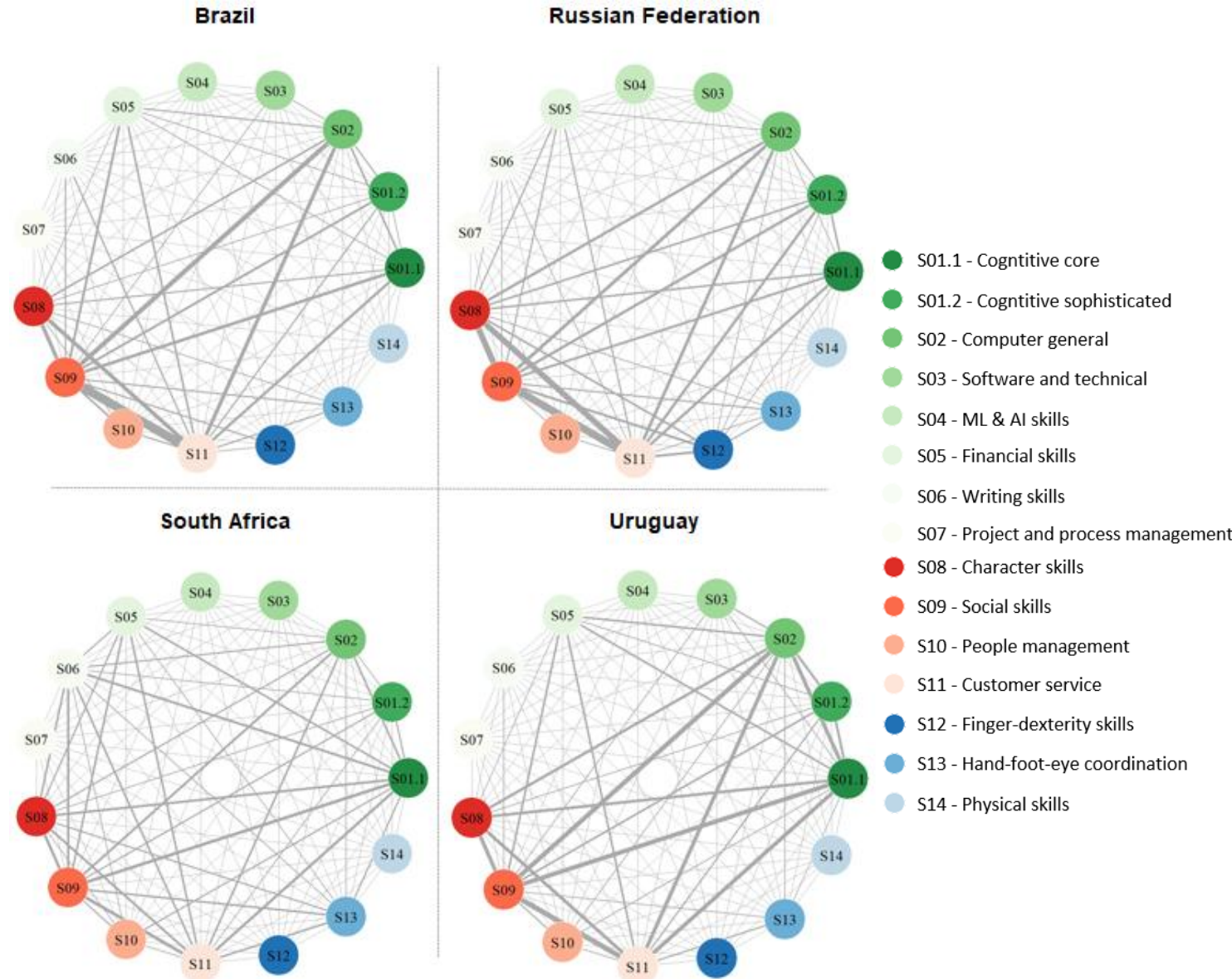
Offloading of mundane repetitive tasks to AI unlocks the demand for human skills

- ✓ **Social skills**
 - Empathy for patients (Nurses, Doctors)
 - Encourage students (Teachers)

- ✓ **Customer service skills**
 - Personalized service for angry customers (call centre workers)

- ✓ **Sectors: e.g. Healthcare, Education, BPO, etc**


- ✓ **Strong connections among the four socio-emotional skills; and between these skills and various cognitive skills.**



3. Manual skills: “the Real-world dynamics”

Least developed area of AI capability

- ✓ Physical skills
 - AI powered robotic warehouse carrying loads
 - Workers now overseeing the system
- ✓ Hand-foot-eye coordination skills
 - Computer vision + Robotics (Physical AI)
 - Self-driving cars / cleaning robots
- ✓ Finger-dexterity skills
 - Routine tasks can be automated, while non-routine manual work remains human-led.
- ✓ AI-enabled systems for better OSH
- ✓ Sectors: e.g. Transport, Logistics, Agriculture, Mining etc

		Confined spaces	Musculoskeletal disorders	Work sites
More effective  Less effective	Elimination Physically remove the hazard	Replace physical entry with drones or robotic crawlers	Robotic process automation for repetitive work	Robotics to remove workers from hazardous tasks and environments
	Substitution Replace the hazard	Immersive virtual reality simulations for skill development	Exoskeletons to ease heavy manual handling Collaborative robots to share workload	Nano-engineered materials to replace hazardous substance with safer alternatives
	Engineering controls Isolate people from the hazard	Real-time monitoring systems for continuous tracking of environmental conditions inside confined spaces	Computer vision to identify ergonomic risks	Sensors and wearable devices to monitor worker exposures to hazards in real time
	Administrative controls Change the way people work	Digital work permit systems for assessment and authorization before entry	Gamification and simulation of ergonomic training to engage and educate workers on best practices	VR and AR training for hazard recognition and emergency response
	PPE Protect the worker with PPE	Wearable gas detectors for continuous monitoring and immediate alerts	Smart PPE with built-in sensors to detect and warn of incorrect posture or overexertion	Smart PPE with embedded sensors to monitor worker vital signs

Source: Safetytech Accelerator (2024)

Source: As cited in ILO 2025

▶ Concluding thoughts

- Skill demand span “cognitive”, “socio-emotional” and “manual” domains
- We need more research on:
 - Impact of different AI technologies (Specialized LLMs, Agentic AI, Computer vision, Physical AI, etc)
 - AI usage at workplaces (geographical, sectors, occupations, age differentials)
 - Skills bundles and their labour market outcomes
 - Sector specific case studies (quantitative and qualitative)
 - Inequalities (within and between countries)
 - Second-order impact (we will need many trade-level workers)



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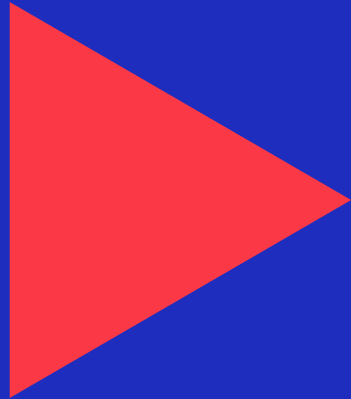


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