Goals

Pedagogical professionals

Perception of the world and self-image
Verify and, if necessary, modify

Technology scepticism
Check and modify if required

Insight of AI-controlled application scenarios
Improve insight and deeper knowledge

Experimental approach

Materials
Cubelets modular blocks
Varikabi mutable electronic plug-in kit

Preparation
Provide construction kit

Implementation
- Playful start: Discovering the respective function of the Cubelets: sensors (black), action blocks (transparent) and thinking blocks (coloured).
- Combination of three light sensors enables Varikabi to react particularly sensitive to its environment

Reflection
- If you were to build a robot for your needs (vary persons, groups), what would it have to be able to do?
- If you were to build a robot, what would it never be permitted to do?

Children

Experiencing human-machine-interaction
Comparative differentiation to social interactions.
Distinguishing and naming differences.

Effect of AI technology on living environment
Identify and name fields of application

Exercise ○ ● Level

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I'm not a Robot

Tips for in-depths study

Links

Open Roberta
roberta-home.de

Comic essay on AI
weneedtotalk.ai

ArTeC Robo
artec-kk.co.jp/artecrobo2/en/

Learn to code
apple.com/swift/playgrounds/

Robotics Beginner
fischertechnik.de/de-de/service/elearning/spielen/bt-smart-beginner-set

Imprint

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www.im-not-a-robot.eu

Toolbox #11

Where does a Robot come from?

Exercise

Level

Cultural-historical focus

Materials

Photos of different types of robots older models and newer ones.

Picture books, e-stories or film sequences on robots

Preparation

Provide photos of Robots.
Ask children to bring photos of their families.

Implementation

- Comparison of photos of families and robots and its inventors.
- Possibly read picture books on the topic of family together, dialogically.
- In the contrasting comparison of one's own origin (home) and personal descent (family), the difference between humans and robots can be clearly worked out.

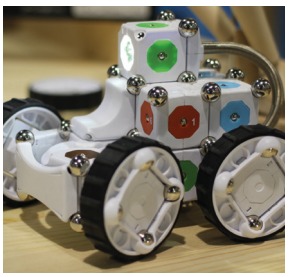
Reflection

- What is a family?
- Who belongs to your family?
- Where does a robot come from?
- Who can be called "father/mother" of a robot?

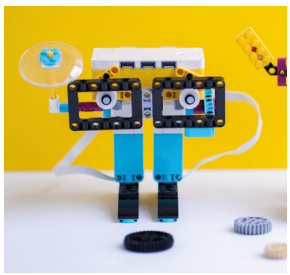
What we know

Experimental approach

We know that robots are machines made of electronic components that execute coded commands. There are ready-made components that only need to be switched on, such as Cublets. Other kits, such as LEGO © Spike, Robotics Beginner by Fischertechnik, and ArTeC Robo can be assembled according to instructions and flexibly expanded for different purposes.



Source: https://commons.wikimedia.org/wiki/File:Cubelets_Robot_Construction_Kit_(16862213882)_(cropped).jpg



Source: Adobe Stock | AlesiaKan

Cultural historical focus

Some robots are designed to look like humans - with head, torso, arms and legs. Here it is a good idea to explore cinematic or literary narratives about the emergence of machine beings or the origin of robots (e.g.,Transformers, Wall-e) with each other and to contrast them in a second moment with one's own origin (home) and personal descent (family). In the contrasting comparison, the difference between humans and robots can be clearly worked out.

Introduction

What is this about?

The main question is where do robots come from? Or to put it another way, WHO invented them WHEN, HOW did they look then compared to today and WHAT were they used for then and how are they used today? The time travel through the history of mankind with its technical inventions and mechanical helpers begins about 2000 years ago in ancient Greece. These machines differ from robots in that they can only perform one operation and always require human input. A robot has freely movable axes and acts within its programming specifications. AI independently find answers and solve problems on its own.

Children's point of view

What is a real robot made of?
Who builds robots and what do s/he need to know to build them?

Questions from Children

Who invented robots first?
Which one was the first robot?
What happens to robots when they are broken?
Where do robots sleep?

Experimental approach

Exercise

Level

Materials

Lego StarterSet
Wrestling Arena: balance board with a diameter of 80 cm, black field with whitthe border.

Preparation

Provide construction kit.
Prepare wrestling arena.

Implementation

- Jointly build a robot according to instructions.
- Let the robot solve tasks (driving manoeuvres, recognise colours).
- Customise the robot with other parts (big bumpers, long lances).
- Let robots compete against each other simultaneously in the arena.

Reflection

- What are strengths/ weaknesses of your robot design?
- Why did you win/ did someone else win?
- What would you do differently next time?

Instruction

Print front and back on one sheet. (Turned over long side)

Fold