How much is too much- What to learn, What to teach.

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Agenda

01

Coding and AI in schools.

02

AI and coding curricular suggestions

03

Screen time limits

04

AI Apps- Adapt to Advance

05

Teachers- Need to upgrade

06

Robots-Replacement Vs Assistance

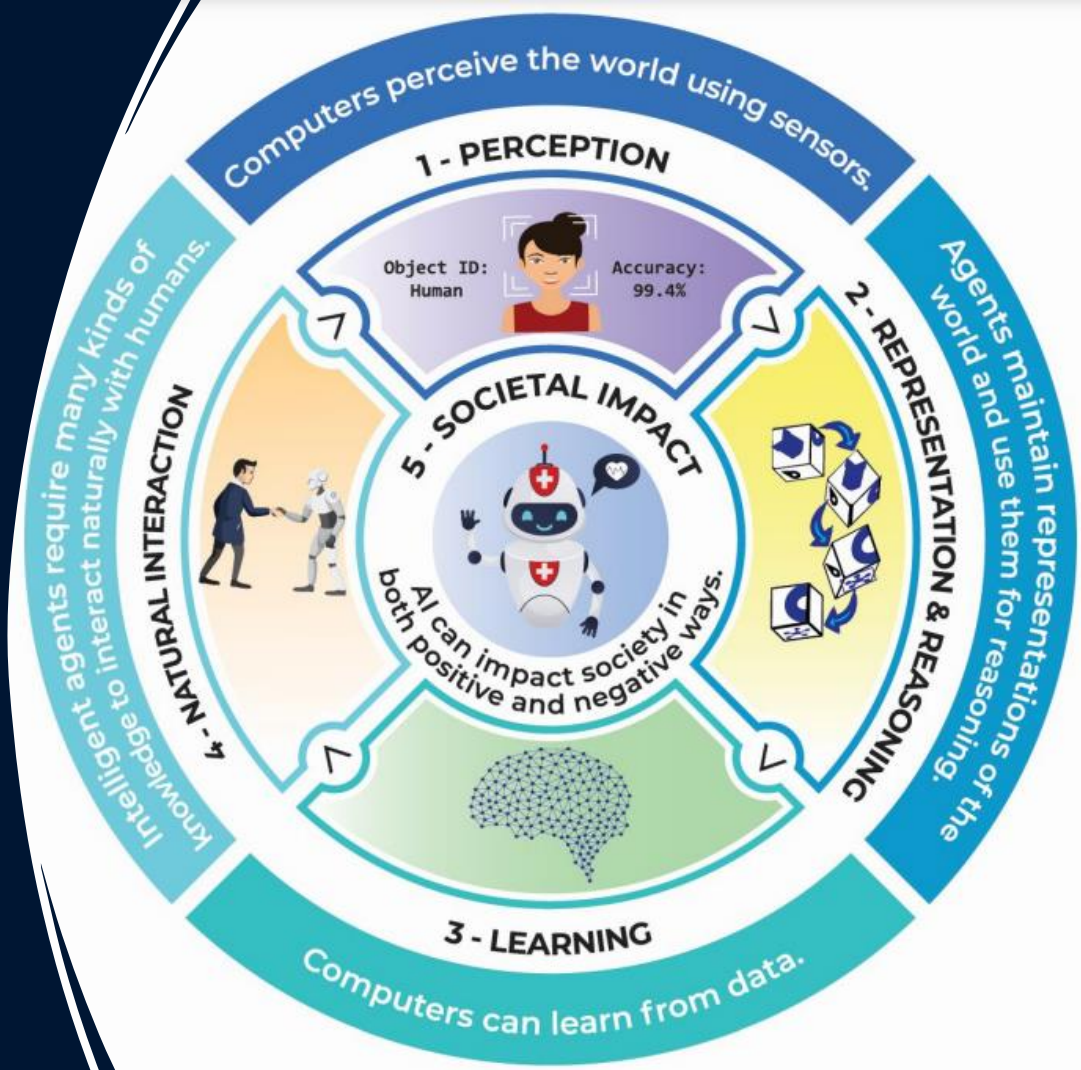
Future Education

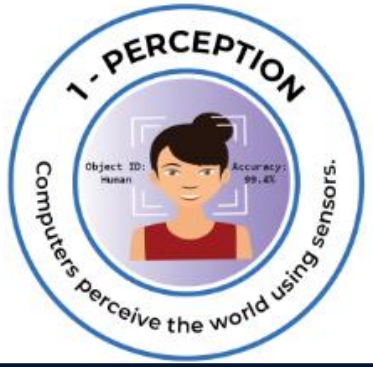
https://youtu.be/8vK72UJJjb4?si=pCX7jbRno8okqMPv

AI in schools

- Research programs available.
- Piloted in many schools.
- Research program for schools: https://ai4k12.org.

Guidelines for AI education





AI4K12.org

Draft Big Idea 1 - Progression Chart

www.AI4K12.org

Big Idea #1: Perception	*Computers perceive the world using sensors.*	**Perception is the extraction of meaning from sensory information using knowledge.**	**The transformation from signal to meaning takes place in stages, with increasingly abstract features and higher level knowledge applied at each stage.**	LO = Learning Objective: what students should be able to do. EU = Enduring Understanding: what students should know.
Concept	**K-2**	**3-5**	**6-8**	**9-12**
Sensing (Living Things) **1-A-i**	**LO:** Identify human senses and sensory organs. **EU:** People experience the world through sight, hearing, touch, taste, and smell.	**LO:** Compare human and animal perception. **EU:** Some animals experience the world differently than people do. **Unpacked:** Bats and dolphins use sonar. Bees can see ultraviolet. Rats are have no color vision; dogs are red-green colorblind. Dogs and rats can hear higher frequences than humans.	**LO:** Give examples of how humans combine information from multiple modalities. **EU:** People can exploit correlations between senses, such as sight and sound, to make sense of ambiguous signals. **Unpacked:** In a noisy environment, speech is more understandable when the speaker's mouth is visible. People learn the sounds associated with various actions (such as dropping an object) and can recognize when the sound doesn't match their expectation.	N/A -- for AI purposes, this topic has already been adequately addressed in the lower grade bands. *Other courses, such as biology or an elective on sensory psychology, could go into more detail about topics such as taste, smell, proprioception, and vestibular organs.* *Possible enrichment material: look at optical illusions (Muller-Lyer illusion, Kanizsa triangle) and ask which ones are computer vision systems also subject to.*

What to teach???
When to teach???

Exposure

Use of AI Tools

Advanced Programming

Introduction-Coding

Recommended screen time

(total hours exposed to ANY screen, including TV/computer/mobile phones)

- 0-2 years: No screen time
- 2-5 years: half hour under supervision
- 6-11 years: one hour under supervision
- 11-18 years: two hours of high quality content for recreational use

AI in Schools

Teachers

- Need of the hour.
- Apps make a lot of mundane jobs easier.
- Saves time.
- Supports differentiated teaching.
- Helps in creating interesting teaching content.
- Time wasting activities can be reduced.
- Personalised reports can be generated.

Students

Apps promote:

- individualised learning through interesting games/activities.
- Self-reflection
- Creativity
- Reasoning

Teachers

Flexible to integrate hybrid systems

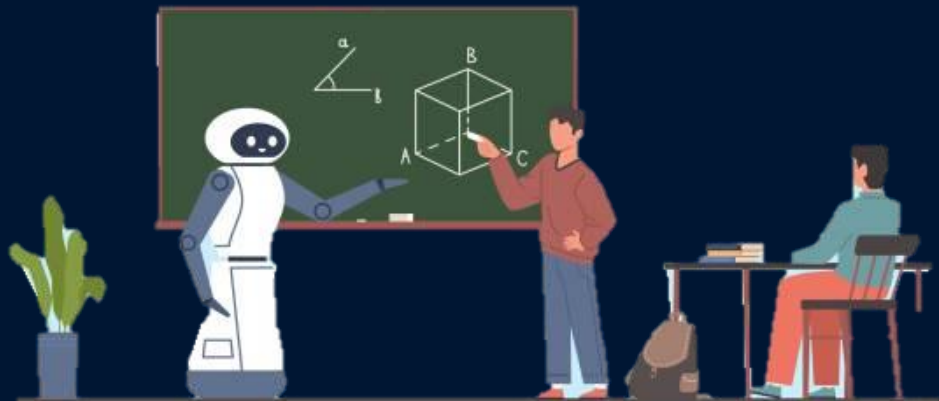
Upgrade their skills

Explore AI tools

Keep self-updated in technology

Robots collaborating or assisting teachers

- AI should take over what is routine, mundane and repetitive from teachers.
- AI assisting teachers is an ideal scenario.
- Adds human touch in addition to keep the students intelligently involved.

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