Building An AI Ready Generation

Intel® AI For Youth : Global AI Readiness Program.

African Brains Education Event – The Transformation of Education in Africa

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Global Partnership and Initiatives / Government Markets & Trade

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Legal Disclaimers

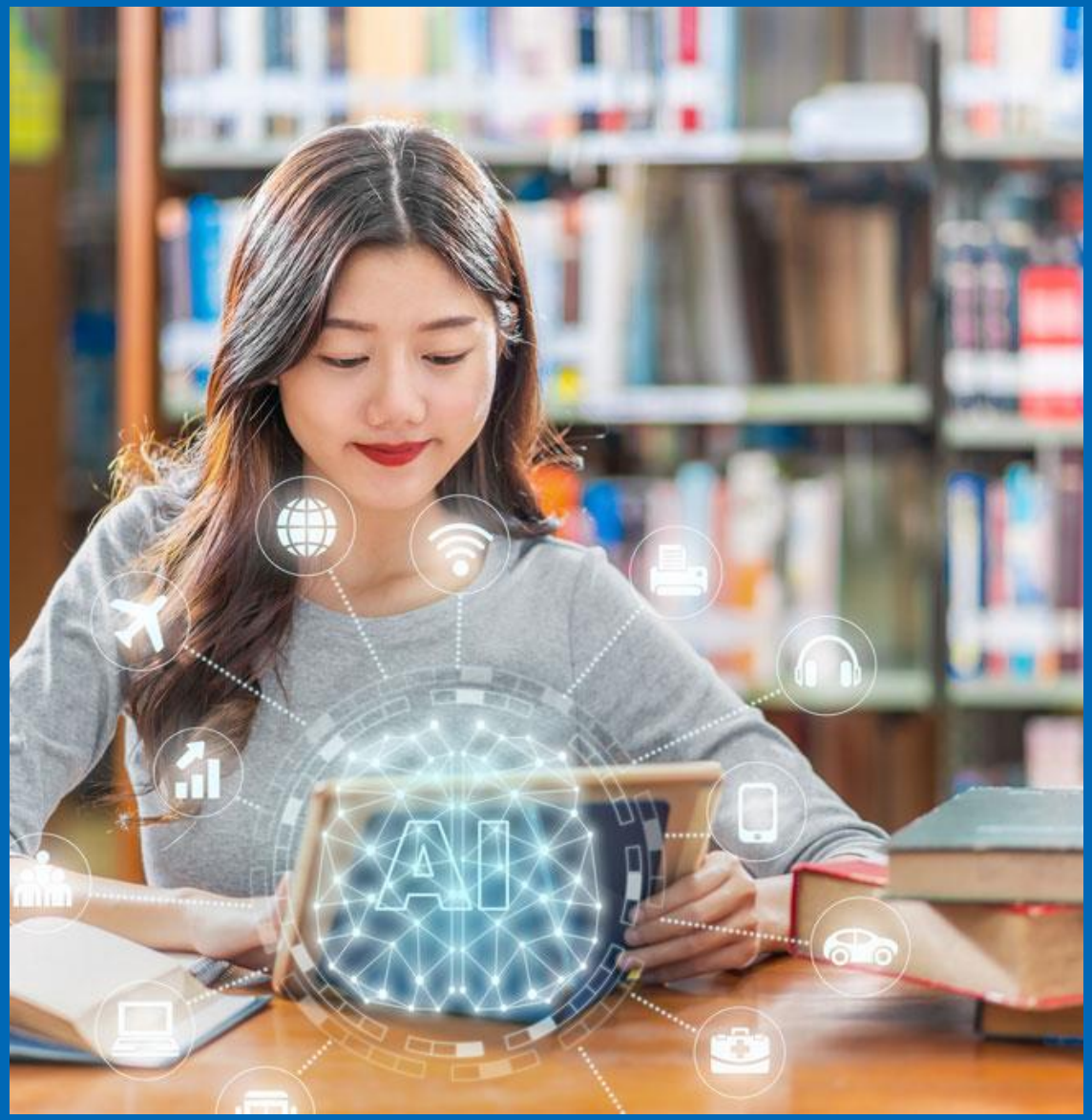
Program dates and lesson plans are subject to change.

Topics Covered

- Intel Purpose
- Intel RISE Strategy
- AI and the Future of Work
- Intel Response
- AI for Youth Program Overview
- Student Outcomes
- Intel Differentiator

INTEL PURPOSE

To create world-changing technology that enriches the lives of every person on Earth.



Intel RISE Strategy

Making A Positive Impact On Society, Business, Planet

RESPONSIBLE — Revolutionize how technology will improve health and safety

INCLUSIVE — Make technology fully inclusive and expand digital readiness

SUSTAINABLE — Achieve carbon neutral computing to address climate change

ENABLING — Accelerate the ways we enable progress through our technology and the expertise and passion of our employees

Intel® AI For Youth

Empower Youth on AI Tech and Social Skills, in an Inclusive Way.

30
Countries' Government Partnerships

30
Thousand Institutions with AI Access

30
Million People Empowered With AI Skills Training for Current and Future Jobs

Bold 2030 commitment and call to action with government partners worldwide

MAKING TECHNOLOGY FULLY INCLUSIVE AND EXPANDING DIGITAL READINESS

Our Current Footprint

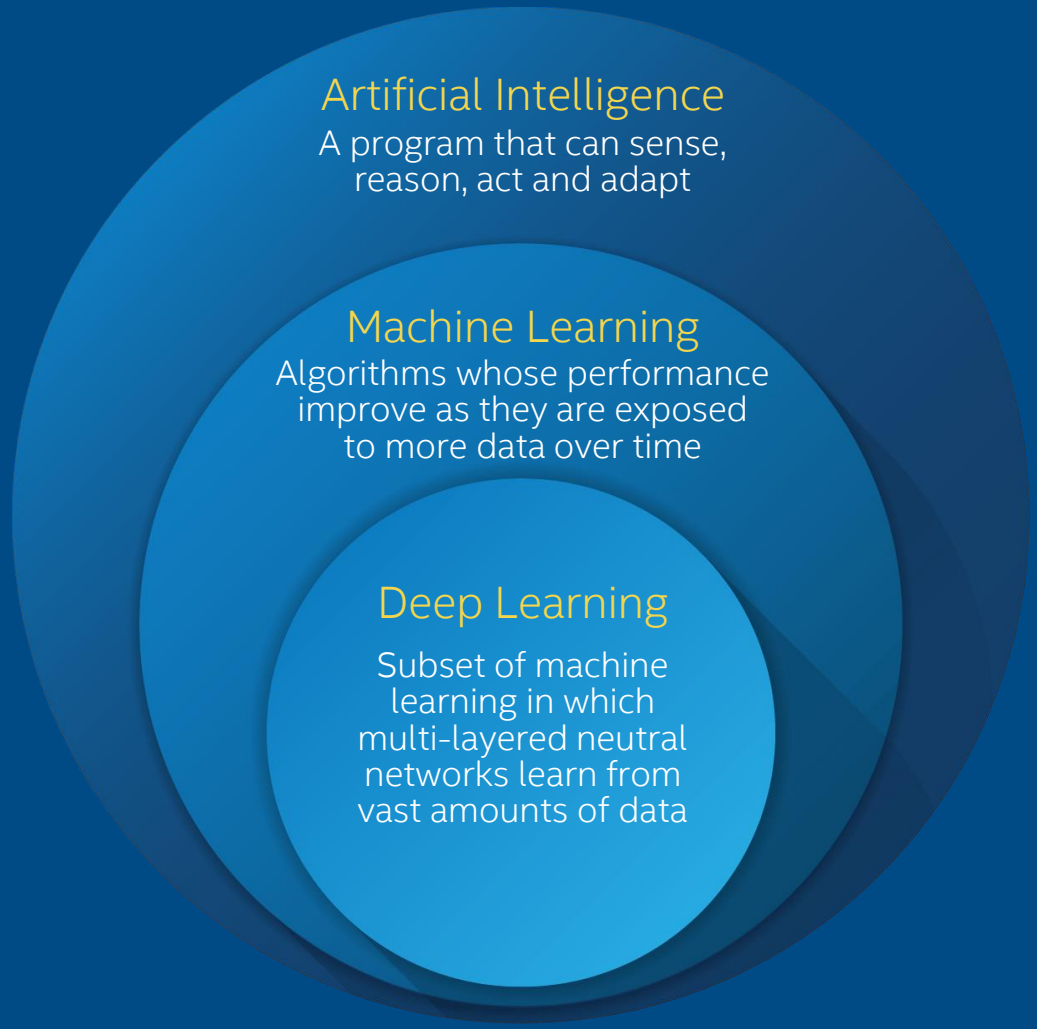
Countries

- India
- South Korea
- Poland
- Germany
- Singapore
- China
- US
- UK
- Russia
- Argentina

Building the Future with Artificial Intelligence (AI)

AI enables machines to learn from experience with data & perform cognitive functions associated with the human mind

Overarching Discipline	Big Spectrum	Moving Goal Post
A form of intelligence A type of technology A field of study	**Narrow AI**: Focused on one specific task **General AI:** Intelligence that can handle any task in any domain	Successful technologies gets mainstreamed as software



Opportunities in the AI World

"AI has the potential to boost the rates of profitability by an average of 38% by 2035 and lead to an economic boost of USD 14 trillion by 2035" - Accenture

Disruptions across industries (including Government & Education segment)

$65B Biz Opportunity by 2025 for tech sector
(Source : Intel – Tractica analysis)

Data is the new oil for AI:
"World's data will grow 10X in 10 years, yet only 1% of all data is ever analyzed & used"
(Source : Seagate)

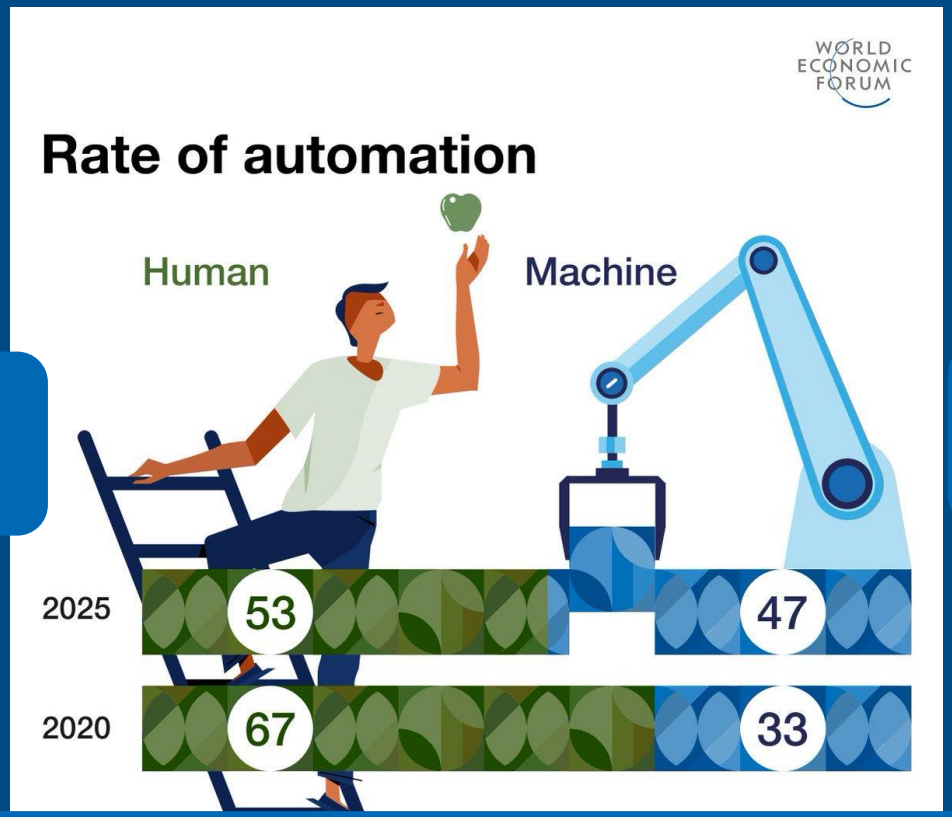
AI adoption is just beginning:
"Only 4% organisations have implemented AI while 46% have planned"
(Source : Gartner)

Reskilling and upskilling of the next generation, workforce & government leaders is a key government priority. Governments are creating national AI policies for the future of work – building readiness & market capacities.

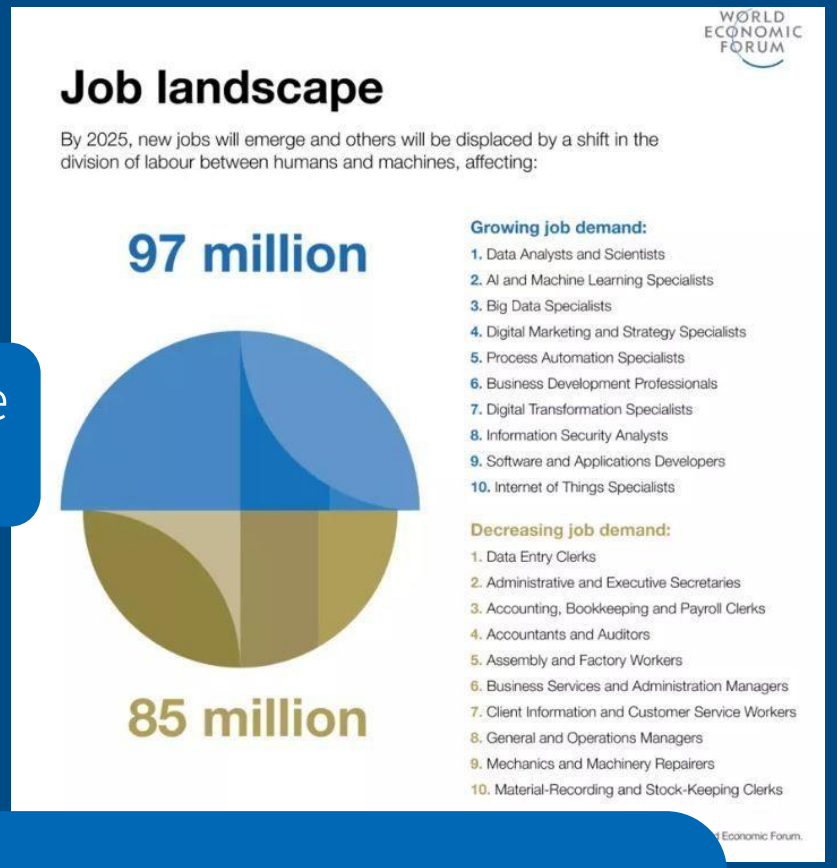
Compiled from various Intel analysis

Changing Future Of Work

Work Task changes



Work Force changes



Growing AI Skills Crisis; >35% demand supply gap

New skills demands new responsible workforce readiness

Digital Readiness for Africa

What will AI mean for Africa

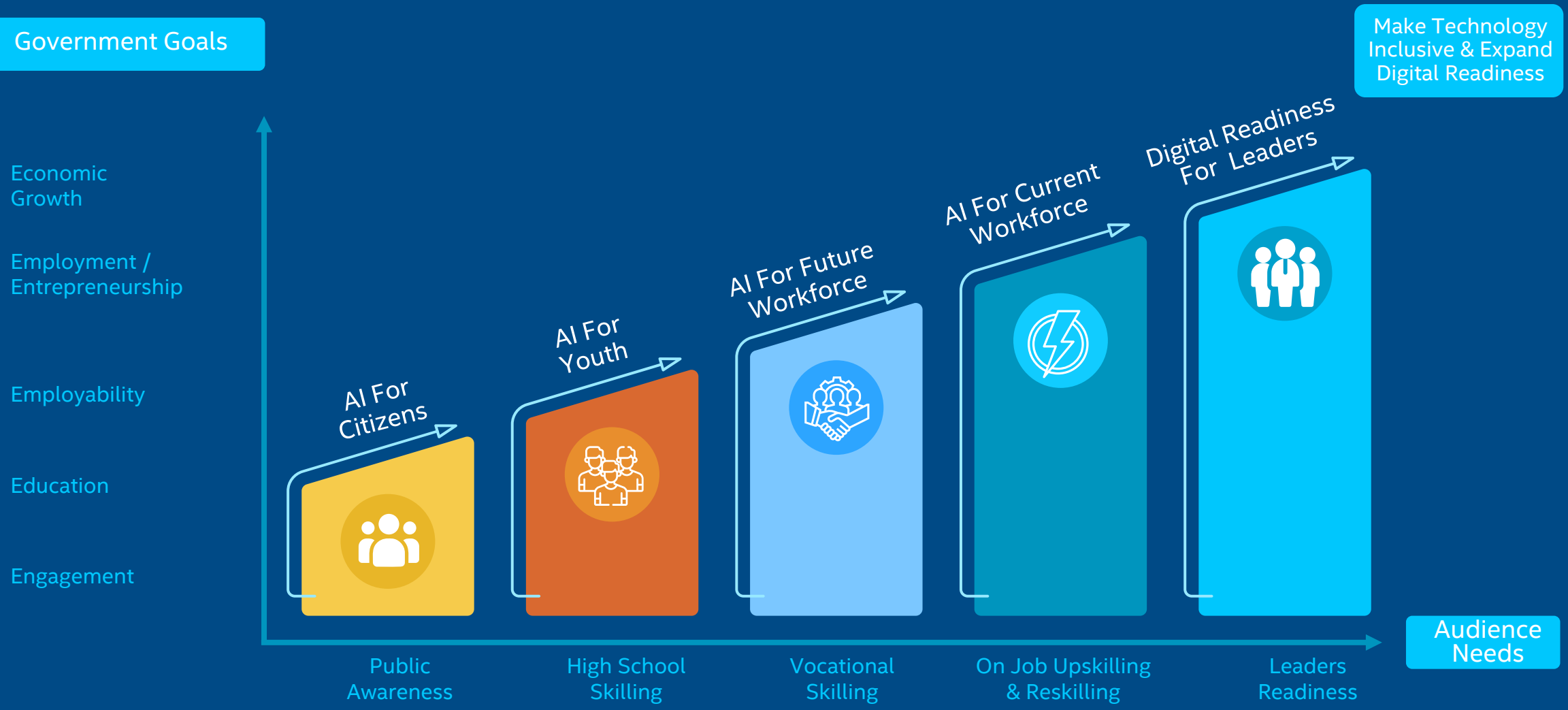
Health	Transportation	Education	Public services	Food production	Disabilities
AI offers vast opportunities to transform how we understand disease and improve health.	AI can provide safe and efficient transportation; expand the capacity of existing road infrastructure and improve traffic flow. It can also reduce carbon emissions and facilitate greater inclusiveness.	AI can develop predictive models for engagement and comprehension. It can be used to develop new approaches to education that may revolutionise how people learn.	AI can improve how governments interact with their citizens and deliver services. It can create efficiencies, reduce burdens, and eliminate redundancies.	AI offers significant opportunities to increase food production by improving agricultural yield and reducing waste.	AI can help address some of the problems faced by the more than 80 million people in Africa.

https://unctad.org/system/files/official-document/ier2017_en.pdf
https://www.up.ac.za/media/shared/7/ZP_Files/ai-for-africa.zp165664.pdf

Intel Response :
Digital Readiness Partnership Programs Portfolio

Government Goals

Make Technology Inclusive & Expand Digital Readiness



Intel® AI For Youth Program

Target Audience : High school students in K12 Schools / After Schools
Age : 13-19. Pre requisite: No coding experience required. Only foundational math & statistics skills.

Objective

Empower youth with AI tech and social skills in an inclusive way

Deep understanding of AI

- Demystify AI for youth and equip them with the skillset and mindset required for AI readiness.

Access and use of AI toolsets

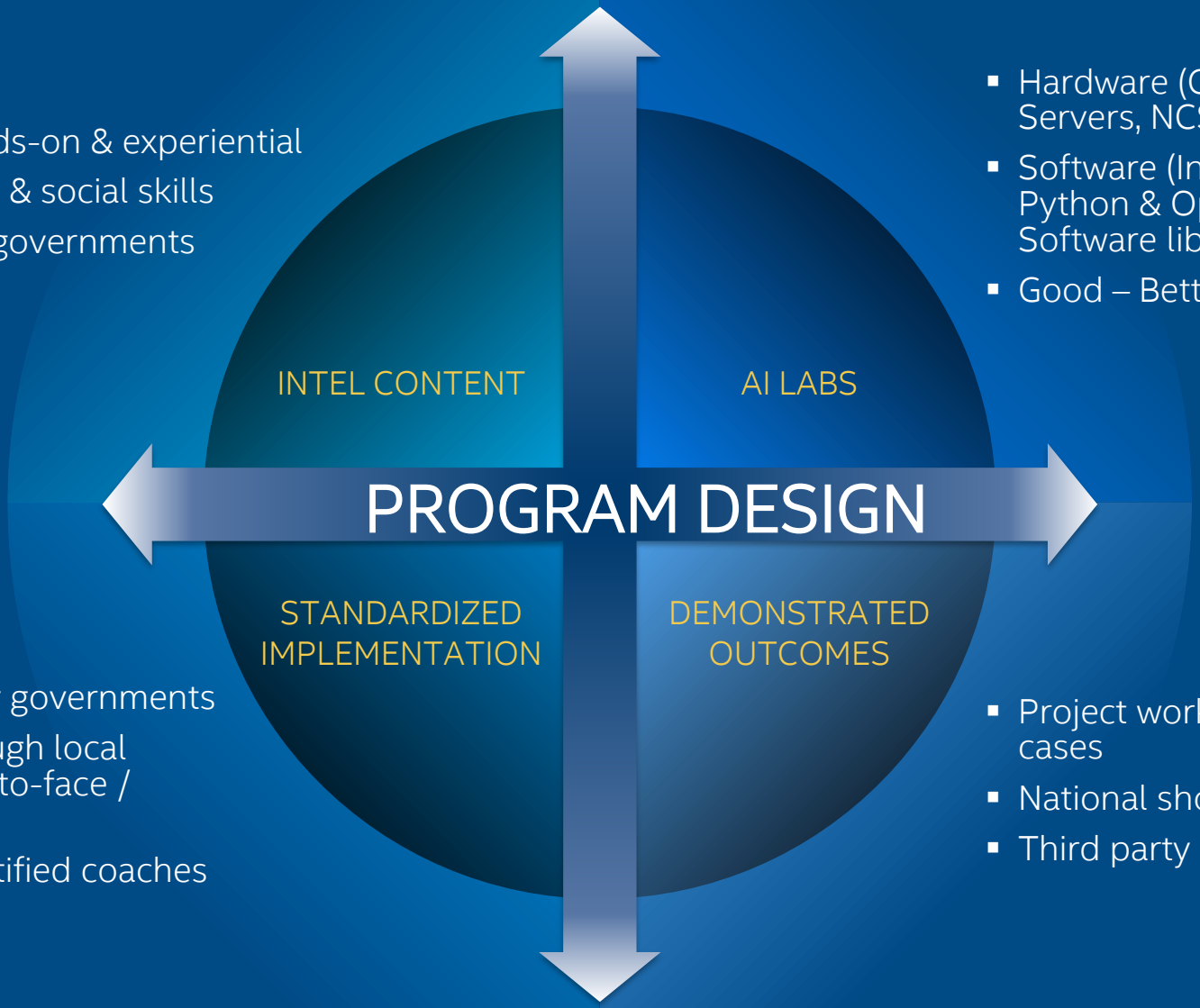
- Democratize access to AI tools with Intel technologies and train youths to use them skillfully.

Create solutions with AI

- Meaningful social impact solutions as evidence of achievement.

- Modular, hands-on & experiential
- Covering tech & social skills
- Validated by governments

- Hardware (Core™ i5+ Workstations, Servers, NCS2)
- Software (Intel® Distribution for Python & OpenVINO™ toolkit, Intel Software libraries)
- Good – Better – Best BOM



- Co-funded by governments
- Delivery through local partner (face-to-face / remote)
- Trained & certified coaches

- Project work resulting in local use cases
- National showcase
- Third party impact evaluation

Two Versions

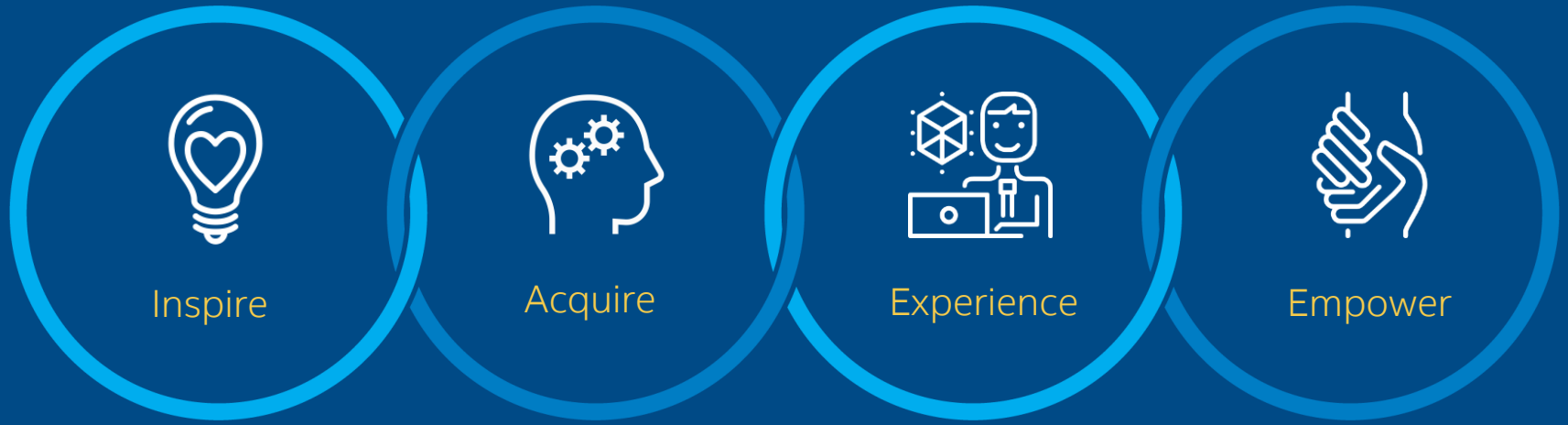
Full

- Age range : 13-19 year olds
- 176 hours of content across 33 modules in 4 stages. Empower stage is critical
- Covering Statistical Data, Computer Vision, NLP
- **Comprehensive, in-depth content**, suited for multi-year K12 curriculum
- Pre-requisite of strong mathematical statistical skills and python required. Optional modules available
- Full Program Management and Implementation Support
- Intel provides content + partner training and ongoing program management support

Express

- Age range : 13-16 year olds
- 32 Hours of content across 11 modules in 4 stages. Empower stage is optional. **For time constrained systems**
- Covering Computer Vision only
- **Less tech focused, more introductory,** suited for one-year K12 curriculum/non curriculum engagement
- Basic Python syntax understanding is sufficient. Can be provided as an optional module, if needed
- Light Program Management and Implementation Support
- Intel provides content + partner training. Partner takes full implementation responsibility

The Learning Journey:



Inspire	Acquire	Experience	Empower
Get excited with the possibilities of AI & discuss pertinent issues around AI e.g. ethics, bias, etc.	Gain basic concepts in AI through hands-on, non-technical activities & understand various AI domains & its concepts through relevant use cases.	Deep dive into the various AI domains through hands-on technical workshops. Choose one out of three domains, learn & apply skills in data collection, model training & code modification.	Create social impact projects with the skills learnt and influence others to be AI-ready.

4-stage learning journey to equip youths with the mindsets and skillsets for AI-readiness

Learning Objectives

Accurate understanding of AI technology and its impact to the society.

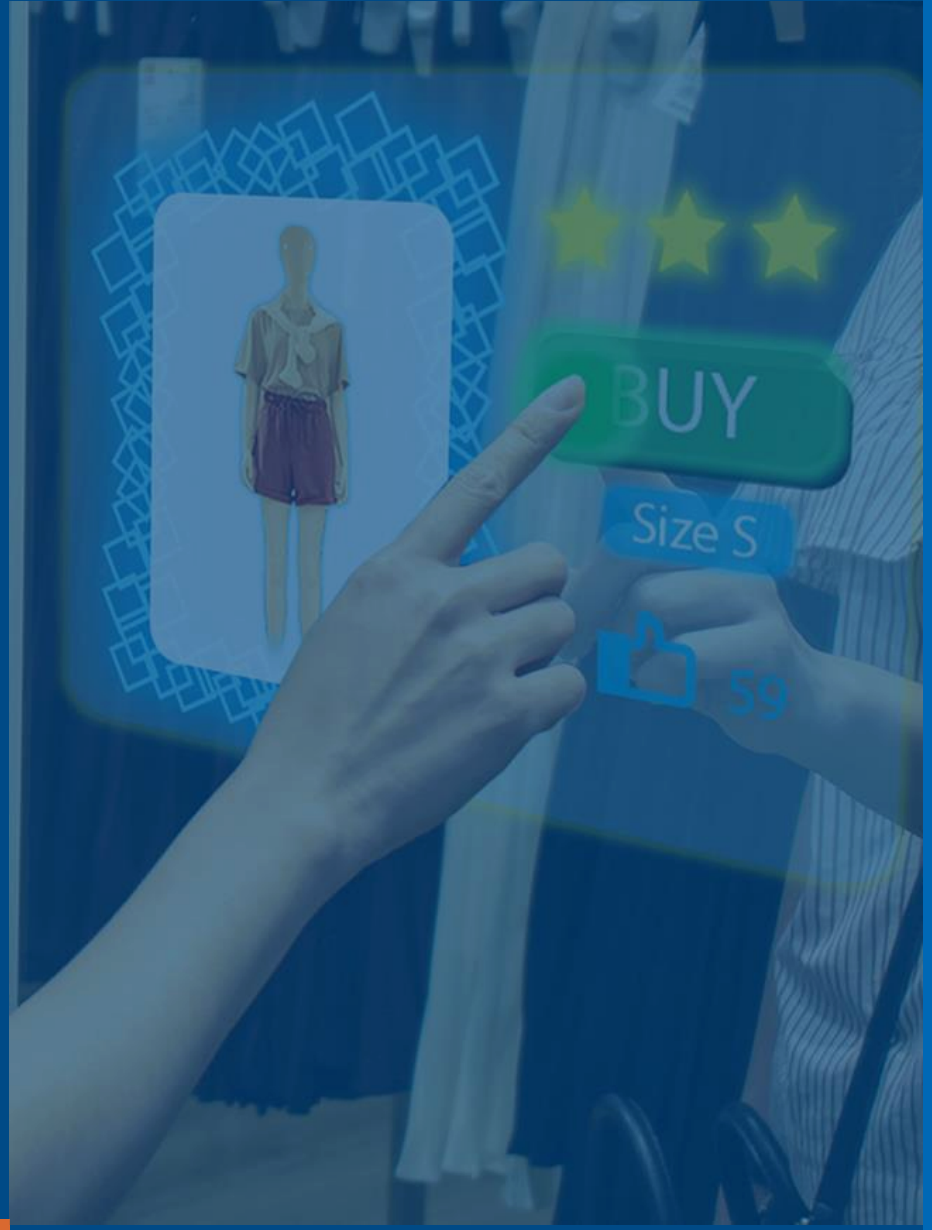
- Understanding AI concepts and distinguishing between AI & non-AI technology.
- Ability to advocate how AI can be applied at home and school.
- Gain insights of AI societal implications - employment, ethics, privacy, inequality, inclusion, bias.

Ability to use AI tools and methodologies responsibly to create purposeful solutions.

- Applying the AI project development process & choosing the appropriate AI tools.
- Building AI solutions in 3 domains: computer vision, natural language processing, and statistical data.
- Modifying original AI model provided in the course to suit youths' project needs.

Using AI to make meaningful solutions to address various local and global challenges.

- Identifying current issues in the community & determining the addressability of the issues with AI.
- Building an AI solution for an identified issue in the community.
- Evaluating positive & negative implications of AI solution, & recommendations to minimize the negative implications.



Example of Student Outcomes

Gain AI technology & social skillsets and mindsets for AI readiness

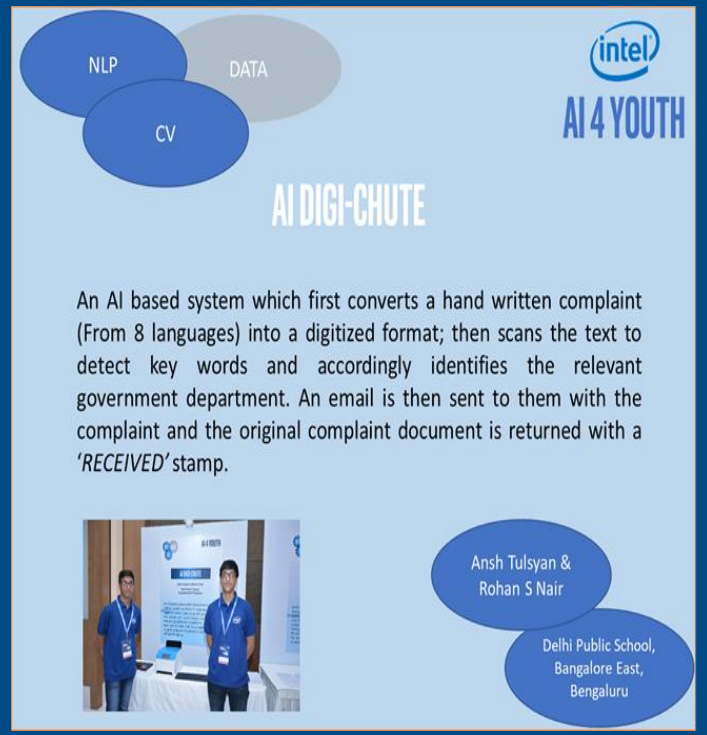
Impact Showcase

A 15-year-old girl from India developed ‘HAPPINESS GURU’ solution to predict the onset of depression amongst school children using Computer Vision.

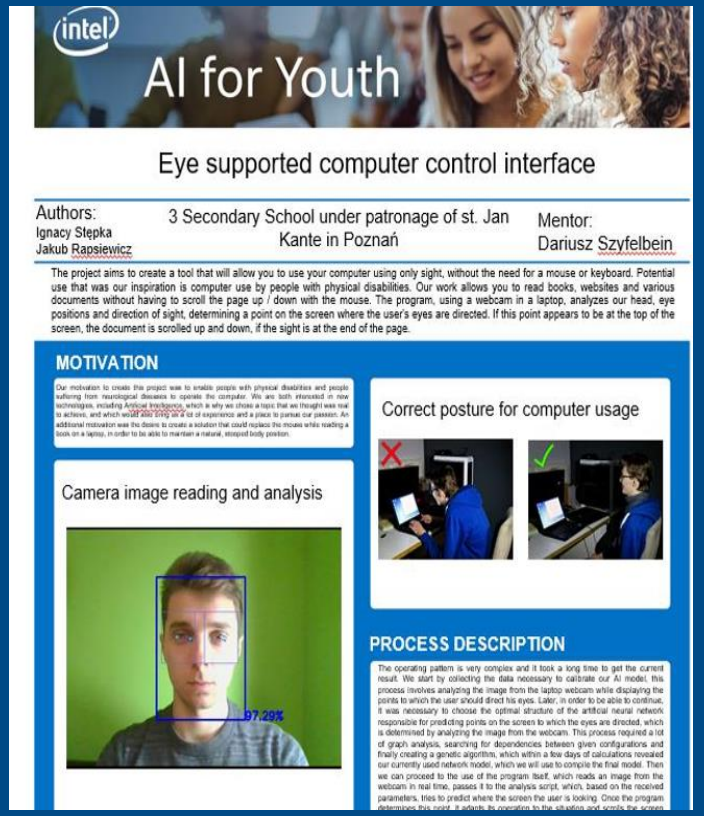
- Solution implemented in 6 community schools
- Now motivated to be an AI Ethics Lawyer

More Examples

India



Poland



S. Korea

High-Tech, High-Touch Delivery :
Remote / Face-To-Face

Intel supported AI skill labs or remote learning

Self-paced student workshops and self-directed learning sessions

Interactive learning sessions by intel certified coaches

Project-based immersive games activities (Face-to-Face/Remote)

With Intel AI Labs

For training coaches, student hands on implementation, project building & showcasing

SINGAPORE

CHINA

Using Intel hardware and software:

Hardware : Core i5+, NCS2, IWB, Xeon class server
Software : Intel Python, OpenVINO and other Intel libraries

Can be customised per country specific needs

Building AI Readiness: The Intel Differentiator

Skillsets	Mindsets	Toolsets
AI Tech Skills: Statistical Data, Computer Vision, Natural Language Processing	Understanding the Future of Work. Become disruption ready	Intel Hardware : Core™ i5+ (Intel® NUC/Laptop/Desktop), Intel® Neural Compute Stick 2, Xeon Servers
AI Social Skills: AI Ethics, Security, Privacy, Fairness, Explainability	Discovering the Social Purpose of AI. Deep Understanding of Possibilities & Pitfalls.	Intel Software: Intel® Distribution of Python, OpenVINO™ Toolkit
System Thinking & Social Impact Creation	Resilience, Leadership, Team Building & Collaboration	AI-relevant Libraries, Platforms & Frameworks for Inference & Trainings

Program management, partnership and policy support for scalable impact outcomes to build human-centric AI skills

"Don't be encumbered by history.
Go off and do something wonderful."

Robert Noyce

Co-Founder of Intel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