



ERASMUS+ ARTIE
ARTIFICIAL INTELLIGENCE IN EDUCATION



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Artificial Intelligence in Education – challenges and opportunities of the new era: development of a new curriculum, guide for educators and online course for students

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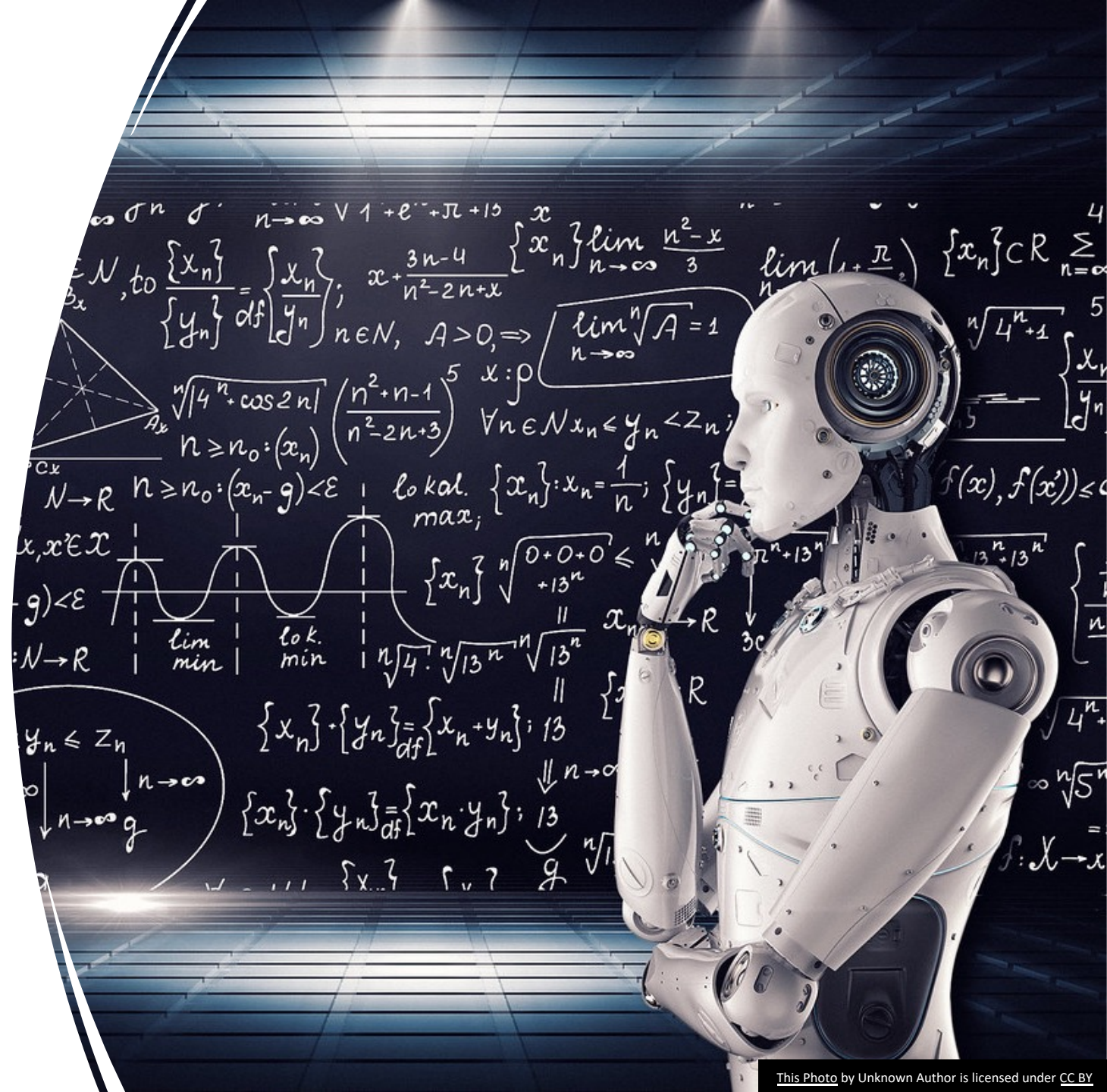
Bogusława Denys, I Społeczna Szkoła Podstawowa im. Unii Europejskiej in Zamość, Poland

Christina Eirini Karvouna, Nefinia, Netherlands

CARNET USER CONFERENCE 2022.

What is artificial intelligence?

the ability of a computer program or a machine to think and learn, a field of study which tries to make computers "smart", machine which mimics human cognition.

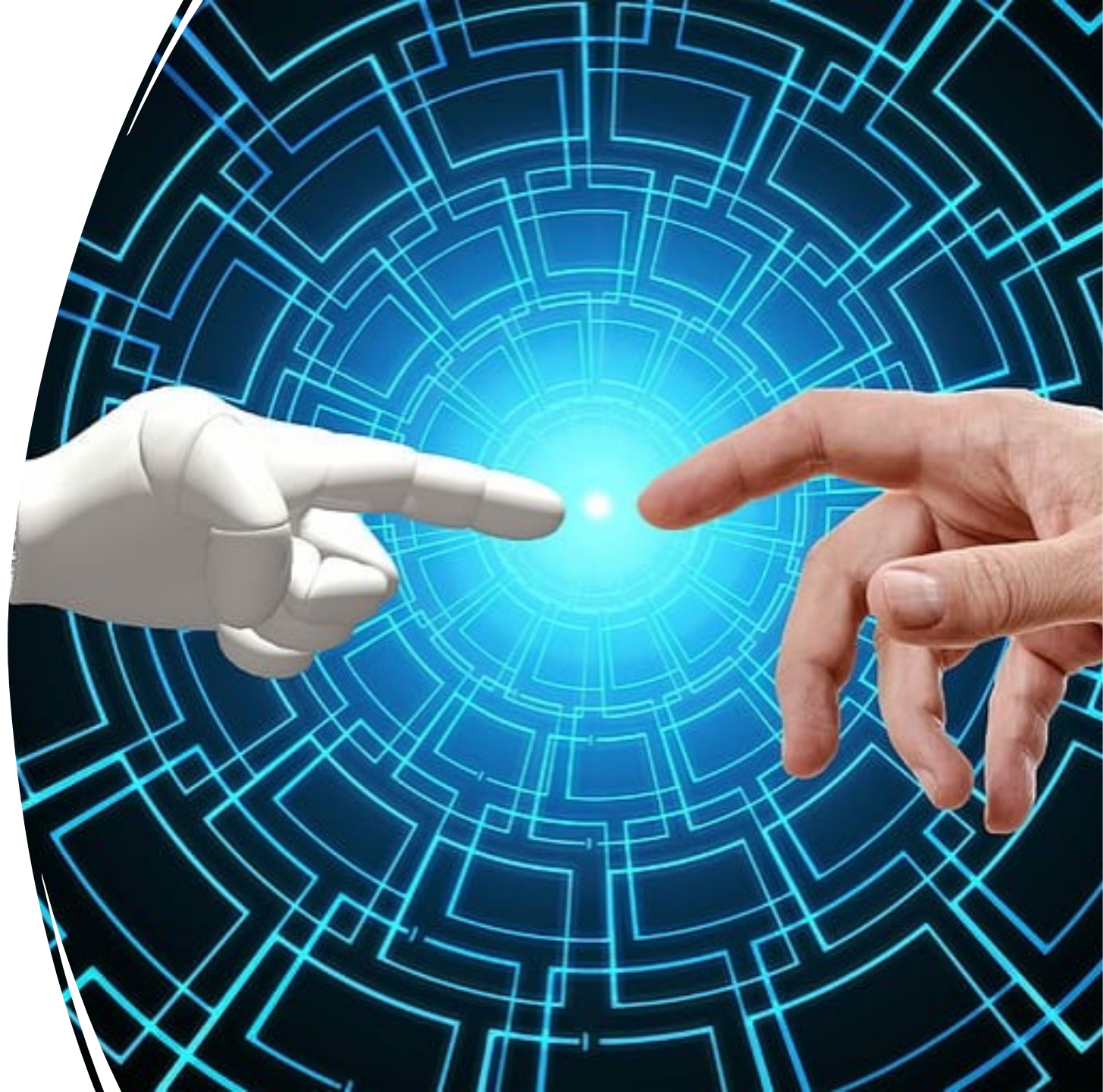


At present we use the term AI for

successfully understanding human
speech,

competing at a high level in
strategic game systems (such as
Chess),

self-driving cars and interpreting
complex data.





As machines become increasingly capable, mental facilities once thought to require intelligence are removed from the definition.

Is optical character recognition an example of AI?



Some people also consider artificial intelligence a danger to humanity. And you?



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The ARTIE project outline a number of relevant European Commission policy objectives, which remain more valid than ever. These include:

- support for high-quality education, improving its relevance,
- developing Europeans' digital skills and making them more visible,
- boosting innovation and digital competences in all education institutions, opening up education systems.

IO1: Artificial Intelligence in Education: A new curriculum

IO2: Challenges and opportunities of the new era: A handbook for Teachers and Counsellors

IO3: Twinspace - an open window to other educational realities: An online course for students



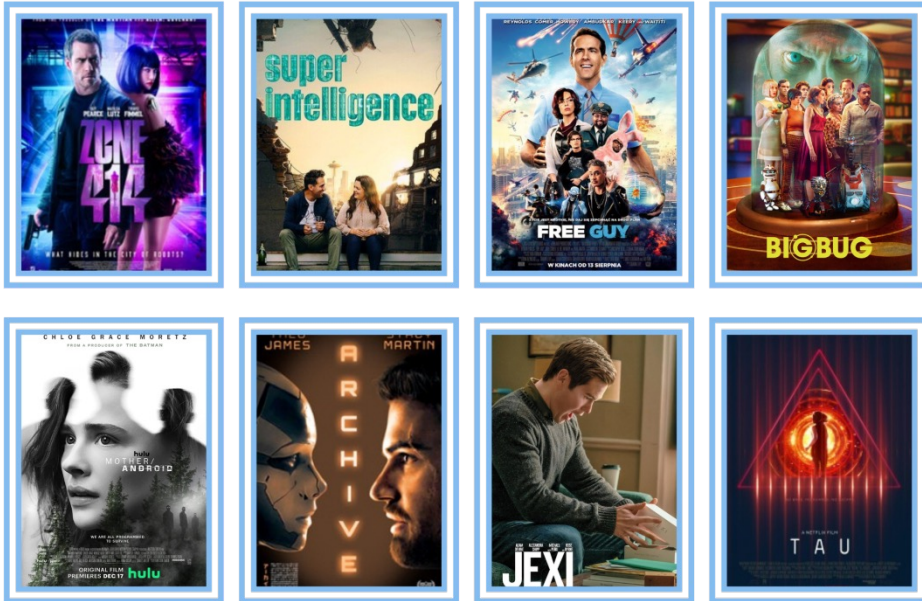
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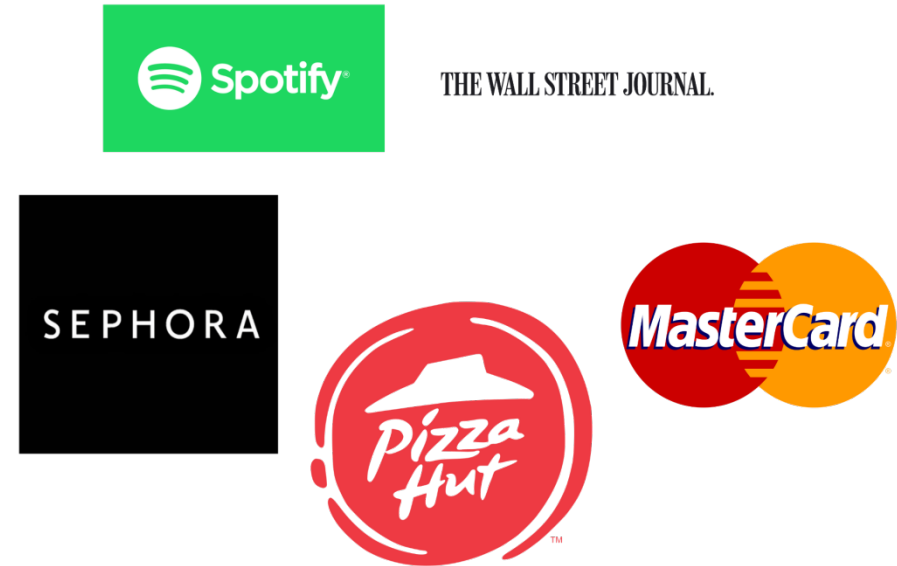
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What is the connection...

between these films?



between these companies?



between these films and companies?

IO1: Artificial Intelligence in Education: A new curriculum



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THE MAIN OBJECTIVE



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Preparing students to function in the modern world, taking into account the current level of civilization development, by shaping key competences and increasing students' interest in AI technologies.

THE CURRICULUM CONTENT

Understanding of AI:

Algorithmic thinking - understanding, analysing and problem solving

Programming solutions with the use of a computer and other digital devices

Civilization related (social and economic) implications of AI

Experimenting with AI

SCAN ME



STUDENTS' ACHIEVEMENTS (BASIC)



test models related to the recognition: images, speech, sounds



create their own projects using online AI platforms



create simple projects using machine learning and online platforms and software in a graphical environment



recognize examples of AI use in everyday life



understand and illustrate with the examples of Smart City ideas

STUDENTS' ACHIEVEMENTS (ADVANCED)



create projects with the use of machine learning and online platforms and software in a text environment



understand the benefits and risk of using AI in everyday life



know and use systems based on AI technology in various school subjects



use AI algorithms to solve problems



solve practical (IT) problems on their own by creating new AI algorithms

IO2: Challenges and opportunities of the new era: A handbook for Teachers and Counsellors



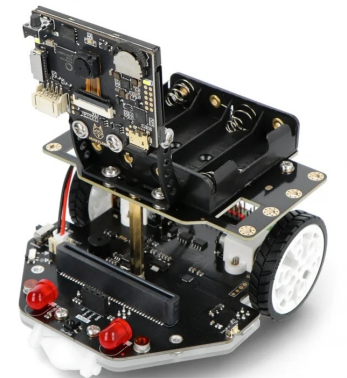
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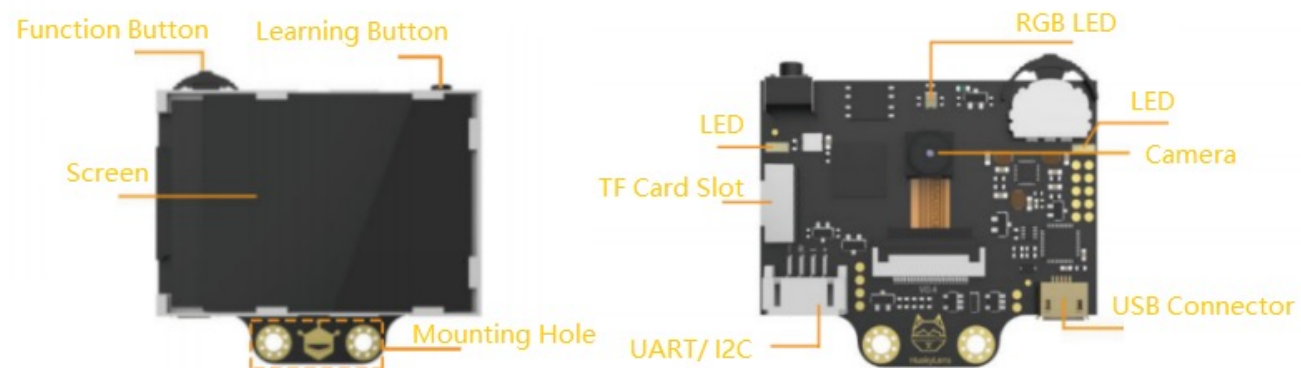
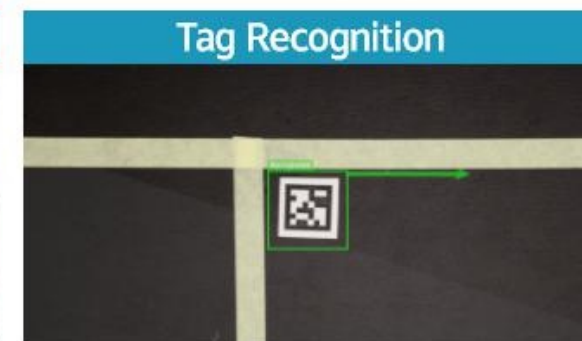
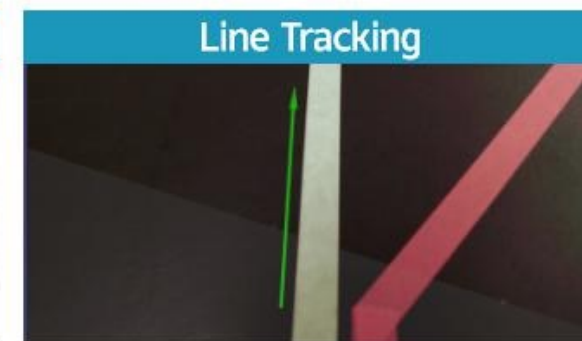


- Codey Rocky
- micro:Maqueen Plus V1 ili V2
- Arduino robot
- HuskyLens AI camera





HuskyLens AI camera



Face Recognition

```
micro:bit starts
HuskyLens initialize pin until success
HuskyLens switch algorithm to Face recognition
forever
  HuskyLens request data once and save into the result
  if HuskyLens check if frame is on screen from the result? then
    display pattern
  else
    display pattern
```

Line Follower

```
micro:bit starts
HuskyLens initialize pin until success
HuskyLens switch algorithm to Line tracking
set lastpos to 0
forever
  HuskyLens request data once and save into the result
  if HuskyLens check if ID 1 is learned from the result? then
    if HuskyLens check if ID 1 arrow is on screen from the result? then
      set pos to HuskyLens get X beginning of ID 1 arrow from the result
      if pos >= 150 and pos <= 170 then
        set motor All move by 50 speed Forward
      else if pos < 150 then
        set motor Right move by 50 speed Forward
        set motor Left move by 10 speed Forward
        set lastpos to pos
      else if pos > 170 then
        set motor Left move by 50 speed Forward
        set motor Right move by 10 speed Forward
        set lastpos to pos
      else
        if lastpos = 0 then
          set motor All stop
        else if lastpos < 150 then
          set motor Right move by 50 speed Forward
          set motor Left move by 10 speed Forward
        else if lastpos > 170 then
          set motor Left move by 50 speed Forward
          set motor Right move by 10 speed Forward
        else
          
```

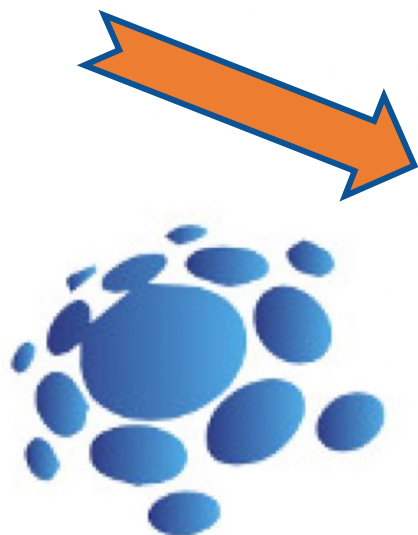
IO3: Twinspace - an
open window to other
educational realities:
An online course for
students



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PROJECT ● Active

ARTIE - Artificial Intelligence in Education - challenges and opportunities of the new era

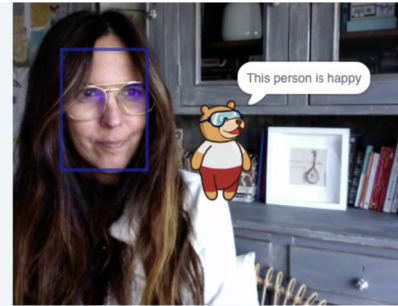
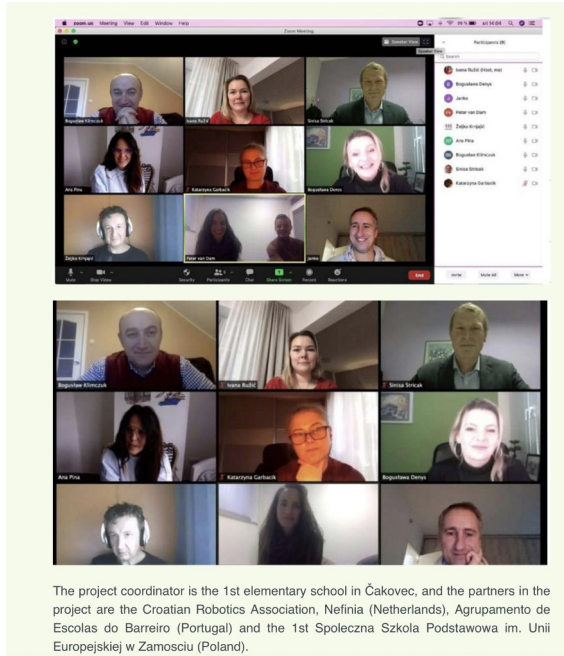
Created on: 22.09.2021

Languages: English

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“ARTIE: Artificial Intelligence in Education - challenges and opportunities of the new era: development of a new curriculum, guide for educators and online course for students” . In today’s hyper-connected world, artificial intelligence is a vital competence, especially for kids and young people. They need to understand what is behind the screen of their smartphone, how artificial intelligence might be (mis)used and how social media works. Digitalisation is also changing how people work and what skills they need.

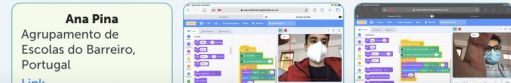
TwinSpace - An open window to other educational realities: Online course for students



Go to the Twinboard below and add a caption with your name and country. For example, eg, 'Ana Pina, Portugal' (ADD ITEM). Then, Add the link of your Scratch video...

Let us know your works!

Add item



Discuss

"Do you have any doubt? Below you can write your doubts or chat with your european friends! Don't forget to write your name and country. "

Go to discussion

Pages

- 4. Online course for Older Students
 - 4.1 AI in robotics
 - 4.2 Face detection and recognition for beginners in Scratch
 - 4.3. Programming face detection in scratch
 - 4.4 Project with object detection
 - 4.5 Object detection and classification for beginners in Scratch
 - 4.6 Programming object detection in Scratch

Archive

Create a page

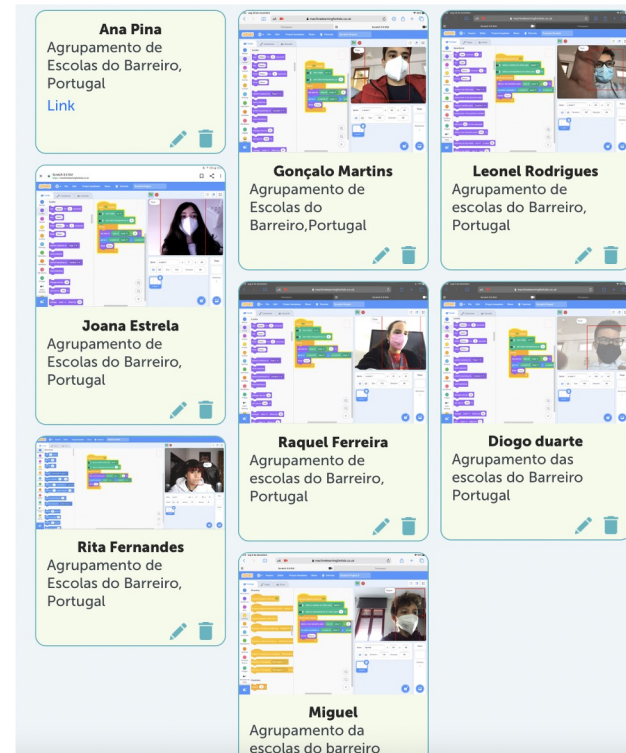
4.3. Programming face detection in scratch

With the age of AI ahead us, nowadays the face detection software is used in almost every field from mobile devices to snap chat face filters to various security applications. Face detection helps you recognize faces, their age, expressions, gender, location, and many other features.

Material

- <https://machinelearningforkids.co.uk/scratch3/>
- <https://thetempedia.com/product/pictoblox/download-pictoblox/>

SCRATCH (ML4KIDS):



- Ana Pina**
Agrupamento de Escolas do Barreiro, Portugal
Link
- Gonçalo Martins**
Agrupamento de Escolas do Barreiro, Portugal
- Leonel Rodrigues**
Agrupamento de escolas do Barreiro, Portugal
- Joana Estrela**
Agrupamento de Escolas do Barreiro, Portugal
- Raquel Ferreira**
Agrupamento de escolas do Barreiro, Portugal
- Diogo duarte**
Agrupamento das escolas do Barreiro Portugal
- Rita Fernandes**
Agrupamento de Escolas do Barreiro, Portugal
- Miguel**
Agrupamento da escolas do barreiro

- Promotes school collaboration in Europe through the use of Information and Communication Technologies (ICT).
- Provides support, ideas and tools to make it easy for schools to set up partnerships and start **collaborative projects** in any **subject area**.

Thank you for attention

<http://www.erasmus-artie.eu>

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