AI and Education

Reinventare l’uso della tecnologia a scuola

Novembre 2024

Transformation of Jobs & Skills Requirements

01	Bank Tellers and Related Clerks
02	Postal Service Clerks
03	Cashiers and Ticket Clerks
04	Data Entry Clerks
05	Administrative and Executive Secretaries
06	Material-Recording and Stock-keeping Clerks
07	Accounting, Bookkeeping and Payroll Clerks
08	Legislators and Officials
09	Statistical, Finance and Insurance Clerks
10	Door-To-Door Sales Workers

69 Million
Emerging roles, global change by 2027

83 Million
Declining roles, global change by 2027

01	AI & Machine Learning Specialists
02	Sustainability Specialists
03	Business Intelligence Analysts
04	Information Security Analysts
05	FinTech Engineers
06	Data Analysts and Scientists
07	Robotics Engineers
08	Big Data Specialists
09	Agricultural Equipment Operators
10	Digital Transformation Specialists

01	Analytical thinking
02	Creative thinking
03	Resilience, flexibility and agility
04	Motivation and self-awareness
05	Curiosity and lifelong learning
06	Technological literacy
07	Dependability and attention to detail
08	Empathy and active listening
09	Leadership and social influence
10	Quality control

Type of skill
- Cognitive skills
- Working with people
- Self-efficacy
- Technology Skills
- Management Skills

We need to upskill students in the problem-solving, social-emotional competencies and technology design and programming.

Source: 1. Future of Jobs Survey 2023, World Economic Forum. https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf

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The Time Sap of Digital Tasks

Source: Survey commissioned by Intel of 6,000 respondents in Germany, United Kingdom and France, 2024

Potential for Time Reallocation
in Number of Hours per Week[1]

Technology can help teachers reallocate 20 to 30% of their time toward activities that support student learning.

1. Figures may not sum, because of rounding. Average for respondents in Canada, Singapore, United Kingdom, and United States. 2. Includes a small "other" category.
Source: McKinsey Global Teacher and Student Survey – Referenced in https://www.weforum.org/agenda/2023/05/ai-accelerate-students-holistic-development-teaching-fulfilling/

AI is Here Now:

A Faster Adoption than Expected

56%

believe that AI is already somewhat to very helpful

57%

believe that AI tools should be used

74%

plan to increase their use of AI in 2024

Source: https://thejournal.com/articles/2023/08/29/teachers-plan-to-learn-and-use-ai-more-in-the-20232024-school-year.aspx

AI : Optimized Experiences for Educators and Students

Save Time, Improve Quality, Experience New Ways of Working

Educators

Personalized Learning

Khan Academy

Edu + Admin

AI Eye Tracking

tobii

AI Avatars

Faceunity Technology

Educators + Students

Developer Tools

web neural network

MATLAB

WebNN

Video Collaboration

zoom

Microsoft Teams

webex by cisco

Video Editing

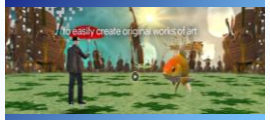
Adobe

MAGIX

ByteDance

wondershare

Text to Image



Stable Diffusion

gimp

AI Image Indexing

mylio

Music Separation & Voice to Text

Audacity

Optimized LLMs

stability ai

LLAMA 2

Gesture Controls

iQIYI

3D Rendering

AUTODESK

D5 RENDER

Graphic Design

KRITA

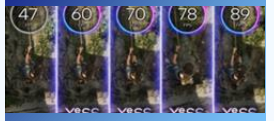
Distinct AI

Adobe

Video Streaming

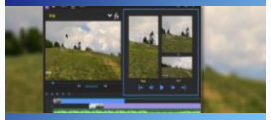
XSplit

Game Upscaling



XeSS

Photo Editing



TOPAZ LABS

SKYLUM software

Adobe

Personal Assistant

Microsoft

AI Accessibly

OMNIBRIDGE

Windows

Workstation

Adobe

AUTODESK

AI Audio Enhancement

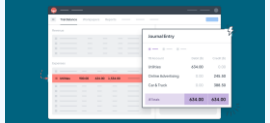
krisp

intelliGo Technology Inc.

Data Visualization

Admin

Accounting Software



Tallyfor

AI Ops

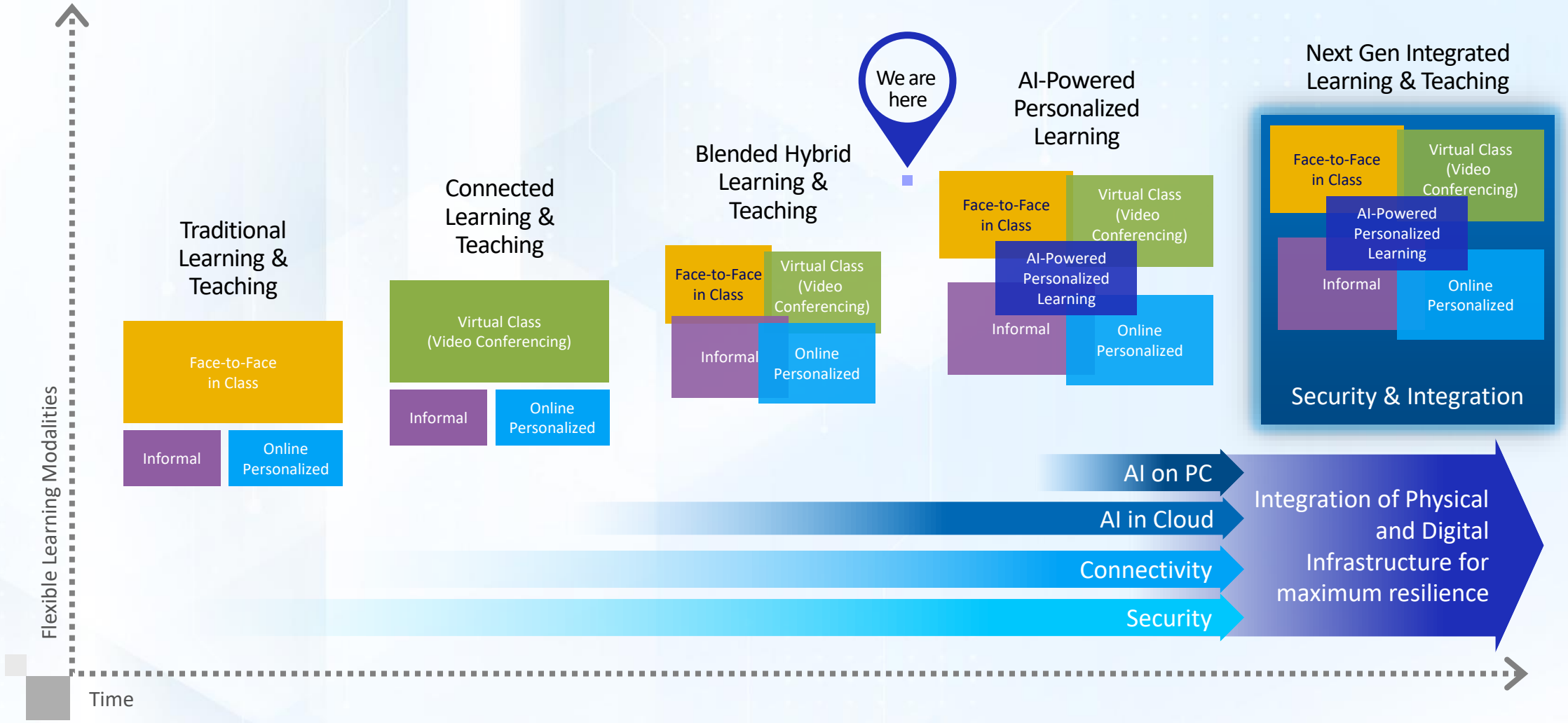
GoTo

laplink

TeamViewer

Intel AI PCs deliver a multitude of AI accelerated commercial applications

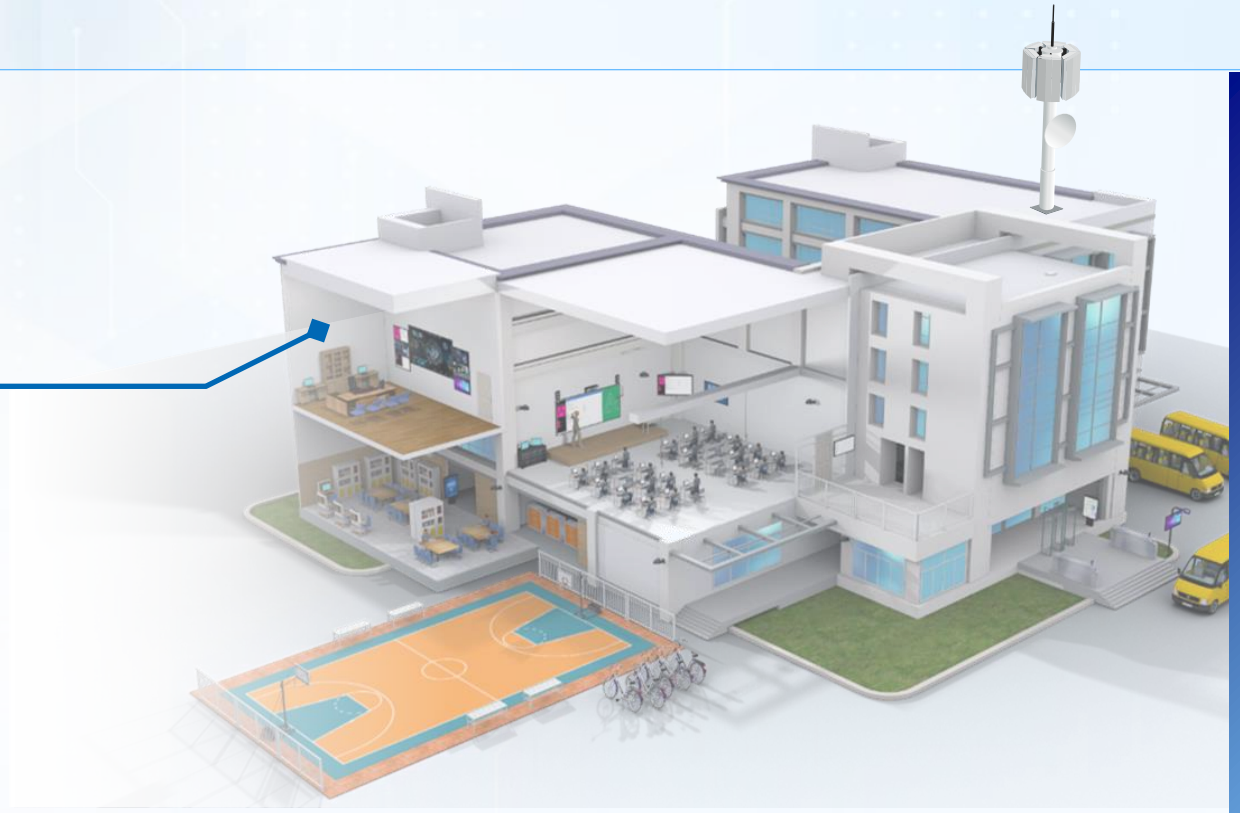
Evolving Learning Modalities



AI Use Cases and Opportunities in Education

Educators and Administrators Take Instruction to a Higher Level using AI

- Teaching assistants
- Personalized tutoring
- Curriculum design
- Class scheduling
- Enhanced learning management system
- Learning outcome predictions
- Administrative task automation
- Exam Scoring /Student Assessment
- Resource planning
- Parent School Communication



Value of AI

- Lighten administrative workloads
- Create efficiencies
- Assist in Curriculum development
- Provide personalized curriculum
- Track student / parent engagement
- Improve student outcomes

Students Gain Digital Skills with AI

- Personalized learning
- Tutoring
- Digital skills building
- Assistance for students with special needs
- Immersive experiences
- Virtual labs
- AI coding/programming
- Prompt engineering

Value of AI

- Personalize content for personalized learning
- Increase accessibility and equitable access
- Build digital skills and guide skills development
- Create immersive training experiences

The Smart Campus Takes Shape using AI

- Smart boards and displays
- Video analytics for staff and students' physical safety
- Smart parking, wayfinding
- Crowd management
- Robotics cleaning devices
- Cybersecurity

Value of AI

- Boost student engagement
- Optimize resource utilization
- Increase campus safety and security
- Proactively manage and maintain campus equipment

AI Can Present Difficult Challenges

Data Security and Student Privacy

Student Misuse

Bias in Algorithms

Equitable Access

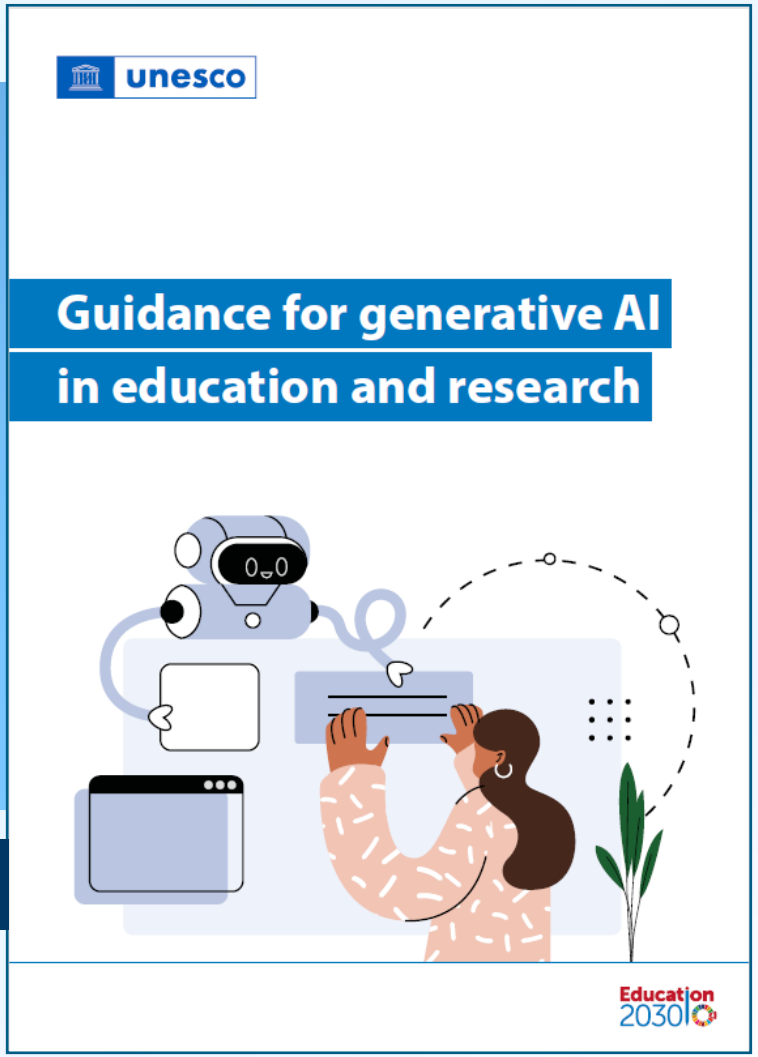
Decreased Student Engagement

Most of these risks are not new but they require careful consideration through the responsible use of AI.

Importance of Responsible AI

"We are struggling to align the speed of transformation of the education system to the speed of the change in technological progress and advancement in these machine learning models."

Stefania Giannini, assistant director general for education, UNESCO[1]

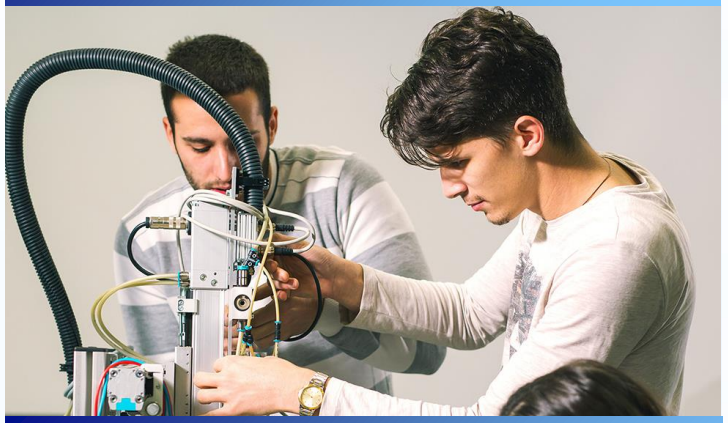


1. https://www.scmp.com/yp/discover/news/global/article/3233820/unesco-seeks-regulation-first-guidance-generative-ai-education
UNESCO report: https://www.unesco.org/en/articles/guidance-generative-ai-education-and-research

Bringing AI Everywhere: Digital Skill Building Programs

Intel® AI for Youth

For high school students in K-12 schools/after-schools (age: 13-19)



>25 countries

500,000 students reach

Intel® AI for Future Workforce

For students age 16+ at employability education institutions

>10 countries

>500 universities and colleges

Intel® Skills for Innovation

For students and educators in K-12 schools (age 7-19)

>50 countries, working with

>60 partner organizations

Intel® Digital Readiness ▸

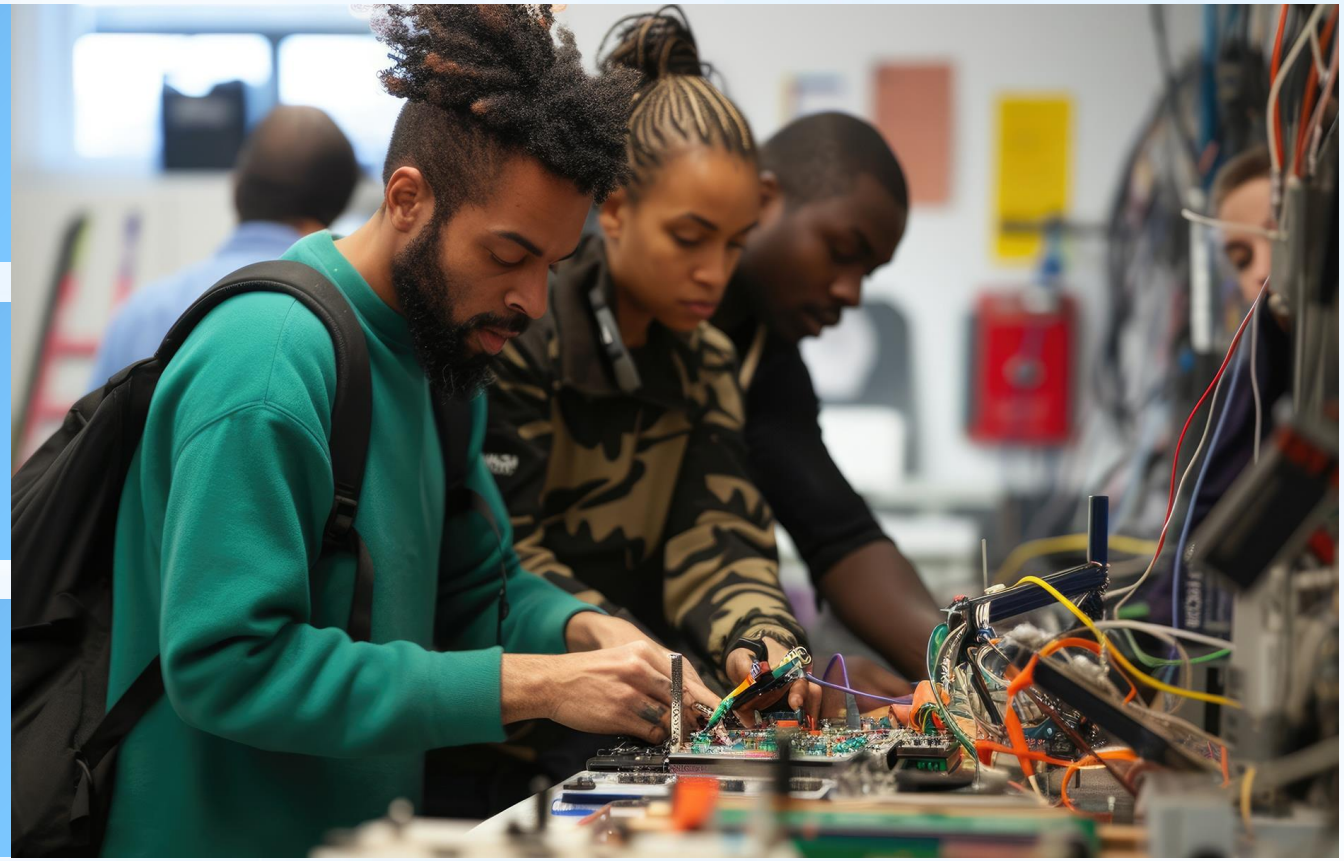
Intel® Skills for Innovation ▸

Intel AI for Youth: Empower Youth on AI Tech & Social Skills, in an Inclusive Way

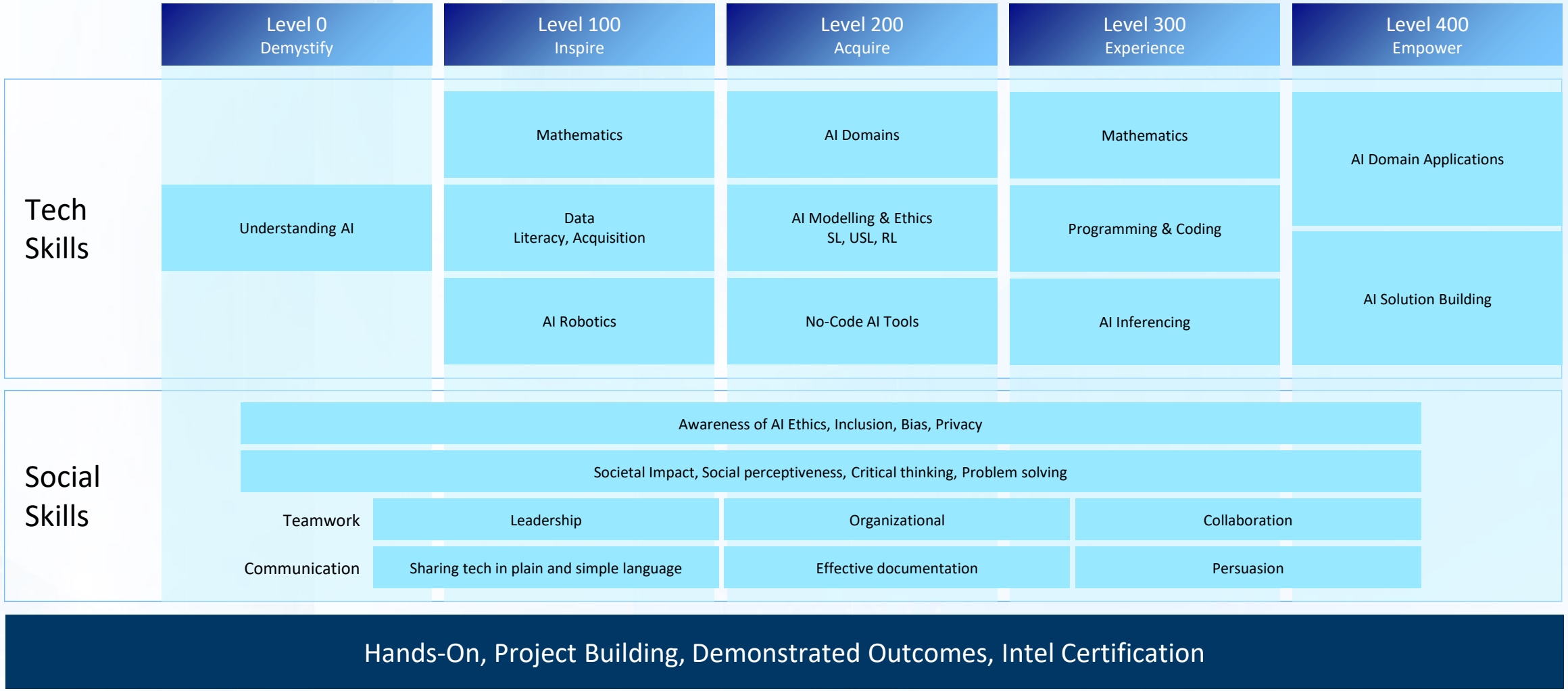
Deep understanding of AI
Demystify AI and equip youth with the skillset and mindset required for AI readiness.

Access and use of AI toolsets
Democratize access to AI tools with Intel technologies and train youth to use them skillfully.

Create solutions with AI
Meaningful social impact solutions as evidence of achievement



AI4Y Skills Outcome Map

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